

**THE RELATIONSHIP BETWEEN PRINCIPAL  
LEADERSHIP SKILLS, ORGANIZATIONAL  
CITIZENSHIP BEHAVIOUR AND INTELLECTUAL  
CAPITAL IN SECONDARY SCHOOLS IN PAKISTAN**

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## **ABSTRACT**

The purpose of this study is to identify and analyse whether principal leadership skills (PLS) affect intellectual capital (IC) of secondary school directly or through the mediation of organizational citizenship behaviour (OCB) of teachers. This is basically a co-relational study, with the main focus revolving around the relationships among the PLS, IC, and OCB in secondary schools in Pakistan. This quantitative study was conducted using a survey instrument comprising 61 items representing PLS, OCB, and IC. Questionnaires were distributed to 465 teachers of secondary schools situated in Khyber Pakhtunkhwa Province and affiliated with Federal Board of Intermediate and Secondary Education (FBISE), Islamabad, Pakistan. A total of 408 teachers returned the survey instrument in complete form. Data were analysed with the help of statistical tools, SPSS version 22, and AMOS graphics version 22. Demography of the respondents is such that 177 male (43%) and 231 female (57%) teachers took part in this study. They have different age, professional qualification, and majority of them (61%) possess notable experience. Majority (78%) of the teachers also possess academic qualification of master's degree. Data obtained was found to be normally distributed. Results of the contemporary study show that principals working in these secondary schools possess leadership skills, although the level of these skills is different in different organizations depending upon their structural capital (Norms, service structure, infra-structure, planning and implementation procedures and training opportunities) and type of school. OCB is quite helpful in enhancing IC of the schools. Correlation among variables and its dimensions provides important information, that PLS especially the behavioural skills are required to boost OCB and IC. Correlation between OCB and IC is higher in all three types of schools. The proposed theoretical model is the firm integration of the three fields: principal leadership skills (educational leadership), OCB (organizational management) and IC (business education/human

economics). This could be an interesting contribution to the literature. This study provides a roadmap for improvement in education system of Pakistan. Therefore more time and investment is being suggested for the development of intangible assets (intellectual capital) rather than the tangible assets (physical assets) to get a competitive advantage as this dynamic capability approach should bring more development in terms of the intellectual capital of the secondary school which in turn will improve student's outcome because teachers have a direct relation with student's outcome, the ultimate goal of a school.

## ABSTRAK

Kajian ini bertujuan untuk mengenal pasti dan menganalisis sama ada kemahiran kepimpinan pengetua mempengaruhi modal intelektual guru sekolah menengah secara langsung atau melalui tingkah laku kewarganegaraan organisasi seseorang guru sebagai mediator. Kajian kuantitatif ini telah dijalankan secara soal selidik yang terdiri dari 61 item berkaitan kemahiran kepimpinan pengetua, kapasiti intelektual dan tingkah laku kewarganegaraan organisasi guru. Soal selidik ditadbirkan kepada 465 guru sekolah menengah Wilayah Khyber Pakhtunkhwa yang bergabung dengan Lembaga Persekutuan Pendidikan Pertengahan dan Menengah (FBISE), Islamabad, Pakistan. Sejumlah 408 orang guru berjaya melengkapkan soal selidik yang diberikan. Data dianalisis menggunakan SPSS 22 dan AMOS Grafik versi 22. Reponden kajian terdiri dari 177 orang lelaki (43%) dan 231 orang perempuan (57%) yang berbeza latar belakang seperti umur dan kelayakan professional. Kebanyakan guru (61%) mempunyai pengalaman lama dalam mengajar dan 78% guru mempunyai Ijazah Sarjana. Melalui Ujian Normaliti yang dijalankan, di dapati data adalah bertaburan normal. Keputusan kajian mendapati pengetua di sekolah menengah Wilayah Khyber Pakhtunkhwa yang bergabung dengan Lembaga Persekutuan Pendidikan Pertengahan dan Menengah (FBISE), Islamabad, Pakistan. Mempunyai dan mengamalkan kemahiran kepimpinan walaupun tahap kemahiran ini berbeza mengikut organisasi bergantung kepada struktur modal (norma, struktur perkhidmatan, infrastruktur, perancangan dan prosedur pelaksanaan dan peluang latihan) dan jenis sekolah. Analisis secara mendalam telah dijalankan dan didapati kemahiran kepimpinan pengetua adalah tinggi di sekolah Fizaia diikuti oleh sekolah kerajaan persekutuan dan sekolah Pakistan Army. Tahap kapasiti intelektual adalah tinggi di sekolah kerajaan persekutuan dan Fizaia diikuti oleh sekolah Pakistan Army bergantung kepada peluang disediakan kepada staf dan pelaburan dalam program latihan yang dijalankan. Tahap tingkah laku kewarganegaraan organisasi

(OCB) adalah berbeza di mana tahap yang tinggi adalah dari sekolah Fizaia diikuti oleh sekolah kerajaan persekutuan dan Pakistan Army manakala OCB amat berguna dalam membangunkan modal intelektual guru-guru. Korelasi antara pemboleh ubah dan dimensinya memberikan maklumat penting di mana kemahiran kepimpinan terutamanya kemahiran tingkah laku sangat diperlukan untuk meningkatkan OCB dan modal intelektual. Korelasi antara tingkah laku kewarganegaraan organisasi dan modal intelektual pula adalah tinggi bagi kesemua tiga jenis sekolah kajian. Model cadangan ini merupakan integrasi yang kukuh dari tiga bidang iaitu kemahiran kepimpinan pengetua (kepimpinan pendidikan), tingkah laku kewarganegaraan organisasi (psikologi) dan modal intelektual (pendidikan perniagaan/ekonomi kemanusiaan). Dapatan ini merupakan sumbangan yang sangat berharga kepada bidang pendidikan. Kajian ini membuka peluang bagi penambahbaikan sistem pendidikan di Pakistan. Oleh itu, lebih pelaburan dan masa perlu diperuntukkan untuk pembangunan aset yang tidak ketara (modal intelektual) berbanding aset yang ketara (aset fizikal) untuk memperoleh kelebihan dalam daya saing terutamanya pendekatan dinamik pembangunan modal intelektual guru sekolah menengah yang akan menambahbaikan pencapaian pelajar kerana guru mempunyai hubungan secara langsung dengan kecemerlangan pelajar, iaitu matlamat utama sekolah yang perlu dicapai.

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## **DEDICATIONS**

This dissertation is dedicated to my Father

Mr. Abdul Aziz Khan.

And

My mother Mukhtiar Begum

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## LIST OF SYMBOLS AND ABBREVIATION

Abbreviation	Abbreviation stands for
ALT	Altruism
AMOS	Analysis of moments structure
BLS	Beahavoiural leadership skills
CV	Civic virtue
CON	Consciousness
CSYT	Curtesy
DV	Dependent variable
Edu	Education
Exp	Experience
Fig.	Figure
Govt.	Government
HC	Human capital
IV	Independent variable
IC	Intellectual capital
OLS	Organizational leadership skills
OCB	Organizational citizenship behaviour
PLS	Principal leadership skills
SMS	Sportsmanship
SC	Social capital
SAA	Skills and abilities
TLS	Transformational leadership skills
TRG	Training



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## **CHAPTER 1: INTRODUCTION**

### **1.1 Introduction**

Education is considered as the backbone of every country's development, the future of a society depends upon the quality of education. Various studies have been conducted to find the real problems related to the quality of education. Khan (2013b) conducted a qualitative study in community schools and Government schools to find out the instructional contribution in terms of quality. Like Andrabi, Das & Khwaja (2008), (Khan, 2013b) added that private schools in Pakistan deliver quality education. The main factors behind the success of private sector are the quality instruction and the monitoring system (Iqbal, 2012). The quality of education relies upon the educational leaders, the heads of the schools, colleges or universities. High quality teaching and high quality of leadership are most necessary for a successful education system (Peleg, 2012). Similarly, a leader effectively develops the effective organization routines, sovereignty and social interaction. Thus, people who do not possess leadership skills will not be accepted as leaders by any group in any circumstances (Silva, 2014). Mumford, Zaccaro, Harding, Jacobs & Fleishman (2000) proposed these leadership skills: to include knowledge skills, social skills, and problem-solving skills. Collectively, skills and abilities; organizational routines and social interaction are called intellectual capital. An effective principal will have transformative, managerial and behavioural skills (Richter, Lewis & Hagar, 2012). With the help of these leadership skills, a principal can develop the intellectual capital of schools.

Chartered institute of management accounts (CIMA, 2001): defines intellectual capital as, "the possession of knowledge and experience, professional knowledge and skills, good relationships and technological capacities, which when applied will grow organization's competitive advantage" (Bhasin, 2012, p. 64). Intellectual capital mainly comprises two

major components, the human capital and the social capital. Human capital is composed of knowledge, expertise & skills that are possessed through education and training (Rastogi, 2002). Education and training are the most important investment in human capital (Becker, 1993). Social capital refers to relations among the employees of an organization working together. Lin (2001) articulates that social capital is an investment in social relations with predictable proceeds. Chen (2009) defines social capital as, “ the summation of relationships, interactions and intimacy of an organization with the internal and external stakeholders, that is to say, relational capital which embraces all the relations the firm has established with its stakes holder groups such as customers, suppliers, the community, the Government, etc.” In fact quality of an organization can be assessed on the basis of social capital keeping in view of certain characteristics which employee possesses such as learning institutional values, trying to adopt it, trusting and helping behaviour, level of understanding of coworkers (Pastoriza, Arino & Ricart, 2009).

Organizational citizenship behaviour (OCB) is another aspect that makes the task of a school leader easier. When there is OCB in a school, then teachers share their knowledge with one another and in this way they learn new techniques to teach effectively, they share their experiences with one another (DiPaola & Tschannen-Moran, 2014). OCB can be defined as “ the individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system and in aggregate promotes the efficient and effective functioning of the organization” (Organ, Podsakoff & Mackenzie, 2006). When a leader possesses the right kind of leadership skills they can help in developing OCB with teachers and among teachers. Somech and Ron (2007) found a strong correlation between leadership style and OCB. Leadership has a role in

developing OCB in schools. Purvanova, Bono & Dzieweczynski (2006) indeed identified a link found between transformational leadership and OCB.

We are aware that, in this competitive age, schools are struggling for their survival in the global challenge. For that, they take various steps including developing the intellectual capital of their schools. In other words, they take major roles that could utilize their leadership skills for attaining competitive advantage. Porter (1985) describes competitive advantage as “creating and sustaining superior performance.” Barney (1991) by giving his resource base view (RBV) theory, describes that to achieve competitive advantage, the organization’s resources should be valuable, rare, unmatched and non-substitutable. Competitive advantage is mainly used in the business sector. Non-profit organizations such as schools also compete with each other. But then here they compete in order to get community support and certain government grants (Fletcher et al., 2003).

Effective leaders know that their journey is not a solo flight, therefore they use their skills to develop faculty (Mendels, 2012). Hence Principals make sure that teachers do not work separately but work the collaboration, showing OCB, provide help and guidance to each other to improve their instructional practices (Louis, Leithwood, Wahlstrom & Anderson, 2010). Leaders also develop an environment which promotes culture of a OCB, knowing OCB is beneficial for school intellectual capital development, leader and teachers both work together to make schools more productive (DiPaola & Tschannen-Moran, 2014). The main purpose of this study is to examine the relationships between Principal leadership skills, organizational citizenship behaviour of the teachers and intellectual capital in secondary schools in Pakistan.

## **1.2 Problem statement**

The role of schools in Pakistan is crucial in shaping the human capital of society. Human capital comprises individual's knowledge and potential that allows them to bring changes in certain actions and economic development (Dakhli & De Clercq, 2004). Every country wants social and economic development, therefore it is expected that by promoting education and developing human capital these goals of development can be achieved (Khan, Fauzee & Daud, 2015). Due to government's inability to provide quality education, semi-government and private sector have also established schools. The quality of education in private schools seems to be better than in government schools. Andrabi et al. (2008) and Khan (2013b) argue that private schools are found better in delivering quality education compared to public schools in terms of monitoring and evaluation process. Similarly, Iqbal (2012) highlights, that although private schools are facing severe problems of infra-structure still they provide a quality education than public schools due to the quality of instruction and monitoring system. Akinola (2013) reports that there are several parameters through which one can measure school effectiveness/quality of education: Discipline of the school, school environment, teacher's performance and how many students successfully pass secondary school examination. Taking into account these parameters, the quality of education in public schools is worse. However, due to the lower fee and other requirements, government schools are still the main public choice. Researchers argue that, among others, lack of intellectual capital (IC) is the main reason for the low quality of education in government schools.

The level of performance of any education system can be judged from the quality of teachers (Barber & Mourshed, 2007). National Education Policy 2009 (NEP, p-42), of Pakistan also endorses statement given by McKenzie, Santiago, Sliwka & Hiroyuki

(2005) that, for quality education teachers and leadership are considered among the most important factors for developing any education system. Therefore, high quality of teaching, high quality of leadership is most necessary for the successful education system (Peleg, 2012).

Particularly, in case of Pakistan, vacant teaching posts and professionally untrained teachers both affect the quality of education (Lynd, 2007). The difference has been found when trained and untrained teachers perform their functions (Alam, 2012). Staff development and training is the key element in bringing reforms to the education system of Pakistan.

Second, apart from the teachers, the education system of Pakistan is also facing leadership problems. Teachers are promoted as Principals without prior leadership training or having adequate leadership skills (Alam, 2012). Khan (2013b) claims that, it is due to limited or no attention being paid to the professional development of principals in Pakistan, thereby adding to the deteriorating quality of education in public schools. Pointing towards the drastic situation Rizvi (2010) advocate that majority of schools in Pakistan are functioning without leaders who are sufficiently qualified and trained, and such circumstances demand a need for certain reforms in educational leadership development in Pakistan.

Third, relatively little has been written and researched on the role and impact of educational leaders within the education systems in developing countries, including Pakistan (Rizvi, 2010; Simkins, Sisum & Memon, 2003).

Fourth, gender inequality is extremely infused in the rulebooks of institutions, such as involving in decision making process, exercising power, unwritten cultures and

allocating resources. Empirical studies show that it is difficult advancing gender equality in institution (Unterhalter, 2005). In the traditional and highly gendered segregated society of Pakistan, it is necessary to enhance the professional capabilities of teachers for improving learning potential of their students (Halai, 2011).

Last, in schools, teachers' professional learning is the main tool towards promotion of organizational citizenship behaviour (OCB) that will in turn help teachers and leaders to move for more productive schools (DiPaola & Tschannen-Moran, 2014). Awareness about OCB in school unit is beneficial for the educational activity, directly acting upon school performance (Popescu & Deaconu, 2013). Due to principal leadership skills, teachers observe OCB and will work voluntarily for the betterment of the schools (Eisenbeiss, 2012; Poohongthong, Surat & Sutipan, 2014).

Until and unless the paradox of school leadership, OCB and IC is resolved, school effectiveness is onerous in Pakistan. However, most of the studies in the existing literature focus either on leadership and OCB or leadership and IC. Dixon (2013) conducted a study in Nigerian high schools to study the relationships among servant leadership (SL), OCB and school climate (SC). There is currently negligible evidence to support the relationship between the three variables: PLS, OCB and IC in the global or Pakistani context. In this backdrop, this study analyses the relationship between principal leadership skills (PLS), OCB and IC in the secondary schools in Khyber Pakhtunkhwa Province of Pakistan (KP)<sup>1</sup>.

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<sup>1</sup>Here and after KP will be used for Khyber Pakhtunkhwa Province of Pakistan, until unless specified

### **1.3 Research objectives**

Therefore, this study is set to achieve the following objectives.

1. To assess the level of intellectual capital (IC), principal leadership skills, and organizational citizenship behaviour in secondary schools<sup>2</sup> of Pakistan.
2. To analyse the influence of principal leadership skills on intellectual capital of secondary schools
3. To examine whether organizational citizenship behaviour mediates the relationship between principal leadership skills and intellectual capital of secondary schools
4. To test whether the demographic variable (gender) is a moderator for the relationship between principal leadership skills and intellectual capital of secondary schools.
5. To develop a model that links the principal leadership skills with the intellectual capital of secondary schools through organizational citizenship behaviour as mediator.

### **1.4 Research questions**

In line with the objectives above the following research questions are formulated.

- 1) What are the levels of intellectual capital of secondary schools as perceived by teachers?
- 2) What are the levels of principal leadership skills as perceived by teachers?
- 3) What are the levels of organizational citizenship behaviour of teachers as perceived by teachers?

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<sup>2</sup> Here and after term secondary school will be referred to as "Schools" of Khyber Pakhtunkhwa province, affiliated with the Federal board of Intermediate & Secondary Education, Islamabad, Pakistan.



- 4) Is there a significant relationship between principal leadership skills and the intellectual capital of secondary schools?
- 5) Is there a significant relationship between principal leadership skills and the organizational citizenship behaviour?
- 6) Is there a significant relationship between the organizational citizenship behaviour of teachers and the intellectual capital of secondary schools?
- 7) Is organizational citizenship behaviour a mediator for the relationship between principal leadership skills and intellectual capital of secondary schools?
- 8) Is the demographic variable (gender) a moderator for the relationship between principal leadership skills and intellectual capital of secondary schools?
- 9) Does the proposed model that links principal leadership skills with the intellectual capital of schools through organizational citizenship behaviour as mediator fit the data collected?

### **1.5 Theoretical framework**

Though a number of theories portray the importance of intellectual capital particularly human capital (HC), we focus on two major theories i.e. Resource base view, Wernerfelt (1984) and human capital theory (Backer, 1962). Mihai, Socea & Ciubotariu (2012) concludes that intellectual capital is the wealth of an organization in form of human capital, the knowledge, skills, experience and training of employees; that is relations(social capital) with all stake holders in the society associated with organization for a common purpose.

In human capital (skills, training, education, experience) theory, Backer (1962) contends that the development of human capital is necessary to get a competitive advantage in any environment. To him, investment in human capital is indispensable for

organizations to attain its objectives. Porter 1980, on the other hand, defines competitive advantage as, “creating and sustaining superior performance”. Likewise, Wernerfelt (1984) considers human capital a pre-requisite for organization performance. Extending his argument, Barney (1991) expounds that resources should be valuable, inimitable, rare and non-substitutable (VIRN) to get a competitive advantage.

Scholastic work widely argues that human capital development in schools significantly depends upon the leadership-ability of principal (Piaw, Hee, Ismail & Ying 2014). Literature argues that principals, who possess leadership skills, create a learning environment; incorporate effective teaching and evaluation system and; maintain communication between schools, parents, society and government (Piaw et al., 2014).

Likewise, effective leaders understand the aspects of human capital development, necessary for bringing change in school (Harris, 2002). The Leader Member Exchange (LMX) theory is basically based on the presumption that operative leadership derives from strong relationship between leader and followers (Dansereau, Graen & Haga, 1975; Gerstner & Day, 1997; Runhaar, Konermann & Sanders, 2013), thus showing strong social capital. Both human capital and social capital make up what is called intellectual capital.

Leaders, normally develop the intellectual capital of the secondary school either directly or through promoting organizational citizenship behaviour (OCB) among teachers. Organizational citizenship behaviour (OCB) theory given by Organ (1988, p. 4) is defined as, “Individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, but in aggregate, promotes the effective functioning of the organization. By discretionary it is meant that the behavior is not an

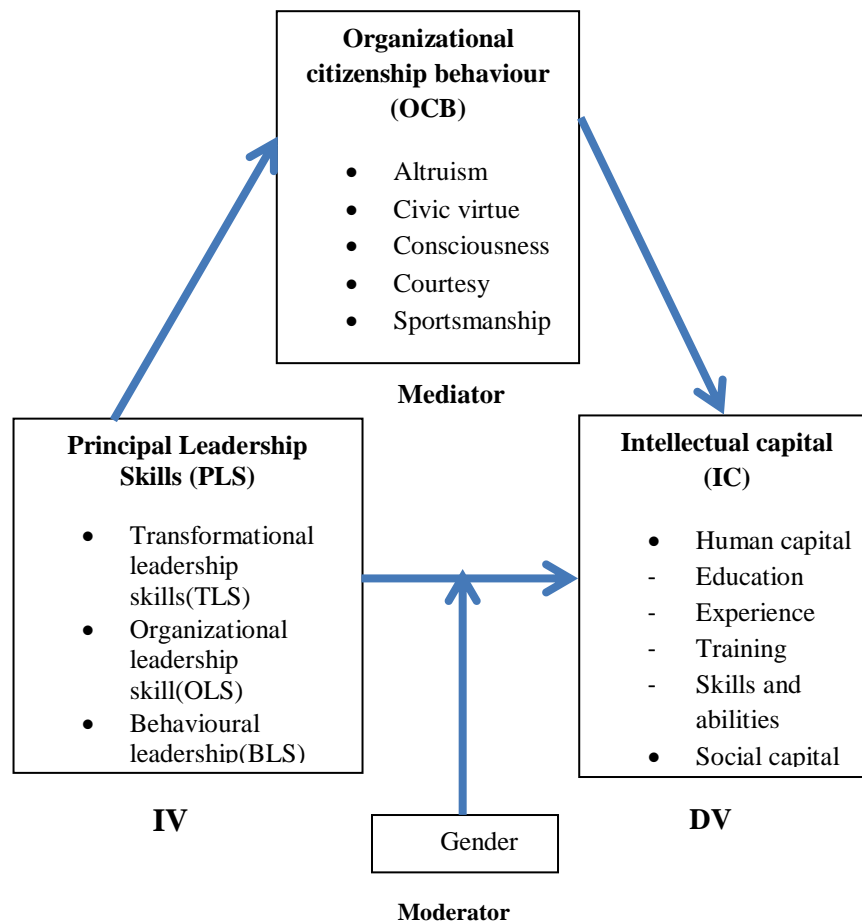
enforceable requirement of the role or the job description, that is, the clearly specified terms in the person's employment contract with the organization. The behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable".

Teachers tend to improve their human capital by helping each other in many activities including, organizing various activities, sharing knowledge, introducing new techniques of teaching and sharing the burden of work, solving problems of each other. Hence, it is becoming evident that principal leadership skills can enhance school's intellectual capital through OCB of teachers. OCB is helpful in employee job performance and overall effectiveness of the organization (Kernodle & Noble, 2013). Belogolovsky and Somech (2010) expresses their views such that helping out those colleagues who are overloaded with work, guiding newly inducted teachers and dedicate improvements, all these leads to improved OCB (Cohen & Keren, 2010; Kim, 2005). This study focuses on the principal leadership skills, organizational citizenship behavior and their functioning in developing intellectual capital in secondary schools of different organizations in Pakistan.

## **1.6 Conceptual framework**

Based on the theoretical aspects mentioned above, the school' intellectual capital(IC) can be enhanced by the Principal leadership skills (PLS) through the establishment of organizational citizenship behaviour (OCB). In conjunction with that, the IC is made the dependent variable in relation to the PLS as the independent variable with OCB as the mediator. Intellectual capital comprises of human capital and the social capital. The former further comprises the sub-constructs of education, training, experience, and skills and abilities.

While the later represents the school's relationship with the society and government. Principal leadership skills have three sub-dimensions: transformational leadership skills (TLS), organizational leadership skills (OLS), behavioural leadership skills (BLS). Organizational citizenship behaviour has five sub-dimensions: altruism, civic virtue, consciousness, courtesy, sportsmanship. Demography such as gender of respondents may function as moderating variables. In line with these premises, we put forward the following conceptual framework in Figure.1.1, in accordance with the related theories mentioned earlier.



**Figure 1.1** Conceptual framework of the study

### 1.7 Significance of the study

Being a developing country, for further development Pakistan greatly depends upon its education system. Recently, the Government of Pakistan, announced its vision 2025,

declaring that the education development as one of the major objectives of the country (Economic Survey of Pakistan, 2013). Presently the literacy rate of Pakistan is 57%, which is lowest in the region (Economic Survey of Pakistan, 2010). Furthermore, those literates do not possess quality education. Although, the government is encouraging the private sector to start their schools, there is still a dearth of schools providing much quality education. Scholastic work is providing evidence that lack of opportunities and funds are the main hurdles in leadership development and in-service training for teachers. In such situation, researchers like (Rahman, 2014) suggest self-development of the education system of Pakistan. Owing to that this study proposes a conceptual model which might be helpful in self-development of the education system through relationships among the Principal leadership skills, OCB and intellectual capital of the secondary schools in Pakistan. The results of this study are not only useful for government to devise effective education policy but also beneficial for educational leaders, teachers and investors. Proceeding lines explain how these results are beneficial for these stakeholders.

### **1.7.1 Policy makers**

To improve the quality of education, Government of Pakistan (GoP) tailored National education policy 2009, (NEP, P-42) (Economic Survey of Pakistan, 2010). The basic aim of the policy was to improve the quality of leadership and teaching to inculcate the quality education in public schools of Pakistan. Recently government is looking for concrete suggestions, based on empirical findings, to include in its education policy. Against this backdrop, this study does not only draw the attention of policy makers towards the improvement of school leadership and intellectual capital. The interesting part of this proposed conceptual model focuses on the improvement of IC of school through the promotion of OCB by school leadership. The proposed conceptual model

indeed suggests and makes policy makers to devise improvement for leadership skills of school principals. High authorities both at federal and provincial level in Pakistan need to peruse education promoting and quality trained teachers' oriented policies to improve the social welfare of the society (Khan et al., 2015).

### **1.7.2 Educational leaders**

Findings of the study reveal that there is high relationship between OCB and IC. Therefore second significance of the study is to provide the insight to principals (educational leaders) that promote OCB for IC development. The study offers OCB as a viable option for school leaders to improve IC of schools. Through utilization of leadership skills, principals can reform schools and thus education system. Results of this study reveal that principals' leadership skills vary from school to school. However, this study suggests that possessing of leadership skills by the principal is not enough, what is more important is to use these skills for promoting OCB in the schools, as there is a high correlation between leadership skills and OCB. Further, OCB is helpful in improving IC of the school, as high correlation found between OCB and IC (Kianfar, Siadat, Hoveida & Abedi, 2013).

### **1.7.3 Teachers**

In schools, the personality which widely has a greater influence on the student is the teacher. Teachers are considered as the role model for the students. Therefore increasing the human capital of teacher directly influences the quality of education. In Pakistan, limited opportunities are available for in-service training of teachers due to lack of funds. Therefore, leaders can focus on teachers IC development through raising their OCB. As noted earlier a high correlation between OCB and IC development suggests that teachers can share their knowledge and discuss new techniques of teaching with

each other to promote collective human capital (HC). This can be termed as “*improving human capital through peer-learning*”. The study conducted by (Kianfar et al., 2013) found a strong correlation between OCB and IC of the organization. Various studies show that trust and OCB both enhance IC of the organization (Kianfar et al., 2013).

#### **1.7.4 Investors**

The population of Pakistan has increased vigorously. Every year the Government of Pakistan in its fiscal budget allocates 4% of GDP for education (Economic Survey of Pakistan, 2013). This is a minute amount for the development of education system and claiming for the provision of quality education (Economic Survey of Pakistan, 2013). In such circumstances, private sector can play its role to fill the gap. It has been found that private sector mostly concentrate on the tangible resources in schools and pay less attention towards the intellectual development of the schools. Schools are now facing different challenges; one of them is the intellectual development (Hallinger & Heck, 2011). Literature suggests that more should be invested in intellectual development than tangible assets. Results of this study can help that more attention is needed for intellectual development in schools to improve the quality of education. More skilled and trained staff can bring changes in quality of education. As endorsed by (Barney, 1991) in order to get a competitive advantage, human capital (Teachers) should be valuable, rare, inimitable and non-substitutable (VRIN). Therefore, results of this study can make the private sector throw more of its inclination towards leadership and staff development.

#### **1.7.5 Contribution to the body of knowledge**

The proposed conceptual model in this study is the firm integration of three different fields: Principal leadership skills (Educational leadership), organizational citizenship behaviour (organizational management) and intellectual capital (Human economics/

Business education). Thus, this up-to-date study is an interesting contribution to the literature. To the best of our knowledge, such integration in education literature in the context of Pakistan is not evident. This model has provided an understanding that how leaders can improve teaching skills of their followers in a cost effective manner. For quality education, quality of teaching staff required, therefore the proposed conceptual model can help to improve the quality of education in Pakistan.

### **1.8 Limitations of the study**

This research study was conducted in 31 secondary schools out of 74 schools in Pakistan. Although, the researcher tried to target all schools, only 31 schools were allowed by their regional directors for visits as these schools are situated in safe areas. These secondary schools are operated by three different organizations, namely Pakistan Army, Federal Government and Pakistan Air force (Fizaia).

Second, data of this study was collected through close-ended questionnaire from schools; the researcher could not conduct interviews of the principals and teachers. The regional directors of these secondary schools first studied the questionnaire and directed the researcher that there will be no open ended questionnaire. After approval of the questionnaire regional directors allowed distribution of survey instrument among teachers only, strictly prohibiting taking interviews of the teachers and principals. Due to these limitations qualitative aspects were not considered as part of the study. Conducting such study in near future has become more difficult after the terrorist attack on the Pakistan Army secondary school in Peshawar, on December 16, 2014. This brutal attack resulted in the death of 132 students and 10 staff members. At this moment, words seem inadequate to express the grief and sorrow.



Third, it is evident from the literature that structural capital (procedures, internal policies, service structure, and selection and promotion criteria of staff) is a component of intellectual capital, since organizations operating secondary schools did not agree to share this information with researcher; therefore items representing structural capital were not included in the instrument.

Fourth, this study was conducted to analyze relationships between PLS, OCB and IC of the secondary schools. It was not part of this study that how much intellectual capital of the secondary school has been developed by the skillful principals.

Last, parents in Pakistan are not satisfied with the education system, they are continuously searching for institutes where they can find, quality education. From literature, it is clear that worse situation is found in public schools due to the permanent job, lack of human capital development and lack of leadership skills. After, stating all these reasons, sponsors of the researcher (Shaheed Benazir Bhutto University Sheringal, Dir (U), Khyber Pakhtunkhwa, Pakistan) advised that research work should be carried out in the field of educational leadership and its impact for improving quality of education in Pakistan. The main focus of the researcher was to analyze the relationships between PLS, organizational citizenship behaviour (OCB) and intellectual capital (IC) in the secondary schools in Pakistan and to propose a framework/model for improving learning potential of the students. Despite its limitations, this study is a stepping stone for the continuation of research on the relationships between PLS, OCB and IC in the secondary schools in different contexts.

## **1.9 Operational definitions**

For the purpose of clarity, this contemporary study utilizes following operational definitions.

### **1.9.1 Principal leadership skills (PLS)**

Mumford et al. (2000) proposed leadership skills: to include knowledge skills, social skills, and problem-solving skills. While Marshall and Oliva (2006) describes leadership skills as the composition of community honour, judicious planning and communication. Leadership skills are interpersonal skills, conceptual skills, administrative and technical skills. According to Grosenick and Gibson (2001) and Haq (2011) interpersonal skills are the knowledge regarding human behaviour, team work, and ability to understand feelings, attitude and intentions of others, to communicate credibly and effectively. However, this study uses Richter et al. (2012) definition of leadership skills that include transformational, organizational and behavioural skills.

#### **1.9.1.1 Transformational leadership skills (TLS)**

This refers to leadership skills that engage & encourage organizational members to be more active by shared decision & accepting ownership for student success (Leithwood & Jantzi, 1997; Richter et al., 2012). These skills will lead staff to prioritize and set goals, and will help staff in developing vision and in solving problems.

#### **1.9.1.2 Organizational leadership skills (OLS)**

Organizational leadership skills refer to the job performed in routine, making sure that everyone abides rules and regulations, discussing with the stake holders and maintaining a safe climate (Copland, 2001; Miller, 2003). These skills will help in maintaining conducive environment through abiding by rules, providing resources to teaching staff and will develop unity in staff for decision making and achieving goals.

### **1.9.1.3 Behavioural leadership skills (BLS)**

Behavioural leadership skills refer to the provision of good working environment in the institute like supporting those employee who help in developing and maintaining behavioural management plan in school, appreciating students for the account of their improved behaviour/social skills, always trying to well inform staff, students and parents regarding behavioural improvement plan and its importance for school environment (Richter et al., 2012).

### **1.9.2 Organizational citizenship behaviour (OCB)**

This study uses Organ and Ryan (1995) explained items of OCB on the basis of five factor model consisting of altruism, civic virtue, consciousness, courtesy and sportsmanship. The main dimensions of OCB are Altruism, civic virtue, consciousness, courtesy and sportsmanship (Kernodle & Noble, 2013; Noble, 2006).

#### **1.9.2.1 Altruism/ helping behaviour**

It is a behaviour, which an employee shows to help the colleague in solving problems, sharing burden, training fellowmen to use new equipment (Podsakoff, Mackenzie, Paine & Bachrach, 2000). Altruism is also called helping behaviour, its sub-dimensions include the activities like cheerleading and peacekeeping (Kernodle & Noble, 2013; Organ, 1988).

#### **1.9.2.2 Civic virtue**

Civic virtue shows loyalty with the organization, effective participation of colleagues in meetings, functions, showing interest in policy matters, avoiding any hazard to the organization (Organ, 1988; Polat, 2009), while Kernodle and Noble (2013) includes

involvement in different events, appearing in meetings, vocalizing opinion, and discussion about work related issues on personal time.

#### **1.9.2.3 Consciousness**

Consciousness refers to the awareness of an employee regarding work/ task or working for a longer time to finish work soon without demanding any remuneration (Polat, 2009; Schnake, Dumler & Cochran, 1993). Mostly it is regarding loyalty with the organization and abiding rules and regulations of the institute. Consciousness refers to individual initiative, by taking responsibilities and performing tasks that are not part of the duty (Kernodle & Noble, 2013). Organ (1990) defines it as “a pattern of going matters well beyond minimally required level of the attendance, punctuality, housekeeping, conserving resources, and related matters of internal maintenance” (p-96).

#### **1.9.2.4 Courtesy**

It is a discretionary behaviour, which prevents work-related conflicts, means that avoiding conflicts at school level and showing civilized behaviour, when they are in class or in some activities (Law, Wong & Chen, 2005). Courtesy restricts an employee from work-related problems for others (Ehtiyar, Aktas Alan & Oemueris, 2010).

#### **1.9.2.5 Sportsmanship**

It is the behaviour which refrains an employee from complaining extra work that avoid taking any tension or quarrel with colleague, defends the prestige of organization against those who are not in favor (Netemeyer, Boles, Mckee & McMurrian, 1997; Polat, 2009). Sportsmanship is considered as the employee's ability to cope with inconvenience at workplace without showing unwillingness and complaining about certain issues (Kernodle & Noble, 2013).

### **1.9.3 Intellectual capital**

Chartered institute of Management Accounts (CIMA, 2001): defines IC as, “The possession of knowledge and experience, professional knowledge and skills, good relationships and technological capacities, which when applied will grow the organization’s competitive advantage” (Bhasin, 2012, p. 64). Intellectual capital (IC) comprises two main dimensions: Human capital and Social capital. Human capital could be further explained in terms of education, training, experience, skills and abilities while social capital refers to the relations among the employee of an organization and it is kept as a single entity in the self-developed instrument. Intellectual capital can be classified into three main parts, that is, human capital, structural or organizational capital and relational capital/social capital (Sharabati, Nour & Naser Eddin, 2013).

#### **1.9.3.1 Human capital**

Martínez-Torres (2006) highlighted that human capital is “the individual knowledge, such as professional skills, experience and innovativeness that each employee possess.” Zula and Chermack (2007) state that human capital is the “knowledge and skills that people acquire through education and training as being a form of capital and this capital is a product of deliberate investment that yields returns.” Human capital possessed by a person; includes employee competencies, experience, and innovations, capabilities etc. (Awan & Saeed, 2014). Human capital is composed of knowledge competencies, skills, individual and collective experience and training (Bhasin, 2012). According to Ghosh and Mondal (2009) human capital comprises a whole knowledge, competencies, experience, skills and talents of their employees. While human capital is said to the employee knowledge, competencies/skills, attitude, experience and education (Bontis, Chua Chong Keow & Richardson, 2000). In this study IC comprising two main dimensions namely: human capital and social capital. Further, this study has taken four

sub-dimensions of human capital: education, experience, training and skills and abilities. While social capital has taken as single entity.

### **1.9.3.2 Social capital**

There are three basic dimensions of social capital: cognitive dimensions, structural dimensions and relational dimensions (Krause, Handfield & Tyler, 2007). As Bolino, Turnley & Bloodgood (2002) contends that cognitive dimensions comprise the level of participation of an employee in a social network. This dimension in schools refers to the participation of teachers in various activities conducted to highlight the role of the school in the community. Structural dimension refers to, analysis procedures, reconciliation of knowledge which will bring an emulative advantage for the organization (Leana & Pil, 2006). While the relational dimension of social capital shows the relationship in an organization, it depends upon the quality of communication in an organization (Bolino et al., 2002). Social capital is the composition of norms, values, network and governing behaviour among the staff (Salajegheh & Pirmoradi, 2013). While Dakhli and De Clercq (2004) contends that social capital is a societal characteristic which includes trust, associational activity and norms of civic behaviour, which collectively facilitate coordination and cooperation for the common goal.

### **1.10 Summary**

This chapter revolves around the purpose, significance and research questions that needed answers. The purpose of the study provides an insight as to why such a study is necessary for the context of Pakistan. Significance of the study highlights its importance for the different groups of people, such as researchers, policymakers, different organizations operating schools, for teachers on how they can establish OCB, how they can help each other by sharing knowledge, enhancing human capital and social capital and for the school leaders that how much is necessary to acquire leadership skills for the effective functioning of the school. It also provides an insight to school leader on how these leadership skills help them in establishing OCB and in the development of the intellectual capital of the teachers. For policy makers, it provides an opportunity to redesign a service structure comprising of leadership training for the promoted teachers as a school leader. This chapter also clarifies the conceptual framework and operational definitions of all the variables. Finally, it highlights the limitations of the study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

Literature review is scholarly text which includes current substantive findings as well as theoretical and methodological contribution to a topic. Literature review provides an opportunity to comprehend and complete related research views. A literature review should provide understanding of some issues, it may link an existing theory with the findings or it may propose a new theory that links with the findings (Baumeister, 2013).

The first part of this literature review is regarding leadership, educational leadership, and leadership skills. The second part is about the intellectual capital (human Capital and social capital) development to improve student's learning potential and to attain competitive advantage, while the third part will highlight importance of the organizational citizenship behaviour as the mediating variable to enhance the process of intellectual capital development. Finally, the last part relates the relationships between the three variables PLS, OCB, and IC in secondary schools in Pakistan.

### **2.2 Leadership**

In the Webster's (2003) dictionary, leadership is defined as the position or guidance of a leader and the ability to lead. Leadership is the basic element for the effective operation of any institute. Leadership is also said to be the pattern that is adopted by a leader when he exhibits certain acts like supervision of the subordinates. Vroom and Jago (2007) and James (2015) endorses that leadership should be considered as a process that possess the ability to affect individuals or groups and motivate them towards achieving a common goal. Leadership is said to be a process through which an individual inspires, motivates and guides employee of an organization regarding the achievement of its objectives



(Haq, 2011). Leadership is a process that includes an influence in certain forms over people in groups for a common goal (James, 2015; Northouse, 2013). James (2015) further highlights that it would not be wise to say that leadership is a process only, it should also be considered as team or role. Leithwood, Harris & Hopkins (2008) articulates that a good leader is always busy in learning, listening to others, flexible than a rigid one and determined in staff motivation, encouraging guidance, robust and enthusiastic.

### **2.2.1 Management vs. Leadership**

Some people believe that management and leadership is the same thing, but Algahtani (2014), wrote a review paper and through that paper the researcher differentiated leadership from management. Leadership and management look the same but they are different (Kotterman, 2006). Both influence individual and teams to achieve common goals, The Guardian, as cited in (Algahtani, 2014). They work for the same cause but the way of working is different. Algahtani (2014) reports that leadership and management have some similarities and some dissimilarity. Good leaders cannot be good managers; similarly good managers cannot be good leaders (Algahtani, 2014). Management is a process, caring, planning, organizing, budgeting and mentoring for an individual or team (Kotter, 2001). Algahtani (2014) reports that leaders stress on vision and goals and make sure that follower are in the right direction. Algahtani (2014) pursued that managers focus on structures, tools and job related procedures. Leaders spend more time with followers and they know the professional strengths of the employees (Algahtani, 2014).

