Determinants of Quality of Life and Well-Being in Rural and Urban Areas of Khybr Pakhtunkhwa

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This study attempted to concentrate on the province of Khyber Pakhtunkhwa and looked at the QoL and Well-being of individuals in thirteen of its districts representing its major population. It followed an integrative and quantitative approach to measure Quality of Life. The results show that Material Living Conditions (MLC), Productive Activity and Quality, Personal Development and Health Access and Perception affect the quality of life positively and significantly in all the districts in both the urban and rural areas with some exceptions. Personal Safety (PS) and Security has positive effects on the QoL for nearly all of the target areas. The study shows that Governance and Basic Rights (GBR) affects the quality of life negatively in majority of the research areas. However, in some areas like Nowshera in the rural area (0.354), Lower Dir (0.004), Kohat in the urban area (0.301), the governance and basic rights are affecting the QoL in a positive way. Inter-personal Relation and Social Cohesion (IPRSC) effects the quality of life in both negative and positive way. Natural and Living Environment (NLE) is affecting adversely the Quality of Life. There is a need to develop dimensions of the aggregate effects which further requires data on these collective effects on development in different areas for instance health, education, political voice etc., which are the prominent characteristics for Quality of Life. There is a need not only to augment the acquired level of information base but also to further ameliorate statistical prowess.

Key Words: determinants, quality of life, wellbeing, Khyber Pakhtunkhwa

Man through the ages has always been concerned with the Quality of Life (QoL). It depicts the Well-being of the people in the environment that they live in. For any individual QoL will signify the set of wants which after being attained on the whole will make him happy and satisfied (Liu, 1970). Quality of Life has emerged as a significant area under discussion in economics, especially in the area of Happiness Studies (Diener & Suh,1997). The US and Scandinavian Development of the Social Indicators Movements in the 1960s and 1970s include the concepts of quality of life and well-being due to the need that economic indicators could not be solely relied upon as being reflective of the quality of life of population (Vesan & Bizzoto, 2011). The overall development of the concept of QoL can be summarized by defining QOL in terms of indicators for instance, GNP (Gross Domestic Product), health or welfare indicators, educational and environmental indicators etc. And lastly indirect definition by specification of variables or factors affecting QoL e..g., a group of social, economic, political, and environmental indicators represented by different composite indexes.

The concept of QoL involves complex inter-relationships among economic, social and environmental considerations. Different disciplines like economics, sociology, environmental sciences and psychology have tended to approach the issue of QoL in terms of their respective perspectives. Therefore a great deal of effort is put forth in the development of the concept so that those at the helm of making decisions whether they be public or private arenas, can use it as an effective tool (Livingston, 1998). QoL is a broad concept that encompasses a number of different dimensions with elements or factors in each dimension that can be measured through an associated number of indicators (Eurostat, 2007). Authors analyzing QoL agree that it is determined by internal and external environment (Cummins, 1996) (Hagerty et al., 2001) (Veenhoven 2000; 2005; 2007). Quality of life is formed by external forces like technological advancement, national and international relations, societal set-up and environmental factors as well as internal forces pertaining to the individuals' and groups' behavior within the society (Kolenikov, 1998). QoL widely covers all the aspects of well-being which are not just material in nature, but also comprises of all those other areas which we regard as fundamental for our living that are non material (Stiglitz, Sen & Fitoussi, 2009).

Subjective well-being as a concept has a definition of being uni as well as multidimensional in character when taken to mean general satisfaction or satisfaction in particular domain of life, respectively (Bell 2005). However there are competing views about the relationship of Quality of Life and Well-being (Haas,1999). Some regard the term as interchangeable with QoL (Felce & Perry 1995), while some look at it as being embedded in the wider approach of QoL (Diener and Suh 1997; Vitterso 2005). QoL encompasses not only the material aspects of life like income, employment, housing etc but also the more intangible non-material factors like family, social cohesion, trust etc, influencing it. Well-being too is multidimensional and is embedded in the broader sphere of Quality of Life. It relates to satisfaction with life in general

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and also satisfaction in various domains of life. In Pakistan it is more a cause for concern because Pakistan is a large country with a diverse population and a huge resource base where, since its coming into existence nearly seventy years ago, people's overall well-being has not been duly addressed by a majority of successive governments (Haq, 2009). Pakistan chronically suffers from over population, poverty, illiteracy, poor health, meagre amenities and services for the wider sections of the society, where a number of cross district, provincial and regional studies have been conducted (Haq 2009). Siddiqui (2008) assesses that overall national and provincial statistics cover up the actual shortcomings that signify deficiencies and vast inequalities that lie in terms of regions.