Algahtani (2014) further defined management as a process through where objectives are achieved by using resources effectively. In 2007, Warren and Bennis as cited in

(Algahtani, 2014) differentiated leadership and management such that “Managers do things right, while leaders do the right things” (P-12). Managers exercise their control through the informal power, but leaders use their influence and vision and influence the followers (Algahtani, 2014). Lunenburg (2011) gave the characteristics of both leaders and managers. Leaders, he says, have the characteristics such as focusing on people, looking outwards, articulating a vision, creating the future, empowering the colleagues, doing the right things, using influence, using conflicts, and acting decisively. The managers have the characteristics such as focusing on things, looking inward, executing plans, controlling directing and coordinating, subordinate, doing things right, using authority, avoiding conflicts, and acting responsibly. From these characteristics and way of working it is clear that leadership and management are two different things. However the existences of both are necessary for any organization. There should be a balance between the manager’s role and the leader’s role. An effective organization has a mix of leaders and managers to succeed (Kotterman, 2006).

### **2.2.2 Types of leadership**

Leadership do not exist in one form; every type of leadership has its own merits and demerits. There are several types of leadership styles like situational, autocratic, democratic, transactional, transformational and Laissez-Faire leadership (Dahar, Faize, Niwaz, Hussain & Zaman, 2010; Mosadegh Rad, 2003). Similarly there are several theories about leadership in the existing literature; the most prominent among these theories are trait, situational, team, transactional, transformational, servant, and authentic leadership theory. Trait leadership refers to the personal traits of a leader; this theory was introduced in 1946, focusing on the behaviour and the conventional model of leadership (Northouse, 2013). Situational leadership has got a major recognition

towards leadership; at changing circumstances, changing role of the leader is indispensable. It is also necessary due to the changing circumstance.

None of the leadership styles fit in every situation. Characteristics bearing by such a leadership are the flexibility and practicality (Northouse, 2013). Some leaders adjust their style to the situation and others do not modify it (Silva, 2014). Team leadership theory focuses on the entire team; such type of leadership is mostly found in multinational organizations (Tung & Chang, 2011). The main features of such type of leadership are that leaders share power through sharing knowledge and co-ordination to achieve a common goal (James, 2015). Williams (2009) states that only a successful leader has the ability to use all the available resources and develop a community of coordinated leadership. Transactional leadership theory shows leaders use power and control followers' behaviour (James, 2015; Lai, 2011). Specific characteristics owned by such transactional leadership are punishment, reward and incentives to achieve a specific goal. Vision, influence and pro-activeness are the main characteristics of transactional leadership.

Transformational leadership approach is referred to communality, co-ordination and participative role (Jogulu, 2010). Transformational leadership predominantly has received lot of importance. Transformational leaders are always found busy motivating and inspiring followers to do beyond their duties to achieve organizational goals (James, 2015). Such type of leadership promotes a culture of organizational citizenship behaviour (OCB). Various studies have shown a correlation between transformational leadership and OCB. By promoting such culture of coordination a leader can easily achieve goals set by the organization. Malik, Ghafoor & Iqba (2012) reports that transformational leadership theory is based on the leader's behaviour and compels the

follower to think about it (Malik et al., 2012; Podsakoff, Ahearne & MacKenzie 1997). It means that transformational leadership also plays the same role as playing the leader member exchange theory, as LMX theory also focuses on good relation between leader and the followers. James (2015) further argue that transformational leadership styles are adapted to the existing environment and shows flexibility in the critical situations and try to solve issues in hand. The level of human conduct of both leader and follower is enhanced through transformational leadership (Krishnan, 2005). Better outcome is the result of transformational leadership, which develops good relations between leader and followers (Malik et al., 2012).

In servant leadership leaders give priority to the followers, main characteristics of such leadership is to motivate and help the followers, such type of leadership has a positive impact on organization performance (Northouse, 2013). A leader will not be successful if she/he does not show its devotion towards both the task performance and employees (Silva, 2014). In fact that without the support of employee a leader will not be successful, for which leader requires that he should also take care of his employees. With the passage of time, keeping in view new requirements and existing problems new theories reported. The newly introduced theory of leadership is the authentic leadership theory, such type of leadership combines knowledge, self-concepts and self-regulations (James, 2015). Researchers like Avolio and Gardner (2005) considered such a leadership as developmental, trust worthy, showing some dimensions by a significant event in daily life. Every theory has its own ups and downs, and every theory has its role in particular circumstances. Nobody can say that which leadership theory is more appropriate, the important thing is that to select an appropriate theory to use it in suitable context. Like in the present study leader member exchange theory (LMX) is the

most suitable to use to promote organizational citizenship behaviour for the development of intellectual capital of secondary schools.

### **2.2.3 Leadership and organization effectiveness**

No one can deny the important role of a leader for any organization. Ismail, Silong, Asmiran & Hassan (2011) advocate that establishment and functioning of any strong organization requires a strong leadership. Contrary to the managers, leaders are the people who can stimulate innovation and knowledge development, always manage change and can set a strategic direction for the organizations (James, 2015; Maccoby & Scudder, 2011). They further articulate that leadership is a complex process, comprising skills and expertise. As such on the basis of leadership skills leaders can make organizations more successful because any deficiency in leadership can cause failure. Leadership may cause failure or success of an organization (Burstein et al., 2010; James, 2015). This means in both cases either success or failure the main credit goes to the leaders. Leadership is considered a key factor in organizational effectiveness (Muijs, 2011). To save one's own side leader ought to be on-board with the followers. Leadership has a pivotal role in motivating followers towards a shared vision (Dess & Picken, 2001; James, 2015). However, leaders and followers are both considered as integral part of the leadership. Leadership is considered as the most significant element for effective functioning of any organization (Tatlah, Ali & Saeed, 2011). In summary, we can say that leadership should be considered as a process involving roles and the main objective of leadership is motivating and influencing followers towards a common goal (James, 2015).

#### **2.2.4 School leadership**

Among leaders, it is the educational leaders who have more crucial role, because they have the responsibility to develop new generations. As stated by former British prime minister Tony Blair “As new head teachers, you are the critical agents for change and high standard school by school, there is no more important job in Britain than yours” (Muijs, 2011). Educational leadership is a long span process, it grows from the stem of knowledge, experience and it requires lot of patience and needs a long process and it is fruitful only when it is practiced for a long period (Peleg, 2012). This means that school leadership is not only important but also challenging to make schools more effective. Across the world, the current era is the best for school leadership (Mulford, 2008), organizing training sessions for educational leaders are now very common. But, this trend of training for educational leaders is not found everywhere, as stated by Khan (2013b) that educational leaders rarely find any opportunity of training in Pakistan, because such trainings are organized through foreign funded projects. Educational leaders need to be able to establish school visions, identify school vision, focus on teaching and develop staff’s skills and abilities (Leithwood, Jantzi & McElheron-Hopkins, 2006). This means in such circumstances leaders should have transformational leadership skills.

Apart from the leaders there are some deputies who play their role as well. School effectiveness is a transformative process and requires team efforts. Senior leadership (Principals) deals with the strategic leadership focusing teaching and learning while middle level leaders (department heads) deal with operational leadership, that what happens in the class room (Peleg, 2012). Some leaders are virtues while others are not (Silva, 2014). It is not necessary that everyone will be a born leader; some will be while others should be made through leadership education and training. Good educational

leaders are found to be an open minded and show willingness to learn from others (Peleg, 2012). They restructure schools and make sure they deliberate the functioning of teaching learning process (Leithwood et al., 2008). Mere occupying of an office is not enough for educational leaders, for leaders should be well aware of the school's purpose and the community situated. Educational leaders should be well aware of the situation in which they are working, i.e. school leaders should be well aware of the school behaviour and the purpose for which schools had been built (Peleg, 2012). Majority of the school leaders rely on the shared pool of fundamental leadership methods (Leithwood et al., 2006). Across the world no one can claim that an institute is functioning effectively only due to one person. Just like a mechanical machine made of different simple machines working for completion of a process, leadership is also a complex process of different people, activities and rules acting for achieving a common goal. Focusing on leadership process, Day, Sammons, Leithwood, Hopkins, Harris & Brown (2010) considered school leadership as collaborative one, acting as school capacity for improvement as a distributive one.

Leaders are considered as more important to act as catalysts during change process in school (Hallinger & Heck, 2011). Wallace (2002) articulates that school leadership has a positive impact upon school betterment and improvement. We accept that leadership has a crucial role in bringing reforms in institutes to make them more effective but this role of leadership hardly has found directly. There are certain other elements which are linking this leadership and reform process. Obviously the impact of leadership is indirect and modest instead of strong one. Muijs (2011) supports this stance and states that leaders have indirect influence on school's capacity to improve students' achievements, which can be due to the mediocre leaders and teachers. Similarly, Leithwood and Riehl (2003) also repeat the same argument that, "leadership effects are

primarily indirect and they appear primarily to work through the organizational variables of school mission or goals and through variables related to class room curriculum and instruction. While quantitative estimates of effects are not always available, leadership variables seem to explain an important proportion of the school related variance in students' outcome".

### **2.2.5 Leadership skills**

Leadership is the high position held by a person in an organization or society, a personal characteristic and a relationship between leaders and followers (Silva, 2014). Katz (1974) was the first person who proposed that leadership should be skilful and he founded that leadership depends upon mainly on three basic skills: Human or interpersonal skills, technical skills, and conceptual skills (Akinola, 2013). Later, other researchers added more leadership skills. Among these researchers, Mumford et al. (2000) proposed leadership skills: knowledge skills, social skills, problem solving skills. Leaders can be identified through their leadership skills. Thus people who do not possess leadership skills will not be accepted as leaders by any group in any circumstances (Silva, 2014).

Academic researchers argue that although leadership is circumstantial but teams only choose those people as leader, when they exhibit their leadership skills. The Late Lee Kuan Yew, former prime minister and Singapore's founder, said "I think you are a born leader or you are not a leader. You can teach a person to be a manager but not to be a leader. They must have the extra drive, intellectual verve, an extra tenacity and the will to overcome" (Silva, 2014, p. 2). In contrast, academia says that leadership skills can be learned except intelligence which is a God gifted value. Bennis and Thomas (2002), interviewed 43 leaders and they found that they became leaders after transformative



experience in life. Arvey, Zhang, Avolio & Krueger (2007), studied the leadership characteristics of two identical twins, and they found that leadership factors were influenced by environment and opportunity they availed instead of their heredity. This is the reason that Piaw et al. (2014) stress on the acquiring of leadership skills before joining an office as head, as these skills are helpful in administration, planning and evaluation. In summary leaders may be partially born and partially made (Silva, 2014). It is true that leaders are either born or made but they would be accepted as leaders only when they have certain leadership skills. At the moment we need such leaders who possess leadership knowledge, skills and analytical capability (Peleg, 2012).

There are no specific skills which should be possessed by an effective educational leader. Skills vary and depend upon the context in which these skills are required. Various researchers defined skill as the capabilities. Akinola (2013) reports that skills are the ability possessed by an individual in the form of training attended and experience of task performance. Leadership skills are, “the learned ability to bring about pre-determined results with maximum certainty often with minimum use of time ... energy or both” Kannap [Kannap, 2007, p-1 cited in (Akinola, 2013)]. Some researchers argue that skills are not only confined to an organization, these can be found outside the organization as well. Skills are social conduct and its components are knowledge, experience and cleverness (Allais, 2012). Skills, like a bridge between employees and employers can bring both closer. It is difficult for the employer to remove a skilled worker (Allais, 2012). According Beattie and Thomson (2007) these competencies are actually, social skills, communicative abilities, development, flexibility, staff profile, taking responsibility, human assets. Lim, Chan & Dallimore (2010) expresses, competencies such that they are skills, percentage of persons receiving variable earned income, productive and reactive abilities, learning capacity, management credibility.

Marshall and Oliva (2006) describe leadership skills as composition of community honour, judicious planning and communication.

In reindustrialized countries more skilled people are found and now technical and vocational education and skills development policies have got great importance in developing countries (King, 2009). Occupational education mainly comprises specific skills regarding a specific job (Allais, 2012). Skill development also refers to occupational development (Allais, 2012). Skills are just like thunder clouds, when seen from far, it appears solid and confined but by close sighting it looks like vapours (Allais, 2012). Peng, Pike & Roos (2007) states that the skills are actually a managerial talent of administrative staff. Now who is responsible for this skills development, the answer is rooted in the professionally developed leader? West and Sacramento (2004) state that effective leaders develop professional skills, sovereignty and social interaction with and among staff. Allais (2012) reports that some researchers believe that modern society is increasingly post-industrial and based on the theoretical knowledge. While some people believe that mechanization have not made knowledge less important due to the development of low skills (Allais, 2012). These are the skills which differentiate relationships between a knowledge base and practice (Allais, 2012). In short skills multiply the importance of an employee in an organization. These skilled employees are playing its role in good reputation of an organization. This is the reason that more inclination is now drawn towards the intellectual development of organizations than the physical development of the organization. Therefore, more focus requires on the organizational restructuring through intellectual capital development.

### **2.2.6 Leadership skills and school effectiveness**

Leadership is a characteristic possessed by people that distinguish them distinctly from those who do not possess it (Silva, 2014). Leadership comprises leadership skills that an educational leader possesses. The only difference between effective and ineffective schools is the leadership skills of the school principal (Piaw et al., 2014). Similarly, Hoy and Miskel (2000) also suggested that school principals should have the interpersonal skills, conceptual skills, administrative and technical skills. Interpersonal skills are the knowledge regarding human behaviour, team work, and ability to understand feelings, attitude and intentions of others, to communicate credibly and effectively (Grosenick & Gibson, 2001; Haq, 2011). These interpersonal skills also cause the promotion of OCB in these schools, as these co-workers play their role in facilitating each other in solving problems, and sharing burden of each other and learning from each other. A skilled and competent leader is the one who can fruitfully utilize the resources to achieve the desired goals set by school (Akinola, 2013). Principals possess leadership skills that create favourable environment, eminence value school culture, teaching-learning evaluation, intellectual and non-intellectual performance, bilateral communication, teachers and students behaviour and leadership between school, families and society (Piaw et al., 2014).

Much attention has been given in the developed countries over the leadership role and skills of the principal to make schools more effective (Akinola, 2013). But the developing world still struggles for such educational leaders. First these leaders require leadership training to make them skilful. Peterson and Van Fleet (2004) proposed that for effective schooling principals should have skills: such as decision making, analytical (human, communication, conceptual, interpersonal), administrative, and flexible skills. Richter (2006) articulated that school leadership should have the skills to make schools

more effective, these skills are: transformational, managerial and instructional leadership skills. Mumford, Campion & Morgeson (2007) stated that for effective schooling principals must possess interpersonal, business, and cognitive skills. Several studies have shown a relationship between leadership skills and school effectiveness. Supovitz, Sirinides & May (2009)'s study reveals that principal leadership skills have a positive impact on the school climate which leads towards better student outcomes. Furthermore, principal leadership skills are indispensable to achieve student outcomes (Akinola, 2013). A study conducted by (Duze, 2011) also shows that there is a close relationship between principal leadership skills and school effectiveness. For school effectiveness, one of the key factors is the educational leadership (Kythreotis, Pashiardis & Kyriakides, 2010). Apart from leadership there are certain other elements that are also playing their roles in making schools more effective, but these elements have also a link with leadership. School effectiveness can be judged from the goals achieved by the school. Schools will be recorded as effective if, "school processes result in observable positive outcomes among its students consistently over a period of time" Iyer [Iyer, 2011. p.4 cited in (Akinola, 2013)]. Akinola (2013) reports that there are several other parameters that can be used to measure school effectiveness. These are school discipline, school environment, teachers' performance and student achievements. Richter et al. (2012) stated that school principals should possess leadership skills such as transformational, organizational and behaviour skills. Organizational leadership skills refer to the job performed during routine; making sure that everyone abides rules and regulations; discussing with all stake holders and maintaining a safe climate (Copland, 2001; Miller, 2003). Transformational leadership may engage and encourage organizational members to be more active by shared decision and accepting ownership for student success (Richter et al., 2012). Transformational and managerial skills, on the other hand, improve teacher's job satisfaction, school environment and student

achievement (Richter et al., 2012). Educational leaders can only show their competencies if they are skilful. Hoppey and McLeskey (2013) found leaders who have interpersonal skills, are found busy in supporting their staff and putting their efforts for their best performance and as a result they achieve school effectiveness. A study conducted by Akinola (2013) in Nigeria found out that level of leadership skills of the high schools principals. The findings reveal that principals working in Nigerian high schools possess high level of leadership skills but then the results of some schools were not up to the standard. This may be due some other antecedents' variables. Leadership skills should not be criticized for such poor performance there because there could be many other factors affecting performance. Ramsey (2005, p. 2) argues, "Not all decisions properly belong to the leader; there is no rule to say everything has to be resolved at the top. If the leader has to make all the major decisions, there are too many useless lieutenants in the organization".

Some researchers have conducted studies in Pakistan to identify the leadership skills. While in the developed countries role of educational leadership is clear and up to the mark as well, however the situation in developing countries like Pakistan is not satisfactory. Literature suggests that leadership has an indirect role in students' achievements, but they have direct role in teacher development. Highlighting the role of the school principal in Pakistan, Alam (2012) state that in Pakistan teachers are promoted as principals without having knowledge of leadership. This deficiency of leadership role will affect the performance of a school. Khan (2013b) sees this problem from another perspective and argues that due to limited given to the professional development of principals in Pakistan, the quality of education in Public schools are affected. Further, there are no sincere efforts in this connection to make principals more productive; no funds allocated for in-service training and education department always

searching for foreign funds to arrange these trainings. A large number of educational institutes in Pakistan are functioning without qualified and trained leaders. Such circumstances are stressed to bring certain necessary changes in educational leadership in Pakistan (Rizvi, 2010). Obviously necessary actions need to be taken to improve this situation. These reforms require huge budgets, while at the moment Government of Pakistan is spending only 4% of its GDP on education. The only hope left is that, education system of Pakistan should look forward for its self-development (Rahman, 2014).

### **2.2.7 Summary of principal leadership skills research**

Leadership is a process, including leadership style, strategies, skills and team efforts (James, 2015). Literature widely supports the existence of leadership role for organizational effectiveness. It is also found that leadership is circumstantial. A person will be accepted as a leader only when he/she possesses leadership skills. Leaders promote OCB for the effective functioning of the schools. Leaders also concentrate on the intellectual development of the schools, as several studies have shown a close relationship between transformational leadership skills and intellectual capital development. Similarly, several studies have shown a close relationship between behavioural leadership skills and OCB promotion in organizations. Although there is an indirect role of the leader in improving student achievement, they have a direct relation with human capital development of teachers; this developed human capital has a direct positive impact on student progress.

## **2.3 Intellectual capital**

Organizations possess two types of assets namely: tangible and intangible (Awan & Saeed, 2014). Organizations cannot rely only on one type of asset. Neither one alone

can guarantee the success of an organization. Organizations will be successful only if they could manage both types of assets (Awan & Saeed, 2014). Few decades ago economics was limited to financial resources and infra-structure but now the trend has been changed, more talented and skilful leaders and employees are the pre-requisites for economic growth and organizational effectiveness. Now economics are transformed from industrial to knowledge demanding economy, work appears in the form of knowledge exertion; simply it's now the age of intellectual capital (Awan & Saeed, 2014). Business strategies are now changed and 20% of the business resources now exist in tangible assets, while 80% of the assets of an organization are termed as intangible assets/ intellectual capital (Roos, Bainbridge & Jacobsen, 2001). From the comparison of the past and present situations one can understand that how much shift had taken place. Bhasin (2012)] reports that in the early ages 70% of the investment were made in terms of the tangible and only 30% of the investments were made for the development of intellectual capital but in the last few decades it is found that 67% of the investment were allocated for intangible assets such as research and developments, IT, education and skills and abilities while rest of the 33% of the investment were made in tangible assets. This information provides an insight that now much more attention is given to intellectual capital development, measurement, evaluation and monitoring.

### **2.3.1. Definition of IC**

The term “Intellectual Capital” was introduced by John Kenneth Galbryt in 1969 (Maria Díez, Lizet Ochoa, Begona Ptieto & Santidrian, 2010). Intellectual capital (IC) is identified in various fields by different terms. For example in accounting the people use the term ‘intangible assets’, the term ‘knowledge assets’ is used by economist while people in management or in legal affairs use the term intellectual capital, all these terms are used for the same entity i.e. intellectual capital (Fazlagic, 2005). Since the last

decade, intellectual capital has got its importance in academia, Government institutions and private institutions (Awan & Saeed, 2014). But then until now intellectual capital has not been defined accurately (Awan & Saeed, 2014; Marr & Chatzkel, 2004). Sharabati et al. (2013) report that it is not clear how to define, classify and evaluate intellectual capital. The main problem with intellectual capital is that it cannot be measured explicitly (Lytras & de Pablos, 2009). This is the basic reason that until now there is no common definition for intellectual capital (Beattie & Thomson, 2007; Kim, Yoo & Lee, 2011; Montequín, Fernandez, Cabal & Gutierrez, 2006). This is also the basic reason why researchers do not agree upon the definition of intellectual capital. Researchers formulated some indications for measurement of IC. Therefore, IC has been defined in various perspectives such as analysis level and objectivity (Kim & Kumar, 2009). Focusing on these perspectives various definitions of IC are given by the researchers. Alipour (2012) defines IC as a combination of knowledge assets that are adopted and managed by an organization to create a value for them. Chartered Institute of Management Accounts (CIMA, 2001) defines IC as, “the possession of knowledge and experience, professional knowledge and skills, good relationships and technological capacities, which when applied will grow organization’s competitive advantage” (Bhasin, 2012, p. 64). The term IC refers to knowledge assets of an organization and its development and management is now the prior responsibility of the organization (Mumtaz & Abbas, 2014). Martin (2000) asserts that, IC is intellectual material that has been formalized, captured and leveraged to produce high valued assets. Andriessen (2004) advocate IC to be the knowledge that can be converted into profit. Gavius and Russ (2009) put IC as the combined intangible assets which enable the company to function. While Lee (2010) adds that IC is all the resources that come from the knowledge, experience and transferable competencies of the staff of an organization that enable the ability of the organization to innovate and manage change from its infra-



structure, and from relationships between stakeholders and partners. Similarly, Sharabati et al. (2013) considers IC as a stock and flow of knowledge available in an institute. Intellectual capital can be expressed as institute intangible assets, knowledge with capabilities for value or knowledge that can be applied to generate a value and human capital is considered as the core of the IC.

### **2.3.2 Classification of intellectual capital**

Majority of the research studies classified intellectual capital into three main components: human capital, structural or organizational capital, and relational capital/social capital (Sharabati et al., 2013). Similarly, Bontis et al. (2000) articulates that intellectual capital can be divided into three main components such as human capital, structural capital and social capital. While Tai and Chen (2009) state that IC can be categorized as process capital, research and development and innovation capital. Marr, Schiuma & Neely (2004) categorized IC as a combination of human resources, market assets, infrastructure and intellectual property, while (Sharabati et al., 2013) reports that intellectual capital comprises human capital, social capital, relational capital and technological capital.

According to (Awan & Saeed, 2014) IC has three basic components: human capital, structural capital, and relational capital. While Ortiz (2011) states that various terms like human capital, structural capital and customer capital are referred as intellectual capital, (Yi & Davey, 2010) contend that IC comprises technologies possessed, skills of the employees, organizational process and customer capitals. Indeed IC comprises a vast range of ideas and an insight related with non-physical constituents of institutional assets, and is actually linked with “human capital” or “knowledge” (Fazlagic, 2005). In another note, Mihai et al. (2012) concludes that intellectual capital is the wealth of an

organization in the form of human capital, the knowledge, skills, experience and training of employees; individual relational capital, that is relations with all stake holders in the society associated with organization for a common purpose. Though different researchers have classified IC into various components, majority of them agree that intellectual capital has three main components, and that they are human capital, social capital and structural/organizational capital. In the proceeding lines these components are discussed in the light of different research studies.

### **2.3.3 Intellectual capital and organization effectiveness**

Intellectual capital generates within the organizations, and consists of knowledge and skills, decision making actions, application and facts and figures classifications (Ahmadi, Parivizi, Meyhami & Ziaee, 2012). IC includes all the potentials such as analytical capabilities, learning, practices, knowledge, experience, intelligence level (Chang & Lee, 2012; Mumtaz & Abbas, 2014). In fact IC consists of knowledge, experience, skills, good relationship and is causing the competitive advantage for an organization (Ghosh & Mondal, 2009). As IC is closely related to employee competencies, organization setup, and its relation with stakeholder, IC is considered as precious asset of an organization that is very difficult to copy (Mumtaz & Abbas, 2014), and it easily enhances organization performances enhances organization's performance (Awan & Saeed, 2014; Bartholomew, 2009; Schiuma & Lerro 2008).

Intellectual capital does not play its role in some private institutes only; it has a vital role in educational institutes as well. Mumtaz and Abbas (2014) added that the main aim of the educational institutions is to generate, share and transfer knowledge. Three main types of Intellectual capital are observed in educational organizations: human capital (teachers), relational capital (students, parents and board of governors) and

structural capital (norms, values, procedures and hierarchy of staff). Both human capital and structural capital create a value for organization (like schools) ( Maria Díez, et, al. 2010). The foremost function of any educational institute is to generate knowledge through creativity and innovation and then share this knowledge with students (Najim, Al-Naimi & Alnaji, 2012).

This knowledge sharing is possible through utilization of leadership skills and promotion of organizational citizenship behaviour (OCB) in schools, due to culture of OCB teachers share their knowledge and improve their teaching-learning techniques. As literature supports that although both kinds of assets are essential for the effective functioning of any organization, the former is considered the most important in the context of effectiveness. Since tangible and intangible assets both affect the performance of any educational institute, the most prominent among them is the intellectual capital that affects the performance (Mumtaz & Abbas, 2014). Intellectual capital of an organization is directly related with its effectiveness (Engström, Westnes & Furdal Westnes, 2003). One can only imagine better performance from schools if they possess high human capital and social capital. Organizations which possess high intellectual capital show better performance than those which possess low intellectual capital (Bharathi Kamath, 2008; Mumtaz & Abbas, 2014). According to Mumtaz and Abbas (2014) IC and its sub-dimensions are positively contributing in enhancing organizational effectiveness; creating value and increasing efficiency in private institutes. However it should be remembered that possession of high intellectual capital is not mandatory to the private school only (same is also the pre-requisite of public schools). Mumtaz and Abbas (2014) further state that developing human capital through training and support can improve performance of the organization. It is also important to know why we should be measuring IC. Marr, Gray & Neely (2003) and Fazlagic (2005)

formulated five reasons, while Andersson (2004) formulated four reasons. These reasons are presented in Table 2.1

**Table 2.1:** Reasons for measuring intellectual capital

Marr et al. (2003)	1) Measuring intellectual capital can assist institutes to build their plan, through which they can gain competitive advantage. 2) Measuring intellectual capital will lead in formulating key process indicators, which will help in the execution of the plan. 3) Intellectual capital measuring may help in integration and procurement. 4) Intellectual capital may be linked with an organization's incentive and compensation plan. 5) Intellectual capital measurement communicates to the stakeholders that what type of intellectual property an institute owns/possess.
Andriessen (2004)	1) To bring betterment in internal management. 2) To develop external disclosure. 3) To fulfill statutory and negotiating factors. 4) With the appearance of the "knowledge economy" intellectual capital acquired more consideration and now it ought to be give away to the stakeholders.
Fazlagic (2005)	1) It increases clarity of institutes. 2) The transfer of good exercises could be increased if institutes get access to the data on their intellectual capital(IC). 3) Institutes should attain and use new methods of learning. 4) The measurement of intellectual capital in institutes will bring the 'Ivory-tower philosophy' of the present researchers closer to the necessities of the community and business.

Institutions whether private or public, profitable or non-profitable are all well aware that they should measure, evaluate, manage, and develop intellectual capital to maintain their survival for a long period (Sharabati et al., 2013).

## 2.4 Human capital

Human capital is the major component of intellectual capital. This is possessed by a person; it includes employee competencies, experiences, and innovations, and capabilities (Awan & Saeed, 2014). Literature reveals that leaders develop intellectual capital, in which the major component is the human capital. Human capital can be

developed by bringing changes in individuals by providing certain training and equipping with useful skills.

#### **2.4.1 Definition of human capital**

In spite of the fact that human capital is the vital component of the intellectual capital, yet it has no common definition. Like intellectual capital there are various indicators for measuring human capital in various organizations. These indicators are attitude & motivation, competency/skills/capabilities, creativity and innovativeness, personal characteristics, knowledge, and efficiency (Kazemi, Nazemi & Pooya, 2012). Ortiz (2011) argues that human capital is composed of experiences, creativity, problems solving competencies, leadership and management skills with which a person would be able to work even in tense environment. While Bhasin (2012) claims that human capital is composed of knowledge competencies, skills, individual and collective experience and training.

There is a close relation found between training and skills and abilities. By providing training to the employees, their skills can be improved at large. Chen (2009) and Kazemi et al. (2012) advocate that human capital represents the individual know stock of an organization as represented by its employees. In another note Kazemi et al. (2012) and Montequín et al. (2006) state that human capital is “The know-how and competencies of an organization (employee)”. Bontis, Bart & Serenko (2009) articulated that human capital is the combination of competencies, experiences and knowledge based employees of the organization. Longo and Mura (2007) stated that human capital is actually the combination innovation and renewal for the organization; they should have an awareness regarding business issues and be able to use their experiences. It is the sum of innovation and creativity and strategic regeneration

(Kamaluddin & Abdul Rahman, 2009). Human capital acts as a catalyst for developing innovations. Previous research studies have shown that firm/ institute specific human capital can play an important role to develop innovation if it is generated through the exchange of high quality knowledge among the key persons within that firm/ institute (Bianchi, 2001). Human capital comprises of innovation and thinking process, it does not relate with organization and it loses its value when an employee quits from the organization (Ortiz, 2011). Outstanding human capital can enhance innovation process in an organization. This stance is also supported by Barney 1991, by providing VIRN theory that resources (Teacher' human capital) should be valuable, inimitable, rare and non-substitutable. In this context, schools possess such a human capital that concentrates on resources that produce good results. This is further endorsed by Werner Felt (1984) through his resource base view (RBV) theory. Employee produced knowledge, through their own competencies, skills, attitude, experience and education (Bontis et al., 2000). Human capital comprises the whole knowledge, competencies, experiences, skills and talents of their employees (Ghosh & Mondal, 2009). According to (Dakhli & De Clercq, 2004) human capital comprises individual's knowledge and potential that allow them to bring changes in certain actions and economic development.

#### **2.4.2 Role of human capital in organization**

Organizations produce their values through their employees. Kim et al. (2011) stated that organizations develop their value through their employee capabilities, skills and education. This human capital not only produces value for organization, additionally they satisfy the different stakeholders. Human capital is considered as the most important intangible asset of an organization, that provides services to the stakeholders and solves their problems (Mumtaz & Abbas, 2014). They further report that human capital improves the performance and effectiveness of an organization. It contains

factors like workers learning, aptitude, capacity and expertise in return to stimulate performance (Chen, Zhu & Yuan Xie, 2004). Parents looking for quality education think about the human capital possessed by a school where trained and skilled work force can produce some good results. Fazlagic (2005) expresses that human capital refers to individual competencies of a person which can be measured in the form of output like performance of an employee on the job or publication. Marimuthu, Arokiasamy & Ismail (2009) narrate that human capital development is a process that is linked with training, education and other professional skills, which increases the level of knowledge, skills, abilities, values and social assets that can increase employee satisfaction and enhance performance. While Bontis, Wu, Chen, Cheng & Hwang (2005) articulated human capital as the main component of intellectual capital, which produces a market value for the organization. However human capital researchers assert that human capital increases a firm's or institute's performance (Chadwick & Dabu, 2009; Molloy, Chadwick, Ployhart & Golden, 2011).

#### **2.4.3 Measurement of human capital**

Similarities are noted in the valuation of human capital. For human capital valuation two approaches are in practice: input and output. The input approach depends upon the cost direct or indirect on the employee such as their recruitment and training, but this is indispensable for the human capital to be developed in an organization (Schiller, 2011). Anyhow input approaches are somewhat useful for the creation of human capital in an organization. The output method helps an organization to find out the most suitable employee who will be beneficial for the organization (Savino, McGuire & White, 2012). To identify the influence of human capital on institutional performance, two factors are examined, one is the educational level of an individual and the other is experience (Molloy et al., 2011). Results of some research studies in the field of

intellectual capital reveal that various societies possessing high level of social capital become incapable when their human capital is low. Therefore, social capital is what combines different forms of human capital and should be utilized to enhance human capital (Salajegheh & Pirmoradi, 2013).

## **2.5 Social Capital/ Relational capital**

The concept of social capital was introduced by the Government of Denmark in 1996 with the aim to assess the influence of social capital on development projects and its contribution, as for developing indicators for monitoring social capital and techniques to measure the impact (Grootaert & Van Bastelaer, 2001). It was almost considered that for development of three types of assets are required. These are natural, tangible and human capital but now, it is realized that this development is based upon the social capital and activeness of the various units of an organization (Amirkhani & Poorezzat, 2009). If there is plenty of human capital but deficiency found in social capital, it will be difficult for any organization to succeed? In-depth analysis of various research studies in field of intellectual capital show that social capital has certain vital dimensions, as given below.

### **2.5.1 Dimensions of social capital**

There are three basic dimensions of social capital: cognitive dimension, structural dimension and relational dimension (Krause et al., 2007). Cognitive dimension includes the level of participation of an employee in a social network of the same interest (Bolino et al., 2002). This cognitive dimension in the schools refers to the participation of teachers in various activities conducted to highlight the role of a school in the community. Structural dimension of the social capital comprises analysis procedures, and reconciliation of knowledge which will bring an emulative advantage for the



organization (Leana & Pil, 2006). While relational dimension of social capital includes the nature of relationship in an organization; it depends upon the quality of communication in an organization (Bolino et al., 2002). All the three dimensions build social capital and lack of any one or more dimensions will result in a weak social capital. It is easy to exchange knowledge among people in an organization when people discuss among others (structural capital), when they have close ties (relational capital) and when they are able to perceive and apply knowledge (cognitive capital) (Mat Isa & Ameer, 2007; Nahapiet & Ghoshal, 1998). Martínez-Torres (2006) states that “The relational capital contains the relations with the customers, suppliers, shareholders, the rival, community, the official institutions and society.” Similarly Beattie and Thomson (2007) articulate that relational capital termed as the relationships of the organization with the customers, suppliers or R& D partners.

According to (Firouzi, Harati & Shahraki, 2014) social capital has three major components: moral obligations and norms, social values and social networks. Social capital is the composition of norms, values, network and governing behaviour among the staff (Salajegheh & Pirmoradi, 2013). The mainly comprises organization’s relationships, behaviours and values that develop interactions among people and contribute to the social as well as economic development (Firouzi et al., 2014). If leaders concentrate on promoting OCB in schools, then they can easily develop social capital. There is a close relationship found between OCB and social capital (Kianfar et al., 2013).

### **2.5.2 Defining social capital**

Like other intangible assets the definition of social capital is also not clear (Dolfsma & Dannreuther, 2003; Salajegheh & Pirmoradi, 2013). There is no common definition of

social capital. Definitions given by different research studies depend upon their contextual environment and investigation process (Robison, Schmid & Siles, 2002). Keeping in view of different difficulties, authors preferred to discuss its concepts, logical source, use, and unsettled matters (Adam & Rončević, 2003).

Salajegheh and Pirmoradi (2013) report that it is the web of cooperative relationship between citizens that provide an opportunity to resolve problems. They further advocate that it is the culture of patience and trust which highlights extra ordinary discretionary affiliations. Lin (2001) tried to explain that social capital is like an investment in the form of social relations among people with anticipated returns. While Chen (2009) advocate that relational capital is the summation of relationships, interactions and intimacy of an organization with the internal and external stakeholders, that is to say, relational capital embraces all the relations the firm has established with its stake holder groups such as customers, suppliers, the community, and the Government etc. Joia (2007) defines relational capital as, relationships with customers or other stake holders. While Ramezan (2011) states that relational capital gathers the value of the relations that the firm maintains with the external agents business activity close by or with other distant social agents.

Relational capital is also associated with inter institutional relations, such as agreements and communication records with stakeholders (Kianfar et al., 2013). In fact Zambon, Chatzkel, Paloma Sanchez & Elena (2006) state that relational capital is related with external relations of organizations such as customer, supplier, research and development groups.

Social capital as an allegory for the reason that it acts to join people for doing well in their life (Burt, 2000). In terms of organizational level, social capital can be defined as the relationship established between the members of an organization for the sake of collective efforts (Dakhli & De Clercq, 2004). For (Dakhli & De Clercq, 2004) social capital is a societal characteristic which includes trust, associational activity and norms of civic behaviour, which collectively facilitate coordination and cooperation for collective advantage. It also refers to the relationship between organization, customers, suppliers and allies, which is essential to make organizations more beneficial and more effective (Chen et al., 2004). While (Bontis et al., 2000) contends that social capital appears in the form of advertisements, promotion campaign and the network of association It also refers to the assets connected to the external agencies for example relations with clients, suppliers, research and development agencies and Government and so on (Zambon et al., 2006). It is an individual personal networks and elite institutional affiliations, which show the level of information, trust and norms possessed by an individual (Salajegheh and Pirmoradi (2013). From this discussion it is becoming clear that social capital is as necessary as the other intangible assets of any organization, for it provides an opportunity to employees of an organization that they share their knowledge and extend their relations with all stake holders for the sake of organization success tin achieving their common goal.

### **2.5.3 Role of social capital in organization**

Social capital helps in achieving goals of an organization's cost effectively (Salajegheh & Pirmoradi, 2013). It plays its role in knowledge sharing, value creation and bringing a competitive advantage for the organization as it makes functioning and development of the organization more vigorous (Salajegheh & Pirmoradi, 2013). It is also capable of managing more uncertain information than the organizational capital (Carmona-Lavado,

Cuevas-Rodríguez & Cabello-Medina, 2010). It should be noted that human capital is useful only when it is channelled with the social capital (Carmona-Lavado et al., 2010). Social capital enhances knowledge, skills of individuals (human capital) (Salajegheh & Pirmoradi, 2013) because it discusses new techniques of teaching.

Awan and Saeed (2014) reported that intellectual capital can be reflected from organization's structures and its relations. Thus social capital has a strong effect on innovation at school level increasing the creativity, and good relations that help in achieving the important goals, collaboration and innovation (Carmona-Lavado et al., 2010). Social capital helps individuals to interact easily, fast and in an expressive way to achieve their specified goals thus enhancing organizational performance (Bolino et al., 2002). It reflects the quality of relationship in an institute and the procedures to assess the relationship among the members (Pastoriza et al., 2009). In fact, Quality of an organization can be assessed on the basis of social capital keeping in view of certain characteristics which an employee possesses for example learning institutional values and trying to adopt it, trusting and helping behaviour, level of understanding among co-workers (Pastoriza et al., 2009). Salajegheh and Pirmoradi (2013) and Bontis et al (2005b) highlighted the benefits of social capital in an organization (see Table 2.2)

**Table 2.2:** Benefits of social capital

Researchers	Benefits of social capital
(Salajegheh & Pirmoradi, 2013)	1) Specialized achievement influence, 2) Job search 3) Facilitate the discussion of assets between units 4) Novelty, foundation of intellectual capital and to motivate team performance 5) Decrease job turn over, 6) Communication with suppliers, local network of production, and to encourage learning between organizations.
Bontis, Lin & Huang (2005b)	1) Social capital often makes a compulsory source of services such as child health care; language training etc. 2) Collaboration between societal groups can help in provision of information to the newly arrived immigrants. 3) Organization spends less time in finding new business communities or employee. 4) In case of stressful situation support networks are quite helpful in solving problems. 5) Friend and families are found helpful to refrain an individual from bad deeds. 6) Social networks are quite helpful in finding training opportunities, facilitative centers and in job searching.

Apart from the organizations, social capital is also quite beneficial for an individual employee. Managers having high level of social capital achieve fast promotion (Salajegheh & Pirmoradi, 2013). Individuals possessing high level of social capital are found less dependent on a single person (Bontis et al., 2005b; Salajegheh & Pirmoradi, 2013). People who possess social capital are found to be more confident in dealing (Mizruchi & Stearns, 2000), they coordinate projects more effectively (Martin, 2000), learn more about job and work environment (Lofstrom, 2000) and have higher chances of survival in rapidly changing environment (Salajegheh & Pirmoradi, 2013). As suggested by Veismoradi, Akbari & Rostami (2012), there is a positive relationship between social capital and organizational learning. Social capital plays an important role than tangible and human capital in communities and organizations (Salajegheh & Pirmoradi, 2013). Conversely social capital is a concept that is more useful for the

safety of a society (Salajegheh & Pirmoradi, 2013). Social capital acts as efforts which can be used to tie different societies (Paldam, 2000; Pastoriza et al., 2009).

In the absence of social capital economic and organizational developments are not possible (Salajegheh & Pirmoradi, 2013). The bunch of these evidences reflects that school leaders should have very good relations with staff and further develop it. High quality of social capital will develop human capital, while both collectively form intellectual capital. Organizations such as schools, will show excellent performance in students' academic achievements and build reputation in society, when they possess high quality intellectual capital.

## **2.6 Structural capital**

Apart from the social and human capitals another component of intellectual capital is structural capital of an institute. Structural capital is also known as organizational capital and it includes programming, records, schedule, system, and process and deliverance system (Hang Chan, 2009). It mainly comprises, vision of an organization, management policies, philosophy, organizational culture, records and operational procedures (Awan & Saeed, 2014). Structural capital which comprises values, processes, policies, also includes sources of knowledge that an organization has, i.e., process, function of the organization and employee use this structural capital with the knowledge and skills they have (Binney, Boedker, Nagm & Guthrie, 2007; Vergauwen & Van Alem, 2005).

### **2.6.1 Definition of structural capital**

Various researchers have defined structural capital/organizational capital. According to Beattie and Thomson (2007) organizational capital is “ the knowledge that stays within

the firm at the end of the working day which comprises the organization's routine, procedures, systems, cultures, data bases etc. some may be legally protected and became intellectual property rights , legally owned by the firm under separate title.”

Bozbura and Beskese (2007) say that organizational capital is the sum of all assets that make the creative ability of the organization possible. While Rudež and Mihalič (2007) state that structural capital is constituted by management philosophy, culture, and business process and information technology in the hotel industry. And even if employees leave the organization, the structural capital still remains with the organization, and it comprises IT, client relationship, research and development and so on (Zéghal & Maaloul, 2010). Cohen and Kaimenakis (2007) advocated that structural capital is adopted by organization and it remains with the organization and can be reproduced and shared with people. It provides conducive environment; increases knowledge facilities and helps in productivity of the organization and employees (Awan & Saeed, 2014). According to Ramezan (2011) structural capital is the embed knowledge in organization which is supportive to the human capital, and it comprises both formal and informal structures of the organization i.e. it comprises culture, learning process, and enhances the job performance (Awan & Saeed, 2014). Structural capital also plays a role in problem solving in an organization (Chu, Lin, Hsiung & Liu, 2006). All this explains that organizational capital is useful for both individual and organization (Salajegheh & Pirmoradi, 2013). From these definitions and elaborations it is clear that for the success of any organization all these three types of capital are indispensable. Structural capital provides policy guide line; procedures and know-how. While social capital brings closer the co-workers and their human capital to enable them to achieve common goals.

## **2.7 Summary of Intellectual capital research**

Research studies on intellectual capital reveal some important information including its importance for an individual, groups and organizations. Intellectual capital has a vast impact on student achievements in educational settings. Now organizations are throwing their inclination towards the intellectual capital of the organization. More skilled and trained employees may be a guarantee of success, which is the reason that organizations are now spending more in intellectual capital development than physical development. Human capital can be channelled through social capital. Structural capital affects social capital and human capital. Structural capital provides a road map for the development of social capital and social capital enhances human capital.

## **2.8 Organizational citizenship behaviour (OCB)**

For any organization, establishment of organizational citizenship behaviour (OCB) is imperative. For the first time OCB was introduced by Batman and Organ in 1983, and at that time no one was aware of the fact that OCB will get so much importance in public and private institutions. Later, OCB theory was given by Organ (1988, p. 4) as, “Individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, but in the aggregate, promotes the effective functioning of the organization. By discretionary it means that the behaviour is not an enforceable requirement of the role or the job description, that is, the clearly specified terms in the person’s employment contract with the organization. The behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable”. Organ (1997, p. 95) defines OCB as “Performance that supports the social and psychological environment in which task performance takes place”. Organ (1988) has examined OCB through five dimensions: altruism, courtesy, consciousness, civic virtue and sportsmanship. Making them the main dimensions of OCB (Kernodle & Noble,



2013; Noble, 2006). Later, other researchers defined these dimensions in detail in different contexts. Altruism, also called helping behaviour, has sub-dimensions that include the activities like cheer leading and peace keeping (Kernodle & Noble, 2013; Organ, 1988). Altruism is a helping behaviour, which an employee shows to help the colleague in solving problems, sharing burden, training fellowmen to use new equipment (Podsakoff et al., 2000). The second dimension, courtesy is the behaviour of an employee to inform the fellow men about the ups and down of an event (Organ, 1988; Podsakoff et al., 2000). It restricts an employee from work related problems for others (Ehtiyar et al., 2010).

Consciousness the third dimension refers to the awareness of an employee regarding work/ task or working for longer time to finish work soon without demanding any remuneration (Oplatka, 2009). It refers to individual initiative, by taking responsibilities and performing tasks that is not part of the duty (Kernodle & Noble, 2013). Organ (1990) defines consciousness as “a pattern of going matters well beyond the minimally required level of attendance, punctuality, housekeeping, conserving resources, and related matters of internal maintenance” (p-96). Individual initiatives has also accepted as persisting with enthusiasm and additional efforts and volunteering to carry out task activities (Borman & Motowidlo, 1993; Kernodle & Noble, 2013).

Civic virtue, the fourth dimension, shows loyalty with organization, effective participation of colleagues in meetings, showing interest in policy matters, avoiding any hazard to the organization (Organ, 1988; Polat, 2009). Civic virtue can be defined as “the responsible participation in the political process of the organization” (Schnake & Dumler, 2003, p. 284). Civic virtue also refers to the involvement in different events,

appearing in meetings, vocalizing opinion, discussion about work related issues on personal time (Kernodle & Noble, 2013).

Sportsmanship, the fifth dimension refers to, the behaviour which refrains an employee from complaining extra work, to avoid taking any tension or quarrel with colleague and to defend the prestige of organization against those who are not in favour (Oplatka, 2009). Sportsmanship is considered as the employee ability to cope with inconvenience at work place without showing unwillingness and complaining about certain issues. Podsakoff et al. (2000, p. 517) stated that “good sportsmanship persons are people who not only do not complain when they free inconvenience by others, but also maintain a positive attitude even when things do not go their way; are not offended when others do not follow their suggestions; are willing to sacrifice their personal interests for the good of the work group, and do not take the rejection of their ideas personally”. There are three main characteristics of OCB, which should be voluntary, productive for organization, and multi-dimensional (Firouzi et al., 2014). The first characteristic of OCB is well defined by Organ et al. (2006) as “individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system and in the aggregate promotes the efficient and effective functioning of the organization”. The second characteristic OCB which is its vitality for organization productivity highlighted by various researchers. OCB is a discretionary behaviour which contributes to the effectiveness of an organization (Cohen & Kol, 2004; Firouzi et al., 2014). Third characteristic of OCB is its multidirectional role; it has an effect on the performance of an individual, effect on team performance and effects performance of the organization. OCB improve work of individual as well as groups (Poohongthong et al., 2014). If an employee possesses OCB, the group in which he/she works has a chance to show higher performance (Kernodle & Noble, 2013). An individual performance as well as group

performance can help in increasing overall effectiveness of an organization (Kernodle & Noble, 2013; Schnake & Dumler, 2003).

### **2.8.1 Role of OCB in organization**

OCB plays a basic role in strengthening an organization. Sharma et al. (2011) argues that OCB has a vast impact on the organization efficiency and effectiveness. Aksel, Serinkan, Kiziloglu & Aksoy (2013) reports that OCB also has a great value for an organization because it increases the chances of achieving goals of an organization. OCB has found helpful in providing best services, which also enhances the organization performance (Polat, 2009). The informal behaviour of the employee of an organization is termed as OCB, and it is beneficial for both the employee and organization (Polat, 2009). OCB is helpful in employee's job performance and overall effectiveness of the organization (Kernodle & Noble, 2013). Polat (2009) added that OCB has an impact on decision making, collaboration and responsibility. Similarly whenever high level of OCB exists less absenteeism observed and best feeling of employees are observed. Yi, Natarajan & Gong (2011) conducted a study and found that there is a relation between OCB and employee performance in an organization.

### **2.8.2 Types of OCB**

OCB appears in two forms: organizational citizenship behaviour towards individual (OCBI) and organizational citizenship behaviour towards organization (OCBO). The OCBI is directed towards individual and indirectly related with organization while OCBO is directed towards the organization (Runhaar et al., 2013). Results of studies reveal that more engaged teachers are found more helpful towards colleagues (OCBI). Similarly, more engaged teachers show positive reaction towards the organization (OCBO). In both cases OCB plays its role (Runhaar et al., 2013). For the effectiveness

of any organization like schools presence of both kind of OCB is necessary. In the case of OCBI, employee helps the co-workers resulting effectiveness of the organization, while in the case of OCBO, employee directly applies efforts for the effectiveness of the organization. However, OCBI is more effective in the sense that it develops team efforts for making organizations more productive. Helping attitude among the co-workers enhances OCB at large. Study conducted by Zarea (2012) reveals that there is a significant relationship between OCB and good relations among the employees in an organization. There are certain factors which are responsible for enhancing OCB in an organization. These factors are leadership, justice/fairness and trust. Some studies recommend the element of fairness to enhance OCB in organizations (Cohen & Keren, 2010).

While Ertürk (2007) articulates that trust is another factor affecting OCB in an organization, personality of the leader also plays a role towards OCB (Malik et al., 2012). Wherever these factors will be observed, it will enhance OCB in organizations. From literature it is observed that leadership is the key agent in promoting OCB, different leadership components have a relationship with OCB (Poohongthong et al., 2014). Trust of the leader on teachers and making them empower will improve OCB among them (Runhar et al. 2013). This encouraged and motivated teacher will do beyond his duty list for the school effectiveness.

### **2.8.3 Organizational citizenship behaviour (OCB) in educational settings**

Literature strongly supports organizational citizenship behaviour (OCB) in educational institutes like schools because not only it acts actively and sufficiently it also has an impact on students' performance (Neves, Paixão, Alarcão & Gomes, 2014). In fact OCB is identified as an emerging field of study in education that can be very helpful in

improving overall effectiveness of the organizations (Kernodle & Noble, 2013). There is no doubt that OCB has received its importance in the past decades across the globe in educational institutes (Bogler & Somech, 2004; Cohen & Keren, 2010; Somech & Drach-Zahavy, 2000; Somech & Ron, 2007). After Organ (1988), various researchers have redefined OCB. (Burns & DiPaola, 2013) defines OCB as the degree to which teachers perform non-contractual duties and responsibilities. While (Cohen & Keren, 2010) OCB refers OCB as a beneficial behaviour in organization that is neither found to be enforced on the basis of formal role behaviour.

In order to understand the importance of the OCB, various researchers have conducted studies in field of applied psychology, management and business education. Katz and Kahn (1978) identified that organizations in which there is limited co-operation among employees have been a failure (DiPaola & Tschannen-Moran, 2014). On the other hand in effective organizations staff often performs beyond their respective routine duties, perform non- mandatory work without claiming for a reward or compensation (DiPaola & Tschannen-Moran, 2014). This discretionary behaviour not only reduces tension, it also enhances school effectiveness and reduces the managerial role of the leaders. It has been found that OCB increases organizational effectiveness generally and specifically in government organizations (Cohen & Keren, 2010; Kim, 2005). In fact a direct link has been identified between OCB which an employee exhibits and their overall performance (Kernodle, 2007; Kernodle & Noble, 2013).

Somech and Ron (2007) describe, that nowadays school's success mainly depend upon the teachers' willingness to do beyond what is included in the prescribed job scope. Teachers in effective schools perform well beyond their prescribed duties, and this has an impact on the school performance (DiPaola & Tschannen-Moran, 2014). They show

significant struggle to achieve school's objectives for which they go beyond the specified duties (Bogler & Somech, 2004). Due to the presence of OCB in schools, teachers gather more information with new instructive methods and share these information with other colleagues. Belogolovsky and Somech (2010) express their views that teachers helping out colleagues who are overloaded with work, and guiding newly inducted teachers to be more dedicated, leads to OCB (Cohen & Keren, 2010; Kim, 2005). Popescu and Deaconu (2013)'s study reports, that there is a relationship between OCB and collective school effectiveness. There are certain factors which affect OCB in schools. These factors are leader-member relations, trust, organizational justice, organizational climate and personality of the leader.

Organizational justice enhances OCB, which in turn enhances student achievements (Burns & DiPaola, 2013). There is an indirect relationship between organizational climate and OCB through mediator, "organizational justice". While Kianfar et al. (2013) report that promoting organizational trust enhances OCB of the employee, Ertürk (2007) states that there is a positive relation between trust of the employee and their OCB. Close relationship found by Mahdiun, Ghahramani & Sharif (2010) between OCB and personality of the leader. Leader's personality possesses some characteristics that are helpful in enhancing OCB in an organization. Leader and member exchange (LMX) is a relationship between leader and follower that enables a judgement upon the level of OCB exhibited by employees and their overall performance (Kernodle, 2007). Therefore, OCB can be incorporated into group factors such as team work and leadership as the Leader has a key role in promoting OCB in schools.

### **2.8.3.1 Measurement of OCB in educational settings**

In the beginning OCB was in existence in the business and industrial units only, but later in 2000 Somech and Drach-Zahavy were the first researchers who studied OCB in the educational settings. Since studies regarding OCB on educational institutes are rarely found, therefore the operationalization of OCB construct is neither clear nor without a consensus (Oplatka & Stundi, 2011). For the first time, Somech and Drach-Zahavy (2000) developed an instrument for OCB, which is applicable in educational Institutes after them; DiPaola and Tschannen-Moran (2001) were the next to conduct a study on OCB and its relationship with school climate. It seems that OCB has different operationalization due to cultural differences (Farh, Zhong & Organ, 2004). Later another scale for measuring OCB in schools (OCBS) was developed by (DiPaola, Tarter & Hoy, 2005), that is vastly used in various studies.

Polat (2009) find the level of OCB in schools in the case of Turkey, while another by Oplatka (2009) was conducted in Israel to find out the consequences of OCB for teachers, students and schools. They found out that the teachers OCB was closely related with school reputation. It is helpful for making school more productive by increasing student learning potential. It has a link with school climate, however it has a negative impact on the teachers as it may enhance family conflicts and teachers who observe may face colleague's negative attitude. Khalid, Jusoff, Othman, Ismail & Rahman (2010) conducted a study to find out the relationship between OCB and students achievements, and they found that there is a relationship between OCB and students achievements. Burns and DiPaola (2013) also conducted a study in high schools regarding organizational justice, OCB and students achievements. They conducted this study through electronic mail in Virginia state through district superintendent and school principals in 34 schools. Students' achievement record

obtained from Virginia department of education. Correlation and regression analysis applied to analyse the data. Significant relationship found between organizational justice and OCB, while a positive and significant relationship was also evident between OCB and student achievements. Further teacher perceived that their principals had rare direct impact on students' achievement but their colleagues had a direct impact on student achievements. Further, Popescu and Deaconu (2013) conducted study in Romanian high schools by considering OCB as moderator. Their findings showed that OCB had a great importance for educational institutes. Students show a medium level of OCB; however group level OCB has high correlation that individual. In the same context, DiPaola and Tschannen-Moran (2014) developed a construct comprising 15 items for the nature of the educational institutes. They used four point Likert scale; reliability of 0.96 shows that construct is reliable. Findings showed that school climate was closely linked with OCB. Further, they observed high OCB in those schools where principals showed collegial leadership and level of OCB found different in primary, middle and secondary schools. Further they exhibited a momentous effect of type of organizational structure on OCB. They also observed that teacher's professionalism also affect level of OCB and learning enhances OCB as results schools become more productive. In context of Pakistan, Aziz-ur-Rehman Dar (2014) conducted a study in Pakistani educational institutes regarding OCB and organizational justice. He used a Likert scale for 12 items construct by taking a population 10 college's teachers. Findings of his study reveal that there is a dire need of promoting OCB in educational institutes, for which there should be informality, cooperation, taking part and solidarity, and handling educational organizations through bureaucratic way will worst the situation and as result voluntary conducts will decrease. Naves et al. (2014) in their study determined perception of Portuguese teachers regarding validation of a construct for measuring OCB level in Portuguese schools. They used six point Likert scale for



construct comprising 16 items. Data found normal by measuring skewness and kurtosis, and Cronbach Alpha (0.90) for OCB and its sub-dimensions. Findings of their study show that the construct used is valid for measuring level of OCB in schools. While current study was conducted in 2014 to determine level of OCB in Pakistani schools through perception of teachers. Findings of this study reveal that the construct comprising 20 items used in this study is valid on the basis of skewness, kurtosis and reliability values (0.93). This construct used for measuring level of OCB in Pakistani schools and results further reveal that level of OCB is high as perceived by teachers in these schools.

#### **2.8.3.2 Importance of OCB in schools**

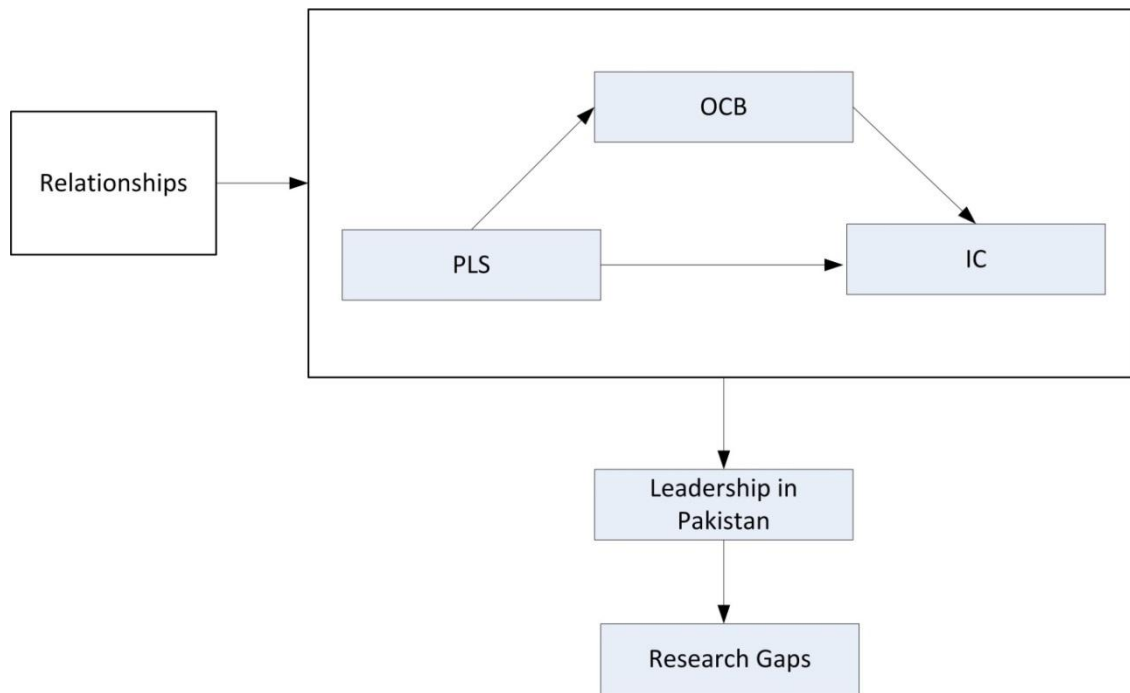
Various studies highlighted that OCB foster positive response from heads, students and colleagues (Oplatka, 2009), and further endorse that OCB produces co-operative and collegial environment. Through a study conducted by regarding organizational citizenship in Pakistani schools Aziz-ur-Rehman Dar (2014) expressed his views such that, it is now most important to promote motivation, informality, cooperation and participation, mutual communication and solidarity in order to achieve the required level of OCB in educational institutes like schools. He further concluded that operating educational institutes through bureaucratic nature, following rigid policies and improper guidelines may affect teacher's voluntary role in schools. Due to the salutary effects of high OCB in educational institutions, this behaviour should encourage rather than a desire. While (Popescu & Deaconu, 2013) clarify that knowing and applying OCB in school is helpful for the educational activity, directly influencing school performance.

## **2.9 Summary of OCB research**

The organizational citizenship behaviour construct is considered relatively new in the existing literature. The first construct for OCB was developed by Bateman and Organ (1983), when they were studying organizations and job satisfaction. In the beginning OCB constructs were developed for the business sector. Since school is also an organization like any other organizations for the first time, a construct for OCB in school setting was developed by DiPaola and Tschannen-Moran (2001). Since then, various OCB constructs were developed in educational settings. OCB is an organizational characteristic that is related to the informal behaviour of the employee and provides its effectiveness to the organizations. Various OCB research studies have shown its importance with other dimensions in school settings. These studies show relationships with leadership styles, students' achievements, trust, and teacher efficacy.

## **2.10 Relationship between principal leadership skills, OCB, and IC**

In proceeding line, three main variables PLS, OCB and IC are discussed individually. Then relationship among them has been discussed keeping in view of scholastic work previous done (Figure 2.1). This is followed by discussion on educational leadership in Pakistan and a research gap emphasizing to conduct study on the relationships between Principal leadership skills, organizational citizenship behaviour and intellectual capital in secondary schools in Pakistan.



**Fig: 2.1:** Relationships between PLS, OCB, and IC

### 2.10.1 Relationship between principal leadership skills and IC

Leaders are indirectly involved in improving teaching-learning process by motivating and encouraging teachers and providing suitable environment. Leaders will concentrate on the capacity building like improving knowledge and skills and motivate their staff by giving honour to them and providing encouraging environment to work efficiently (Leithwood et al., 2008). Lambert (2002) believes that leaders develop leadership skills among staff for effective instructional programmes, and further argues that leadership concentrates on potential capabilities. According to (Harris, 2002) effective leaders understand the value of the staff development necessary for bringing change in schools. Many organizations invest in the development of their employees (Segers & Gegenfurtner, 2013) to ensure a sustainable growth in their intellectual capital of the organization. Gray (2004) narrates that schools which have a desire of improvement need three basic things; catching up, as a whole efforts, and fast forward. Initial training of the teachers and their professional development is the pre-requisite of the school improvement. One of the factors for staff development is to maintain their morale and

motivation, staff development reveals their importance for school improvement (Harris, 2002). With the passage of time new teaching techniques were introduced. Therefore, development of the staff is necessary for effective teaching. And the principal is responsible to develop positive relations with and among the staff so that they might share their knowledge and burden, help each other in organizing different events and utilizing their experiences and skills to solve various problems.

### **2.10.2 Relationship between principal leadership skills & OCB**

The study found that there is high correlation between Principal leadership skills (PLS) and organizational citizenship behaviour (OCB), and this correlation is even higher than the correlation between PLS and IC. As shown in the in-depth analysis there is a high correlation between each of the three components of PLS: transformational, organizational and behavioural leadership skills and the five sub-dimensions of OCB: Altruism, Civic virtue, Consciousness, Courtesy and Sportsmanship. Among the three dimensions of PLS, it is transformational leadership skills (TLS) that has a high correlation with sportsmanship component of OCB and with other dimensions of OCB. This finding reveals that transformational leadership skills of the principals are more effective in promoting the culture of OCB in schools. The principal share the vision, involves teachers' in decision making process, and promotes team efforts for the success of their schools. Thus TLS motivates the followers to do beyond their level by enhancing both the quality and the quantity of the follower's human capital level.

The findings of this study are also supported by Oğuz (2010) and Podsakoff et al., (2000) who state that, there is positive relationship between the transformational leadership and OCB. While organizational leadership skills have a high correlation with sportsmanship and behavioural leadership skills also has a high correlation with

sportsmanship. These correlations reveal that all the three leadership skills have an impact in developing sportsmanship behaviour of teachers, and is closely linked with several leadership components (Poohongthong et al., 2014). OCB is strongly related to behavioural leadership (Poohongthong et al., 2014; Walumbwa & Schaubroeck, 2009). In another context, Jofreh et al. (2012) found a strong correlation between distributed leadership and OCB.

Further, it is found that all the three leadership skills show high correlation with altruism and Civic virtue. This means that these leadership skills have equal contribution in developing a helping behaviour and abiding rules and regulations among teachers in the school. Teachers show such behaviour because they have to survive through helping each other and leading school towards success. Except transformational leadership, the other two leadership skills, OLS and BLS, show a moderate relationship with courtesy. This means that these two skills are not that much effective in controlling the complains of teachers regarding their work load and it is also true that in these schools the teachers are found busier, they rarely find free period to take some rest. It might be the policy of the management that makes them busy or it may be due to keeping more teachers.

Owing to these leadership characteristics of leaders, teachers observe OCB and work voluntarily for the betterment of the schools (Eisenbeiss, 2012; Poohongthong et al., 2014). Although all the components of OCB are very important for the school culture, in the case of secondary schools in Pakistan it is the sportsmanship component that seems to be the more important one to boost OCB. The findings indicate that leadership develops a sense of sportsmanship among teaching staff, through their most effective

tool that is, their transformational leadership skills. As there is a link between transformational leadership and OCB (Purvanova et al., 2006).

Sportsmanship produces awareness among teachers that they should continue to struggle for the effectiveness of the school even if the higher authorities do not acknowledge or appreciate their efforts. This is also a fact that these teachers are trained or compelled to show sportsmanship behaviour to save their jobs in these secondary schools. Some time they want to express their feelings on an account of unfair dealing but they are not allowed to do so due to the policies, norms and due to their temporary job. Behavioural leadership skills (BLS) also show a high correlation with SMS. Behavioural leadership directly affects OCB (Eisenbeiss, 2012). In fact the sportsmanship behaviour develops a sense of team work in schools, and grooms teachers such that they struggle to achieve their goals. Even if they do not succeed, they do not lose heart. Even if principal does not acknowledge their efforts publicly, they still continue their struggle to achieve school wide goals.

It is important that the principal knows and understands how to develop OCB especially sportsmanship behaviour among teaching staff. Teachers have a direct impact on their students. When students find positive and proper attitudes teachers; they also adopt the same behaviour which is more productive in the long run. Findings of the current study regarding Principal leadership skills and its impact on OCB is supported by Louis et al. (2010) which states that the principals make sure that teachers do not work separately but work with collaboration as a team, and provide help and guidance to each other to improve instructional practices. Relationship between leadership styles and OCB can also be found from some studies conducted in non-educational context (Nguni et al., 2006; Oğuz, 2010; Podsakoff et al., 1990). OCB develops a sense of cooperation,

sharing knowledge, sharing burden and supporting each other on different occasions. Salfi (2011) and Cavanagh and Dellar (2001) recommend that empowerment, collaboration and best relations with staff, are quite helpful in establishing OCB leading towards school improvement. In establishing such behaviour in Pakistani secondary schools principals have to walk the extra mile beyond their specified duties for the sake of school improvement. Leadership is not a role of a single person but it is actually an organizational concept described as “broad based, skilful participation.....that leads to lasting school improvement” (Lambert, 2005, p. 38; Williams, 2009).

### **2.10.3 Relationship between OCB and IC in secondary schools**

Oplatka (2009) articulated that organizational citizenship behaviour (OCB) is a set of behaviour which is not considered as formal. While Vondey (2010) stated that OCB is a discretionary behaviour. Development of positive relationship between leader and follower in an organization will lead an organization and employee to do more beyond their stipulated duties (Kianfar et al., 2013). A study conducted by (Kianfar et al., 2013) in the state university of western Iran found a strong correlation between OCB and intellectual capital (IC) of the organization. Results of different studies also reveal that trust and OCB both enhance IC of the organizations (Kianfar et al., 2013). OCB can increase employees' commitment towards organization and enhance the growth of human resources. OCB will transform the organizational capabilities (Kianfar et al., 2013), and the relational capital (Kianfar et al., 2013). From these results it is found that OCB is useful in enhancing the IC of an organization.

The major threat to the measurement of intellectual capital is “IC illiteracy” because for organizational knowledge pre-requisite is the change of attitude. There are some barriers that exist in the measurement of intellectual capital, and these include insufficient

reimbursement, weak leadership, high societal status, and self-replicating organizational culture (Fazlagic, 2005). Among these factors the most important one is the leadership, which requires preference.

### **2.11 Research work on school leadership in Pakistan**

Quality of education is the main concern of parents in the education system of Pakistan. Various studies have been conducted to find the real problems with the quality of education. Khan (2013a) conducted a qualitative study in community schools and government schools to find out the instructional contribution in terms of quality. The study confirmed Andrabi et al. (2008) that the private schools in Pakistan deliver quality education. The reason behind the failure of quality education in government schools where highlighted as incompetency of the principals, lack of job oriented training and lack of accountability and support of instructional oriented officials. It is highly astonishing that in Pakistan although private schools are facing severe infrastructure problems, they still produce good results. There should be some reasons to why private schools show better performances than government schools? The main factors behind the success of private sector schools are the quality instruction and the monitoring system (Iqbal, 2012). Khan (2013b) conducted a qualitative study to find out the impact of foreign funded projects upon head teachers professional development in northern areas of Pakistan. He found that funds are not use appropriately; composite curriculum was not designed to peruse this training. Since such kind of training lacked in many aspects organized to improve quality of instruction in schools, he further suggests that the Government of Pakistan should introduce recruitment policy, promotion policy and development of schools leaders. From this study he also highlighted that principals in Pakistan have very minimal opportunities for professional development. These trainings



are conducted under the foreign funded projects and only a small number of principals can avail the opportunity.

It is also a fact that the level of performance of any education system can be judged from the quality of teachers (Barber & Mourshed, 2007). Niazi (2012) conducted a study in Karachi by taking 20 government schools and 20 private schools to find out the impact of school leadership on educational practices. She articulated that in Pakistan most of the leaders and teachers who joined education department are not devoted to this profession. They joined this department either because they were not able to get a job in another department or they considered it as the easiest job they could do. Further, she reiterated that staff development is not possible without the knowledge and experience of the principal. She added that among the many problems, teacher factor is one. When teachers are not performing their job, then the quality of instruction will be affected. According to (Niazi, 2012) teachers do not show interest in school matters, and the school heads do not involve teachers in vision development and decision making processes.

Researchers argue that, among others, lack of intellectual capital (IC) in schools is the main reason for low quality of education in government schools. Apart from the teachers the most important role is that of the principal working in these schools. The deficiency in IC can be improved with the help of effective school leaders (McKenzie et al., 2005). National Education Policy 2009 (NEP, p-42), of Pakistan also endorses the statement given by McKenzie et al. (2005) that, to improve the quality of teachers' education, leadership is considered the most important factor in any education system. High quality of teaching and leadership are most necessary for all successful education system (Peleg, 2012). In order for the improvement of the education system of Pakistan

more emphasis and concern should be given to the professional development of principals and in-service training for the teachers. Principals should be updated more with professional skills so that they can apply these skills for the development of their staff, introducing new techniques, and providing a healthy environment for teaching and learning (Niazi, 2012). To bring efficiency in schools, she says effective school principal is mandatory and for creating such effective school principals there is a dire need of professional development. She argues further that a good instructional leader is someone who arranges teachers' development programs, shares views and works with staff, concentrates on curricula, shows interest in innovations and solves problem, and for that to happen, the leader must be trained in the first place.

Since intellectual capital (IC) has a direct influence on school effectiveness, it is also considered as a parameter to be gauged for the performance of a school. The key factor, which influences the IC, is principal leadership skills (PLS). Professionally developed principal motivates teachers and this result in greater achievements of the students. Alam (2012) conducted a study in Pakistan on the role of educational leader. He narrates that effective school leaders do not concentrate on management only. They also pay attention to various other challenges. Keeping in view the need for modern education, the role of principal has captivated the prime importance. It means that dynamic personality of a school leader is indispensable for producing effective results (Alam, 2012). In another view, Nasreen Hussain, 2011) drew everyone's attention towards the deep concern of the educationists about the shocking situation of education, elaborated its economic and social causes. Quoting examples from education sector, she illustrated how professional leaders controlled the challenging situation and converted threats into opportunities. According to her, leaders have vision to run an institute effectively by helping teachers and guiding students. Exploring the reasons for the

failure of principals in Pakistan, Khan, Saeed & Fatima (2009) mentions that head teachers are promoted from teacher posts. Since such teachers do not have any proper training to operate the school effectively, the “promotee”, in some cases has lesser qualification than his sub-ordinate teachers and that makes him an administrator rather than an academic advisor. An effective school leader says khan et al.(2009), should have proper training to operate the institute, and possess good command of academic knowledge. Similar findings are also highlighted in the study of Niazi, (2012). Besides vision, training, and possession of good academic qualification, creativity and innovation are a vital cord of effective principals. Normally, principals are found busy in solving problems rather than innovation and creativity. In this context, Rizwan (2011) conducted a study while comparing two schools one in Lahore, Pakistan and another in Coventry. In Lahore finding solutions to problems was the responsibility of head teacher only, while in Coventry it was the common responsibility of head and staff members. This research provides a deep insight regarding the leadership differences in developed and developing countries. Using a qualitative approach qualitative approach of a case study to the graduates of M.Ed. At Nort Dame Institute of Education (NDIE), and interviews and studying the documentary record of ACU (Australian Catholic University) and NDIE. Rizvi (2010) articulates that private sector is also in competition to provide the educational opportunities to the children. However, there is a need for improvement in the teaching-learning process, and capacity building measures ought to be taken in this regard. There are some organizations which are already providing their services to boost the educational level of the people. One such institute, the NDIE provides quality education to produce educational leaders. Relatively, little has been researched on the role and impact of educational leaders within education systems in developing countries, especially Pakistan (Rizvi, 2010; Simkins et al., 2003). Majority of the educational institutes in Pakistan are functioning without sufficiently qualified

and trained leaders. Such circumstances stress to bring certain reforms in the field of educational leadership in Pakistan (Rizvi, 2010). On the other hand, Tariq et al. (2012) conducted a mixed method study to compare the role of principals in both private and public schools in Karachi, Pakistan. The private schools share their vision while that is not a practice in the public schools. Similarly, private school principals have trust and confidence in their teachers and students. In contrast, this attitude is least found among school principals in the public schools. Private school principals appreciate the work and achievements of their teachers while public school principals do not follow this pattern of leadership. Therefore it is concluded that the quality of education is better in the private schools as compared to the public schools ones.

Salfi (2011) conducted a descriptive study in 2007, upon 351 secondary school principals and 702 elementary teachers in the province of Punjab, Pakistan. Data collected through a mixed method approach like, review of the related literature, documents showing school achievements and students attainments. Questionnaires and semi structured interviews were used as instruments for the determination of successful school leadership practices. Teachers' responses showed that their leaders share school vision with teachers and they have changed the school culture. They showed that their leaders have leadership skills and have developed a collaborative culture in schools, involving the staff in consultation and decision making. The principals were found to develop good relations with and among their teachers, such that the social capital in the school is helpful in improving students' progress. In another note, Dahar et al. (2010) conducted a study to find out the relationship between the leadership styles and academic achievements at all secondary schools stage in Punjab Pakistan. A total of 228 secondary and higher secondary schools were chosen from which 10 secondary school teachers and 20 secondary school students were randomly selected. Findings of this

study revealed that academic and autocratic leadership style has a positive impact on the student's achievements, while the Lessez-Fair leadership style has a negative one. Leadership is effective if it is helpful in enhancing academic achievement. He further argues that in different situations, different leadership styles are demanded and it all depends upon the ability of the leader that which style should be used in each situation. Talha (2011) conducted a study to find out the relationship between leadership behaviour and organizational commitment. Two questionnaires were distributed to gain knowledge about the behaviour of the secondary school leaders in Lahore, Punjab province, Pakistan and their followers' organizational commitment. Results of the study show that there is a strong correlation between the leadership behaviour and organizational commitment. Further reinforcement comes from Nawab (2011) who conducted a case study in rural area of Chitral Khyber Pakhtunkhwa province and describes the effective role of the instructional leader in the private school. The instrument used for this research study is separate interviews of principal and teachers. Findings indicated that a more efficient, skilled leader can utilize his staff for the desired outcomes, mere earning is not enough in private sector, and it is also the demand of the society to improve quality of education. For this, the instructional leaders should arrange some refresher courses for their teachers as this will flourish their hidden capabilities. He further argues that value should be given to teachers' suggestions and principals should trust them while taking some decisions regarding school issues. They are playing their part in the education system, so they require proper attention too. An efficient instructional leader will concentrate on such opportunities from their teachers for their valuable suggestion (Nawab, 2011). It is clear that an instructional leader will plan actively proper programmes, and will concentrate on teacher professional development, by involving teachers in solving various issues, giving them honour and highlighting their achievements in functions publically.

A study describing the impact of relationship behaviour and task oriented behaviour of an instructional school leader upon the school performance was carried out using three questionnaires, the leadership behaviour description questionnaire (LBDQ), the institutional performance questionnaire (IPQ) and leadership demographic checklist (LDC). The sample of the study included school principals, teachers, district educational officers and their subordinates. In this study Faisal, Azeem, Aysha, Amina & Nadeem (2012) revealed that leaders who possess knowledge of management courses show better performance. Apart from that, relation oriented behaviour and task oriented behaviour are mutually related and mutually lead the effectiveness of the school. In another study by Aziz ur Rahman Dar (2014) regarding OCB and organizational justice in Pakistani schools, using a case study group comprising ten respondents, 45% female and 55% were male in Pakistani educational institutes, it was found that a culture of co-operation, motivation, informality (OCB), participation and solidarity should be acquired to improve OCB in Pakistani schools. The current bureaucratic attitude of the leaders can spoil the motivation of teachers and may weaken OCB, while OCB is considered as the main factor in developing IC in secondary schools.

The literature discussed above portrays the situation in Pakistan. However, the case is different when we look into developed countries. In developed countries, successful schools believe in “we sink or swim together” as a part of their vision statement (Retallick, 2009). Similarly, the developed world schools put special emphasis on leadership skills of principals. Principals assume active roles in planning and evaluating specific staff learning activities and the overall professional development systems of schools (Murphy, Elliott, Goldring & Porter, 2007). Further effectiveness of teaching and learning is directly correlated with leadership ability of school principal (Salfi, 2011). At the moment there is no specific criterion to judge the performance of the

principal in Pakistan (Khan et al., 2009). The researcher's efforts will provide a bird's eye view about the principal leadership skills, and its relationship with OCB and intellectual capital in secondary schools in Pakistan.

## **2.12 Research gap**

While reviewing the literature, it has become apparent that by performing the leadership skills, the principals play key roles to school success. Likewise, organizational citizenship behaviour (OCB) also influences intellectual capital of the school. Nevertheless, present literature on educational leadership in Pakistan portrays a bleak picture regarding the influence of principal leadership skills and OCB on intellectual capital. This necessitates a research which will empirically test the relationship between principal leadership skills (PLS) as the independent variable and intellectual capital(IC) as the dependent variable by incorporating organizational citizenship behaviour (OCB) as a mediating variable (See conceptual framework in Fig.1.1).

This is basically a co-relational study; therefore the main focus of this study is the relationships between principal leadership skills, organizational citizenship behaviour, and intellectual capital in secondary schools in Pakistan. Dixon (2013) has conducted a study in Nigerian high schools about the relationships among servant leadership, OCB and school climate. However, present study intellectual capital(IC) belongs to the field of human economics/business education, OCB belongs to organizational effectiveness, while principal leadership skills (PLS) belong to the educational leadership. This is an interesting unification of human economics, education and business management to explain the leadership phenomena in educational settings. A study like this is hardly found in Pakistani context; therefore this study provides interesting contribution to the knowledge of body in the field of school leadership.