The present study focuses on quality of life of individuals taking into account an individualistic ideology where the QoL depends on the unique experience of life for each person. Most of the studies undertaken give an overall picture of districts of Pakistan and most concentrate on prosperous provinces like Punjab and some on Sind (Jamal & Salman 1988), while Khyber Pakhtunkhwa and Balochistan though part of these researches have not been solely tackled in terms of QoL and Well-being (Pasha & Tariq 1982). The present study attempts to concentrate on the province of Khyber Pakhtunkhwa and look at the QoL and well-being of individuals in thirteen of its districts representing its major population spread over its seven divisions. It will follow an integrative approach to measuring Quality of Life (Costanza,2005) using both an objective need based approach together with individual well-being, by using both objective and subjective measurement tools where both the objective measures focused on social, economic and health indicators and subjective indicators focusing on individual experiences of life are considered imperative in providing a sounder picture of social, economic and health indicators.

Researchers in QoL have studied its various aspects and not only developed systematic methods for constructing indicators but also found ways to gauge their impact of human development in objective as well as subjective terms. Liu (1970) assessed quality of life (QoL) in large cities in the U.S. He came up with a method of developing indicators to assess the overall condition of the citizens' well-being depicting their social, economic, political and environmental situation. These factors were composed of numerous indicators which were based on its relation to the quality of life inputs. While, Krizmanic and Kolesaric (1996) studied the psychological variables as predictors of quality of life. Where the overall quality of life in particular dimensions of life was examined. A sample of 536 adults in Zagreb Open University was taken. A multiple regression analysis showed the predictability of different demographic variables like age, sex, family status, education, occupation, intelligence and basic personality dimensions were measured by Eysenck's personality questionnaire. Lai, (2002) assessed how the population developed in the Chinese provinces in the early 90s using the method of weighted principal component analysis. The effects of the transitional period were also assessed on health and economic development as China went through an openness phase. Chou, et. al (2007) in his study observes that in rural Peru where despite high incidence of poverty people are generally happier than in the cities where more material considerations make life generally unfulfilled for urbanites. The study looks at the poorer housholds in terms of their income and expenditure behaviours and concludes that both absolute as well as relative income had an important bearing on the quality of life of the respondents. Edgerton (2012) studied the link that education has and its imperativeness to the Quality of Life. Their study comprised of an in-depth review of a vast amount of research which observed the affect more education has on individuals quality of life. A four-fold purpose of education was conceptualized which was broken down into as an aim to interact with other people, as a means towards an income, as a proper and accepted way of living and as a way which allocates according to achievement, where all these processes are connected and integrated with each other. The authors adopted an investigative approach in which the effects of education on various dimensions of life were examined extending from purely economic to social and psychological domains.

In the Pakistan context, Pasha et. al (1990), observe that some noteworthy shifts took place in the decades of the 70s and 80s in terms of numerous district rankings of Pakistan in terms of their development, especially those at the intermediate level of development. Their study focused mainly on social indicators collecting data from various sectors like agriculture, industry and communication. Ghauset. et. al (1996) studied the differences across the regions in terms of how developed their social networks are taking the districts of Pakistan into account. They ranked the districts using social indicators like access to education, health and potable water. Female literacy rates and enrollment rates were seen as signifying the imperative role education plays in social development. Urban sprawl and better administrative capacities combined with a means of economic betterment in the form of, for instance, a sea port etc., can also cause differences in regions in terms of social development. Jamal and Khan (2003) looks at the backwardness of most districts in the decades of the 80s and 90s taking into account the agrarian aspect of the districts albeit with mechanized inputs and potentialities including better means of communication.

Research Gap/Justification

The present study's goal is to determine what comprises the quality of Life and Well-being of the people living in the districts of Khyber Pakhtunkhwa. The study takes into account both objective and subjective determinants of Quality of Life and Well-being, thus considering not only an objective view of their circumstances but also that which connects it to their subjective appraisal of it. This study fills the gap in obtaining more cohesive information on the conditions which individuals live in which gives policy makers a more powerful insight when strategizing development. A careful selection of

indicators having wide sectoral coverage e.g.; health, education, living conditions, environment etc which display specific characteristics oriented towards societal goals (Haq, 2008) where both the objective and subjective assessment of Quality of life and Well-being gives a more complete and useful picture. The literature by no means exhaustive gives an idea of the concept, domains, methodologies etc of quality of life and well-being and also researches conducted in different areas and regions on the subject. The present research based on earlier research experience delves into the concept with focus on individual households' own perceptions of its well-being and thus anticipating more insightful information on the subject. The study is the a pioneering attempt in Khyber Pakhtunkhwa regarding measuring the household's Quality of Life and Wellbeing and to determines its factors on the basis of individual perceptions.

Research Questions

The research questions would be to ask as;

firstly:, What are the influencing factors of QoL across districts of Khyber Pakhtunkhwa? secondly, How individuals perceive their QoL and Well-being in Khyber Pakhtunkhwa?