## **CHAPTER 3: METHODOLOGY**

### **3.1 Introduction**

This chapter comprehensively explicates the methodology that is used in this study. The first section of the chapter briefly illustrates the research design. Subsequently, the population of the study, the sampling procedure and the construction of data collection instrument are explained. Further, this section of the study elaborates on the pilot study for testing the validity of the data collection instrument. The last part of the chapter encapsulates the techniques used to analyse the data and finds answers to the research questions.

### **3.2 Research design**

These are the specific procedures carried out in the research process, such as data collection, analysis and reporting ((Creswell, 2013).

#### **3.2.1 Co-relational design**

These are the procedures in a quantitative research in which the researcher measures the degree of relations/ associations between two or more variables through co-relational analysis. These associations show that whether these variables are related or one can predict another (Creswell, 2013).

#### **3.2.2 Survey design**

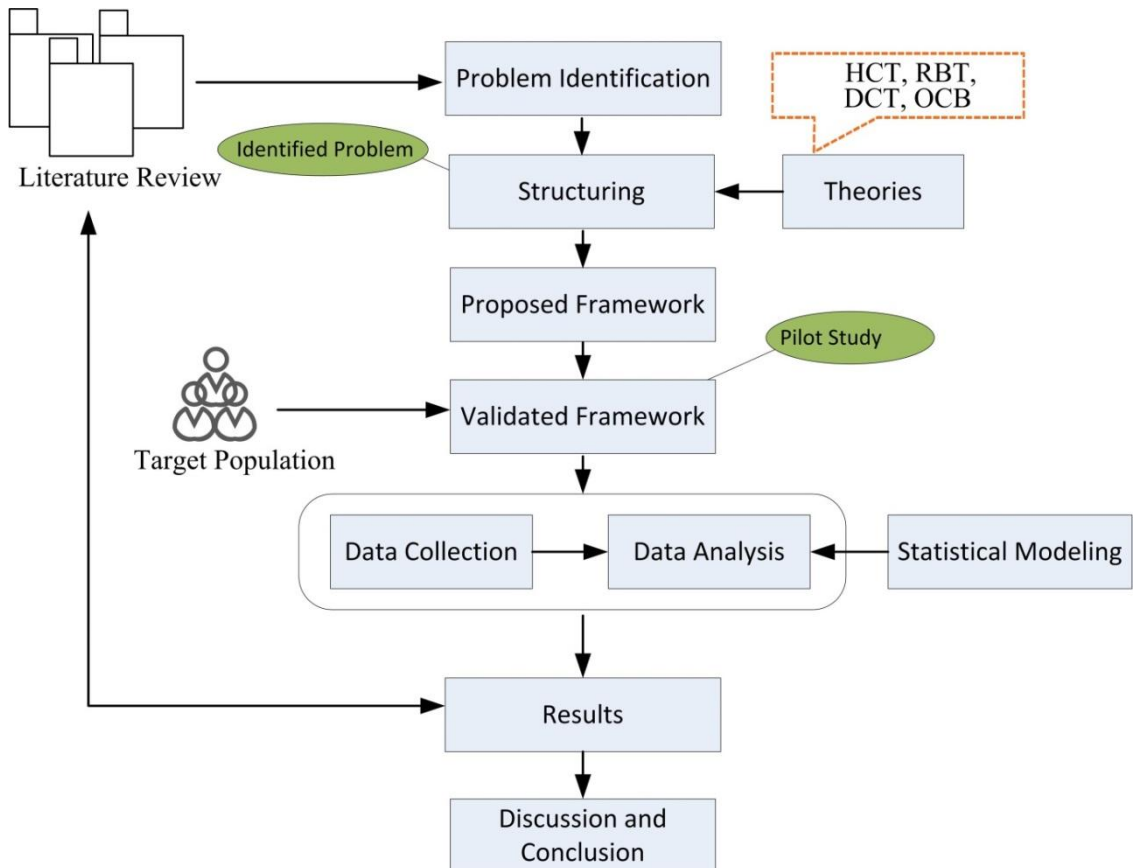
This is a procedure in quantitative research. The researcher administer a survey or questionnaire to the sample (people) to record their opinion , attitude or behaviour of a large group of people called population (Creswell, 2013).



This study uses a quantitative approach to data collection. The quantitative approach is used here to facilitate generalisations for the whole population. In such type of research, the researcher primarily uses postpositive statements for developing knowledge such as the use of the dimensions and observations or by testing specific theories and then adopts a strategy such as experiments or surveys. The researcher further collects data on the encoded instrument that produces statistical data (Creswell, 2013, p. 18). Creswell (2009, p. 18) stated that a quantitative approach is quite suitable for the “identification of factors that influence an outcome” or “understanding the best predictors of an Outcome” (p.18). The researcher in this study has conceptualised three constructs i.e. The Principal leadership skills (independent variable), organisational citizenship behaviour (mediating variable) and intellectual capital (dependent variable). Additionally, the demography of the respondents has also been included in the model. A closed ended questionnaire, encapsulating the dimensions of these variables, is used for data collection. A total of 74 schools affiliated with FBISE Islamabad, Pakistan are operating by Federal government, Pakistan Army and Fizaia (Pakistan Air Force) in Khyber Pakhtunkhwa province in Pakistan out of which 34 schools are visited by the researcher. Three schools were visited during the pilot study, while the other 31 schools were visited during final data collection. From each school, averages of 15 teachers were randomly selected. Thus, the total numbers of respondents during the pilot study were 45 out of which 34 responded well. While in the final study, the number of respondents was 465 out of which 408 responded rightly, detail is given in table 4.1. Study used structural equation modelling (SEM) coupled with descriptive statistical analysis and correlations tests, to analyse the results. These techniques were applied by using software namely SPSS-22 and AMOS-22.

### 3.2.3 Research process

From figure 3.1 illustrates the modus operands of conducting this research. The top panel of the figure explains the problem identification. Problem was identified from the available literature and then this problem was structured in light of some theories (RBV, HC, LMX, OCB). On the basis of these theories we draw the conceptual frame work of the study. The drawn frame work was validated through a pilot study and expert opinion. Then finally data collected from the target population through a survey instrument and analysed with the help of statistical techniques, such as percentage distribution, Pearson correlation and structural equation modeling (SEM).



**Figure 3.1:** Research process

### 3.2.4 Population and sample

The population of the study was the secondary school teachers affiliated with federal board of intermediate and secondary education Islamabad (FBISE), Pakistan. Following

stratified sampling procedures, the number of such affiliated schools is 74 (Appendix B). The List and addresses of these schools have been taken from the website of federal board ([www.fbise.edu.pk](http://www.fbise.edu.pk)). The researcher obtained permission to visit these schools from the respective authorities (see permission letters in appendices H, I, J, K). Schools included in this study are shown in Table 3.1 below which are situated in safe area on the basis of judgement sampling. These schools selected were in Khyber Pakhtunkhwa (formerly known as NWFP) Province of Pakistan, due to lower human development indicators and typically conservative attitudes towards co-education (Andrabi, Das, & Khwaja, 2006). The role of the co-education schools in country development is more crucial (Andrabi et al., 2006). The majority of the schools in this study are co-education, with male and female staffs teaching in these schools. In contrast the secondary schools operated by provincial government are single sex based and it is very difficult to get permission for data collection in the girls' schools where only female staffs are inducted for teaching, and administration purpose.

**Table 3.1:** Distribution of sample schools according to federal board of intermediate and secondary education (FBISE), Islamabad, Pakistan.

S #	Schools' Parent organization	Category	Actual population	Sample of study
1	Federal Government	Government	34	21
2	Pakistan Army	Semi-Government	23	08
3	Private	Private	08	-----
4	Fizaia (Air Force)	Semi-Government	05	05
5	Frontier Constabulary	Semi-Government	03	-----
6	Fauji Foundation	Semi-Government	01	-----
	Total		74	34

The researcher took an average of 15 teachers (quota sampling) by random sampling from each school as respondents. Hence for data collection the number of respondents in the pilot study was 45(3\*15) by visiting three schools, while in the actual study, the

number of respondents was 465(31\*15). Therefore sample population possess characteristics of probability and non-probability sampling.

The survey instrument was distributed to a total of 465 respondents in the actual study. Complete and reliable number of questionnaires that were returned by the respondents was 408. So the response rate for the study was 90.6 %.

This study had a total population of 1260, from the sample size of 408, based on a confidence level 95% and a margin error of less than 4%. While Krejcie and Morgan (1970) say that, for a population of 1260, a sample of 295 would be sufficient with the confidence level of 95% and a margin error of 5%. There is a pre-requisite for the relationship between Cronabach alpha, sample size, effect size and power is a complex matter but the number of scores found can be considered (Hair, Black, Babin & Anderson, 2009). Therefore, this study took a sample size of 408, to ensure these pre-requisites. Further, this study has applied Structural equation modeling (SEM) technique approach. This approach requires a larger sample size (Kline, 2010). Further Barrett (2007) and Kline (2010) suggest that articles originating from a sample size less than 200 have always been rejected. Jackson (2003) and Kline (2010) given a rule of thumb for sample size suitable for using SEM, as N: q ratio (where N is the number of cases and q is number of statistical estimates).

### **3.2.5 Data collection instrument**

A close-ended questionnaire (See Appendix-A) was developed to collect the data. Questionnaires were distributed after approval of the regional directors and it was decided that no open ended question will be asked. So the instrument was close ended only. It comprises two parts; Part A: Demographic data and Part B: Leadership skills

measurement, organizational citizenship behaviour measurement, and intellectual capital measurement.

The Leadership Skills construct has been taken from three perspectives: namely transformational leadership skills (TLS), organizational leadership skills (OLS) and behavioural leadership skills (BLS). It is measured by 18 items on a Likert scale ranging from *1-(does not exhibit this skill)*, *2-(Exhibits this skill but not effective)*, *3- (Is somewhat effective)*, *4- (Is effective)*, to *5-(Is very effective)*. The items in this part have been adopted from Richter et al. (2012) with permission (See Appendix-D).

Twenty items are used to measure organizational citizenship behaviour on the basis of five factor model of Organ and Ryan (1995), measuring the five dimensions (altruism, civic virtue, consciousness, courtesy and sportsmanship comprising 20 items). A five point Likert scale ranging from *1-(Not true)*, *2- (Somewhat true)*, *3- (Quite true)*, *4- (True)*, and *5-(Very true)* was used with the permission by its developer (see Appendix-E).

To measure the intellectual capital, which is divided into two parts, namely human capital & social capital, self-developed instrument is used. Intellectual capital (IC) is composed of two main parts; human capital and social capital. A total of 23 items are used in this part of the instrument. A five- point Likert scale is used for measuring intellectual capital different labels are designated for different items: Items 48 -51. The scale ranges from *1-(Very low)*, *2-(Low)*, *3- (Somewhat low)*, *4-(High)*, and *5-(Very High)*. While for the rest of the items, 39 – 61 the scale ranges from *1- (Strongly disagree)*, *2- (Disagree)*, *3- (Somewhat agree)*, *4- (Agree)*, and *5- (Strongly Agree)*.

Detail of these variables along with its dimensions and items representing these dimensions are displayed in Table 3.2 below, and gives a brief overview of a number of items, variables and their dimensions.

**Table 3.2** Variables with its dimensions, and items representing these dimensions

Variable	Dimensions	Items distribution	Total items
Principal leadership skills (PLS). [Exogenous variable]	• Transformational leadership skills (TLS).	1 - 9 ( 9 items)	18
	• Organizational leadership skills (OLS).	10 – 14 (5 items)	
	• Behavioural leadership skills (BLS).	15 – 18 (4 items)	
Organizational citizenship behaviour (OCB) [Mediating variable]	• Altruism ( ALT)	19 – 22 (4 items)	20
	• Civic virtue (CV)	23 – 26 (4 items)	
	• Consciousness (CON)	27 – 30 (4 items)	
	• Courtesy (CSY)	31 – 34 (4 items)	
	• Sportsmanship (SMS)	35 – 38 (4 items)	
Intellectual capital (IC) [Endogenous variable]	a) Human capital (HC)	39-51 (13 items)	23
	• Education (EDU)	39-42 (4 items)	
	• Experience (EXP)	43-45 (3 items)	
	• Training (TRG)	46-49 (4 items)	
	• Skills & abilities(SAA)	50-51 (2 items)	
	b) Social capital (SC)	52-61 (10 items)	

### 3.3 Reliability and validity of data collection instrument

This study also confirms the reliability and validity.

#### 3.3.1 Validity

Validity is referring to the ability of an instrument supposed to be measured for a construct. According to (Hair et al., 2009) four test namely, face validity, convergent, construct and discriminate validity are important for ensuring the validity of any constructs.

### **Face validity**

It is more necessary to include experts and other relevant people in the questionnaire design process. Probably their suggestions will improve the questionnaire (Walonick, 2010). To ensure the face validity, questionnaires were sent to three experts in the field of educational leadership. They were required to ensure the validity of constructs keeping in view the theoretical basis of the study. After receiving their feedback (Appendix-F and Appendix-G) and on the basis of pilot study in Pakistan a meeting was arranged with two experts and some items were deleted and some items were rephrased from the survey instrument, because these items were not suitable in Pakistani context, so total number of items chosen for final data collection reduced from 82 to 61. Detail is given in Table 3.4.

### **Convergent validity**

This type of validity is related with the significance of the items. It can be verified through average variance extracted (AVE).

### **Construct validity**

It is related with the fitness indices (CFI, RMSEA, Chi-Sq/df) of an instrument, this can be confirmed by comparing the obtained values of indices with the threshold values for these indices.

### **Discriminant validity**

All the redundant items are either deleted or constrained, also the correlation between exogenous constructs  $\leq 0.85$ , it can be also judged through modification indices (MI), such that  $MI < 15$ .

Threshold values for validity and reliability given (Hair et al., 2009) and (Nunally & Bernstein, 1978) are given in Table 3.3 below.

**Table 3.3:** Test measurements indices for validity and reliability

Fitness indices	Acceptable value
GFI	>0.90
CFI	>0.90
RMSEA	<0.08
Ratio of Chi-square/ df	<5
AVE	≥0.50
CR	≥0.60
Cronbach alpha	≥0.77

**Note:** Results of reliability and validity are shown in Table 4.2

### 3.4 Pilot study

Prior to the actual data collection process, a pilot study was conducted in three Pakistani secondary schools situated in Khyber Pakhtunkhwa (KP) province, which are affiliated with FBISE Islamabad to investigate the reliability, validity, and relevance of items of all variables of the questionnaire. For the pilot study the instrument was prepared in both English and Urdu so that the respondents do not face any difficulty in understanding and hence responding. This Pilot study was conducted in mid-August by the researcher in three different schools such as two Federal Government schools and one Pakistan Army secondary school. Questionnaires were distributed among 45 teachers in these three schools, and 34 teachers responded completely to them this constitutes a response rate of 68 %, which is considered good.

On the basis of this pilot study the reliability of the instrument was checked and after consultation with experts of the research area some items were deleted as depicted in Table 3.4.



**Table 3.4:** Detail of items of the survey instrument

<b>Item</b>	<b>Original</b>	<b>Approach</b>	<b>Decision</b>	<b>Item rephrased</b>
A.	Sub-dimension: transformational leadership skills (TLS)			
1	Leads staff in establishing a school Vision.	Adopted	Accepted without any change	
2	Leads staff in establishing a set of goals to implement vision	Adopted	Accepted without any change	
3	Actively encourages staff input and participation to prioritize goals	Adopted	Accepted without any change	
4	Works toward whole staff consensus on important school wide issues and goals	Adopted	Accepted without any change	
5	Models and uses problem-solving skills to help staff reach consensus.	Adopted	Rephrased	Uses problem-solving skills to help staff to reach consensus.
6	Uses data to help staff prioritize goals.	Adopted	Accepted without any change	
7	Maintains high performance expectations for all staff.	Adopted	Rephrased	Expects high performance from all staff
8	Encourages and supports staff to self-evaluate progress in implementing school-wide goals.	Adopted	Accepted without any change	
9	Provides professional development activities to support school wide goals.	Adopted	Accepted without any change	
10	Actively models skills that support school-wide goals.	Adopted	Deleted	
11	Establishes leadership teams to guide implementation of school wide goals as needed.	Adopted	Deleted	

Continues..

<b>Item</b>	<b>Original</b>	<b>Approach</b>	<b>Decision</b>	<b>Items rephrased</b>
B.	Sub-dimension: organizational leadership skills (OLS)			
12	Provides and enforces clear school wide systems	Adopted	Deleted	
13	Provides and enforces clear school-wide practices	Adopted	Deleted	
14	Consistently monitors and modifies school-wide systems and practices as needed	Adopted	Deleted	
15	Keeps staff up-to-date on modifications to school-wide systems and practices	Adopted	Deleted	
16	Anticipates predictable problems and effectively responds to them	Adopted	Accepted without any change	
17	Assures school compliance with district, state, and federal regulations	Adopted	Rephrased	Makes sure that school agrees with district, province, and federal regulations
18	Promotes staff cohesion and cooperation	Adopted	Rephrased	Promotes staff unity and co-operation
19	Provides staff with materials, resources, and shared planning times as needed to implement school-wide goals	Adopted	Accepted without any change	

Continues..

Item	Original	Approach	Decision	Items rephrased
C.	Sub-dimension: Behavioural leadership skills (BLS)			
20	Actively exposes staff to research and rationale that supports the effectiveness of school-wide behavioural management systems	Adopted	Deleted	
21	Includes staff in decision-making Regarding behavioural management issues.	Adopted	Deleted	
22	Established a leadership team to guide implementation of school-wide behaviour management system	Adopted	Deleted	
23	Publicly supports this team's efforts	Adopted	Deleted	
24	Is an active participant on this team	Adopted	Deleted	
25	Supports this team's efforts to formulate an action plan to implement school-wide behavioural management plan	Adopted	Rephrased	Establishes school-wide behavioural management plan
26	Provides resources to implement school-wide behavioural management plan	Adopted	Accepted without any change	
27	Supports and recognizes staff who implement proactive behavioural management plan	Adopted	Rephrased	Supports and recognizes staff who helps in implementing behavioural management plan
28	Supports and recognizes student who display improved behavioural/social skills	Adopted	Accepted without any change	
29	Regularly informs students, staff ,parents, and community about procedures and progress toward meeting behavioural management goals	Adopted	Accepted without any change	
30	Consistently maintains agree upon school-wide behavioural management standards, systems and practices	Adopted	Deleted	
31	Ensures all staff know, understand, and follow agreed upon school-wide behavioural management standards, systems and practices		Deleted	

**Note:** Adopted from Richter et al. (2012).

Continues..

Item	Teachers in this school	Approach	Decision	Items rephrased
<b>a)</b>	<b>Sub-dimension: Altruism (ALT)</b>			
32	are committed to complete the given task in given time.	Self-developed	Accepted without any change	
33	are finding to help each other when there is a sharp notice issued for any assigned task.	Self-developed	Rephrased	are found to help each other when there is a sharp notice issued by principal for any assigned task.
34	find each other in helping state when there is lot of work assigned by principal.	Self-developed	Deleted	
35	feel no boredom when they find extra work to be done.	Self-developed	Accepted without any change	
36	feel a sense of cooperation among them.	Self-developed	Accepted without any change	
<b>b)</b>	<b>Sub-dimension: civic virtue (CV)</b>			
37	are trained such that they take part in extracurricular and co-curricular activities actively.	Self-developed	Accepted without any change	
38	always cooperate in conducting various functions at different occasions.	Self-developed	Accepted without any change	
39	have enough skills to prepare students for various activities.	Self-developed	Accepted without any change	
40	show interest in organizing an activity.	Self-developed	Accepted without any change	
41	are facilitated by principal for organizing various educational and social activities.	Self-developed	Accepted without any change	
<b>c)</b>	<b>Sub-dimension: Consciousness (CON)</b>			
42	always abide by rules and regulations set by administration.	Self-developed	Unchanged	
43	show a sense of responsibility among to complete any assigned task.	Self-developed	Deleted	
44	express their views on improving teaching learning process.	Self-developed	Accepted without any change	
45	consider themselves as part of the solution not the	Self-developed	Accepted without	

	problem		any change	
46	consider principal responsible attitude acts as a role model for teacher and student development.	Self-developed	Rephrased	consider that principal acts as a role model for teacher and student development
<b>d) Sub-dimension: Courtesy (CSY)</b>				
47	resolve their problems amicably among them	Self-developed	Rephrased	resolve their problems amicably among themselves
48	show sense of respect for each other when they discuss issues regarding job performance.	Self-developed	Accepted without any change	
49	solve students' problems in meetings so the students never find any conflict among teachers	Self-developed	Accepted without any change	
50	try to solve the problems of his/her colleagues.	Self-developed	Accepted without any change	
<b>e) Sub-dimension: Sportsmanship (SMS)</b>				
51	never lose heart, when they are not awarded on their achievements	Self-developed	Accepted without any change	
52	feel that the principal publically acknowledges the commendable efforts of the teachers in organizing various activities	Self-developed	Accepted without any change	
53	are trained such that they show sportsmanship behaviour when they do not achieve their goals.	Self-developed	Accepted without any change	
54	feel that the principal develops the sportsmanship spirit in them to achieve various academic and non-academic goals	Self-developed	Accepted without any change	
55	act like a team together with the principal to achieve curricular, co-curricular and extra-curricular goals	Self-developed	Accepted without any change	

**Note:** Organizational citizenship behaviour (OCB) Inventory (Self-developed from five factor model of Organ and Ryan ,1995).

Continues..

Item	Human capital	Approach	Decision	Items rephrased
<b>i. Sub-dimension: Education</b>				
56	High levels of education of our teachers contribute to the performance in our school.	Self-developed	Rephrased	Well qualified teachers are one of the reasons of remarkable output of the school.
57	Preference is given to the professional training while hiring a teacher in our school.	Self-developed	Rephrased	Academically and professionally trained teachers are appointed in our school
58	Our school encourages teachers to enhance their academic and professional qualification.	Self-developed	Accepted without any change	
59	The level of morality is high in our staff.	Self-developed	Rephrased	Our school staffs are well mannered.
<b>ii. Sub-dimension: Experience</b>				
60	Our school teachers possess rich work related experience.	Self-developed	Accepted without any change	
61	Contribution of teaching related experience in our school has a positive impact on its performance.	Self-developed	Rephrased	Teaching experience has a positive impact on school performance.
62	Our teachers have rich experience in organizing co-curricular activities Comparing with other schools.	Self-developed	Rephrased	Our teachers have rich experience in organizing co-curricular activities.
63	Longer organizational tenure of teachers contribute to our school's success	Self-developed	Deleted	
<b>iii. Sub-dimension: Training</b>				
64	Continuous professional development contributes to the performance of our school	Self-developed	Accepted without any change	
65	Continuous professional development of teachers is integral part of our school	Self-developed	Accepted without any change	
66	Please indicate your school's level in behind elements:	Self-developed	Accepted without any change	
67	Investment in in-service trainings	Self-developed	Accepted without any change	
68	Time spent on in-service trainings	Self-developed	Accepted without any change	

<b>iv. Sub-dimension: Skills and abilities</b>				
69	Inclination towards Technical training ,like ICT trainings	Self-developed	Accepted without any change	
70	Inclination towards Soft skills trainings	Self-developed	Rephrased	Inclination towards the provision of resources like ICT, Multimedia etc.
71	Teachers develop and discuss new ideas to improve teaching process and students outcome	Self-developed	Accepted without any change	
72	Teachers are always interested to learn new skills which enhance their professionalism	Self-developed	Rephrased	Teachers are always interested to learn and acquire new skills which enhance their professionalism
<b>Note:</b> Human capital (IC) Inventory (adapted from various research studies).				

Continues..

Item	Social capital	Approach	Decision	Items rephrased
73	Teachers are energetic and shows enthusiasm and ability while performing their organizational tasks	Self-developed	Rephrased	Teachers are energetic and enthusiastic while performing their organizational tasks
74	Teachers never avoid to take risk in the tasks assigned to ther	Self-developed	Deleted	
76	There is an observation of positive relations among principal and teachers in our school.	Self-developed	Accepted without any change	
77	Best social relations among teachers act as a role model to develop the same social relations among students in our school	Self-developed	Accepted without any change	
78	Best social relations among the teachers have developed a best network structure in our school	Self-developed	Rephrased	Best social relations among the teachers have developed a best social structure in our school
79	Mutual trust among the teachers has led to co-operation in various activities.	Self-developed	Accepted without any change	
80	Best practice of social relations among our principal, teachers and students is a step towards a societal change	Self-developed	Accepted without any change	
81	Decent behaviour of our teachers with principal, students and parents reflects their good social relations in our school.	Self-developed	Accepted without any change	
82	Every person has played his/her role to boost social relations in our school	Self-developed	Deleted	

**Note:** Social capital (SC) Inventory (Adapted from various research studies).

Three experts were contacted to check the content and construct validity of the instrument in a local context (Pakistan). After pilot study among the three experts two experts provided their feedback such that:



Expert-1 has approved all the dimensions of three variables PLS, IC, and OCB. He recommended certain changes in reducing or rephrasing various items belonging to the dimensions or sub-dimensions of these variables. Like items 5, 6, and 7 of TLS were rephrased and items 10, 11 were deleted as they were not suitable in the local context. Similarly items 12, 13, 14, 15 of OLS were deleted, while items 17, 18 are rephrased. Similarly items 20, 21, 22, 23, 24, 30, 31, were deleted and items 25, 26 and 27 are rephrased. For OCB, item 37 recommended deleting while, items 33 and 39 were rephrased. For education sub-dimension items 57, 59 are rephrased. For experience sub-dimension item 63 removed, while items 61, 62 are rephrased. In case of sub-dimension training two items 68, 69 are deleted. For sub-dimension skills and abilities item 74 is deleted and item 70 rephrased. For the sub-dimension social capital, items 81, 82 are deleted, while item 77 rephrased.

Expert 2 provided worthy feedback and suggested that items 12 and 13 are not clear and should be removed, expert 2 further suggested that remove item 20. While item 30 is not suitable in the local context and need to be removed. Item 37 and 41 are repeated, so one of them needs to be removed.

In light of these comments, survey instrument for this study was modified, such that some items were rephrased, while some are deleted and the rest are remained unchanged. Finally items were reduced from a total of 82 to 61.

An actual study conducted in the month of September in 31 secondary schools affiliated with FBISE Islamabad, in KP province of Pakistan. The value of the Cronbach Alpha according to (Nunally & Bernstein, 1978) should be  $\geq 0.77$  for the two stages (pilot and final study).

Table 3.5 below depicts the Cronbach Alpha values for the variables and their dimensions in the pilot as well as the final study

**Table 3.5:** Cronabach alpha values

Variables	Dimensions	Cronbach Alpha for Pilot Study	Cronbach Alpha for Final Study
PLS	TLS	0.94	0.98
	OLS	0.96	0.95
	BLS	0.95	0.93
	Overall	0.97	0.95
OCB	Altruism	0.68	0.91
	Civic Virtue	0.87	0.90
	Consciousness	0.92	0.91
	Courtesy	0.91	0.92
	Sportsmanship	0.84	0.91
	Overall	0.93	0.93
IC	Human Capital	0.55	0.96
	Social Capital	0.97	0.94
	Overall	0.88	0.94

Results show the Cronbach alpha for the pilot study is not suitable, hence after face validity and pilot study certain items were excluded and some statements are rephrased to get the required values. It is clear that the Cronbach alpha values for all variables and for their sub-dimensions meet the threshold value range and hence the internal consistency of the instrument to be up to the mark.

The analysis upon the actual study reveals the Cronbach alpha values for PLS as 0.97 and this is considered very high. The individual reliability coefficients for each measure, varies between 0.94 and 0.97, which is acceptable for a large study (Gay, 2002; Salfi, 2011) while the Cronbach Alpha values found by (Richter et al., 2012) for the same instrument for leadership skills ranged from 0.91 to 0.95, while value of Cronbach Alpha found by the researcher in pilot study, for OCB is 0.93 and for its five dimensions ranged from 0.84 to 0.93 and for IC is 0.88 and it remained between a range of 0.55 to 0.97 for its two sub-dimensions (Human capital and Social capital).

### **3.5 Data collection procedure**

Pakistan has five provinces and different schools are affiliated with FBISE, Islamabad in all these provinces. FBISE has systematic procedures for check and balance and more reliable operational procedures than any local board. It has an extensive network across the country. However the Khyber Pakhtunkhwa (KP) province is chosen for this study because different organizations run schools in this province enabling the researcher to find a variety of data. The researcher could access schools in the due course of time due to appropriate mileage between schools. The actual study was conducted in the month of September 2014, when the schools re-opened after the summer vacations, while the pilot study was conducted in mid-August, 2014. The researcher visited various public schools and semi- government (Pakistan Army and Pakistan Air Force) secondary schools in KP, province affiliated with FBISE, Islamabad, Pakistan and distributed the questionnaires among the participants and recollected them himself. So the whole process of the questionnaires distribution and its collection was administered by the researcher himself.

### **3.6 Research ethics**

Before visiting the sample schools affiliated with FBISE Islamabad, permission letters and contact numbers were obtained from the concerned authorities and the school leaders were informed prior to the visits. The permission letters from the regional directorate of these schools are attached as appendices-H, I, J, K. Respondents identity kept confidential and ethical values were strictly followed all along friendly environment was provided to the respondents and no biasness were shown by the researcher, at least to his knowledge.

### 3.7 Data analysis

Figure 3.2 shows the process of analyzing the collected data. Level of PLS, OCB, and IC measured through percentage distribution technique. The relationships between three variables PLS, OCB, and IC determined through structural equation modeling (SEM) technique and hypothesis tested. Further to check the robustness of results, the Pearson correlation was applied. Mediation and moderation effect was also investigated through SEM.

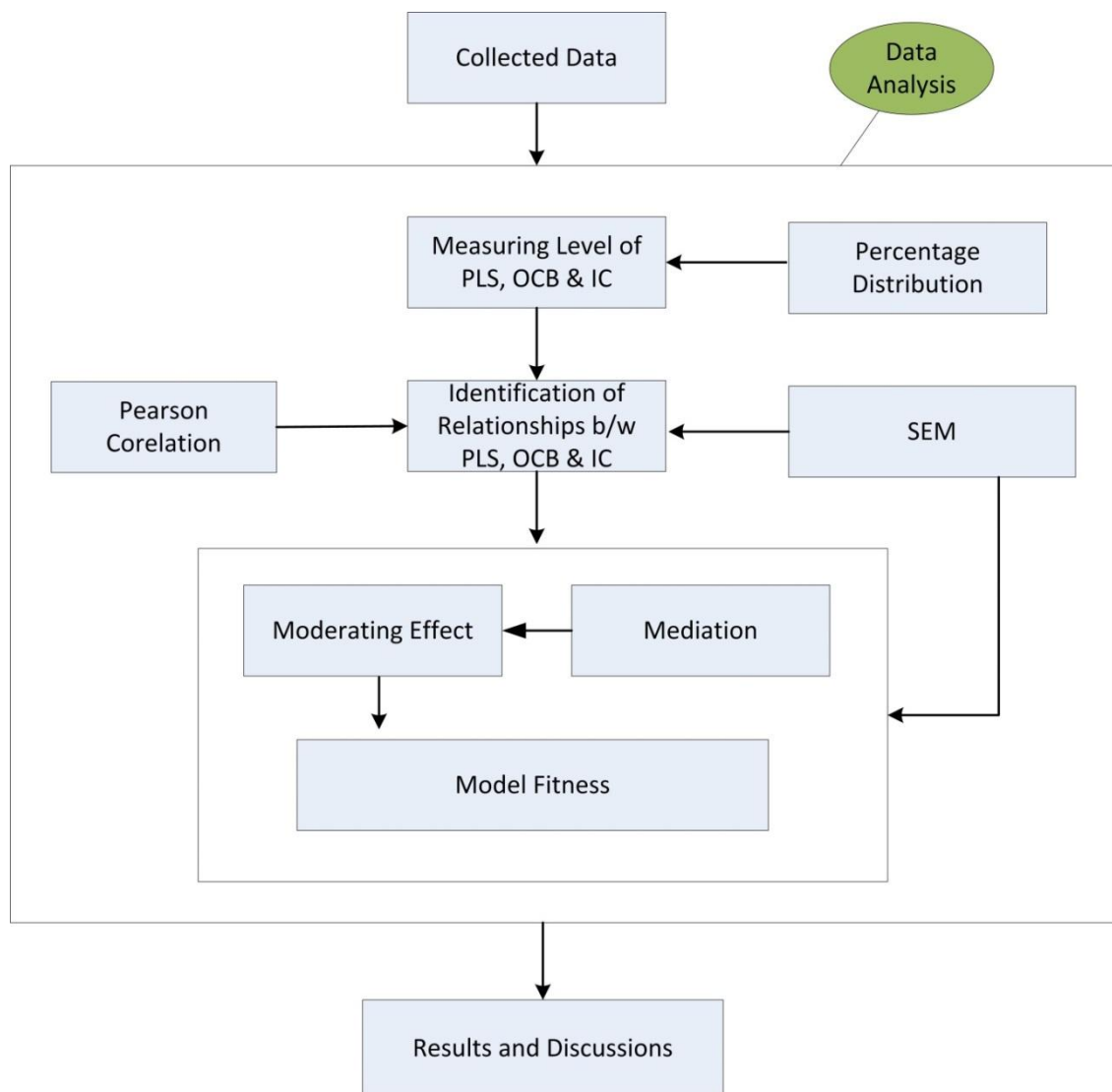
The basic technique used for analysis of the data is structural equation modelling (SEM) due to its authenticity and most suitable for the determination of mediation, relationship among various variables, determining error estimations and most appropriate for model fitness.

*Theoretical models* are hypothesized by the researchers, which can be tested in structural equation modelling (SEM) by finding that how set of variables are constructed and how they are correlated. Thus SEM develops our understanding of the complex relationship among the constructs. SEM combines path models and confirmatory factors models, i.e. SEM incorporate latent as well as observed variables (Schumacker & Lomax, 2012).

There are four reasons for using SEM,

- 1) SEM is the best technique to be applied for confirmation/disconfirmation of the theoretical model in a quantitative way.
- 2) Structural equation modelling is more useful in identifying and measuring the measurement errors, so useful in confirming validity and reliability of the instrument used in the research.

- 3) It can be used to analyse the more advance theoretical models, thus can analyse the data collected at more than one level, like data regarding schools, students, teachers can be analysed with SEM.
- 4) SEM software programs are user friendly and available in packages, like AMOS- Graphics etc



**Fig. 3.2** Data analysis process

This is a co-relational study that consists of one dependent variable (intellectual capital), one independent variable (principal leadership skills) and one mediating variable (OCB). Data were analysed with the help of SPSS version 22 and AMOS graphics, version 22.

Descriptive statistics such as frequency, mean, standard deviation, percentage and Pearson correlation were used. While SEM were used to answer some specific research questions. Details are given in Table 3.6,

**Table 3.6:** Intended data analysis according to research questions

Research question	Variable	Scale of measurement	Data analysis technique(s)
1. What are the levels of intellectual capital (IC) of the teachers?	IC 1. Human capital a. Education b. Experience c. Training d. Skills & abilities 2. Social capital	Interval	Descriptive statistics: Frequency, percentage distribution.
2. What are the levels of principal leadership skills (PLS) as perceived by teachers?	PLS 1. Transformational leadership skills 2. Organizational leadership skills. 3. Behavioural leadership skills.	Interval	Descriptive statistics: Frequency, percentage distribution.
3. What are the levels of organizational citizenship behaviour of teachers (OCB)?	OCB 1. Altruism 2. Civic virtue 3. Consciousness 4. Courtesy 5. Sportsmanship	Interval	Descriptive statistics: Frequency, percentage distribution.
4. Is there a significant relationship between PLS and intellectual capital of teachers (IC)?	PLS & IC	Interval	SEM and Pearson correlation
5. Is there a significant relationship between PLS and OCB of teachers?	PLS & OCB	Interval	SEM and Pearson correlation.
6. Is there a relationship between OCB and IC of teachers?	OCB & IC	Interval	SEM and Pearson correlation
7. Is OCB a mediator for the relationship between PLS and IC of teachers?	PLS, OCB, and IC	Interval	Mediator analysis, using SEM techniques
8. Is the	Demography, PLS,	Interval	Moderator

demographic (Sex) variable moderate the relationship between PLS and IC of schools?	and IC		analysis, using SEM technique
9. Does the proposed model that links the principals' leadership skills with the intellectual capital of teachers through organizational citizenship behaviour as mediator fit the data collected?	PLS, OCB, IC	Interval	Using SEM techniques

### 3.7.1 Analysis technique(s) for research questions 1, 2, and 3:

Research questions 1, 2, and 3 analysed through percentage distribution technique.

For the measurement of the level of intellectual capital, principal leadership skills, and OCB, researcher used percentage distribution technique. Polat (2009) conducted a study in Turkey to measure the level of organizational citizenship behaviour through the perception of principals and another study conducted by Dikshit and Dikshit (2014) in India to measure the level of OCB perceived by senior officers and average of arithmetic means given by these researchers are as follows:

- a. 1.00-1.79 as Quite low
- b. 1.80-2.59 as Low
- c. 2.60-3.39 as Medium
- d. 3.40-4.19 as High
- e. 4.20-5.00 as quite high.

Since Pakistan has a different environment and different educational system as compared with Turkey and India. Therefore, slight changes have been made by dividing

average arithmetic means in three categories as low, medium and high and an equidistant interval (1.33) has been chosen for the interpretation of these three arithmetic averages as follows:

- a. 1.00-2.33 as Low
- b. 2.34-3.67 as Moderate
- c. 3.68-5 as High.

### **3.7.2 Analysis technique(s) for research questions 4, 5, and 6:**

Research questions 4, 5, and 6 analysed through Pearson co-relation technique.

Rule of thumb for Pearson correlation given by (Cohen, 1988; Pallant, 2005, p. 126) is as under:

The effect size of the Pearson correlation( $r$ ) ranges between  $\pm 1$ . The value of ( $r$ ) shows the strength of relationship between variables, such that  $r = \text{zero}$ , shows no relationship,  $r = 1.00$  shows a perfect positive relationship,  $r = -1.00$  shows a perfect negative relationship, sign of  $r$  just shows direction only.

A correlation( $r$ ) = 0.01 to 0.29 or correlation( $r$ ) = -0.10 to -0.29 is consider as small. While a correlation( $r$ ) ranges between  $\pm 0.30$  to  $\pm 0.49$  is consider as medium and a correlation( $r$ ) between  $\pm 0.50$  to  $\pm 1.00$  is consider as large.

### **3.7.3 Analysis technique(s) for research questions 7, 8, and 9:**

Research questions 7, 8, and 9 analysed through structural equation modeling (SEM).

The basic technique used for analysis of the data is SEM due to its authenticity and suitability for the determination of moderation, mediation, relationship among various variables, determining error estimations and most appropriate for model fitness.

Theoretical models are hypothesized by the researchers, which can be tested in structural equation modeling (SEM) by finding that how a set of variables are



constructed and how they are correlated. Thus SEM develops our understanding of the complex relationship among the constructs. SEM combines path models and confirmatory factors models, i.e. SEM incorporate latent as well as observed variables (Schumacker & Lomax, 2012).

### 3.7.3.1 Model fitness

There are three stages of model fitness; these are absolute fit, incremental fit and parsimonious fit (Hair et al., 2009). For this purpose the most popular tests indices in AMOS are GFI, CFI, RAMSEA and Chi- square/df ratio. If using AMOS, the value of MI (Modification Index) found more than 15, then model require modification. Model fitness confirmed through these measurement indices. This goodness of fit indices along with its threshold values are given in Table 3.7,

**Table 3.7:** Goodness of fit indices

<b>Fitness indices</b>	<b>Acceptable value</b>
GFI	>0.90
CFI	>0.90
RMSEA	<0.08
Ratio of Chi-square/ df	<5
AVE	≥0.50
CR	≥0.60
Factor Loading	≥0.50
Cronbach alpha	≥0.70

**Source:** Hair et al. (2009)

### **3.8 Summary**

This chapter basically highlights how this study is organized, by describing different variables, related research questions covering all variables. This chapter describes the population, method of sampling, formulation of research instrument including validity and reliability, defining various methodological terms and providing critical values of different measurement indices for the comparison of the results of the contemporary study, method of data collection and different analysis techniques.

## **CHAPTER 4: RESULTS**

### **4.1 Introduction**

This chapter describes the demographic information, which is followed by some descriptive analysis upon level of principal leadership skills, organizational citizenship behavior, and intellectual capital. Some further in-depth analysis is also described in here. As proposed in chapter 1, the purpose of this study is to identify and analyze whether principal leadership skills are influencing intellectual capital directly or through the mediation of organizational citizenship behaviour. Specifically the study was undertaken to:

1. assess the level of intellectual capital (IC), principal leadership skills (PLS), and organizational citizenship behaviour (OCB) in secondary schools of Pakistan.
2. analyse the influence of principals' leadership skills on intellectual capital of secondary schools
3. examine whether organizational citizenship behaviour mediates the relationship between principals' leadership skills and intellectual capital of secondary schools
4. test whether the demographic variable (gender) is a moderator for the relationship between principal leadership skills and intellectual capital of secondary schools.
5. examine if the proposed model linking principals' leadership skill with the intellectual capital of schools through organizational citizenship behaviour as mediator, fits the data.

## 4.2 Demographic profile of the respondents

The demographic profile of the 408 teachers that includes gender, age, professional qualification, teaching experience, and academic qualification, is presented in Table 4.1 (the graphical version is shown in Appendix-L).

**Table 4.1:** Demographic profile of sample (408 teachers)

Demographic characteristics		Frequency	Percentage
Gender	Male	177	43.4
	Female	231	56.6
Age	25-30 Years	121	29.7
	31-35 Years	97	23.8
	36-40 Years	69	16.9
	More than 40	121	29.7
Professional Qualification	Certified teacher (C.T)	13	3.2
	Bachelor of Education (B.Ed.)	202	49.5
	Master in education (M.Ed.)	130	31.9
	Others	63	15.4
Experience	Less than one year	1	0.2
	1-5 Years	7	2.0
	6-10 Years	83	20.0
	11-15 Years	249	61.0
	16-20 Years	68	17.0
	More than 20 Years	0	0.0
Academic Qualification	Undergraduate	2	0.5
	Graduate	71	17.4
	Master	320	78.4
	Others	15	3.7

Among 408 respondents who took part in this study, one hundred and seventy-seven (43.4%) were male, while the rest of two hundred and thirty one (56.6%) teachers were female. In terms of age, 29.7% sample was of age between 25 to 30 years, while 23.8% was of age between 31 to 35 years, another 16.9% were aged between 36 and 40 years, and the remaining 29.7 % were aged more than 40 years. Thirteen (3.2%) teachers are certified teachers, while two hundred and two (49.5%) teachers possess a bachelor degree in education, and another one hundred and thirty teachers (31.9%) had their Masters, and the rest sixty three (15.4%) teachers seem to possess other professional qualifications such as M. Phil., Diploma, etc.

With regards to experience, 2.2% teachers have less than 5 years' experience, while 20% possess between 6 to 10 years of experience. Majority (61%) of the teachers possess between 11 to 15 years of experience. The remaining 17% have more than 15 years of experience. In particular, none of the sample has more than 20 years of experience as teacher. As for the academic qualifications, it can be noted that less than 1% teachers are undergraduates, while 17.4% of the sample are graduates. Majority of the sample (78.4%) have master's degree with another 3.7% having even higher degrees.

#### 4.3 Reliability and Validity of the instrument

The measured values of different indices for validity and reliability are given in Table 4.2

**Table 4.2:** Reliability and validity measurement indices

Construct	CR	AVE	Cronbach alpha
Organizational citizenship behaviour (OCB)	0.91	0.66	0.94
Intellectual capital (IC)	0.84	0.70	0.94
Principal leadership skills (PLS)	0.91	0.78	0.95

Table 4.2 indicates reliability and validity (convergent, construct and discriminant validity) for each of the variables, PLS, OCB, IC. It is clear that values of all the reliability and validity indices are within the required range of threshold values. Hence the instrument used is suitable to collect data from respondents.

#### 4.4 Normality of the data

**Table 4.3:** Descriptive statistics (N = 408)

Variable	Minimum	Maximum	Mean	SD	Skewness	Kurtosis
Principal leadership skills (PLS)	1.11	5.00	3.96	0.75	-1.12	1.47
Organizational citizenship behaviour (OCB)	1.05	5.00	3.86	0.70	-0.91	1.37
Intellectual capital (IC)	1.96	5.78	4.01	0.58	-0.48	0.25

Table 4.3 shows the values of Skewness and kurtosis. Based on the values, all three constructs of this study PLS, OCB and IC are normally distributed. Normality graphs are drawn as shown in appendix-M.

#### 4.5 Data analysis

In order to analyse the data for the study, with respect to the research questions posed, several techniques were employed as follows.

RQ1: What are the levels of intellectual capital?

This question was analysed using percentage distribution technique as shown in Table 4.4.

**Table 4.4:** Percentage distribution of level of intellectual capital (N=408)

Variable/ Sub-dimensions	Level of Intellectual Capital		
	Low (%)	Moderate (%)	High (%)
Experience (EXP)	0.2	1.7	98.0
Education (EDU)	0.2	2.0	97.8
Social capital (SC)	0.1	2.7	97.3
Human capital (HC)	0.2	2.7	97.1
Training (TRA)	0.7	6.6	92.6
Skills & abilities(SA)	8.6	24.8	66.7
<b>Intellectual capital (IC)</b>	<b>0.1</b>	<b>2.2</b>	<b>97.7</b>

Based on the values of the mean, the level of intellectual capital (IC) was established into three categories: low, moderate and high as shown in Table 4.4. About 97.7 % teachers indicate that they possess high level of IC, while only 2.2% show moderate level and a mere 0.1 % teachers are at the low level in their IC. As we move into the details, we find that IC is divided into two main components: the human capital and the social capital. The human capital is further sub divided into four sub-dimensions: education, experience, training, and skills and abilities. In terms of the experience sub-dimension, the table indicates that 98% teachers are at high level, with 1.7% at moderate and the rest of 0.2% at the low level. In the case of education sub -dimension,

a similar trend is being observed with 97.8% teachers at the high level and 2% at the moderate level with the rest of 0.2% at the low level. The third sub-dimension of training also displays a similar pattern of distribution with a little variation in its values: 92.6% at the high level, another 6.6% at the moderate level while 0.7% at the low level. As for the fourth and final sub-dimension of skills and abilities, it is found that only 66.7% teachers are at the high level, with about 24.8 % at the moderate level and the remaining 8.6% are at the low level. These variations in the values do suggest some interesting phenomena upon the human capital shown by the teachers. It is found that among the four sub-dimensions within the human capital dimension, it is the experience sub-dimension that hits the high level (98.0%) response more in terms of percentage followed by education (97.8%), training (92.0%) and skills and abilities (66.7%) sub-dimensions. This pattern has a clear bearing upon the system of selection of school principals which is based on the experience of working at the moment.

Next, for the social capital dimension 97.3% teachers show that they are at the high level, with 2.7% at the moderate level and the remaining 0.1% at the low level. The combination of the two dimensions of human capital and social capital amounting to the intellectual capital therefore suggests that majority of the schools do possess high level of intellectual capital.

**Table 4.5:** Means and Std. deviation of two sub- dimensions of Intellectual capital (N=408)

	<b>Mean</b>	<b>Std. Deviation</b>
Social capital (SC)	4.11	0.64
Human capital (HC)	3.93	0.62

Table 4.5 indicates that teachers strongly agree that there is high development of social capital (Mean = 4.11, SD = 0.64) followed by the efforts of the principal for the development of human capital in these schools (Mean = 3.93, SD = 0.62).

**Table 4.6:** Means and Std. deviation of four sub-dimensions of human capital (N=408)

	<b>Mean</b>	<b>Std. Deviation</b>
Experience (Exp)	4.20	0.61
Education (Edu)	4.18	0.62
Training (Trg)	3.88	0.79
Skills and abilities (SAA)	3.28	1.21

Table 4.6 shows that among the sub-dimensions of HC, it is experience that scored high (Mean = 4.20, SD = 0.61) followed by education (Mean = 4.18, SD = 0.62), training (Mean = 3.88, SD = 0.79) and finally skills and abilities (Mean = 3.28, SD = 1.21).

**Table 4.7:** Education sub-dimension items in descending order of means and % age of level of agreement (N = 408).

		Education level in percentage					
<b>Item</b>	<b>Education</b>	<b>Mean</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
39	Well qualified teachers are one of the reasons of remarkable output of the school.	4.62	2.9	2.5	8.1	38.5	48.0
42	Our school staffs are well mannered.	4.21	0.7	1.7	13.0	44.9	39.7
40	Academically and professionally trained teachers are appointed in our school.	4.19	1.5	3.7	12.0	39.7	43.1
41	Our school encourages teachers to enhance their academic and professional qualification.	4.05	2.0	5.4	14.7	40.9	37.0

An in-depth analysis of items belonging to the sub-dimensions of education highlighted as in Table 4.7 that 48 % teachers strongly believe while 38.5 % more agree that main reason for their schools' success is the highly qualified teachers. Similarly 39.7% teachers strongly agree while 44.9% agree that they are well mannered. About 43.1% teachers strongly agree that most of the appointed staff is trained and there are no barriers if someone wants to improve further their qualification.



**Table 4.8:** Experience sub-dimension items in descending order of means and % age of level of agreement (N=408).

Item	Experience	Experience level in percentage					
		Mean	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
44	Teaching experience has a positive impact on school performance.	4.45	0.7	0.7	5.4	38.2	54.9
43	Our school teachers possess rich work related experience.	4.10	0.20	2.20	15.40	51.20	30.90
45	Our teachers have rich experience in organizing co-curricular activities.	4.04	0.5	5.9	18.9	38.2	36.5

Table 4.8 shows the items representing the experience sub-dimension arranged in descending order of mean. It can be seen that 54.9% teachers strongly agree and another 38.2% agree that rich teaching experience has a positive impact on school performance while 31 % teachers that they possess rich work related experience. About 37% teachers strongly agreed that the rich experience have enabled them to organize curricular and co-curricular activities

**Table 4.9:** Training sub-dimension items in descending order of means and % age of level of agreement (N=408).

Item	Training	Mean	Training level in percentage				
			Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
47	Continuous professional development of teachers is integral part of our school	4.21	1.2	3.2	10.5	43.1	41.9
46	Continuous professional development contributes to the performance of our school	4.20	0.5	3.4	11.0	45.3	39.7
			Very Low	Low	Somewhat	High	Very High
49	Time spent on in-service trainings	3.49	5.9	13.0	27.2	33.3	20.6
48	Investment in in-service trainings	3.39	8.3	13.0	28.7	30.9	19.1

Table 4.9 displays the items representing the training sub-dimension arranged in descending order of mean where 41.9% teachers strongly agree while 43.1% more agree that their schools concentrate on the continuous professional development for the teachers. They further contend (strongly agree = 39.7%, agree = 45.3%) that this professional development contributes to the school performance. While on the other hand, while only 19.1 % teachers' strongly agree while 30.9% more agree that funds are available for their professional development.

**Table 4.10:** Skills and abilities sub-dimension items in descending order of means and % age of level of agreement (N=408).

Item	Skills and Abilities	Skills and Abilities in percentage					
		Mean	Very Low	Low	Somewhat	High	Very High
51	Inclination towards the provision of resources like ICT, Multimedia etc.	3.28	11.5	15.7	24.0	29.0	18.9
50	Inclination towards Technical training ,like ICT trainings	3.27	13.5	13.2	22.3	31.1	18.9

The items representing the skills and abilities sub-dimension are depicted in Table 4.10 in descending order of mean. It shows only 18.9 % strongly agree while another 29% teachers agree that the management concentrates on the provision of ICT and multimedia resources. They also complain (very low = 13.5%, low = 13.2%) about the provision of technical training to improve their skills and abilities.

**Table 4.11:** Social capital items in descending order of means and % age of level of agreement (N=408).

item	Social Capital	Mean	Social Capital level in percentage				
			Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
60	Decent Behaviour of our teachers with principal, students and parents reflects their good social relations in our school	4.27	1.5	2.2	12.7	34.3	49.3
61	Best Practice of social relations among our principal, Teachers and Students is a Step towards societal change	4.21	0.2	2.7	15.2	39.2	42.6
57	Best social relations among the teachers act as a role model to develop the same	4.18	0.5	2.5	11.3	49.8	36

social relations among  
students in our school

58	Best social relations among the teachers have developed a best social structure in our school	4.11	0.2	3.7	14	49	33.1
54	Teachers are energetic and enthusiastic while performing their organizational tasks	4.2	0.2	3.2	12.7	44.1	39.7
56	There is an observation of positive relations among principal and teachers in our school	4.08	2.2	4.7	10.8	47.3	35
59	Mutual trust among the teachers has led to co-operation in various activities.	4.06	0.5	4.4	13.5	51.2	30.4
55	There is best practice of social relations among the teachers in our school	4.03	1.2	4.9	11.5	53.7	28.7
53	Teachers are always interested to learn and acquire new skills which enhance their professionalism	4	2.2	4.9	20.3	43.6	30.9
52	Teachers develop and discuss new ideas to improve teaching process and students outcome	3.84	2.5	5.1	20.8	48.3	23.3

Table 4.11 shows the items representing the social capital arranged in descending order of mean. It can be seen that 49.3 % teachers indicate their strong agreement that there is best practice of social relations between principal, teachers and students in their schools, while 34.3 % teachers are found to agree with this statement. Further, these teachers perceive that the good relations have a positive impact on school performance. Meanwhile 30.9% teachers strongly agree while 43.6% more agree that they are

interested to enhance their professional skills. About 48 % teachers are found to agree that they discuss new ideas to improve the teaching process and student outcome.

RQ2: What are the levels of principal leadership skills?

This question was analysed using percentage distribution and Table 4.12 below shows the sub dimensions of principal leadership skills and the distribution of its levels.

**Table 4.12:** Percentage distribution of level of principal leadership skills (N=408)

Variable/ Sub-dimensions	Level of principal leadership skills		
	Low (%)	Moderate (%)	High (%)
Behavioral leadership skills (BLS)	4.9	21.6	73.5
Transformational leadership skills (TLS)	4.7	27.7	67.6
Organizational leadership skills (OLS)	4.9	27.9	67.2
<b>Principal leadership skills (PLS)</b>	<b>4.2</b>	<b>25.7</b>	<b>70.1</b>

About 70 % of the teachers indicate a high level of PLS, while about 26 % teachers show a moderate level and the rest of the 4% indicates low level. An in-depth analysis was conducted upon each of the three dimensions of the PLS: transformational leadership skills (TLS), organizational leadership skills (OLS) and behavioural leadership skills (BLS). In terms of the transformational leadership skills it is found that 67.0% of the teachers' seem to exhibit high level, 28.0 % teachers are at moderate level while rest of the 5.0% teachers show a low level. Similar trend is observed when we look at the second dimension, OLS. Some 67.0% teachers show a high level and 28.0 % teachers are found at moderate level while rests of the 5.0% are at the low level. With regards to the third dimension, BLS about 73.0% teachers indicate that they are at high level, while 22.0% teachers are at moderate level and rest of the 5% teachers are at low level. It is found that among the three dimensions within PLS, it is the sub-dimension BLS that traces a high level in terms of percentage followed by TLS and OLS.

**Table 4.13:** Means and Std. deviation of three dimensions of PLS (N=408)

	<b>Mean</b>	<b>Std. Deviation</b>
Behavioural leadership skills (BLS)	2.68	0.79
Transformational leadership skills (OLS)	2.62	0.78
Organizational leadership skills (OLS)	2.62	0.85

It can be found from table 4.13 that the most prominent leadership skill possessed by the principals are the behavioural leadership skills (Mean=2.68, SD=0.79), while transformational leadership skills having mean of 2.62 and SD of 0.78 and organizational leadership have received the same mean (2.62) and SD= 0.85. In-depth analysis of these three leadership skills: transformational, organizational and behavioural leadership skills follow next in the following tables,

**Table 4.14:** Transformational leadership skills items in descending order of means and % age of level of existence of transformational leadership skills (N=408).

Item	Principal	Mean	Does not exhibit this skill at all	Exhibit this skill but not effective	Exhibit this skill somewhat	Exhibit this skill effectively	Exhibit this skill very effectively
1	expects high performance from all staff.	4.21	3.2	2.5	14.2	29.9	50.2
2	provides professional development activities to support school wide goals.	3.95	3.7	8.3	19.1	38.0	30.9
3	actively encourages staff input and participation to prioritize goals	3.94	2.7	6.4	17.4	40.7	32.8
4	encourages and supports staff to self-evaluate progress in implementing school-wide goals.	3.93	4.7	4.9	16.4	40.2	33.8
5	works toward whole staff consensus on important school wide issues and goals	3.92	3.4	6.6	15.2	43.1	31.6
6	actively encourages staff input and participation to prioritize goals	3.91	3.4	6.6	15.2	43.1	31.6

Continued..

Item	Principal	Mean	Does not exhibit this skill at all	Exhibit this skill but not effective	Exhibit this skill somewhat	Exhibit this skill effectively	Exhibit this skill very effectively
1	uses problem-solving skills to help staff to reach consensus.	3.88	3.2	2.5	14.2	29.9	50.2
2	anticipates predictable problems and effectively responds to them	3.84	3.7	8.3	19.1	38.0	30.9
3	leads staff in establishing a school Vision.	3.01	29.4	-	13.7	53.9	2.9

Table 4.14 shows the items representing transformational leadership skills arranged in the descending order of mean, it can be observed that the principals are found to expect high performance from all staff (Mean=4.21), followed by the skill to provide professional development activities for the teachers to achieve school wide goals (Mean=3.95), While the lowest skill of the principal is perceived to be the ability to lead staff in establishing school vision (Mean=3.01). This means that these principals have the leadership skills but they rarely use these leadership skills for developing school vision.



**Table 4.15:** Organizational leadership skills items in descending order of means and % age of level of existence of organizational leadership skills (N=408)

Item	Principal	Mean	Does not exhibit this skill at all	Exhibit this skill but not effective	Exhibit this skill somewhat	Exhibit this skill effectively	Exhibit this skill very effectively
10	makes sure that school agrees with district, province, and federal regulations	4.12	2.2	5.4	13.5	36.0	42.9
11	promotes staff unity and co-operation	4.10	3.9	6.4	12.3	30.6	46.8
12	provides staff with materials, resources, and proper planning to achieve school-wide goals	3.90	4.7	7.4	13.2	42.4	32.4
13	establishes school-wide behavioural management plan	3.80	4.2	7.4	18.6	43.6	26.2
14	provides resources to implement school-wide behavioural management plan	3.73	4.9	7.8	21.3	41.2	24.8

An in-depth analysis of items representing organizational leadership skills, as in Table 4.15, shows that teachers perceive that their principals are very keen to observe rules and regulations set by the high authorities and they make sure that staff also observe these rules (Mean=4.12). This is followed by their efforts to promote staff unity and co-operation on various issues (Mean=4.10). The lowest organizational leadership skills

(Mean=3.73) was registered for the efforts of the principals top provide resources for the implementation of behavioural management plan (Mean=3.73).

**Table 4.16:** Behavioural leadership skills items in descending order of means and % age of level of existence of behavioural leadership skills (N=408)

Item	Principal	Mean	Does not exhibit this skill at all	Exhibit this skill but not effective	Exhibit this skill somewhat	Exhibit this skill effectively	Exhibit this skill very effectively
15	regularly informs students, staff ,parents, and community about procedures and progress toward meeting behavioural management goals	4.07	2.5	4.9	15.2	37.2	40.0
16	ensures all staff know, understand, and follow agreed upon school-wide behavioural management standards, systems and practices	4.01	3.2	4.2	17.4	38.5	36.8
17	supports and recognizes student who display improved behavioural/social skills	4.00	4.2	5.4	16.7	41.9	31.9
18	supports and recognizes staff who helps in implementing behavioural management plan	3.91	4.2	5.4	16.7	41.9	31.9

Table 4.16 shows items representing behavioural leadership skills arranged in descending order of mean. It can be seen that teachers perceive that their principals possess the skill of informing all the staff members, parents and students regarding behavioural management plan (Mean=4.07). This is followed by the behavioural skill of ensuring that all the staff understand, know and follow, agree upon standards, system, and practices (Mean=4.01). The lowest sub-dimension of behavioural leadership skills is supporting the staff who help them in behavioural management plan (Mean=3.91).

**RQ3:** What are the levels of organizational citizenship behaviour?

This question was analysed using percentage distribution and the results are as shown in Table 4.17

**Table 4.17:** Percentage distribution of level of OCB (N=408)

Variable/ Sub-dimensions	Level of organizational citizenship behaviour		
	Low (%)	Moderate (%)	High (%)
Consciousness (CON)	0.7	3.9	95.3
Courtesy (CSY)	1.2	5.6	93.1
Altruism (ALT)	1.0	8.1	90.9
Sportsmanship (SMS)	1.2	10.3	88.5
Civic virtue (CV)	0.7	11.0	88.2
<b>Organizational citizenship behaviour (OCB)</b>	<b>0.7</b>	<b>5.9</b>	<b>93.4</b>

Table 4.17 indicates that ninety three percent (93%) teachers indicate that they exhibit high level of OCB, while only 6.0% teachers show moderate level and a mere 1.0 % teachers show low level in their OCB. As mentioned earlier, OCB is divided into five components: altruism, civic virtue, consciousness, courtesy and sportsmanship. The sub-dimension of consciousness found that 95.0% teachers indicate high level, while 4.0% signifying moderate and 1.0% teacher showing a low level. The second sub-dimension courtesy found that 93% teachers indicate that they are at high level while

6.0% are at the moderate level and the remaining 1.0% at low level. With regards to altruism sub-dimension, 91.0% teachers indicate that they are at high level, while 8% are at moderate level and remaining 1.0% are at low level. As for the sportsmanship sub-dimension it is found that 89.0% teachers show high level, while 10.0 % teachers show moderate level and only 1.0% teachers show low level. Finally, for the civic virtue sub-dimension, 88.0 % teachers are found to indicate high level while 11.0% teachers indicate moderate level and the rest 1% are at low level. An inclusive snapshot of Table 4.17 reveals that variations in the values do recommend some phenomena upon the OCB shown by the teachers. It is observed that among the five dimensions within the OCB, it is the courtesy sub-dimension that dashes high level response in terms of percentage followed by altruism, consciousness and sportsmanship. This pattern might suggest some bearing upon the present system of selection of school principals that promotes culture of courtesy, altruism, consciousness and sportsmanship among the staff members.

**Table 4.18:** Means and Std. deviations of five dimensions of OCB (N=408)

	<b>Mean</b>	<b>Std. Deviation</b>
Consciousness (CON)	3.99	0.73
Courtesy (CSY)	3.99	0.79
Civic Virtue (CV)	3.83	0.88
Sportsmanship (SMS)	3.77	0.86
Altruism (ALT)	3.72	0.82

It is found from the Table 4.18 that in these schools, the most practiced sub-dimension of OCB by the teachers are consciousness (Mean=3.99, SD=0.73) and courtesy (Mean=3.99, SD=0.79). The next sub-dimension observed by the teachers is the civic virtue (Mean=3.83, SD=0.88), followed by sportsmanship (Mean=3.77, SD=0.86) and altruism (Mean=3.72, SD=0.82).

**Table 4.19:** Altruism items in descending order of means and % age of level of agreement (N=408).

Item	Teachers	Altruism level in percentage					
		Mean	Not True	Some What True	Quite True	True	Very True
19	are committed to complete the given task in given time.	3.98	2.00	8.60	9.80	48.50	31.10
20	are found to help each other when there is a sharp notice issued by principal for any assigned task.	3.98	2.90	7.60	12.50	41.90	35.00
22	feel a sense of co-operation among themselves.	3.82	2.70	10.50	17.40	40.70	28.70
21	feel no boredom when they find extra work to be done.	3.12	10.00	29.70	14.20	30.40	15.70

Table 4.19 shows the items representing altruism in descending order of mean. It can be seen that teachers in these schools are committed to complete a given task in time (Mean=3.98), and they help each other on different on occasions (Mean=3.98) and find each other very cooperative (Mean=3.82), and they even feel no boredom when they have to do some extra work (Mean=3.12).

**Table 4.20:** Civic virtue sub-dimension items in descending order of means and % age of level of agreement (N=408).

		Civic virtue level in percentage					
Item	Teachers	Mean	Not True	Some What True	Quite True	True	Very True
25	have enough skills to prepare students for various activities.	3.91	2.00	11.80	12.30	40.40	33.6
26	are facilitated by principal for organizing various educational and social activities.	3.86	5.10	9.60	12.50	39.20	33.6
24	always co-operate in conducting various functions at different occasions.	3.85	3.40	11.80	12.30	40.40	33.6
23	are trained such that they take part in extracurricular and co-curricular activities actively.	3.68	3.40	11.80	15.20	34.80	34.8

Table 4.20 depicts items representing civic virtue sub-dimension arranged in descending order of mean. It can be seen that teachers know the tactics on how to prepare students for various activities (Mean=3.91), they also show that their principals are facilitators in organizing various academic and non-academic activities (Mean=3.86). Similarly they show that they cooperate each other in organizing an activity (Mean=3.85) and they are trained to take part in extracurricular and co-curricular activities (Mean=3.68).

**Table 4.21:** Consciousness sub-dimension items in descending order of means and % age of level of agreement (N=408).

		Consciousness level in percentage					
Item	Teachers	Mean	Not True	Some What True	Quite True	True	Very True
27	always abide by rules and regulations set by administration	4.13	2.00	3.40	12.70	42.40	39.50
28	express their views on improving teaching learning process	3.95	2.00	8.60	14.70	41.20	33.60
30	consider that Principal acts as a role model for teacher and student development	3.95	4.70	8.30	12.70	35.80	38.50
29	consider themselves as part of the solution not the problem	3.93	2.70	6.40	15.20	46.60	29.20

Items representing consciousness sub-dimension are arranged in descending order of means in Table 4.21. It is revealed that teachers are always found to abide by rules and regulations (Mean=4.13). These teachers share their views for the improvement of teaching learning process (Mean=3.95) and further, consider themselves as part of the solution and not the problem (Mean=3.93).

**Table 4.22:** Courtesy sub-dimension items in descending order of means and % age of level of agreement (N=408).

Item	Teachers	Mean	Courtesy level in percentage				
			Not True	Some What True	Quite True	True	Very True
32	show sense of respect for each other when they discuss issues regarding job performance.	4.06	2.20	6.10	13.00	40.70	38.00
34	try to solve the problems of his/her colleagues.	4.04	1.70	5.90	13.20	44.10	35.00
33	solve students' problems in meetings so the students never find any conflict among teachers	3.98	2.90	6.10	12.70	45.80	32.40
31	resolve their problems amicably among themselves	3.87	2.70	9.10	13.00	49.00	26.20

Items representing the courtesy sub-dimension are arranged in descending order of means in Table 4.22. They show that teachers respect each other (Mean=4.06), and they solve their colleague's problems (Mean=4.04), they also resolve their problems amicably among themselves (Mean=3.87).



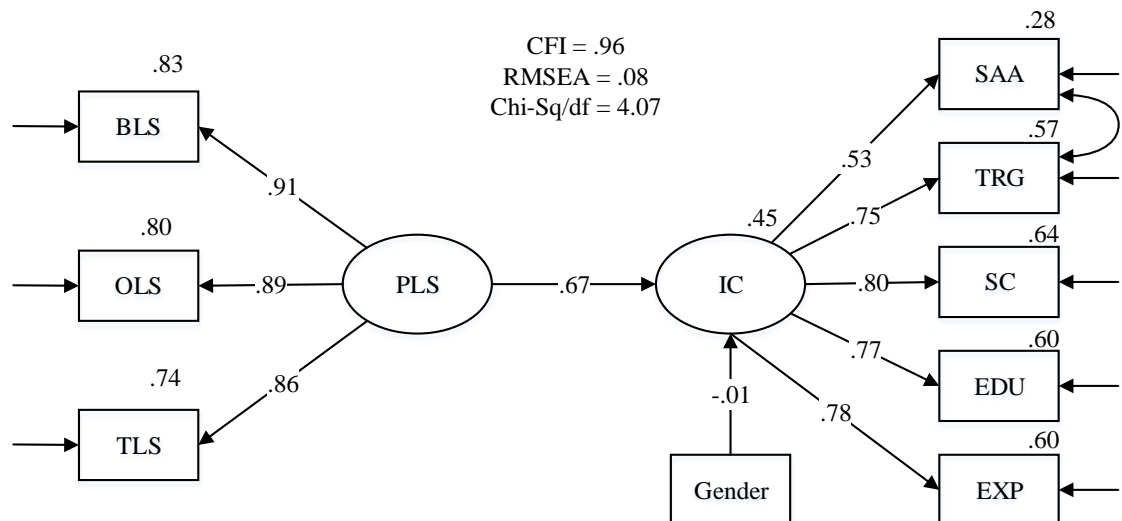
**Table 4.23:** Sportsmanship sub-dimension items in descending order of means and %age of level of agreement (N=408).

Item	Teachers	Mean	Sportsmanship level in percentage				
			Not True	Some What True	Quite True	True	Very True
38	act like a team together with the principal to achieve curricular, co-curricular and extra-curricular goals	4.07	1.70	5.90	14.00	39.70	38.70
37	feel that the principal develops the sportsmanship spirit in them to achieve various academic and non-academic goals	3.81	3.90	9.60	16.70	40.40	29.40
36	feel that the principal publically acknowledges the commendable efforts of the teachers in organizing various activities	3.80	3.90	9.30	17.20	41.20	28.20
35	never lose heart, when they are not awarded on their achievements	3.39	11.80	15.70	15.90	34.60	22.10

Table 4.23 shows the items representing the sportsmanship sub-dimension arranged in descending order of mean. It shows that teachers always show team performance (Mean=4.07), and they also believe that their principals develop sportsmanship spirit among teachers (Mean=3.81). Further, they state that they never lose heart even if no one acknowledges their performance (Mean=3.39).

**RQ4:** Is there a significant relationship between principal leadership skills (PLS) and the intellectual capital (IC)?

In order to analyze this relationship, structural equation model (SEM) was applied and the results of the proposed and estimated models are depicted in Figure 4.1. Before proceeding for relationship analysis, it is mandatory in SEM to affirm the fitness of individual and overall measurement model. Results [GFI=.947, CFI=.96, RMSEA=.087, Chi-sq/df=4.07] show that the overall model is fit for further analysis. Table 4.24 shows the results of hypotheses testing. Significant p-value at 5% illustrates that PLS has a significant effect on IC while an insignificant p-value depicts that gender has no influence on IC of schools.





**Figure 4.1:** Estimated model

**Table 4.24:** Hypothesis testing

		Estimate	S.E.	C.R.	P
IC <---	Gender	-0.01	0.056	-0.239	0.811
IC <---	PLS	0.67	0.070	9.048	0.000

In order to have an in-depth analysis, the Pearson correlation test was conducted and the results are as in Table 4.25.

**Table 4.25:** Correlation between principal leadership skills (PLS) and intellectual capital (IC) (N=408)

PLS IC	 	HC	SC	Overall IC
TLS		0.584**	0.530**	—
OLS		0.571**	0.480**	—
BLS		0.538**	0.463**	—
Overall PLS		—	—	0.626**

**Note:** p\*\* < 0.01, p\* < 0.0

From Table 4.25, it can be seen that the correlation values between sub-dimensions of PLS and sub dimensions of IC indicate an overall strong relationship [ $r=0.626$ ,  $p<0.01$ ] between PLS and IC. It is necessary for school leadership to develop skills(Human capital) of the teachers through continuous learning and this has an impact on school improvement (Miantao Sun & Yang, 2014).

Further analysis upon each of the sub dimensions of PLS against those of IC shows notable relationships. The TLS sub-dimension has a strong and significant relationship [ $r=0.584$ ,  $p<0.01$ ] with human capital (HC), and also a strong and significant relationship [ $r=0.530$ ,  $p<0.01$ ] with social capital (SC). Better outcome is the result of transformational leadership, which develops good relations (Social capital) between leader and followers (Malik, M. E., Ghafoor, M. M., & Iqbal, H. K. (2012).

The OLS sub-dimension is found to indicate a strong and significant relationship [ $r=0.571$ ,  $p<0.01$ ] with HC, while a moderate and significant relationship [ $r=0.480$ ,  $p<0.01$ ] with SC. The last sub-dimension of PLS, the BLS seems to exhibit similar trend too. There is a strong and significant relationship [ $r=0.538$ ,  $p<.01$ ] between BLS sub

dimension and HC, and a moderate relationship [ $r=0.463$ ,  $p< 0.01$ ] between BLS sub-dimension and SC. In terms of strength, it is TLS that bears the strongest relationship with HC, followed by OLS and then BLS. On the other hand, the three sub-dimensions of PLS also observe similar configuration of relationships. Again, it is TLS sub dimension that exhibits the strongest relationship with SC followed by OLS and then BLS.

**RQ5:** Is there a significant relationship between principal leadership skills and organizational citizenship behaviour?

In order to examine if there exists significant relationship between these two variables, SEM techniques were carried out and the results obtained are given in Table 4.26 below,

**Table 4.26:** Hypothesis testing

	<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
OCB <--- PLS	0.74	0.05	14.64	0.00

The relationship between PLS sub dimensions and OCB sub-dimensions was further examined using Pearson correlation technique and the results are presented in Table 4.27.

**Table 4.27:** Correlation between PLS sub dimensions and OCB sub dimensions (N=408)

<b>PLS</b>	<b>OCB</b>					<b>Overall OCB</b>
	<b>ALT</b>	<b>CV</b>	<b>CON</b>	<b>CSY</b>	<b>SMS</b>	
TLS	0.569**	0.566**	0.587**	0.500**	0.631**	—
OLS	0.548**	0.590**	0.513**	0.462**	0.590**	—
BLS	0.519**	0.510**	0.492**	0.460**	0.569**	—
Overall PLS	—	—	—	—	—	0.687**

**Note:** p \*\* < 0.01, p \* < 0.05.

Table 4.27 shows the correlation values between PLS sub-dimensions and OCB sub-dimensions. From these results it is found that there is an overall high correlation [ $r = 0.687$ ,  $p < 0.01$ ] between PLS and OCB. Further analysis upon each of the sub-dimensions of PLS against those of OCB shows noteworthy relationships.

The sub-dimension, TLS has a strong and significant relationship with all OCB sub dimensions. There is a link between transformational leadership and OCB (Purvanova et al., 2006). However, it is the SMS sub-dimension that has the highest correlation [ $r = 0.631$ ,  $p = 0.00$ ] as compared with the other sub-dimensions. Similarly the sub-dimension, OLS indicates a high correlation with four sub-dimensions of OCB except with sub-dimension courtesy (CSY), where it shows a moderate and significant relationship [ $r = 0.462$ ,  $p < 0.01$ ]. Similarly, the sub-dimension, BLS possesses a high and significant correlation [ $r = 0.569$ ,  $p < 0.01$ ] with sub-dimensions sportsmanship (SMS), followed by altruism (ALT) [ $r = 0.519$ ,  $p < 0.01$ ], and civic virtue (CV) [ $r = 0.510$ ,  $p < 0.01$ ]. While BLS bears a moderate and significant relationship [ $r = 0.492$ ,  $p < 0.01$ ] with sub-dimension consciousness (CON) followed by a moderate and significant relationship [ $r = 0.460$ ,  $p < 0.01$ ] with courtesy (CSY). Behavioural leadership directly affects OCB (Eisenbeiss, 2012).

From these results it is quite evident that the SMS sub-dimension of OCB seems to be highly correlated to all three sub-dimensions of PLS.

**RQ6:** Is there a significant relationship between the organizational citizenship behaviour of teachers and the intellectual capital of secondary schools?

To answer this research question, SEM technique was applied and the results obtained are given in Table 4.28 below.

**Table 4.28:** Hypothesis testing

		<b>Estimate</b>	<b>S.E.</b>	<b>C.R.</b>	<b>P</b>
IC <---	OCB	0.91	0.09	9.06	0.00

The relationship between OCB and IC was further examined using Pearson correlation technique and the results are presented in Table 4.29.

**Table 4.29:** Correlations between OCB and IC (N=408)

<b>OCB</b>	<b>IC</b>		<b>Overall IC</b>
	<b>HC</b>	<b>SC</b>	
ALT	0.618**	0.650**	—
CV	0.637**	0.628**	—
CON	0.604**	0.595**	—
CSY	0.596**	0.663**	—
SMS	0.660**	0.613**	—
Overall OCB	—	—	0.791**

Note: p\*\* < 0.01, p\* < 0.05.

From the Table 4.29 it is found that there is an overall high correlation [ $r = 0.791$ ,  $p < 0.01$ ] existing between OCB and IC. An in-depth analysis as in Table 4.29 shows that there is high correlation between the five sub-dimensions of OCB and the sub-dimension human capital. Among these sub-dimensions, it is the SMS sub-dimension which hits the highest level of correlation [ $r = 0.660$ ,  $p < 0.01$ ] with human capital. Similarly high correlation also exists between the five sub-dimensions of OCB and the sub-dimension social capital, among which the highest correlation [ $r = 0.663$ ,  $p < 0.01$ ] was recorded between sub-dimensions CSY and SC.

**RQ7:** Is organizational citizenship behaviour (OCB) a mediator for the relationship between principal leadership skills (PLS) and intellectual capital (IC) of secondary schools?

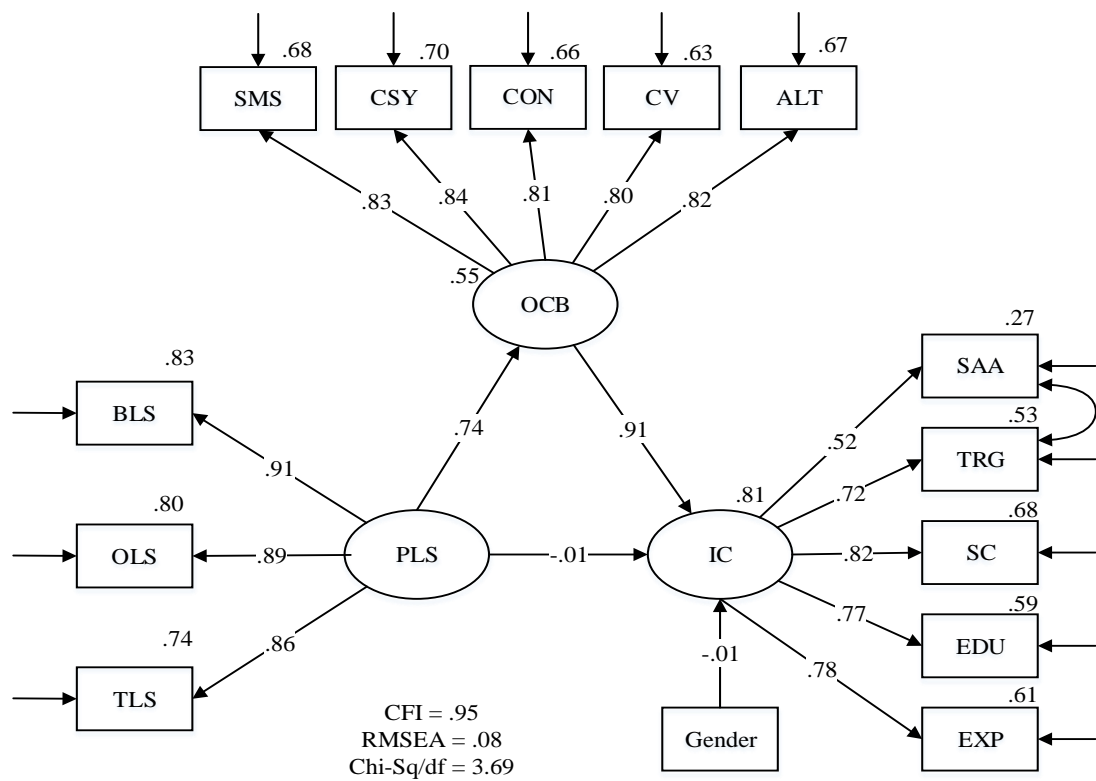
Knowing that all three variables (PLS, OCB and IC) are significantly correlated in the bivariate manner, therefore this significant correlation allows us for a mediator test. For this purpose SEM-AMOS was used. The direct effect of the PLS (Exogenous variable) on the intellectual capital (Endogenous variable), was found to be significant, as shown in Table. 4.30,

Note: All fitness indices achieved the required Level.

**Table 4.30:** The direct effect of principal leadership skills on intellectual capital

		Beta	S.E	C.R	p	Result
Intellectual capital (IC)	← Principal leadership skills (PLS)	0.67	0.07	9.05	0.00	Significant

When the mediator, organizational citizenship behaviour (OCB) is inserted in the model as shown in Fig 4.2, the subsequent results that were obtained are as shown in Table 4.31.



**Figure 4.2:** The AMOS output showing regression coefficient between the constructs  
(Note: All fitness indices achieved the required level.)

**Table 4.31:** Multiple regression weights

			Beta	S.E	C.R	p-value	Result
IC	←	PLS	-0.01	0.05	-0.15	0.87	Insignificant
OCB	←	PLS	0.74	0.05	14.64	0.00	Significant
IC	←	OCB	0.91	0.09	9.06	0.00	Significant

Table 4.31 strongly suggests that organizational citizenship behaviour (OCB) is a mediating variable for the relationship between principal leadership skills (PLS) and intellectual capital(IC), and the type of mediation that is observed here is considered as full mediation, because the direct effect of PLS on intellectual capital(IC) becomes insignificant when mediator OCB enters the model. The indirect effect becomes significant and this shows that PLS has an indirect effect on intellectual capital through the mediator variable OCB.



**RQ8:** Is the demographic variable (gender) a moderator for the relationship between Principal leadership skills and intellectual capital of schools?

**Analysis:** For the analysis of the demographic variable (gender), SEM analysis technique was performed. Value of p ( $p < 0.05$ ) determined whether the concerned demographic variable be used as moderator. A moderator either strengthens or weakens the relationship between the independent variable (predictor) and dependent variable (outcome/criterion). In this case, predictor is the principal leadership skills (PLS) while outcome is the intellectual capital (IC) of the secondary school teachers.

**Table 4.32:** Direct and indirect effect for control variable (Sex)

Effect	Variables	Beta	S.E	C.R	P-Value	Result
Direct effect	IC $\leftarrow$ Gender	-0.01	0.05	-0.24	0.81	Insignificant
Indirect effect	IC $\leftarrow$ Gender	-0.01	0.04	-0.21	0.83	Insignificant

#### **Gender as moderator between PLS and IC**

When gender was used as a demographic variable to be tested for moderation, then from SEM analysis in case of direct effect (Table 4.32) between PLS and IC the value of p (0.81) is greater than 0.05, which is not a significant value. This shows that gender does not affect the relationship between PLS and IC. When a mediator (OCB) was inserted, then indirect effect (Table 4.32) the value of p found (0.83), which is greater than threshold value, this means that value of p is insignificant hence sex can't be used as control variable to affect relationship between PLS and IC in both direct and indirect effect cases.

**RQ9:** Does the proposed model that links the principal leadership skills with the intellectual capital of teachers through organizational citizenship behaviour as mediator fit the data collected?

This is a study to investigate the relationship between principal leadership skills (PLS) and intellectual capital (IC) with organizational citizenship behaviour (OCB) acting as a mediator for the relationship.

The bivariate correlation between principal leadership skills (PLS) and intellectual capital (IC), principal leadership skills (PLS) and organizational citizenship behaviour (OCB), and organizational citizenship behaviour (OCB) and intellectual capital (IC) suggests strong indication that there could be a mediation phenomenon by organizational citizenship behaviour (OCB) for the relationship between principal leadership skills (PLS) and intellectual capital (IC). Further analysis using SEM-AMOS technique shows that there is indeed a full mediation by OCB upon the relationship between principal leadership skills and intellectual capital. With that in mind and focus, the proposed model that links Principal leadership skills with intellectual capital through organizational citizenship behaviour does fit the data collected. SEM-AMOS version 22 was used to verify this effect and to check if the proposed model fits the data. For model fitness, Hair et al. (2009) recommend three type of fitness: Absolute fit, increment fit and parsimonious fit. All these three fitness tests have their own indices. However in this study one index has been taken from each test to verify the proposed model. To find absolute fit index, value of root mean square error of approximation (RMSEA) was checked, for the increment fit purpose, the value of comparative fit index (CFI) was checked, while for parsimonious fit, the value of chi-sq/df was checked, as shown in Table 4.33 along with its critical/ threshold values.

**Table 4.33:** Model fitness measurements

<u><b>Absolute fit</b></u>			<u><b>Incremental fit</b></u>			<u><b>Parsimonious fit</b></u>		
Fitness index	Critical value	Test value	Fitness index	Critical value	Test value	Fitness index	Critical value	Test value
RMSEA	<0.10	0.08	CFI	>0.95	0.95	ChiSq/df	<5	3.69

All these statistical indices suggest that the proposed model fits the data in this study.

#### **4.6 Summary of the results**

There were nine research questions addressed in this study based upon the research objectives. The research questions were analysed using different techniques. The foremost step before analysing the research questions was the identification of demographic statistics of the respondents. The first three questions were analysed using percentage distribution technique and were descriptive in nature, while the next three questions were related to the relationship between various variables, for which Pearson correlation technique was used. The seventh question was associated with mediation and was analysed using structural equation modelling (SEM) technique. The eighth question was associated with moderation. The demographic variable, sex was tested for moderation effects upon the relationship between principal leadership skills (PLS) and intellectual capital (IC). The test indicated that sex did not show any significant moderation effect. The final question (9<sup>th</sup>) was related to model fitness, for which AMOS-SEM technique was applied and the model fitness indices were checked. The proposed model seems to fit the data in this study.

## **CHAPTER 5: SUMMARY, DISCUSSION AND CONCLUSION**

### **5.1 Introduction**

This chapter encapsulates brief problem statement, research questions, research tool designed for the study, survey techniques and the discussions on the results obtained from this study. Congruently, the chapter also discusses results of this study by comparing with other related studies. Final part of the chapter also highlights future research areas and limitations of this study. In a nutshell, this chapter provides a brief insight for the reader to judge the current situation of principal leadership skills in secondary schools and its impact on intellectual capital development of secondary schools in Pakistan. The chapter also highlights whether by establishing organizational citizenship behaviour (OCB), the intellectual capital development of schools can be enhanced.

Starting from chapter-1, discussing the background of study, the researcher highlighted the pivotal role of the principal. For establishing any strong institute, the preliminary requirement is a strong leadership (Ismail et al., 2011). Principal is responsible to change a challenging school into a successful and effective educational institution. Though, It is hard to negate the apex role of the school principal as educational leader, some studies negated its direct role illustrating indirect role of the principal in students' outcomes. However, there is a dearth of literature, analysing the direct effect of principal on school improvement and outcome (Hallinger, 2005). Although it is a fact that teachers are the agents who can bring changes in the challenging schools, it is also a fact that what makes this possible is a responsible principal. This clearly indicates principal leadership ability influences teachers and lead to improve their performance.

Thus the credit is attributable to the principals who involve teachers effectively to turn around the schools.

Principal needs to be updated with professional skills in order to apply it for the development of staff and introducing new techniques to provide a healthy environment for teaching-learning process (Niazi, 2012). Riaz (2008) articulates that Pakistan being a developing country depends upon various factors for its development. Illustrating further, he points out that one of them is education and the foremost factor required for education is capacity building. It has been well explained by Fullan (2005) as, “*one that involves developing the collective ability-disposition, skills, knowledge, motivation and resources to act together to bring about positive change*”. (p.4). Principals are the key agents who should possess leadership skills such as transformational leadership skills, organizational leadership skills and behavioral leadership skills. With the help of these skills they perform their day to day functions at the schools, and have a grip over various problems that may arise in routine functioning of the institute. With the help of these leadership skills, a principal can effectively transform intellectual capital of the schools into more productive one. Ultimately when the schools possess high level of human capital, they can utilize it for the students’ outcome.

This study primarily focuses on whether the principals working in secondary schools in KP province, Pakistan possess these leadership skills or not. Further, if they possess these leadership skills, how do they apply these skills for the development of the intellectual capital of the schools? Following West and Sacramento's (2004) statement that leaders develop professional skills, sovereignty and social interaction, this study also examines if the principal establishes a culture of OCB among the teaching staff, which may enhance intellectual capital of the school. Through OCB they can assist each

other, discuss various issues, find a solution, and learn new ways of teaching. Even if there are no refreshing courses from the organization side, they can still benefit from each other's experience, groom each other, and enhance their capabilities which have a positive impact on students' learning potential.

In view of various aspects of leadership skills of a School Principal this study is conducted in the KP' province of Pakistani secondary schools, operated by the Federal government and some other organizations (Pakistan Army and Fizaia) that have different structures and administration styles. There is also a sense of competition among these organizations in claiming the provision of quality education and outstanding students' outcome. Andrabi et al. (2008) and (Khan, 2013a) urge that private schools in Pakistan, unlike public schools, deliver quality education. Similarly Plank (1987) mentions that quality of education in developing countries is related to the quality of administrators. He states further, "the quality of administration.... remains extremely important" (p-125). In line with that Khan (2013b) advocates that limited or no attention at all is paid to the professional development of principals in Pakistan, whose impact can be seen in quality of education in public schools. In order to analyze the effect of both teachers and principals on quality of education the present study is conducted in Pakistani secondary schools. The main objective of the study is to find a clear picture of the ground realities by addressing the following research questions:

- i. What are the levels of intellectual capital of the secondary schools, as perceived by teachers?
- ii. What are the levels of principal leadership skills as perceived by teachers?
- iii. What are the levels of organizational citizenship behaviour of teachers as perceived by teachers?

- iv. Is there a significant relationship between principal leadership skills and the intellectual capital of secondary schools?
- v. Is there a significant relationship between principal leadership skills and the organizational citizenship behaviour?
- vi. Is there a significant relationship between the organizational citizenship behaviour of teachers and the intellectual capital of secondary schools?
- vii. Is organizational citizenship behaviour a mediator for the relationship between principal leadership skills and intellectual capital of teachers?
- viii. Is the demographic variable (gender) a moderator for the relationship between principal leadership skills and intellectual of the secondary schools?
- ix. Does the proposed model that links the principal leadership skills with the intellectual capital of teachers through organizational citizenship behaviour as mediator fit the data collected?

This study adopted a quantitative research method to find the most appropriate answers for the aforesaid questions. Quantitative techniques such as descriptive statistics, regression, correlation and SEM (structural equation modelling) that seem to be more relevant to find reliable answers of the above mentioned questions were employed. Furthermore, quantitative approach can be generalized for a large population. In such type of research, the researcher primarily uses postpositive statements for developing knowledge such as use of the dimensions and observation or by testing specific theories and then adopt a strategy such as experiment or surveys then collect data on the encoded instrument that produce statistical data (Creswell, 2013).



## **5.2 Summary of the findings**

Intellectual capital (IC) in this study comprises two major components: human capital (HC) and social capital (SC). While social capital residues as a single component, the human capital is further divided into four sub-dimensions: education, training, experience and skills and abilities. Majority of teachers opine that they have high level social capital. As for the human capital of the teachers it was observed that majority of them exhibited high levels in three of the sub-dimensions, namely education, training, and experience (See Table 4.4).

The principal leadership skill (PLS) in this study is divided into three components: transformational, organizational, and behavioural skills. Overall a large number of teachers indicated that their principals possess leadership skills. Among all the three skills, the behavioural leadership skills sit on top of the list followed by transformational and then organizational leadership skills.

Organizational citizenship behaviour (OCB) consists of five dimensions: altruism, civic virtue, consciousness, courtesy and sportsmanship. It was observed that a vast majority of the teachers are practicing OCB in their schools, while a few teachers believe that they do not have a culture of OCB. An in-depth analysis shows that the most practising dimension of OCB in schools is consciousness, followed by courtesy, altruism, sportsmanship and civic virtue (See Table 4.17).

While principal leadership skills consist of three dimensions: transformational leadership skills (TLS), organizational leadership skills (OLS) and behavioural leadership skills (BLS), IC consists of two main dimensions, human capital and social capital. On the whole, a high correlation exists between PLS and IC. A high and

significant relationship is found between the components of the exogenous variable (PLS) and the endogenous variable (IC), with the most prominent relationship being found between the transformational leadership skills and human capital followed by transformational leadership skills and social capital (See Table 4.25).

A strong relationship exists between the exogenous variable (PLS) and the mediating variable (OCB). Correspondingly, from the analysis, a high correlation has been found between the three dimensions of PLS: transformational leadership skills, organizational leadership skills and behavioural leadership skills and the five dimensions the OCB: altruism, civic virtue, consciousness, courtesy and sportsmanship. The results provide quite a clear picture that high relationship exists between the transformational leadership skills and sportsmanship component of OCB and high correlation is also found between organizational leadership skills and sportsmanship component of OCB followed by behavioural leadership skills and sportsmanship dimension of OCB. Thus an effective relationship is found between all the three components of PLS and sportsmanship (SMS) component of OCB (see Table 4.27).

As mentioned earlier, the mediating variable has five dimensions: altruism (ALT), civic virtue (CV), consciousness (CON), courtesy (CSY) and sportsmanship (SMS), while the endogenous variable, intellectual capital (IC), has two components: human capital (HC) and social capital (SC). From the results, it is found that a high correlation exists between the courtesy (CSY) component of OCB and Social capital (SC) component of intellectual capital (IC), followed by a correlation between the sportsmanship component of OCB and human capital (See Table 4.29).

As all the three variables (PLS, OCB and IC) are significantly correlated bivariately, therefore this significantly correlated structure allowed for a mediator test. In the mediation test using SEM it was found that there is a direct significant effect existing between PLS and IC. After inserting the mediator OCB it is found that there is no significant direct effect that exists and an indirect effect seems to emerge more stronger concluding that OCB acts as a full mediator between PLS and IC (See Table 4.31).

The suggested conceptual model comprising IC, OCB, and PLS, with OCB as the mediator for the relationship between PLS and IC seems to fit the data collected through the survey instrument of the study (see Table 4.33).

### **5.3 Discussion of findings**

#### **5.3.1 Intellectual capital**

The study found that majority of the school teachers showed high level of intellectual capital, while some of them indicated moderate level and almost negligible number indicated low level. Experience; a sub-dimension of the human capital, standing at the top of the list indicates rich work related experience. The sub-dimension of education stands after experience. Soon after education, the sub-dimension of training takes position followed by the skills and abilities sub-dimension. Skills and abilities are at the lowest level. While skills and abilities are the important components of human capital and the principals are working to develop these components of intellectual capital (human and social capital) to a greater extent. Findings also show that majority of teachers hold master degree, which is also a positive sign of their human capital, and the role of principal and higher authority in this regard are commendable for encouraging teachers to improve their qualification. The teachers get this qualification as part time, through evening programmes offered by Allama Iqbal Open University (A.I.O.U) or

Virtual University. Conrad (2006) explains that distance learning refers to the learning process which is taking place without taking into consideration the existence formal learning setting (Ali & Ahmad, 2011). A.I.O.U is one such a distance learning university, which offers different study programmes from elementary to doctoral level. In A.I.O.U majority of the students are registered and the ratio of rural-urban is 58% and 42% respectively (Ali & Ahmad, 2011). Now universities have started distance learning programs for students who have limited access to attend educational programmes (Ali & Ahmad, 2011). Since majority of sample schools are situated in cities, teachers can find opportunity to improve their education level in evening colleges and in this way their human capital enhance. They develop new skills and abilities in nearby training centres. They are compelled to do so because now sample schools are installing ICT equipment in their laboratories which make them to improve their qualification for their survival and promotion. Same is reported by Rahim, S., Begum, A., & Sahar, G. (2012) that the provincial government of Gilgit Baltistan, Pakistan is eager to implement ICTs in educational institutes, but the process is yet to be started on account of dearth of experts/researchers and the non-availability of financial resources. Despite the fact, that all five provinces have constituted respective technical boards for technical education, but unfortunately these technical boards have not started functioning due to lesser allocation of requisite funds and lack of resources and asking for immediate attention both at the federal as well as provincial level (Mahmood, H. K., Hashmi, M. S., Shoaib, M., Danish, R., & Abbas, J, 2014). Lim et al. (2010) express that, skills are very much needed for improving teachers' productive and reactive abilities, learning capacity, and management credibility

Similarly, from the training perspective majority of the teachers are found to be having bachelor or masters' level professional qualification, which they obtain through distance

learning programmes. Their taxed professional life and financial constraints prevent them from joining a regular college on full time basis. Nevertheless, skills and abilities is the lowest marked component by respondents, which shows that there is no proper inclination or trend to improve skills such as technological skills for better teaching and remarkable student's outcome. This may be due to the low investment in this sector, or less teacher interests towards ICT related knowledge and skills and its application in class rooms. It can be stated that the solid reason behind this failure is lack of provision of necessary funds to cover training costs on ICT and instalment payments for the ICT equipment installed in the schools.

It is clear that skills and abilities can be improved through in-service training. Marimuthu et al. (2009) narrates that human capital development is a process that is linked to training, education and other professional skills, that increase the level of knowledge, skills, abilities, values and social assets which in turn increase employee satisfaction and enhance performance. These training require funds, which are not out there. The same situation is highlighted by (Khan, 2013b) that training programmes are arranged through foreign funded projects, which rarely happens. The government schooling system is not in line with the needs of the society due to the fact that it is poorly managed, financed and assessed (Saeed, M., Ahmad, I., Salam, M., Badshah, R., & Ali, S. (2013a). The Economic Survey of Pakistan (2010) indicates to the same point that only 2% of GDP spent on education in Pakistan. A small share of the GDP (less than 3%) has been reserved for the education sector in Pakistan. As a result it badly affects the literacy rate and quality of education in Pakistan in comparison to its neighbouring countries. The education system of Pakistan (Saeed et al., 2013). Pakistan being a developing country has to provide education to a large number of students as compared to the developed countries. Therefore, merely 1.5% to 2% of GDP allocation is not sufficient enough for education sector which required to be increased up to 7%

level (Mahmood et al., 2014). Since majority of the sample schools are situated in cantonment areas of different cities in Pakistan, which enable both; the teaching staff and principal to avail chances of self-development while the teachers and principals who are posted in provincial government schools in villages are deprived of the same opportunities. Therefore, the teachers try to improve their qualification and attain professional training programmes for the sake of promotion and increments in their salaries. A number of researchers have highlighted the reasons that why teachers should be skilful. Kazemi et al. (2012) and Beattie and Thomson (2007) articulate that these competencies are actually social skills, communicative abilities, development of flexibility, staff profile, taking responsibility and human assets. Kazemi et al. (2012). Team efforts are also equally necessary to get success in any event of an organization. The success in any field is considered as a product of team efforts, and team efforts are observed only when there is good relationship and understanding among staff members i.e. between principal and staff, among teachers and parents, teachers and students, etc. other issues such as leg pulling, lack of trust, jealousy among the staff members may lead to failure of the institutions and it would be considered as failure of the whole staff.

Findings of the study show high level of human and social capital. It is also a fact that the two organizations: Pakistan Army and Fizaia organise functions on different occasions and these functions are attended by the parents and high authorities. Here teaching staff and parents find opportunity to discuss various educational issues and support each other, while the government run schools rarely arrange for such functions due to lack of funds. So there is always a lack of communication between parents and school authorities, even though these meetings are most necessary for the welfare of the child. Due to the absence of friendly relations between parents and teachers affects the process of teaching and learning (Saeed et al., 2013). The parents have negative

perception about the teachers' performance (Saeed et al., 2013). The teachers are held responsible for the failure of students in examination without linking it with to other components i.e. School administration and parents (Saeed et al., 2013). In fact human capital can be channelled through social capital, but then there is deficiency found in social capital in the provincial schools. Findings of this study also verify that there is high level of social capital in the sample schools due to the efforts of the head and management. As this exchange of views improve teaching –learning process at large. Parents also take interest in attending extra-curricular activities in the sample schools, while in rural areas there is no trend of such activities due to unawareness of the parents because of their low level of education. Co-curricular activities make the students regular, neat, mannered, co-operative and bring a positive change in students visible to parents and teachers (Mushtaq, 2014).

Relation and organization's structure affect the performance of any educational institute (Awan & Saeed, 2014). The tangible and intangible assets affect the performance of any educational institute and intellectual capital(IC) is the most prominent among them that affects the performance (Mumtaz & Abbas, 2014). High level of intellectual capital, as indicated in this study brings repute for organizations like school (Awan & Saeed, 2014). Three main types of Intellectual capital have been observed in educational organizations: human capital (among teachers), relational capital (among students, parents and board of governors) and structural capital (in the norms, values, procedures and hierarchy of staff). All the three components of intellectual capital are necessary for the effective functioning of the school. The performance of the urban schools in board exams is much better than the rural schools. Urban schools have an active management system; sufficient resources and good teaching quality, which are their main strengths (Mushtaq, 2014). The management (like sample schools) that have clear rules and

regulations are more effective than those based on traditions (Mushtaq, 2014). These components of intellectual capital can be easily observed in the sample schools. They have clear rules, norms and values reflecting its structural capital. They possess qualified and trained staff its prominent human capital and notable relations with all stake holders indicating their social capital and all these clearly indicating intellectual capital (human capital and social capital) necessary for school effectiveness. Intellectual capital of an organization is directly related with its effectiveness (Engström et al., 2003).

With the emergence of “knowledge economy”, intellectual capital gets more attention and now the stakeholders should be made aware of it. In addition, according to Bhasin (2012) and (Andriessen, 2004) intellectual capital needs to be measured for the following reasons:

- a) To develop interior management
- b) To develop exterior disclosure
- c) To fulfil legal and dealing factors.

Findings of the current study are not in line with the results of the study conducted by Andrabi et al. (2006), showing that in certain private schools in Pakistan teaching staff are not trained and qualified enough and as result they are not paid lucrative salaries. But the results of the current study show that teachers are trained and qualified. Actually the sample schools are situated in cities where they there exists opportunities to take evening classes for improving qualification and attend certain professional training institutes. Besides, the other reasons may be the cut throat competition and their own survival in the midst as majority of the teachers are appointed on contacted basis and in



order to survive they have to be well equipped and qualified to face the difficult time ahead. On the other hand teachers in the federal government school work on regular basis without any fear of service termination due to which they possess rich teaching experience. Barber and Mourshed (2007) contend that the level of performance of any education system can be judged from the quality of teachers. This study showed that majority of teachers seem to possess high level human capital, and therefore high achievements are expected from these teachers. Intellectual capital comprising: knowledge, experience, skills and good relations that brings competitive advantage for an organization (Ghosh & Mondal, 2009). In arriving at a conclusion, the researcher argues that IC provides a clear picture about the performance of an organization to the stake holders. Now various organizations are trying to shift their focus towards building the intellectual capital. Intellectual capital of staff is highly beneficial for the organization. Therefore organizations are now found to monitor, disclose and report its intellectual capital (Bhasin, 2012).

### **5.3.2 Principal leadership skills (PLS)**

This study found that majority of the principals working in the secondary schools operated by the three different organizations: Federal governments, Pakistan Army and Fizaia (Air force) possess high leadership skills as perceived by teachers (See Table 4.4). However, researchers like Khan (2004) and Khan (2013b) acknowledge that head teachers in Pakistan have very limited professional development opportunities. There are some training programs, which provide in-service training to head teachers, but this happens rarely and benefits very limited number of them, and usually takes place under foreign funded projects.

Results of the current study are quite different from the results of earlier studies in Pakistan or studies in the developing countries. Khan (2013b, p. 101) and Warwick and Reimers (1995) content that, “With no clear definition of who they are and what they are supposed to do, school heads are adrift in the educational system [...] they were not trained to be leaders, did not see themselves as leaders, and did not act like leaders”. There is no proper training for principals; they became principals on the basis of teaching experience and length of service. They don’t have high communication and leadership skills, and even some are not highly qualified as compared to their subordinates. They require attending comprehensive training program for leadership and management (Khan, 2013b). Alam (2012) also highlights that in developing countries such as Pakistan the teachers are promoted to principal posts without having any knowledge of leadership. So the principals in the public sector maintain a standby situation, no progress at all. But the present study shows quite different results. The teachers perceived that the principals possess high leadership skills. This is true that majority of the school principals are promoted on the basis of the teaching experience in federal government schools and this experience might have developed their leadership skills, which are beneficial for the development of the staff. It is important to note that majority of the sample schools are situated in urban areas where co-education system is in vogue. Studies conducted by other researchers in Pakistan, such as (Khan, 2013b), (Alam, 2012), (Rizvi, 2010) in rural area schools report that the principals and teachers are not getting sufficient chances to groom and flourish, where as the schools included in the current study are operated by Federal government, Pakistan Army and Fizaia (Air force) and these organizations are focusing on better teaching and learning environment, which might have provided opportunities for stuff to groom and thus intellectual capital development is observed.

In contrast, provincial government runs separate schools for male and female both in urban and rural areas. In these schools, the teachers are involved in active politics and they have established various associations resulting into internal rift between teachers which affect the proceedings of schools. In government school, they are permanent employees while in private school; the teacher has no service guarantee and can be fired at any time. As result the teachers in government school has liberty and job security that is why they mostly involve in school politics including backbiting, leg pulling, flattering etc. (Nasir & Bashir, 2012).

On the other hand, schools run by Pakistan Army and Fizaia have a different organizational /structure capital. They have different rules, norms and procedures for selection and promotion of teachers. Their jobs are mostly on contract basis. The public schools have a distinct set up which is homogenous in nature followed by all the public schools while the organizational structure of private schools vary from school to school (Mushtaq, 2014). They have strict grip on the teachers and kept a vigilant eye on their activities. This is one of the main reasons that the parents opt to admit their kids in these schools. The post of the principal is also on a contractual basis and s/he is expected to show good results for extension of their contract. These principals do not acquire any leadership training but hard and fast rules have compelled them to run the institute effectively. That is why few of them are even acting like administrators rather than educational leaders. Mushtaq (2014) argues that the quality of education in these schools can be attributed to their administrative skills and utilization of the staff/teachers in such a way that produce good result by consuming minimum resources. Majority of them are retired from the educational wings of their parent organizations: Pakistan Army and Fizaia (Air Force), while teachers in Federal government schools are promoted from the post of teacher to principal and even some of them are directly

appointed as a principal by Federal Public Service Commission (FPSC) on the basis of academic qualification without having any leadership training. The same reason is cited by Alam (2012) that the teachers are promoted as principals without having much knowledge of leadership. There is no concept of effective and ineffective principal and the most senior teacher gets promoted as the principal (Alam, 2012). Pakistani educational system is lacking uniformity in the distribution of resources. They have separate parameter for public and private institution (Mahmood et al., 2014).

Developing countries like Pakistan are still struggling for educational leaders, who require leadership training to make them more skilful. Dereck [Dereck (2009) cited in Mushtaq, 2014] highlights the importance of training for administrators and managerial staff to make them more efficient and productive and to utilize the teachers and students potential effectively This was endorsed by Peterson and Van Fleet (2004), when they proposed that the principals should have skills, such as decision making, analytical, communication, conceptual, interpersonal, administrative and flexible skills for running school effectively.

Salafi (2011) states that majority of the principals of the successful secondary schools in Punjab (the province of Pakistan) concentrate on self and staff development. It may happen that in certain areas of the Pakistan, principals do not have firm skills to operate an educational institute. It may also depend upon the procedures, planning and implementation stages, provision of the resources, training programmes conducted and structure of the organizations. Salafi (2011) further argues that in primary school principal may not have enough skills compared to principals working in secondary schools. The question that how these principals should have their leadership skills is not important. The important issue is the possession of these leadership skills to operate an

institute effectively. The school principals need leadership skills for preparation, administering, resource operation and staff education (Piaw et al., 2014). Therefore, they should have sufficient skills, like transformational leadership skills as possessed by the principal in sample schools to share vision, implement vision, and to involve teachers in decision making.

Results of this study are consistent with the results of the study conducted in Nigerian high schools by Akinola (2013), where principals working in the schools also possessed high leadership skills. However, Akinola (2013) study showed that these skills were not so helpful in school improvement, the reason being that there were other antecedent factors affecting school improvement. On the other hand in the current study principals possess leadership skills that foster intellectual capital development in the sample schools, as shown by the high correlation between principal leadership skills and intellectual capital development (See Table 4.25). The leadership skills are helpful in improving human capital that can matter in improved quality of education. Peleg (2012) refers to the same point, “its high quality teaching and high quality leadership that is necessary for successful education system”.

### **5.3.3 Organizational citizenship behaviour (OCB)**

Findings of the study reveal that the level of the organizational citizenship behaviour (OCB) of the teachers seem to be quite high, with only a few teachers at moderate level and almost negligible number at low level. Having a look at the dimensions of the OCB it can be stated that the sub-dimension of consciousness sits at the high level followed by courtesy, altruism, civic virtue and sportsmanship (See Table 4.17). All these dimensions of OCB are the ones favoured by most of the people. When staff possesses such a high level characteristics, ultimately it leads the institute towards success. High

level of consciousness in sample schools show that teachers are trained to abide by rules and regulations, otherwise they will face severe actions like termination of services especially in Pakistan Army and Fizaia schools, while in Federal government schools teacher receive warnings, transfer order, etc. Shami & Hussain (2005) explains the long and complicated procedure of the federal ministry causing unnecessary delay and creates hurdles in implementation. Teacher's discussion and exchange of teaching techniques improve their teaching techniques, as a result student's learning potential and teacher's development enhances (Salfi, 2011). Debates on various issues increase the knowledge of teachers and these opportunities for debates are provided in these schools. Similarly, altruism refers to the situation when they share the burden of each other, and assisting each other in task completion, while sportsmanship is the best quality which they show even when their efforts are not acknowledged by the high authorities, they still struggle for the betterment of the organization.

Results of the current study remind us the nature of these organizations in which these teachers are serving. Actually these organizations want their teachers to be well mannered, helpful and showing team spirit in organizing an activity and this may be a sort of compulsion or may be considered part of their duty to show high level OCB for the success of their school. Newly inducted teacher is found nervous when s/he enters in class room for the first time. The fear about the class control and students' behaviour make the teachers nervous and so the teacher hesitates to answer questions raised by the students. In such circumstances OCB is more effective. New appointments are considered as the educational interference that discourages new teacher's learning necessities while helping them produce a principled learning practice (Feiman-Nemser, 2003). Those teachers who strive hard for capacity building have more problem solving skills (Malik & Jumani, 2014). Senior teachers on the basis of their experience guide

new teacher that how to control class, to make students busy and how to respond to their questions. These tips from the senior colleagues are quite helpful in maintaining the environment of the class room to be more productive and make the job easy for the newly inducted teacher. This kind of assistance provided to other colleagues who are overloaded with work, and guiding newly inducted teachers and dedicating oneself for school improvements, lead to OCB (Belogolovsky & Somech, 2010; Runhaar et al., 2013).

Results of this study are quite similar to the results of the study conducted by Polat [Polat (2007) cited in Polat, 2009] in Turkey, where teachers perceived that they possess high level of OCB. However, the results of Polat (2007) are slightly limited than the existing study, because the level of teacher's OCB in that study was perceived by school administrators/ principals and not by secondary school teachers.

Actually there are some factors that influence level of OCB in both cases. One of them is the leadership factor. OCB is closely linked with several leadership components (Poohongthong et al., 2014). If leadership is improved or replaced, it has an impact on the OCB level of teachers. Further personality of the leader also plays a role towards OCB (Malik et al., 2012). Findings of the current study show that principals possess high leadership skills specially their transformational leadership skills which is the most necessary component for promoting OCB in sample schools. There exists a relation between transformational leadership and OCB (Purvanova et al., 2006). Thus the results of this study do implicate some important facts for the educational system of Pakistan. It is more steered and important for the promotion of OCB in secondary schools in Pakistan. Behaviours which exist in large are quite helpful in school effectiveness (Somech & Drach-Zahavy, 2000). If staff possesses such outstanding characteristics

then these characteristics can become real resources for leaders when planning and implementing school vision. Unquestionably this is the prime responsibility of the leadership to take on board staff for introducing new teaching and learning strategies, involving staff in decision making, organizing an activity, etc.

Teacher's empowerment is helpful for the effectiveness of the organization and teachers' empowerment indeed is the first step towards the establishment of OCB in secondary schools of Pakistan. There is a significant relationship between OCB and psychological empowerment. Psychological empowerment increases organizational effectiveness. Psychological empowerment is important for making employees to work and focus (Aksel et al., 2013). The more autonomy an employee has he/she will show special role behaviour like OCB. Similarly autonomy increases employee's motivation to do more at their work place and reflect OCB (Chen & Chiu, 2009; Runhaar et al., 2013). Various researchers, through their studies have shown the importance of OCB in organizations especially schools. Nowadays, school success mainly depends upon the teachers' willingness to do beyond what is included in the prescribed duty list, to achieve school goals (Somech & Ron, 2007). Therefore teachers gather more information with new instructive methods and share this information with other colleagues. OCB is a sort of behaviour which is linked with person or institute (Runhaar et al., 2013; Williams & Anderson, 1991). In terms of work engagement and OCB, it is believed that when teachers benefit their colleagues or organization, they will receive recognition, benefits or well wishes from those who had been benefited. Thus teachers will be more encouraged (Saks, 2006). The current study also highlights high level of sportsmanship, a characteristic that even if someone do not recognize efforts of the teachers publically still they do not complain. It is also important for the development of the teachers, through OCB when they learn from each other, share their burden,



coordinate in the organization of an event, and solve their own issues as well as students problems. Therefore the culture of OCB has a positive impact on the student's outcome, which is the ultimate goal of any secondary school in Pakistan.

#### **5.3.4 Relationship between principal leadership skills (PLS) and intellectual capital (IC)**

Overall there is a high correlation between the principal leadership skills (PLS) and intellectual capital (IC) in this study. In fact the study found an overall high correlation between each of the three dimensions of PLS: transformational, organizational, and behavioural leadership skills and the two components of the intellectual capital: human capital (HC) and social capital (SC) (See Table 4.25). Thorough in-depth analysis of these components reveals that there is a high correlation exists between the transformational leadership skills and HC. These findings illustrate the same point as discussed in different research studies, that transformational leadership skill are applied for the sake of professional development. Human capital comprises education, training, experience and skills and abilities of the staff. Principals in the sample schools put their best to have capable staff to deliver outstanding performance. Here the leaders applying their transformational leadership skills to improve human capital in these schools. Lambert (2002) also argues that leadership should concentrate on potential capabilities. Effective leaders can understand the value of staff development necessary for bringing change in school (Harris, 2002). Results of this study also reveal that the principals appointed in these schools have the transformational leadership skills and on the basis of these transformational leadership skills, they transform their staff through upgrading their educational level. Although, it is also found that teachers' skills and ability level are not up to the mark, which may be due to the non-availability of funds. As principals in these schools are not allowed to interfere in financial matters and this may be the

reason that the principals are unable to provide ICT equipment or ICT training for the teaching staff. Trained teachers possess coaching and mentoring skills, communication and assessment skills, excellent instructive knowledge and subject matter expertise with ICT (Penn State, 2010, Malik, S., & Jumani, N. B., 2014). Since majority of these teachers are inducted in urban schools, where they have found evening classes to improve their skills on self-finance. Through learning an employ develop skills, knowledge, attitude and opinions (Salim & Sulaiman, 2011). Principals in these schools not only concentrate on the professional development of the staff, but also try to establish good relations with all stake holders. No principal can get success unless and until s/he tries to be on board with all the stake holders. Harris and Moijis (2004) elaborates that there should exist a culture of co-operation and collaboration, which boost the confidence of the teachers, and raise their expectations and make them to feel satisfied. Good relations/terms with the staff and stake holders provide opportunities to the staff to put their input in important decisions regarding students, school culture, teaching learning process, curricular and co-curricular activities. The transformational leadership skills try to develop a team effort strengthening social capital in school. This is also a fact that principals are well aware that their journey of school success is not a solo flight and he/she has to take on board the whole staff and thus maintains good relations with them (Mendels, 2012). It is evident that good relations and organization's set up influence the performance of any educational institute (Awan & Saeed, 2014). For the development of the social capital behavioural leadership skills are also the most important prerequisite. This social capital is also helpful in improving human capital of the staff, as staff cooperates with each other in learning new teaching techniques and solving each other's problems. Social capital enhances knowledge, skills of individuals (human capital) (Salajegheh & Pirmoradi, 2013). As in Government schools, principals are appointed on the basis of vast teaching experience, therefore they inform staff

members about the ups and down of the teaching profession, anticipate possible problems and suggest their solution. In Federal government schools although principals do not receive any leadership training; apart from the academic qualification, it may be the experience of the principal that enhances human and social capital, collectively called intellectual capital of school.

Therefore these results show that transformational leadership skills also have a high correlation with SC, another important component of IC that is equally necessary to be developed in the secondary schools. Chen (2009) advocates that social capital is the sum of relationships, communications and familiarity of an organization with the interior and exterior participants that is to say, social capital which holds all the relations the firm has recognized with its stake holder groups such as customers, suppliers, the community, the Government etc. It has been found that transformational leadership skills are dominant than the other two leadership skills in relation to the two components of intellectual capital (human capital and social capital).

When transformational leadership skills seem to be the dominant one in developing IC of the secondary schools, it shows that transformational leadership skills enable the principals in leading staff and establishing school vision and goals. They always try to get staff consensus on various issues, anticipate problems and help in finding solution and showing a keen interest in professional development of the staff. This connects well with earlier studies that leaders who exercise TLS concentrate on the capacity building like improving knowledge and skills and motivate their staff by giving honour to them and providing encouraging environment to work efficiently (Leithwood et al., 2008). This findings is also supported by other study of University of Washington that highlighted key points for a suitable environment, as “A sense of students, staff safety,

respect for all members of the school community, no regards to the professional status or position, an upbeat, welcoming, solution oriented, no blaming, professional environment, an effort to invite and involve staff in various school wide functions and a parallel outreach to students that engage and involve them in a variety of activities” (Portin et al., 2009, p. 53). Through TLS educational leaders guide their teachers to recognize how significant their role is in improving the academic performance of the students (Mendels, 2012).

Further, it is found that organizational leadership skills show high correlation with the human capital and moderate correlation with social capital. Organizations that operate these schools have hard and fast rules. They maintain their standard and in such situations the principals act like managers instead of educational leaders and they rarely concentrate on social aspects and try to fulfil the requirements by any means. Managers exercise their control through the informal power, while leaders use their influence and vision and inspire the followers (Algahtani, 2014). This may be the basic reason and that is organizational leadership shows moderate relationship with social capital. But then OLS is essential for the effective operation of the institutes as endorsed by (Kotterman, 2006), stating that an effective organization has a mix of leaders and managers in order to succeed. There is a slight difference between a principal who acts like a leader and one who acts as a manager. Both have their unique characteristics and these characteristics are necessary for the effective functioning of the school. Lunenburg (2011) gave the characteristics of both leaders and managers. Leaders have the following characteristics: they focus on people, look outwards, articulate a vision, create the future, empower colleagues, do the right things, uses influence, conflicts and acts decisively. While managers: focuses on things such as , look inward, execute plans, controls, directs and coordinates, subordinates, uses authority, avoid conflicts, and acts

responsibly. In short principals in these schools appear as leaders at one occasion and on another as a manager. This may be the reason that the organizational leadership skills show higher correlation with human capital rather than with social capital.

In another note we found that behavioural leadership skills show high correlation with human capital and a moderate correlation with social capital. Principal in such schools mostly concentrate on mission and vision of the school. Iqbal (2005) investigated the organizational structure of public and private schools and concludes such that leadership style based on task and work in both public and private schools had a great impact on school performance. As such they concentrate mainly on staff capability, while they apply their behavioural skills for achieving school goals rather than establishing social network. These behavioural skills are found to have a high correlation with OCB.

The level of leadership skills differ from school to school operated by different organizations. In some schools the level is very high than others depending on the procedures, norms and values, structure of organization, management/ high authorities and type of professional exposure gained by the principals. All these come as structural capital as explained by different researchers. Like human capital and social capital, structural capital is considered as intellectual capital. An organization is called organization only when it has a composite structural capital. Structural capital vastly affects the two components human capital and social capital at large. Liu (2010) states that structural capital helps employees in optimizing their job performance and the overall job performed. Ramezan (2011) categorizes structural capital into components like, organizational culture, organizational learning, operational process and information system. Structural capital produces an environment that is most suitable to develop

human capital and allow human capital to understand its talent and then enhance innovation capital and customer capital.

Human capital is important for the effectiveness of any organization; it may enhance employee's capabilities to achieve a specified goal. In terms of education, the prime objective is student's outcome. Since student's outcome is directly linked with teacher's role, therefore teacher's human capital development should be the prime objective of the principal. Wrapping evidences on leadership skills and IC development, it is quite clear that without leadership skills a principal cannot develop the IC of the organization and if there is a lack of IC in the organization it is a sign of loss and at the end, the losers will be the students who are the ultimate future of a nation.

### **5.3.5 Relationship between PLS and OCB**

The study found that there is high correlation between principal leadership skills (PLS) and organizational citizenship behaviour (OCB), and this correlation is even higher than the correlation between PLS and IC. As shown in the in-depth analysis (see Table 4.27) there is a high correlation between each of the three components of PLS: transformational, organizational and behavioural leadership skills and the five sub-dimensions of OCB: Altruism, civic virtue, consciousness, courtesy and sportsmanship. Among the three dimensions of PLS, it is transformational leadership skills (TLS) that has a high correlation with sportsmanship component of OCB and with other dimensions of OCB. This finding reveals that transformational leadership skills of the principals are more effective in promoting the culture of OCB in schools. The principal share the vision, involves teachers' in decision making process, and promotes team efforts for the success of their schools. Thus TLS motivates the followers to go beyond

their level by enhancing both the quality and the quantity of the follower's human capital level.

Findings of this study are also supported by Oğuz (2010) and Podsakoff et al. (2000) who state that, there exist positive relationship between the transformational leadership and OCB. The organizational leadership skills have a high correlation with sportsmanship and behavioural leadership skills also have a high correlation with sportsmanship. These correlations reveal that all the three leadership skills have an impact in developing sportsmanship behaviour of teachers, and closely linked with several leadership components (Poohongthong et al., 2014). OCB is strongly related to behavioural leadership (Poohongthong et al., 2014; Walumbwa & Schaubroeck, 2009). In another context, Jofreh et al. (2012) found a strong correlation between distributed leadership and OCB.

Further, it is found that all the three leadership skills show high correlation with altruism and civic virtue. This means that these leadership skills have equal contribution in developing a helping behaviour and abiding rules and regulations among teachers in the school. Teachers show such behaviour because they have to survive through helping each other and leading school towards success. Except transformational leadership, the other two leadership skills, OLS and BLS, show a moderate relationship with courtesy. This means that these two skills are not much effective in controlling the complains of teachers regarding their work load and it is also true that in these schools the teachers are found busier, they rarely find free period to take some rest. It might be the policy of the management that makes them busy or it may be due to keeping more teachers.

Owing to these leadership characteristics of leaders, teachers observe OCB and work voluntarily for the betterment of the schools (Eisenbeiss, 2012; Poohongthong et al., 2014). Although all the components of OCB are very important for the school culture, in the case of secondary schools in Pakistan it is the sportsmanship component that seems to be the more important one to boost OCB. The findings indicate that leadership develops a sense of sportsmanship among teaching staff, through transformational leadership skills. As there is a link between transformational leadership and OCB (Purvanova et al., 2006).

Sportsmanship produces awareness among teachers that they should continue to struggle for the effectiveness of the school even if the higher authorities do not acknowledge or appreciate their efforts. This is also a fact that these teachers are trained or compelled to show sportsmanship behaviour to save their jobs in these secondary schools. Some time they want to express their feelings on an account of unfair dealing but they are not allowed to do so due to the policies, norms and the nature of their temporary job. Behavioural leadership skills (BLS) also show a high correlation with SMS. Behavioural leadership directly affects OCB (Eisenbeiss, 2012). In fact the sportsmanship behaviour develops a sense of team work in schools, and grooms teachers such that they struggle to achieve their goals. Even if they do not succeed, they do not lose heart. Even if principal does not acknowledge their efforts publicly, they still continue their struggle to achieve school wise goals.

It is important that the principal knows and understands how to develop OCB especially sportsmanship behaviour among teaching staff. Teachers have a direct impact on their students. When students find positive and proper attitudes teachers; they also adopt the same behaviour which is more productive in the long run. Findings of the



current study regarding principal leadership skills and its impact on OCB are supported by Louis et al. (2010)'s study which states that, the principals make sure that teachers do not work separately but work in collaboration as a team, and provide help and guidance to each other to improve instructional practices. Relationship between leadership styles and OCB has also been researched in some studies conducted in non-educational context (Nguni et al., 2006; Oğuz, 2010; Podsakoff et al., 1990). OCB develops a sense of cooperation, sharing knowledge, sharing burden and supporting each other on different occasions. Salfi (2011) and Cavanagh and Dellar (2001) recommend that empowerment, collaboration and best relations with staff, are quite helpful in establishing OCB leading towards school improvement. In establishing such behaviour in Pakistani secondary schools principals have to walk the extra mile beyond their specified duties for the sake of school improvement. Leadership is not a role of a single person but it is actually an organizational concept described as "broad based, skilful participation.....that leads to lasting school improvement" (Lambert, 2005, p. 38; Williams, 2009).

### **5.3.6 Relationship between organizational citizenship behaviour (OCB) and intellectual capital (IC)**

Findings of the present study show that there is an overall high correlation found between OCB and IC. Further analysis reveals that there is high correlation between the five sub- dimensions of OCB and two sub-dimensions of IC (See Table 4.29). Since all the sub-dimensions of OCB: altruism, civic virtue, consciousness, courtesy and sportsmanship are having the characteristics to help out each other, solving problems, sharing knowledge, avoiding conflicts and abiding rules and regulations. These characteristics enhance human capital as well as the social capital in schools. Organizations enhance OCB and as a result the social capital increases (Firouzi et al.,

2014). Findings of this study are parallel to that of Kianfar et al. (2013) conducted in the state university of western Iran. They found a strong correlation between OCB and IC of the organization and state that OCB can increase employee commitment towards organization and enhance the growth of human resources. They say that OCB will transform the organizational capabilities while enhancing the social capital (Kianfar et al., 2013).

This study found that there is high correlation between OCB and IC, whose effect size is greater than the correlation between principal leadership skills (PLS) and intellectual capital (IC) and even stronger than the correlation between PLS and organizational OCB. When considering the correlation among the three variables of the current study, it is found that the strongest correlation exists between the mediating variable (OCB) and endogenous variable (IC). Findings of this study categorically express that introducing OCB in school has a positive impact on the performance of the school. OCB has not only reduced the managerial role of principal, but also helped in grooming the teachers. OCB can be used as the best tool to enhance human capital as all its components have shown high correlation with human capital. Similarly OCB is also helpful in enhancing social capital as there is high correlation perceived by teachers. OCB develops an environment that promotes good relations with all stake holders. OCB is an informal behaviour appearing at work place due to beyond what is described in the duty list. Lots of works have been done to define OCB and realize its importance in private firms, government organizations and above all in educational settings.

The definition of OCB by Organ (1997) predicts that OCB is an informal behaviour such as helping colleagues, punctuality, innovative, suggestive, protecting interest of the organization. OCB contributes at both levels, at individual and organizational level

(Kidwell et al., 1997; Oplatka, 2009). The results of this study is found similar to that of Oplatka (2009) in the Israeli schools where he took 50 elementary and secondary school teachers to find out the impact of OCB on teachers, students and organization as a unit. In that study the teachers subjectively constructed between their OCB performance and self-improvement and results showed high degree of self-fulfilment, enthusiasm and work satisfaction. Through OCB teachers learn new ways of creative teaching, get command over the subject, while students also find this situation to be quite interesting where their interest and enthusiasm towards the subject increases. In other words when teacher's human capital enhances it ultimately increases the student's learning potential. Environment of the school on the other hand, also plays a fundamental role in promoting OCB among the teachers that in turn enhances their professionalism. This occurs when someone helps the colleague and in return that employee also finds that others become helpful too (Deckop et al., 2003; Oplatka, 2009).

The impact of OCB on teachers is very much propagated by Oplatka (2009) who suggests that further research is required to check the impact of OCB on career growth and development of the teachers. In that aspect this study has filled the gap and the results reveal that OCB has a positive impact on the teacher's human capital development. We are now in a better position to say that OCB develops IC of the secondary schools at vast level as perceived by 408 teachers working in these secondary schools in Pakistan. Since different countries/ regions have their own culture and traditions, so the level of OCB can be different at different locations. The level of the OCB also depends upon the nature of the organization. In some organizations more authoritative personnel are found, where level of OCB may be low compared to organizations with leading figures. Such organizations have leadership skills such as transformational, organizational and behavioural leadership. As evidenced from the

literature that these skills have a high impact on promoting OCB. In conclusion one can say that leadership skills develop OCB, while OCB has a vital role in developing IC, as observed in the present study.

### **5.3.7 Role of organizational citizenship behaviour (OCB) as mediator**

All the three variables PLS, OCB, and IC are found to be significantly correlated in a bivariate manner and this structure allowed for a mediator test which found that OCB is a full mediator for the relationship between PLS and IC. Findings of the study (See Table 4.31) reveal that, there exists a relationship between PLS and IC but then when a mediator OCB is introduced, then the direct relationship between PLS and IC becomes insignificant and the indirect relationship between PLS and IC becomes significant. This means that OCB acts as a full mediator between PLS and IC. This finding highlights the importance of OCB for IC development in secondary schools. There appears a hope now that although there are less funds and rare opportunity available for in-service training in Pakistan, OCB in the school can help in professional development. The OCB should not be construed as an alternative of the training; it only has some advantages in terms of professional development. In observing OCB, the teachers share their knowledge and this is helpful for the co-workers. It means a leader can enhance the IC of the school by promoting OCB.

In the current era more importance is gained by knowledge economy. This means a leader can enhance the IC of the secondary schools by promoting OCB, which in turn enhances the IC of the secondary schools. In the near future for economic growth mere space or equipment will not be sufficient because such a growth will rely on people and their intellectual capacity. When economics are transformed from industrial to knowledge demanding economy, and work appears in the form of knowledge exertion,

or simply put, it is now the age of intellectual capital (Awan & Saeed, 2014), organizations will use their awareness about innovation and reputations to be successful in the surroundings (Noruzi & Vargas-Hernández, 2010). Since OCB is an informal behaviour of the employee with the colleagues, so without any formality they exchange their views, learn from each other, and found to be helping each other. This co-ordinating, sharing and helping behaviour cause enhancement in their human capital and social capital, which is collectively known as intellectual capital. The current study reveals that there is a high relationship between OCB and social capital. Tashmin in the U.S studied OCB in educational settings and now OCB has almost completed its silver jubilee in the educational settings and various studies have been conducted to check the importance of OCB in educational institutes. OCB as a strong mediator was identified in a study by DeGroot and Brownlee (2006) taking 101 firms in U.S, to investigate out the relationship between department structure and department effectiveness. The current study and the U.S study both come up with similar results about OCB as a mediator to improve IC of schools. Another study conducted in Alabama high schools by Dixon (2013) where the relationship between servant leadership, OCB and school climate with OCB as a mediator were analysed. This study revealed that OCB can be used as a mediator to improve school climate. As OCB is functioning as a mediator it brings upon another important fact that as a mediator it supports the available data and structure of the conceptual model as well. These research studies acknowledge that OCB as mediator is very successful both in making the department more effective, improving school climate and in developing intellectual capital and the same is shown by the present study. It becomes clear that school principals in all these three organizations (Federal government, Pakistan Army, Fizaia) should utilize their leadership skills for promoting OCB in order to improve human capital. In case they do not have funds for the provision of in-service training they can still groom their staff through proper

establishment of culture of OCB, as it is witnessed in the present study that there is strong correlation between OCB and IC.

### **5.3.8 Effect of demography as moderator on relationship between PLS and IC**

Researchers suggest that demographic characteristics affect cognition, attitude, decision making ability, and also the outcomes (Johnson et al., 2013). In some situations gender produces positive while in some negative effects. However, there are cases like the present study where gender has no effect (see Table 4.32) at all. This may be due to multiple reasons like category (Junior/ senior) of teaching staff, organization structure (Johnson et al., 2013) and may be due to cultural differences (Arfken et al., 2004). Since respondents (teachers) of this study are working mostly in co-education system, there is no difference found in job description, availing incentives or in provision of resources. This could be the basic reason undermining the effect of gender on the relationship between PLS and IC. It could be due to the structural capital of the organizations that every employee receives the same incentive and they are treated in the same manner. The difference in their salaries or their designation mostly attributed to the length of their services. They are observing the same practices as observed by junior teachers and no exemption is given to any senior in any job description. No difference is found on the basis of gender, both have to follow the same procedures, and this may be the reason that the demographic variable, gender, do not show any effect on the relationship between PLS and IC.

The findings of the current study are consistent with the study conducted by Sharabati et al. (2013) in Middle East University Jordan using a sample of 200 academicians and administrative staff and 3017 students to investigate their perception on intellectual capital development in business performance. The findings showed that there is no

effect of gender in their perception on IC development and business performance in Middle East University.

### **5.3.9 Fitness of conceptual model**

It is obligatory for one to accept that, “data is science and reciprocally science are data which is provided for certain need, validate need for the baking of, much value added data preservation” (Borgman, 2012, p. 1059; Hanson et al., 2011). Through various analyses it is found that the proposed conceptual model fits the data collected in this study. In the proposed conceptual model principal leadership skills (PLS) is the exogenous variable, while intellectual capital (IC) of the schools is the endogenous variable, organizational citizenship behaviour (OCB) is the mediator. For these variables, data was collected through a survey instrument, comprising 61 items. The first 18 items representing the three sub-dimensions of principal leadership skills (TLS, OLS, BLS), next 20 items representing the five sub-dimensions of OCB (ALT, CV, CON, CSY, SMS). The remaining 23 items represented intellectual capital of the schools, with 13 items for human capital (Edu, Exp, Trg, SAA) measurement and 10 more items for social capital (SC) measurement.

For model fitness the researcher used structural equation modelling (SEM) technique. According to Hair et al. (2009) three type of fitness are recommended: absolute fit, incremental fit and parsimonious fit. All these three fitness tests have their own measurement indices. The researcher took one measurement index (see Table 4.33) for each test to verify the proposed conceptual model. The proposed conceptual model was checked by different measures, to find the absolute fit index, value of root mean square error of approximation (RMSEA), for increment fit purpose, value comparative fit index

(CFI) and for parsimonious fit, value of chi-sq/df. The full structure model provided sufficient evidence to believe that this conceptual model fits the data in hand.

Wrapping the discussion, data collected from the secondary school teachers in KP, province of Pakistan strongly support the proposed conceptual model. The present study seems an important step towards the self-development of education system of Pakistan. It is found that the amount allocated every year for the education sector cannot be considered sufficient to bring reforms; it does not fulfil even the current essential requirements (Economic survey of Pakistan, 2010). Therefore this study has proved that OCB is the suitable tool that can be utilised to develop intellectual capital of the schools. It is also clear that principals have to play their managerial role as well other than their instructional role and in such circumstances teachers can help each other and solve their problems through OCB. This stance of the researcher has found fit through the collected data and this model is a good addition for developing IC of the secondary schools in developing countries like Pakistan. If there are more capable, creative, dedicated and hardworking teachers available, as pointed out by Barney (1991), then the school is absolutely capable of improving its student achievements.

#### **5.4 Conclusion**

In Pakistan vacant teaching posts and professionally untrained teachers both affect the quality of education (Lynd, 2007). As stated by Khan (2013b), principals in Pakistani schools are inducted on the basis of their teaching experience, not on the basis of their leadership attributes. One of the drawback of such an educational system in developing countries like Pakistan is that here teachers are promoted to the positions of leaders without having any knowledge of leadership. So the principals in public sector maintain a standby situation, without much progress (Alam, 2012). As evidenced, school



effectiveness is linked to teacher quality (Runhaar et al., 2013; TALIS, 2009), which is described in terms of school intellectual capital. In fact schools are facing several challenges to improve, one of them being the intellectual development in schools (Hallinger & Heck, 2011). However teacher's initiative for school improvement is also debated in terms of organizational citizenship behaviour (Belogolovsky & Somech, 2010).

The above paragraph present the complicated picture of Pakistani educational system that lacks educational leadership skills among its principals and teachers who are untrained/unskilled thus affecting quality of education in Pakistan. And to raise the quality of educational system, there is a dire need for quality leadership and quality teachers (Peleg, 2012). Literature widely supports that leaders must have leadership skills for the effective operation of an institute and for better student outcome. Leaders rarely affect the students outcome directly but they have an impact on the intellectual capital development of the schools. This is also a fact that there are less funds and limited opportunities available for the leadership development in the context of Pakistan and mostly leadership trainings are funded by foreign projects (Khan, 2013b; Khan, 2004).

While keeping in view this faulty education system in Pakistan, the researcher conducted this study to examine the issue that whether principals working in secondary schools situated in Khyber Pakhtunkhwa (KP) province, affiliated with federal board of intermediate and secondary education (FBISE) Islamabad Pakistan possess leadership skills such as transformational, organizational and behavioural skills and whether they apply these skills for promoting OCB among teachers and development of human capital of teachers. And further the study also aim to analyse the relationships among

principal leadership skills, organizational citizenship behaviour, and intellectual capital in secondary schools in Pakistan as well. The researcher intended to show the readers the leadership skills of the principals, level of the intellectual capital of the schools, and to propose a conceptual model that can deliver quality education to the children and enhancing their learning potential. The efforts of the researcher could be considered a step forward for self-development of the educational system of Pakistan. Literature provides evidences that lack of opportunities and funds are the main hurdles in the development of the education system. In such a situation, Rahman (2014) suggests for the self-development of educational system of Pakistan.

There are still some areas that are not focussed in relation to the educational system of Pakistan. So it should not be considered that all the leaders/ principals working in schools do not possess leadership skills. May be the level of these leadership skills could be different because of the differences between primary and secondary schools, between provincial and federal government schools, between single sex and co-education schools, between public and private schools, and between urban and rural schools. This means that cultural differences and organizational structure can also affect leadership role or level of leadership skills possessed by the principals. This is also true that majority of the teachers have not received proper leadership training and they are promoted from teaching cadre to leadership post on the basis of teaching experience but still they have the leadership skills. Now from where or how did they get these leadership skills are the questions for the future researchers to investigate.

The results of the current study show that leadership skills have an impact on intellectual capital development of schools. When the leader lacks these skills, s/he will not be able to groom his/her staff for a productive purpose. There is reason to believe

that the schools included in this study are having principals with good leadership skills, and that is how majority of the teachers indicated their perceptions that majority of the leaders are involved in developing their school's human capital. Like any other organization school is an organization requires assets to get a competitive advantage. Teachers are the tangible resources of the school but their knowledge, skills, experience and training are termed as human capital or intangible assets of the schools. The norms of good relation among teaching staff are referred to social capital/relational capital, which is necessary for developing human capital. Collectively human and social capital both are termed as intellectual capital. Schools included in this study are showing an overall high level of intellectual capital, which may be different when studied on the organization basis.

The findings of this study also show that through promoting culture of OCB, principal has been successful in enhancing the intellectual capital of the secondary schools. Promoting OCB does not require funds, instead the only tool the leaders have to use their skills. Through OCB, teachers are found busy in sharing knowledge, sharing work load, discussing new techniques of teaching and evaluation and provide help in organizing co-curricular activities. Their experience, skills, knowledge and training increase the co-worker's human capital. So, culture of OCB in school is not only necessary for the development of the staff, it also brings a good reputation to the school in shaping outstanding student results in curricular and co-curricular activities.

The conceptual model proposed in this study is found to be fitting the data. The model explicitly explains that there is a firm integration of three different fields: educational leadership (PLS), organizational management (OCB) and business education or human economics (Intellectual capital). Therefore this is an interesting and valuable

contribution to the literature as the proposed model may be applicable for bringing significant changes in the educational system of a developing country like Pakistan.

## **5.5 Implications**

This section presents the implications of the findings from the current study in connection with three variables principal leadership skills, Intellectual capital and OCB of the teachers. As mentioned in the education policy (2009) that importance will be given to the teacher's professional development for improving quality of education, while Rahman (2014) suggests that self-development of education system is required, since the government allocates only 2% of its GDP for education sector and quality is not easy to be brought with this budget. The present study is a step forward in this context as it proposes a conceptual model that can help to improve quality of education in terms of producing quality teachers, necessary for quality education as mentioned by Plege (2012).

### **5.5.1 Implication for intellectual capital**

For any organization, skilled and qualified staff is a pre-requisite. Resource based view theory by Barney (1991) also endorses the same point. In the context of schools, teachers are valuable, inimitable, rare and non-substitutable resources. Such schools can provide quality education and show outstanding students' academic achievements. In the present study a self-developed instrument for the measurement of intellectual capital was used and this instrument comprised two main dimensions, human capital and social capital. Human capital was further divided into four sub-dimensions namely: education, experience, training, and skills and abilities. This self-developed instrument is found very helpful in collecting valuable data regarding IC of school. Findings of the study provided a message regarding the level of intellectual capital in the schools for the

policy makers, principals and teachers and parent as well. In the case of skills and abilities, its low level response among other sub-dimensions, suggest that more focus is required to improve the skills and abilities to meet the requirements of 21st century. This may be possible through some training workshops, by some non-government organizations (NGOs') etc. The findings also clarify that there is an overall high level of intellectual capital in the sample schools which may be due to the schools' claim that they deliver quality education and there is a sense of completion found between these schools, especially Pakistan Army and Fizaia schools. These results can be used as a guide line for other schools such as provincial government and single sex schools. Another study may be recommended to check the level of the intellectual capital in provincial government schools and private schools as well because Andrabi et. al (2008) and Iqbal (2012) articulate that private schools are better in terms instruction and monitoring than the public schools. For that, the level of intellectual capital may be determined through the survey instrument of the current study. Intellectual capital development is found to be pivotal in making a quality educational system qualitative one. As teachers have a direct link with students, they can improve their learning potential. Therefore intellectual capital has a positive impact on student's learning potential and possible outstanding academic achievements. Items for intellectual capital of this study will add useful knowledge to the current literature for its measurement through perception of the respondents.

### **5.5.2 Implication for principal leadership skills**

Findings of the present study show that principals working in the sample schools possess transformational, organizational and behavioural leadership skills at high levels. These results help to indicate whether the principals share the school vision, involve teachers in decision making, and enable the staff to achieve school goals. All these

characteristics come under the transformational leadership skills. Findings also show that these principal are possessing organizational leadership skills at high levels, as the teachers perceive that all staff perform their duty accordingly, every one abide by the rules and regulations and every one observes conducive environment for teaching learning process in their school. Further, the analysis reveals that these principals also possess behavioural leadership skills at high levels. These behavioural leadership skills enable a principal to introduce behavioural management plan, develop team efforts and promote culture of OCB in these schools. If a deficiency is found in these skills, then it may give birth to conflicts among the staff in schools. So this leadership skills analysis could be used to know the environment of the school, behaviour of the staff with stake holders and their attitudes to maintain decorum of the school. The 18 item instrument regarding transformational, organizational and behavioural leadership skills can be used to assess the performance of any principal in secondary school. Indeed it is now the policy makers' responsibility to understand how important these skills are for a leader. This study clarify by showing that leadership is not a single entity; it is composite process including rules and regulations, responsibility, collaboration, organizational effectiveness, organizational culture, team effort and struggle for staff professional development. These skills are found to be very effective in promoting OCB and developing IC of the school, and IC of the schools enhances students' learning potential. In other words, this study suggests that developing these skills in any educational institute is inevitable for its effective functioning and better student outcome. On the basis of that another study may be conducted to investigate the level of these leadership skills in provincial government, private and international schools. This type of study may be useful in understanding the deficiency of leadership skills and suggesting ways developing for these leadership skills in schools.

### **5.5.3 Implication for the OCB**

Findings regarding OCB in present study are satisfactory, as all its five components have shown a high correlation with three principal leadership skills dimensions and with two sub-dimensions of intellectual capital. This situation is quite interesting in the sense that OCB appeared as full mediator. Majority teachers perceive that there is an observation of helping behaviour in their school, teachers share knowledge and they solve each other problems i.e, showing altruism. Further they perceive that the whole staff abide by the rules and regulations, showing civic virtue, never produce conflicts and they never complain about work load, and this attitude is termed as sportsmanship qualities. In the present study the level of OCB has been found to be high in majority of the teachers, and that means these schools have a culture of OCB that can be utilized for intellectual capital development, as evidenced in this study and in the literature. This high level of OCB and its strong correlation with PLS and IC have shown its vital importance and further it has confirmed that it acts as a full mediator for the relationship between the two variables. Future researchers can use OCB as mediator in other contexts and at other locations due to its mediation role. It is suggested that policy makers and principals may develop OCB in schools for its effective functioning and intellectual capital development. OCB reduces the burden of the principal in the sense if he/she remains busy in managerial work and cannot concentrate fully towards instructional programs, at least the colleagues can help each other to cover up the situation.

### **5.6 Recommendations for future research**

Although the current study has brought some new findings, there are still certain areas that need to be explored in the context of Pakistani schools. These areas need to be identified and focussed if researchers want to add more colours to the existing literature

linking leadership skills, OCB and IC, as their research studies may bring certain unexpected outcomes. The following areas are suggested for future research;

- a) It has been noted from literature and the current study that there is no particular leadership training provided to the leaders before joining their offices in Pakistan, yet they have leadership skills to perform well. It can be an interesting investigation to find out how these principals possess these leadership skills, and if there is an opportunity to go through leadership training how much it will increase the leadership potential of the principals.
- b) Similar studies can be conducted by taking the population of provincial government schools which are single sex, international schools and private schools affiliated with local boards. Then the results can be compared with the existing study, and similarly a comparative study among them can also be conducted.
- c) Future study may focus on a mechanism to measure how much intellectual capital is enhanced through some training i.e., a mechanism to measure the intangible assets of the secondary schools.
- d) Future research may develop a mechanism that will not only evaluate current intellectual capital of the secondary schools, but also provide feedback regarding further needs of training for improving the competencies/ skills of the teachers.
- e) In this study it was found that OCB is acting as a catalyst to enhance intellectual capital of the secondary schools. But literature also suggest that OCB has a negative impact in the form of conflicts, jealousy and negative attitude of the co-workers. Therefore a study can be conducted to investigate how this counterproductive behaviour can be minimized and how employee will cover his own task, if he uses his own time to solve colleague's problems or sharing his/her burden.
- f) In the light of this study, using the proposed conceptual model, a longitudinal study may be undertaken to compare the effects of skills development of teachers.



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## APPENDIX-A

### Survey Instrument

I am conducting a survey to find out how different aspects of principal leadership develop intellectual capital of the secondary school teachers. You are invited to respond to the following items by keeping in view your school situation. Your response will be kept strictly confidential.

Respondent's code \_\_\_\_\_ Designation \_\_\_\_\_

Address of school \_\_\_\_\_

School Type (Please tick (√) the relevant category).

Public ☐ Private ☐ Semi-government ☐

### Part-A

Teacher's Demography:

1) Sex: Male ☐ Female ☐

2) Age (Years):

25-30 ☐ 31-35 ☐ 36-40 ☐ More than 40 ☐

3) Professional Qualification:

C.T. ☐ B.Ed. ☐ M.Ed. ☐ Others ☐

4) Working Experience:

Less than 1 Year ☐ 1-5 years ☐ 6-10 years ☐

11-15 years ☐ 16-20 years ☐ More than 20 years ☐

5) Academic Qualification:

Undergraduate ☐ Graduate ☐

Masters ☐ Others ☐

## Part –B

The following survey will take approximately 30 minutes to complete.

### Assessment of Principal Leadership Skills.

**Instruction:** Please **tick** in the corresponding box to the scale provided on the right of each statement that most closely matches your assessment of your principal skill level for each item.

S.No	<i>The Principal:</i>	Principal rating				
		Does Not Exhibit this Skill at all	Exhibits this Skill but Not Effective	Exhibits this Skill somewhat	Exhibits this Skill Effectively	Exhibits this Skill Very Effectively
1	Leads staff in establishing a school Vision.					
2	Leads staff in establishing a set of goals to implement vision					
3	Actively encourages staff input and participation to prioritize goals					
4	Works toward whole staff consensus on important school wide issues and goals					
5	Uses problem-solving skills to help staff to reach consensus.					
6	Expects high performance from all staff.					
7	Encourages and supports staff to self-evaluate progress in implementing school-wide goals.					
8	Provides professional development activities to support school wide goals.					
9	Anticipates predictable problems and effectively responds to them					
10	Makes sure that school agrees with district, province, and federal regulations					

11	Promotes staff unity and co-operation					
12	Provides staff with materials, resources, and proper planning to achieve school-wide goals					
13	Establishes school-wide behavioural management plan					
14	Provides resources to implement school-wide behavioural management plan					
15	Supports and recognizes staff who helps in implementing behavioural management plan					
16	Supports and recognizes student who display improved behavioural/social skills					
17	Regularly informs students, staff ,parents, and community about procedures and progress toward meeting behavioural management goals					
18	Ensures all staff know, understand, and follow agreed upon school-wide behavioural management standards, systems and practices					
<b><i>Teachers in this school:</i></b>		<b>Not True</b>	<b>Somewhat True</b>	<b>Quite True</b>	<b>True</b>	<b>Very True.</b>
19	are committed to complete the given task in given time.					
20	are found to help each other when there is a sharp notice issued by principal for any assigned task.					
21	feel no boredom when they find extra work to be done.					
22	feel a sense of co-operation among themselves.					

23	are trained such that they take part in extracurricular and co-curricular activities actively.					
24	always co-operate in conducting various functions at different occasions.					
25	have enough skills to prepare students for various activities.					
26	are facilitated by principal for organizing various educational and social activities.					
27	always abide by rules and regulations set by administration.					
28	express their views on improving teaching learning process.					
29	consider themselves as part of the solution not the problem					
30	consider that Principal acts as a role model for teacher and student development.					
31	resolve their problems amicably among themselves					
32	show sense of respect for each other when they discuss issues regarding job performance.					
33	solve students' problems in meetings so the students never find any conflict among teachers					
34	try to solve the problems of his/her colleagues.					
35	never loose heart, when they are not awarded on their achievements					
36	feel that the principal publically acknowledges the commendable efforts of the teachers in organizing various activities					



37	feel that the principal develops the sportsmanship spirit in them to achieve various academic and non-academic goals					
38	act like a team together with the principal to achieve curricular, co-curricular and extra-curricular goals					
		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
39	Well qualified teachers are one of the reasons of remarkable output of the school.					
40	Academically and professionally trained teachers are appointed in our school.					
41	Our school encourages teachers to enhance their academic and professional qualification.					
42	Our school staffs are well mannered.					
43	Our school teachers possess rich work related experience.					
44	Teaching experience has a positive impact on school performance.					
45	Our teachers have rich experience in organizing co-curricular activities.					
46	Continuous professional development contributes to the performance of our school					
47	Continuous professional development of teachers is integral part of our school					
<b><i>Please indicate your school's level in following elements:</i></b>		<b>Very Low</b>	<b>Low</b>	<b>Somewhat</b>	<b>High</b>	<b>Very High</b>

48	Investment in in-service trainings					
49	Time spent on in-service trainings					
50	Inclination towards Technical training ,like ICT trainings					
51	Inclination towards the provision of resources like ICT, Multimedia etc.					
		<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Somewhat Agree</b>	<b>Agree</b>	<b>Strongly Agree</b>
52	Teachers develop and discuss new ideas to improve teaching process and students outcome					
53	Teachers are always interested to learn and acquire new skills which enhance their professionalism					
54	Teachers are energetic and enthusiastic while performing their organizational tasks					
55	There is best practice of social relations among the teachers in our school					
56	There is an observation of positive relations among principal and teachers in our school					
57	Best social relations among the teachers act as a role model to develop the same social relations among students in our school					
58	Best social relations among the teachers have developed a best social structure in our school					
59	Mutual trust among the teachers has led to co-operation in various activities.					

60	Decent Behaviour of our teachers with principal, students and parents reflects their good social relations in our school					
61	Best Practice of social relations among our principal, Teachers and Students is a Step towards societal change					

Thank you for taking time to complete this questionnaire. Your opinion are very important. Please return the completed questionnaire to the designated person in your school.

## APPENDIX B

(Circular no. FBISE/C-N/SSC-A/2012/1763, Dated: 26-01-2012)

List of Secondary schools affiliated with FBISE Islamabad in KP province Pakistan

S.no	Institutes Name, address and code	Organized by
1	F.G. Boys public high School Abbottabad Cantt(4401)	Federal Government.
2	Army Burn Hall College for Boys Abbottabad(4404)	Pak Army
3	The FFC School, FFC Centre Murree Chowk, Abbottabad(4486)male	Frontier Force Constabulary(FFC)
4	Punjab college,CB-28,Gulistan Colony, College Road Abbottabad(4495)male	Private
5	F.G. Girls public high school Abbottabad Cantt(4403)	Federal Government.
6	Army Burn Hall college for Girls Abbottabad (4454)	Pak Army
7	Beacon House Public School ,Abbottabad (4457) Female	Private
08	Army Public School Kakul, Abbottabad(4452)male	Pak Army
09	FG Piffer H/S Abbottabad Cantt(4402)	Federal Government.
10	FG Burki Girls High School Abbottabad Cantt(4477)	Federal Government.
11	FG Javed Akhtar Shaheed secondary school PMA, Kakul, Abbottabad(4494)	Federal Government.
12	FG Fizaia secondary School Kalabagh, Abbottabad (4433)	Federal Government.
13	Army Public School and College Shinkiari, Mansehra(4440)	Pak Army
14	F.G. Boys public high School(POF) Havelian(4405)	Federal Government.
15	F.G. girls public high School(POF) Havelian(4406)	Federal Government.
16	Sir Syed High School (POF) Havelian Cantt (4458)	Private
17	Fauji foundation Model School Harripur(4465)	Fauji Foundation
18	FG public High school Tarbela(4448)	Federal Government.
19	GIK, Institute School Topi, Distt Swabi(4468)	Private
20	Iqra Army Public School Tarbela(4476)	Pak Army
21	Wapda Cadet college Tarbela, Distt: Harripur(4484)	Private
22	FG public High School Nowshera Cantt(4415)	Federal Government.
23	Army Public School (Zamzama),Nowshera Cantt(4441)	Pak Army
24	Army public School and College (Armour ) Nowshera Cantt(4444)	Pak Army
25	FG boys High School Nowshera(4460)	Federal Government.
26	Army public School(Iqbal), Nowshera Cantt(4464)	Pak Army
27	FG Girls High School Nowshera Cantt(4470)	Federal Government.
28	Army Public School Akora Khattak, Distt: Nowshera(4483)	Pak Army
29	Army Public School and college Cherat, The and Distt Nowshera(4481)	Pak Army
30	FG public school Cherat(4439)	Federal Government.
31	Army Iqra public School Risalpur Cantt(4455)	Pak Army
32	FG public high School Risalpur Cantt(4407)	Federal Government.
33	FG public girls high School Risalpur Cantt(4408)	Federal Government.

34	FG public Sapper girls high School Risalpur Cantt(4410)	Federal Government.
35	FG public Sapper boys high School Risalpur Cantt(4409)	Federal Government.
36	Fizaia Degree College Risalpur Cantt(4411)	Fizaia(Air force)
37	Aziz Bhatti Shaheed Army School and college(PRC) Mardan(4456)	Pak Army
38	FG public high School Mardan Cantt(4412)	Federal Government.
39	FG Model School Mardan Cantt(4413)	Federal Government.
40	FG Girls H/S (PRC) Mardan (4446)	Federal Govt
41	Fizaia Inter college Shaheen Campus Peshawar(4428)	Fizaia(Air force)
42	Fizaia degree College Peshawar Cantt(4429)	Fizaia(Air force)
43	FG Fizaia sec. School PAF Base Shaheen Campus Peshawar(4432)	Federal Government.
44	Army Public School and Girls college 56-A,The Mall Peshawar Cantt(4442)	Pak Army
45	Garrison Army Public School Michini Lane, Babar Road Peshawar Cantt(4482)	Pak Army
46	Army public School and College for Boys Warsak Road, Peshawar Cantt(4453)	Pak Army
47	FG girls High School Stadium road Peshawar Cantt(4425)	Federal Government.
48	FG girls public high School Khyber road Peshawar Cantt(4426)	Federal Government.
49	FG public Secondary School no.1 Warsak road Peshawar Cantt(4491)	Federal Government.
50	FG girls High School no.4 School road Peshawar Cantt(4492)	Federal Government.
51	FG boys Public high School Peshawar Cantt(4423)	Federal Government.
52	FG tech High school Tariq road Peshawar(4424)	Federal Government.
53	FG public School Warsak colony, Peshawar(4427)	Federal Government.
54	Army Public school Warsak Garrison, Peshawar(4435)	Pak Army
55	Fizaia Model school PAF Campus, Badaber Peshawar(4434)	Fizaia(Air force)
56	FG public high school Kohat Cantt(4418)	Federal Government.
57	Fizaia Intermediate college Kohat(4420)	Fizaia (Air force)
58	Army Public school Kohat(4459)	Pak Army
59	FG boys (STC) high school, OTS road, Kohat Cantt(4419)	Federal Government.
60	FG girls high school(STC), Kohat Cantt(4445)	Federal Government.
61	The Educator Kohat Cmpus,50-A sector 9 near Foot Ball ground, KDA, Kohat(4493)	Private
62	Garrison Cadet college Kohat, P.O. Box.04.Kohat(4487)	Pak Army
63 ×	FG public high school Thall Cantt(4422)	Federal Government.
64 ×	Army Public school Thall Cantt(4467)	Pak Army
65 ×	Army Public school HQ Tochi scouts, Meranshah(4478)	Pak Army
66	Army public School and college D.I. Khan(4450)	Pak Army
67	Junior Army Public School D.I.Khan (4474)	Pak Army
68	F.G boys Public high school Bannu Cantt(4416)	Federal Govt
69	F.G girls public high school Bannu Cantt(4449)	Federal Govt
70	Army Public school and college Bannu Cantt(4461)	Pak Army

71 ×	Frontier corps public school Wana, South Waziristan Agency(4438)	Frontier Force Constabulary(FFC)
72 ×	Musa Nikka public school and college, Wana south Waziristan Agency(4488)	Private
73 ×	The frontier corps Public School Darosh, Chitral(4436)	Frontier Force Constabulary(FFC)
74	Special education centre for hearing impaired children, phase-v, Hayat Abad Peshawar(4490)	Private

## APPENDIX-C

List of the secondary schools included in this study

S.no	Address of the school	Contact person	Contact number
01	F.G.Public High School#1 Peshawar, Pakistan	Principal	+92-91-9212957
02	F.G. Girls High School stadium Road Peshawar, Pakistan	Principal	+92-91-9212470
03	F.G. Technical High School Peshawar, Pakistan	Asif clerk	+92-333-9233251
04	F.G.Public High School Nowshera, Pakistan	Gohar zaman (Principal)	+92-314-9613062
05	F.G. Girls High School Nowshera, Pakistan	Principal	+92-923-9220165
06	F.G. Boys High School Nowshera, Pakistan	Principal	+92-923-9220164
07	F.G. Sapper Boys High School Risalpur Cantt, Pakistan	Principal	+92-301-8098164
08	F.G. Sapper Girls High School Risalpur Cantt, Pakistan	Principal	+92-923-631007
09	F.G. Public High School Risalpur Cantt, Pakistan	Principal	+92-923-631013
10	F.G. Model High School Mardan Cantt, Pakistan	Principal	+92-300-5352313
11	F.G. Public High School Mardan Cantt, Pakistan	Rohal Ameen	+92-314-9622332
12	F.G. Girls High School Mardan Cantt, Pakistan	Anwar Zaib	+92-3469323376
13	F.G. Boys High School(OTS) Kohat	Naveed	+92-300-9155647
14	F.G. Girls High School(STC) Kohat	Shah Faisal	+92-9203382
15	F.G. Public High School Kohat	Qadar Saeed	+92-345-9800853
16	F.G. Boys High School Bannu Cantt	Aman Ullah	+92-300-9157356
17	F.G. Boys High School Bannu Cantt	Aman Ullah	+92-300-9157356
18	F.G. High School Cherat Cantt		
19	Fizaia Degree college Risalpur Cantt	Abdul Samad	+92-300-5722117
20	Fizaia Degree college Peshawar Cantt	Zulfiqar	+92-300-5921746
21	Fizaia Inter college Peshawar Cantt	Gul Amir	+92-333-9196296
22	Fizaia Inter college Badabar Cantt	Zafar	+92-333-9114800
23	Fizaia Inter college Kohat Cantt	Wilayat Shah	+92-345-9662695
24	APS Boys Peshawar Cantt	Adalat Khan (Admn. Officer)	+92-333-9173433
25	APS Girls Peshawar Cantt	Adalat Khan (Admn. Officer)	+92-333-9173433
26	APS Toddlers Academy Peshawar Cantt	Adalat Khan (Admn. Officer)	+92-333-9173433
27	APS Boys Peshawar Cantt	Adalat Khan (Admn. Officer)	+92-333-9173433
28	APS Boys Peshawar Cantt	Adalat Khan (Admn. Officer)	+92-333-9173433

29	APS Iqra Risalpur Cantt		
30	APS Armour Nowshera Cantt	Iftikhar	+92-345-9366610
31	APS Aziz Bhatti Mardan Cantt	Riaz ur Rahman	+92-300-5712678



## APPENDIX-D

### Permission Letter from Mary Richter



Muhammad Niqab <niqab2@gmail.com> Jan 30

to marymrichter

----- Forwarded message -----

From: **Muhammad Niqab** <[niqab2@gmail.com](mailto:niqab2@gmail.com)>

Date: Sun, Jan 19, 2014 at 9:31 AM

Subject: Request for the provision of questionnaire

To: [marymrichter@sbcglobal.net](mailto:marymrichter@sbcglobal.net)

Respected Madam/Sir,

Greeting and happy New Year.

I am a PhD student in institute of educational leadership, university Malaya, Malaysia. I have read your article on SWPBS published in 2012. I would feel my great pleasure if i include the same in my research study in the context of Pakistan. Please grant me permission to use that questionnaire used for the measurement of leadership skills. And provide me that questionnaire. I shall share my findings with you at the completion of my research.

Jan 30

Mary M Richter <[marymrichter@sbcglobal.net](mailto:marymrichter@sbcglobal.net)>

to me

Dear Muhammad Niqab,

Attached please find the questionnaire. You are welcome to use it as you see fit. Thank you for your interest in my work.

Mary Richter

*Mary Richter, Ph.D.*

*Missouri SW-PBS State Coordinator*

*303 Townsend Hall*

*University of Missouri, Columbia, MO 65211*

**From:** Muhammad Niaqab

**Sent:** Wednesday, January 29, 2014 9:28 PM

**To:** [marymrichter@sbcglobal.net](mailto:marymrichter@sbcglobal.net)

## APPENDIX –E

Permission Letter from Organ, Dennis W.



Jan 28

Muhammad Niqab <niqab2@gmail.com>

to organ, SAILESH

Greeting sir,

I am a PhD student at institute of educational leadership, university Malaya, Malaysia. I am interested to use your questionnaire regarding organizational citizenship behaviour as a mediator. I humbly request that please allow me to use your questionnaire and please provide me the latest form of that questionnaire (soft copy). I shall be grateful and thank for this act of kindness. I shall share my findings with you. And let you know that how OCB affect assets competitive advantage. Hopefully you will provide me the questionnaire as well as guidance at various stages of this productive research.

Thanks in anticipation

Sincerely,

Muhammad Niqab

PhD student,

University Malaya, Malaysia

Jan 30

Organ, Dennis W. <organ@indiana.edu>

to me

Mr. Niqab,

You have my permission to use any version of the OCB measure that is described in a publication authored or co-authored by me.

However, I do not have copies of these instruments available. You can find all of the items used in the different versions in articles such as Smith, Organ, & Near, Journal of Applied Psychology, 1983; Konovsky and Organ, Journal of Organizational Behavior, 1996; or the book Organizational Citizenship Behavior: Its Nature, Antecedents and Consequences, Sage Publications, authors Organ, Podsakoff, and MacKenzie (the book has an appendix with descriptions and comments on the different versions of the measure).

Respectfully,

Dennis W.Organ

## APPENDIX-F

### Face Validity Report from Dr. Abdul Ghaffar

Muhammad Niqab <niqab2@gmail.com>

8/1/1  
4

to ghafar75, SAILESH, Kannan

Respected Sir,

I am a PhD Student In Institute of Educational Leadership, University Malaya, Malaysia. I have developed a questionnaire for data collection in secondary Schools in KPK, province, Pakistan. The aforesaid questionnaire is attached herewith for knowing your expert opinion, so if you suggest any adjustment/ changes in in this instrument please provide it.

Thanks in anticipation.  
Best Regards

abdul ghaffar <ghaffar75@yahoo.com>

8/4/1  
4

to me

Dear Niqab,

Thank you very much for sending this questionnaire for vetting/validating.

Please note the following points regarding questionnaire;

1. If you are not considering the demographic variables for analysis purpose, then no need of asking extra questions.
2. Your questionnaire items are no doubt most relevant to the problem area which reflects the scholarly effort and guidance of your supervisor but in our Pakistani context some of the items are near to ideal which will yield only superficial responses from the respondents.
3. I would recommend a pilot study of the questionnaire which will tell you which items need to be modified or removed.
4. Unfortunately we don't have keen respondents and we have yet to develop a research culture here, it is therefore recommended that bring the number of items to the minimum probably to 40. The problem is that you will not extract the desired information with such a long questionnaire.
5. Some of the items have been highlighted with comments, please follow the instructions there.

Please discuss with your supervisor all the mentioned issues then we can have a meeting next week Insha Allah.

Questionnaire with comments is attached.

Regards.

Dr. Abdul Ghaffar  
Assistant Professor  
Department of Education  
Abdul Wali Khan University Mardan (KPK)

## APPENDIX-G

Face Validity Report from Dr. Bibi Asia Naz

8/11/14

Muhammad Niqab <niqab2@gmail.com>

to asianaz, SAILESH, Kannan

Respected Madam,

I am a PhD Student In Institute of Educational Leadership, University Malaya, Malaysia. I have developed a questionnaire for data collection in secondary Schools in KPK, province, Pakistan. The aforesaid questionnaire is attached herewith for knowing your expert opinion, so if you suggest any adjustment/ changes in this instrument please provide.

Thanks in anticipation.

Best Regards,

Bibi Asia Naz Deptt of Education <asianaz@awkum.edu.pk>

8/11/14

to me

The review questionnaire is hereby attached with comments

Regards

Dr. Bibi Asia Naz

Lecturer

HEC Approved Supervisor


Department of Education

Abdul Wali Khan University Mardan

## APPENDIX-H

### Permission for Data Collection from SBBU

Office of the Registrar  
**SHAHEED BENAZIR BHUTTO UNIVERSITY**  
SHERINGAL, DIR UPPER, KHYBER PAKHTUNKHAWA, PAKISTAN



Ref. No. SBBU/Estab/ltr/14- 2948 Date 12/08/2014

**To**  
All Principals /Head masters  
secondary schools  
Affiliated with Federal Board Islamabad  
Situating in KPK Province.

**Subject:** Permission for Data Collection


Respected Sir,

It is stated that Mr. Muhammad Niqab is the employee of Shaheed BB University Sheringal dir upper and currently is Ph.D Scholar in Institute of Educational Leadership University Malaya, Malaysia. Please co-operate him in collection of data from your school for the completion of his Ph.D studies.  
Thanks and regards!

**Assistant Registrar (Acad),**

Copy for information to:

1. Secretary to Vice Chancellor.
- ✓ 2. Mr. Muhammad Niqab
3. Record File.

  
**Assistant Registrar (Acad),**

Phone No. 0944885570-529 Fax 0944885805

## APPENDIX- I

### Permission for Data Collection from F.G. Educational Institution

F. G Educational Institutions  
C/G Regional Office Peshawar  
Tele No. 20136322  
No. F-2-20/CIR-14(ROP) 5068  
15 Aug 2014

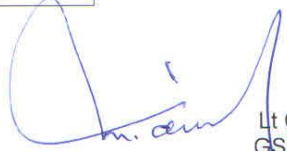
To All Heads  
(Concerned)

Info: Mr. Muhammad Niqab, Lecturer,  
Shaheed Benazir Bhutto University Sheringal Dir Upper

Subject: Permission for Data Collection

Mr. Muhammad Niqab, Lecturer, Shaheed Benazir Bhutto University Sheringal Dir Upper is hereby authorized to visit the following institution to collect data for completion of his Ph.D studies.

Ser	Name of Institution
a.	FG Boys Public High School, Peshawar
b.	FG Girls Public High School, Peshawar
c.	FG Public Secondary School No.1, Peshawar
d.	FG Technical High School, Peshawar
e.	FG Girls High School, No.4, Peshawar
f.	FG Girls High School, Stadium Road, Peshawar
g.	FG Public High School, Nowshera
h.	FG Boys High School, Nowshera
i.	FG Girls High School, Nowshera
j.	FG Public High School, Risalpur
k.	FG Sapper Boys High School, Risalpur
l.	FG Sapper Girls High School, Risalpur
m.	FG Girls High School, Risalpur
n.	FG Public High School, Mardan
o.	FG Model High School, Mardan
p.	FG Girls High School, PRC Mardan
q.	FG Public High School, Kohat
r.	FG Boys High School, OTS Road Kohat
s.	FG Girls High School, STC Kohat
t.	FG Boys Public School, Bannu
u.	FG Girls Public School, Bannu
v.	FG Public School, Thall
w.	FG Public School, Cherat

  
Lt Col  
GSO-I  
(Muhammad Sharif)

## APPENDIX-J

### Permission for Data Collection from Fizaia (Air force) Educational Institution

RESTRICTED

Air HQ/76200/40/SC

FDC Peshawar  
FIC Badaber  
FIC Peshawar

FDC Risalpur  
FIC Kohat

[Principals]

27 August, 2014

XP  
PI facilitate  
him  
4/28/18

#### PERMISSION FOR DATA COLLECTION

1. Mr Muhammad Niqab, an employee of Shaheed Benazir Bhutto University Shringal Dir Upper is currently undergoing his PhD from Institute of Educational Leadership (IEL) University of Malaya, Malaysia. In order to complete his PhD thesis he needs to collect data from Fazaia schools situated in KPK province and affiliated with Federal Board of Intermediate and Secondary Education, Islamabad.
2. The addressee Principals are requested to allow him to visit the institution and collect requisite data from the teachers through a questionnaire for his research.

*Mansoor Javed*  
(M NASIR JAVED)  
Group Captain  
Director of Schools & Colleges  
Air Headquarters, Peshawar  
Tel Ext 7231

RESTRICTED

## APPENDIX-K

### Permission for Data Collection from Pakistan Army Educational Institution

APEIs Secretariat  
HQ Arty 11 Corps  
Peshawar Cantt  
Tel: Mil 32303  
0307 /13 / APEIs  
10 Sep 2014

To: All APEIs

Info: Mr. Muhammad Niqab  
Lecturer (Shaheed Benazir Bhutto University Sheringal Dir upper)

Sub: Permission for Data Collection

Mr. Muhammad Niqab Lecturer (Shaheed Benazir Bhutto University Sheringal Dir upper) is hereby authorized to visit the following institutions to collect data for completion of his Ph.D studies:-

- a. Army Public School & College (Boys) Peshawar
- b. Army Public School & College (Girls) Peshawar
- c. Army Public School (Junior) Peshawar
- d. Army Public Toddlers Academy Peshawar
- e. Garrison Army Public School Peshawar

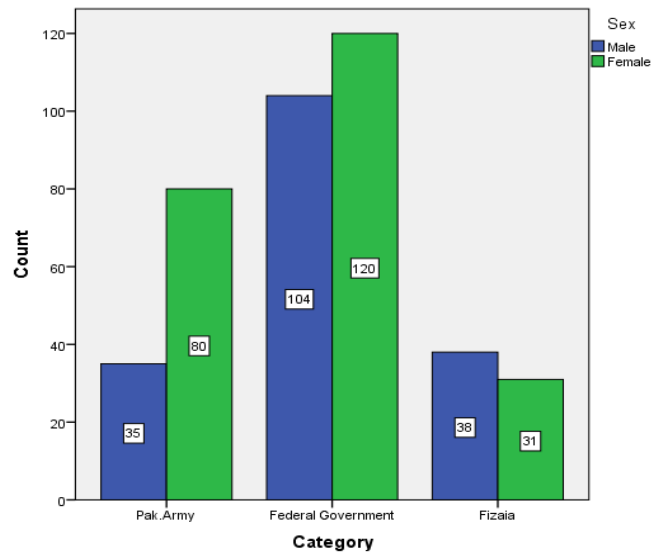
  
Lt Col  
GSO-1(Adm)  
(Hazrat Bilal)



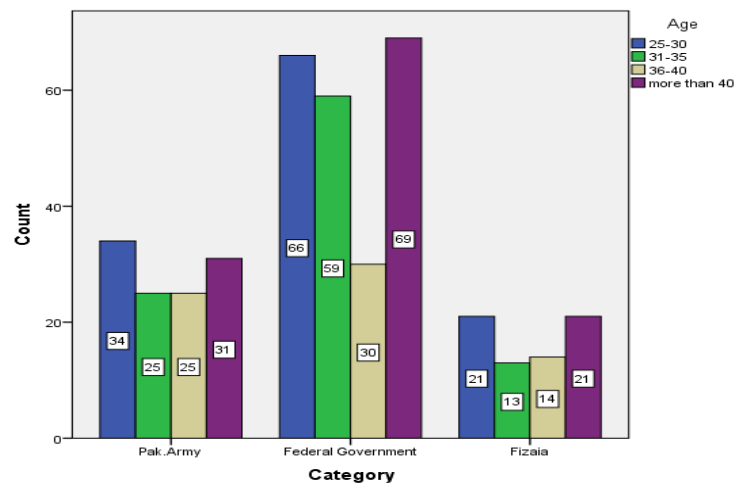
## APPENDIX-L

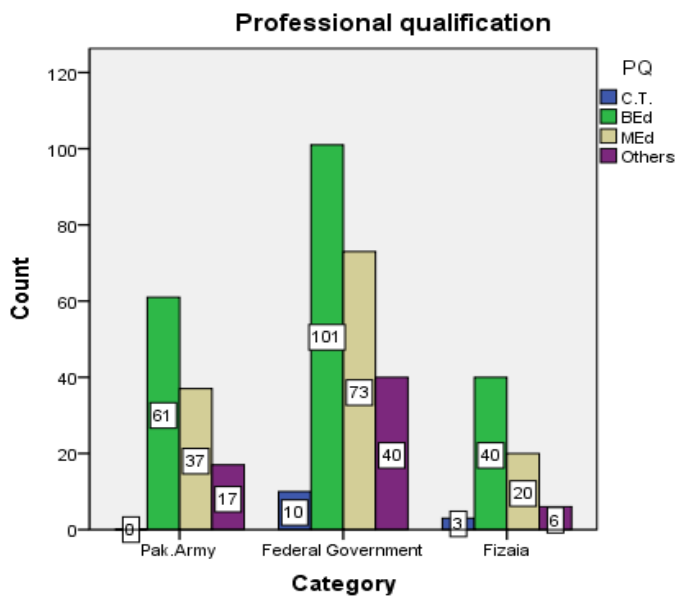
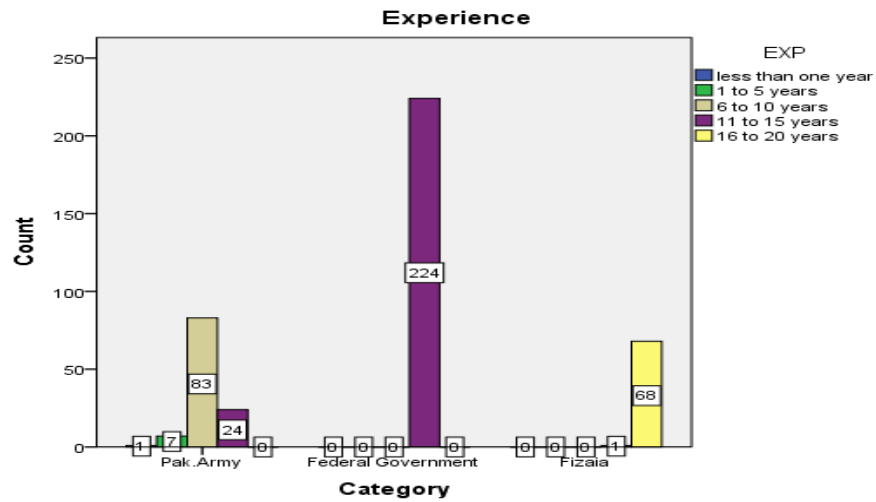
### Graphical representation of Demography

Sex



Age

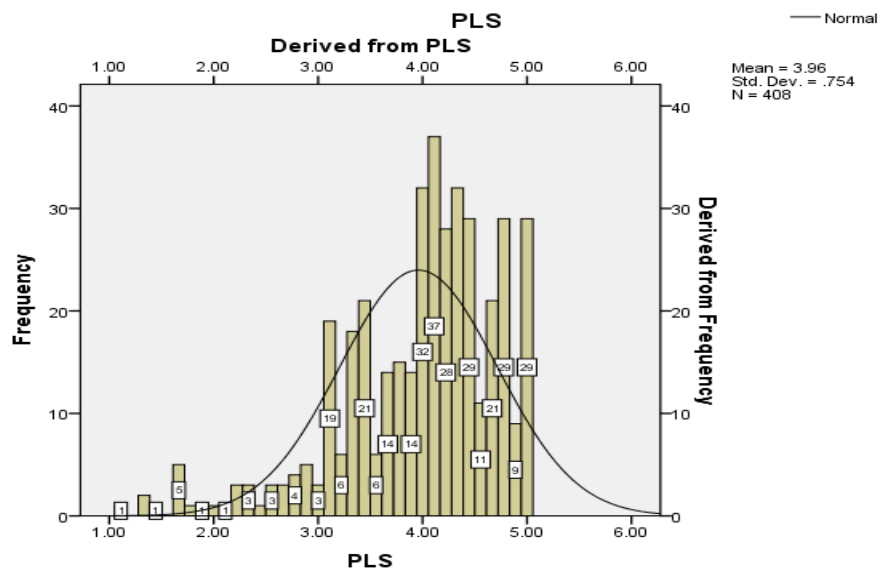


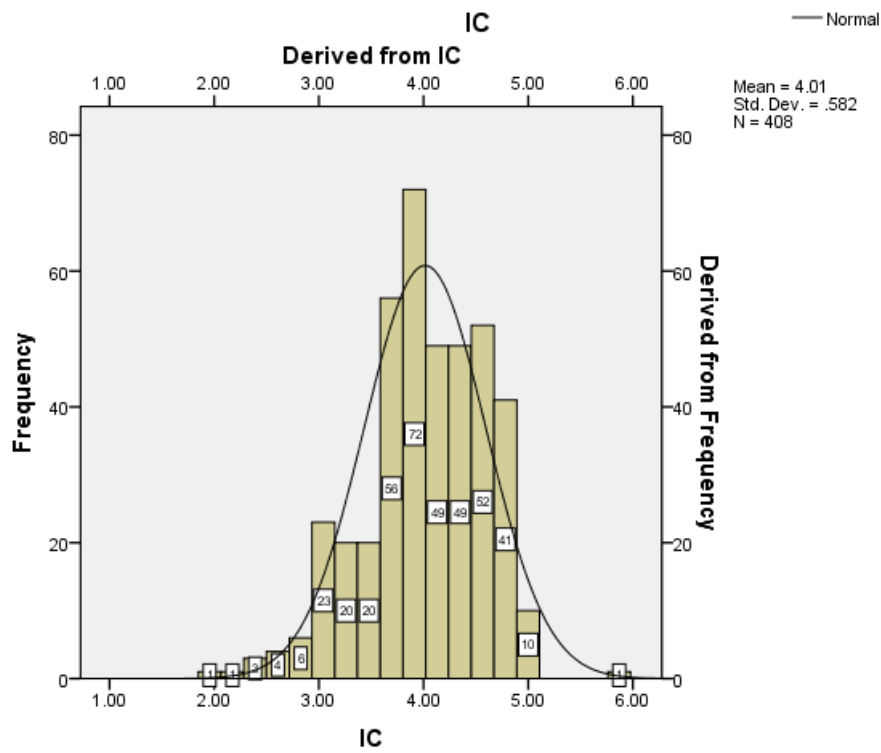
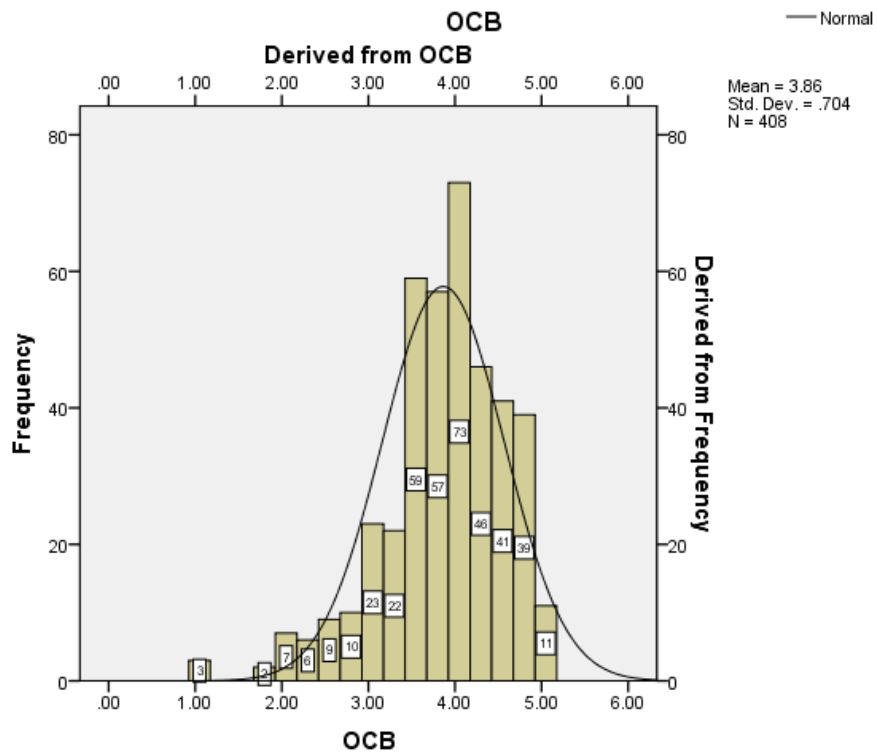


**Report:** Graph shows us information regarding different entities/variables under consideration. Graphs also show a relationship between two different variables. Here in this case Horizontal axis shows us type of organization termed as category, while vertical axis shows number/ count of respondents. Number inside the Bar graph shows actual number of respondents' possessing that particular characteristic (demographic information). While colour/size of bar differentiate one information from the other. There are three different organizations: Pak. Army, Federal Government and Fizaia. Graphs drawn here represent different aspects (Demographic information) of these three Organizations.

## APPENDIX-M

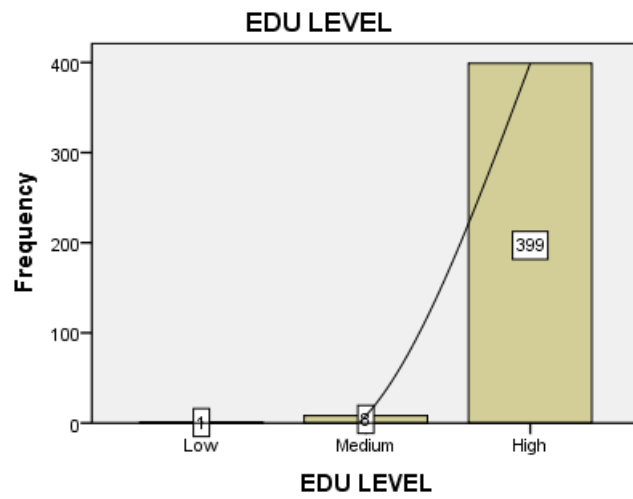
### Normality curves

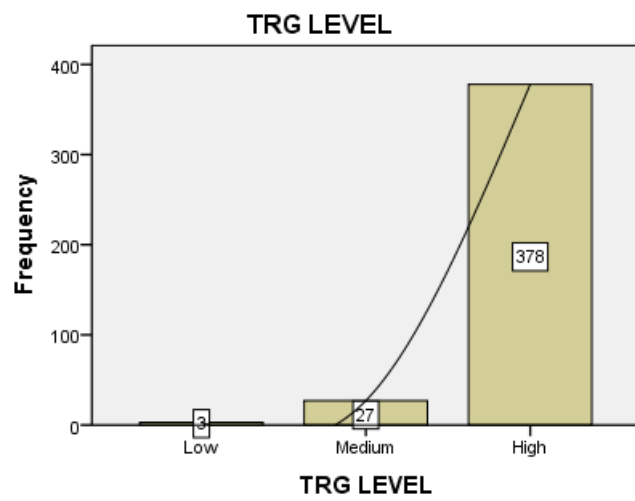
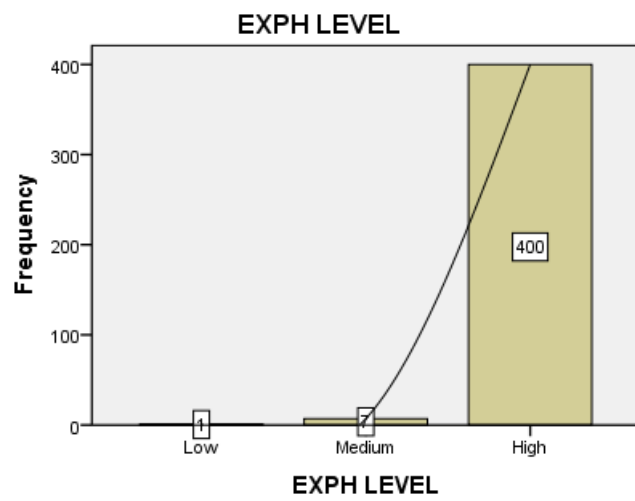


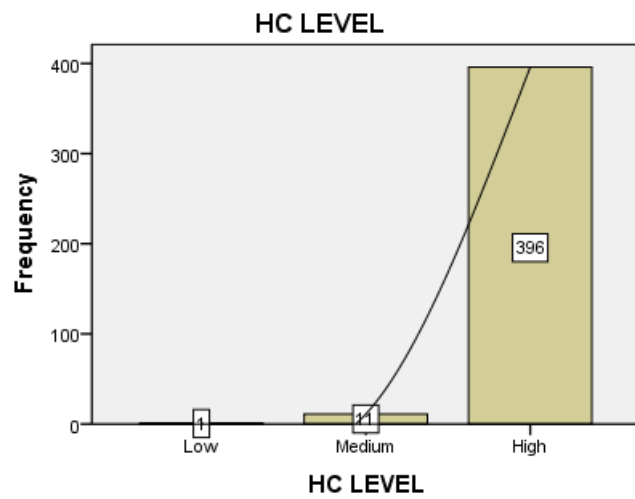
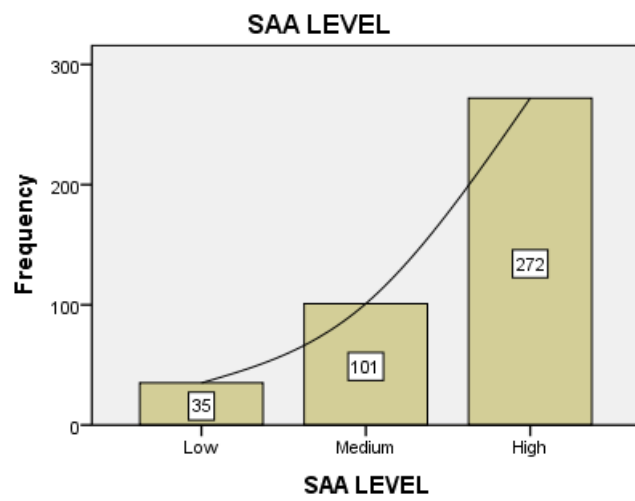


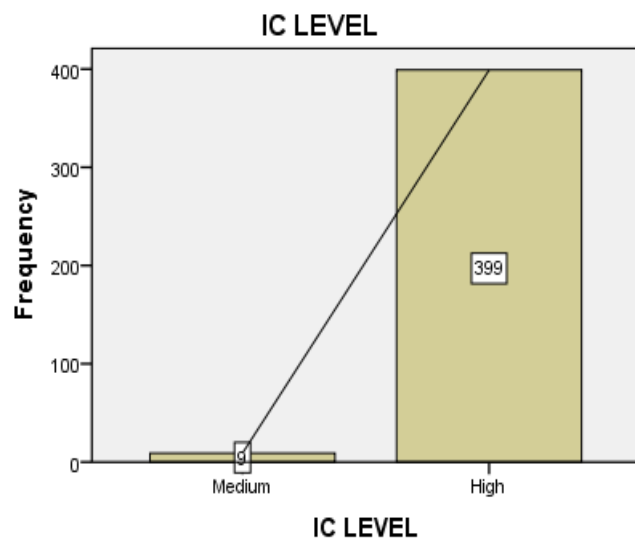
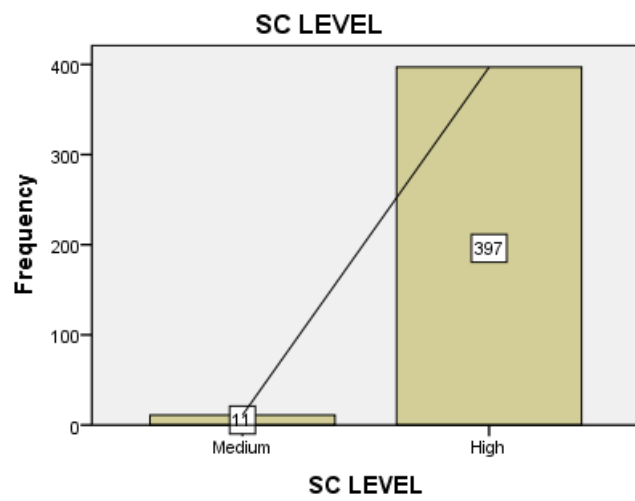
## APPENDIX-N

Graphical representation of Intellectual Capital level







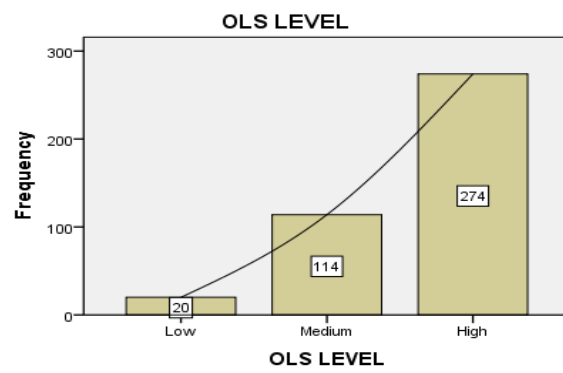
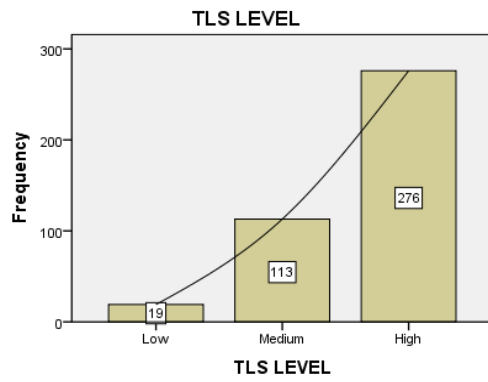


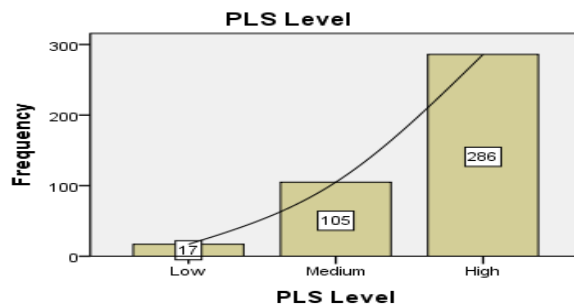
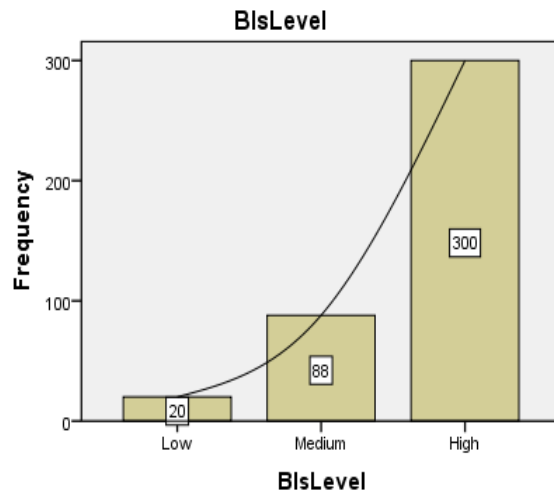


**Report:** Graph shows us information regarding different entities/variables under consideration. Graphs also show a relationship between two different variables. Here in this case Horizontal axis shows level of intellectual capital/ level of sub dimension of IC (HC, SC), while vertical axis shows number/ count of respondents. Number inside the Bar graph shows actual number of respondents' showing that particular level (Low, Medium, High).

## APPENDIX-O

Graphical representation of PLS level

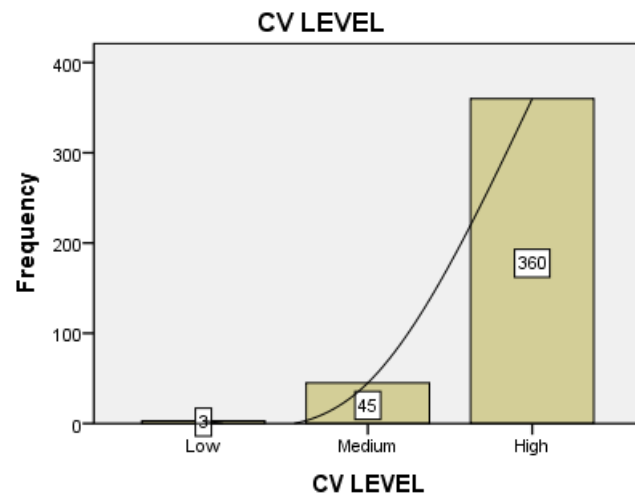
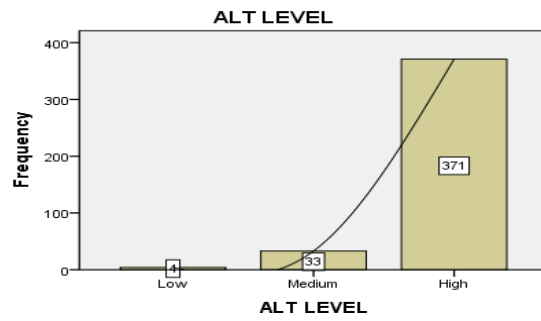


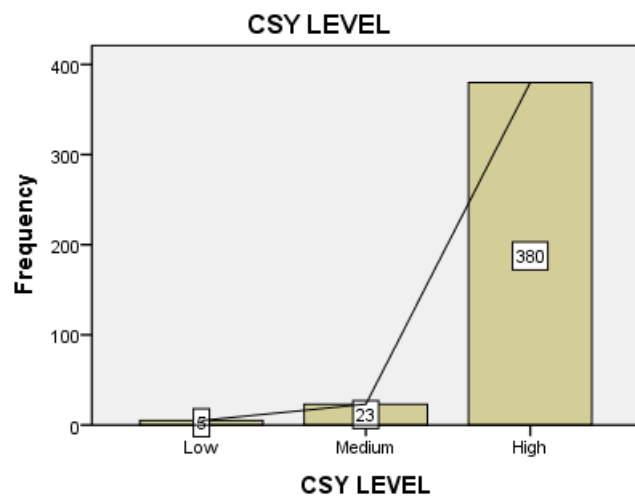
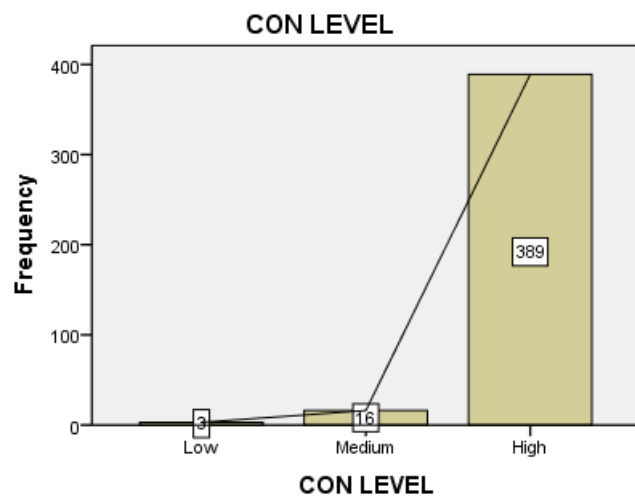


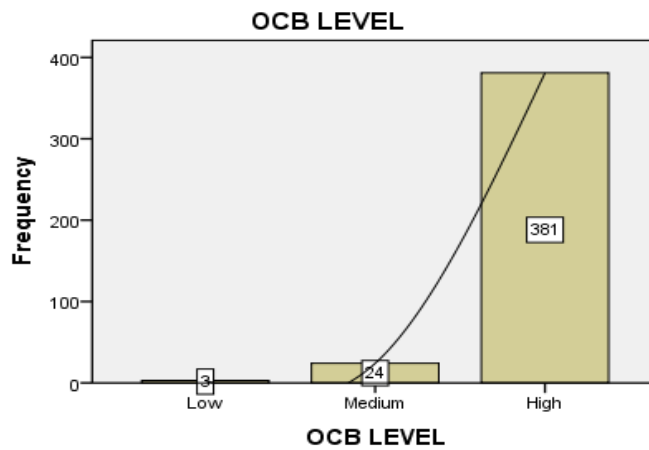
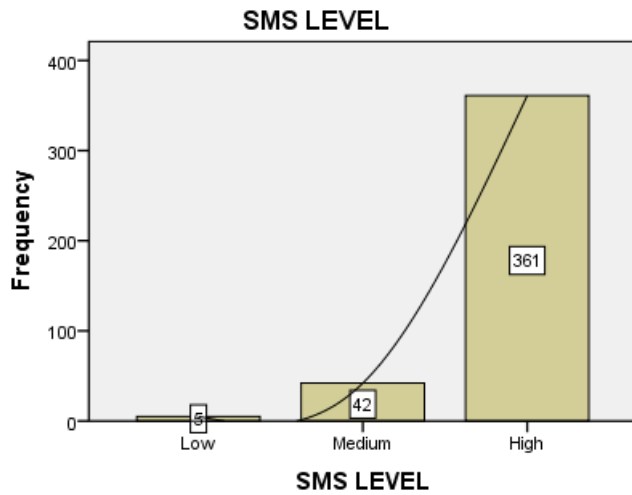
**Report:** Graph shows us information regarding different entities/variables under consideration. Graphs also show a relationship between two different variables. Here in this case Horizontal axis shows level of Principal leadership skills/ level of sub dimension of PLS(TLS, OLS, BLS), while vertical axis shows number/ count of respondents. Number inside the Bar graph shows actual number of respondents' showing that particular level (Low, Medium, High).

## APPENDIX-P

Graphical representation of OCB level







**Report:** Graph shows us information regarding different entities/variables under consideration. Graphs also show a relationship between two different variables. Here in this case Horizontal axis shows level of Organizational Citizenship Behaviour/ level of sub dimension of OCB (ALT, CV, CON, CSY, SMS), while vertical axis shows

number/ count of respondents. Number inside the Bar graph shows actual number of respondents' showing that particular level (Low, Medium, High).