Objectives of the study

The objectives of the study are;

- To investigate what comprises the determinants of Quality of Life and well-being in various districts of Khyber Pakhtunkhwa:
- 2. To assess how individuals perceive the Quality of Life and Well-being indicators in various life domains and how it affects their Quality of Life and Well-being.

Significance of the study

Khyber Pakhtunkhwa has 25 districts and a population of 25,308,000 (Economic Survey of Pakistan 2014-15). This study is important in its nature as a first in the direction of not only statistical measures of social indicators and their provision but also individual perceptions of their Quality of Life and Well-being in Khyber Pakhtunkhwa. In the Pakistan perspective there is an utter need to improve the condition of the people where benefits are accruing to the masses in most a skewed manner leading to lower quality of life and even more inequalities and resource reallocation among regions. This research can add to the perspective of the economists as well as those who formulate policies to understand better the underpinnings of human development.

Method

Research Area of the Study

To carry out the objectives of the present study, primary data was collected from the research areas. The target areas consists of thirteen districts of the province of Khyber Pakhtunkhwa. These thirteen districts were selected from all the seven divisions of the province on the basis of population levels i.e. more populous divisions contributed more districts so that a larger representative sample could be obtained on the basis of population distribution. These thirteen districts constitute more than 75% of the population of the province to make it adequately representative for the purposes of the present study. The districts chosen on the basis of estimated population figures for 2011-12 (Bureau of Statistics Islamabad), are, in descending order of population size, Peshawar, Mardan, Sawat, Mansehra, Sawabi, Charsadda, Dera Ismael Khan (DIK), Nowshehra, Lower Dir, Abbottabad, Bannu, Haripur, and Kohat.

Sample size and Sampling Technique

The sample size is 500, which was estimated using sampling error, confidence interval and degree of variability. A questionnaire was developed and distributed among the thirteen districts.

Table 1District wise distribution of sample size

District	Rural		Urban		Total	
	Population(000)	Sample	Population(000)	Sample	Population(000)	Sample
Peshawar	1736	44	1540	39	3276	83
Mardan	1730	34	470	22	2201	56
Swat	1687	32	302	18	1989	50
Mansehra	1509	25	92	15	1600	40
Sawabi	1257	22	280	17	1537	39
Charsadda	1252	25	263	13	1514	38
DIK	1167	20	163	13	1329	33
Nowshehra	982	20	316	13	1299	33
Lower Dir	1072	18	70	11	1143	29
Abbottabad	896	18	235	10	1130	28
Bannu	940	16	52	9	991	25
Haripur	819	15	115	9	934	24

Kohat	638	14	237	8	855	22
Total		303		197		500

A proportional allocation method was followed for each district. Further a rural-urban sample within these districts was estimated on the basis of proportional allocation method. The towns and villages and the households in the selected districts were chosen through simple random sampling technique. As district Peshawar is the most populous district, so according to proportional allocation methods, the largest sample size is taken from district Peshawar. Kohat being the least populous district, so smallest sample size is taken from this district.

Data Analytical Techniques

In the present study the method of Principal Component Analysis (PCA) was used in order to decrease the number of dimensions and at the same time retain maximum information in the data (Haq, Ahmed and Shafique 2010). The method transforms variables into Principal Components which are uncorrelated and their importance is ordered i.e. descending (Ghaus, Pasha & Ghaus 1996). Thus indicators were curtailed in number though information was not compromised.

Domains of Life

The list of domains and their indicators are based on the Eurostat Quality of Life Survey (2007). However, the adjustments in domains and indicators were made according to the purpose of the present study. The following indicators were achieved in each domain through the use of PCA;

Table 2
List of Domains of Life and their relevant set of indicators both objective and subjective (arrived at through the PCA):

List of Domains	of Life and their relevant set of indicators both objective and subjective (arrived at through the PCA);
Material Living	Number of earning household members
Conditions	Basic expenses to household budget greater than 75%
(MLC)	> Availing government facilities like schools, health, police, roads and street lights, and recreational
,	> Buy poultry meat etc often
	Afford new garments instead of old.
	> Type of accommodation
	Problems with accommodation like rot in windows
	Damp/leak in walls etc
	Able to meet unexpected financial expenditure
	> Arrears in utility bills electricity, gas, water etc
	> Largest source of income
Productive	Nature of job and employment status
Activity and	Work in dangerous and unhealthy conditions
Quality (PAQ)	Come home too tired from work
. , , , ,	Difficult to fulfill family responsibilities
	> Am well paid
	Likelihood to loose job in next six months
Health Access	> Waking refreshedand not tired
and Perception	> Feeling peacefuland amenable
(HAP)	> Feeling energetic and lively
, ,	> Reasons that hamper accessing Heath care:
	 Takes long toarrange consultation withthe specialist
	Waitlong to be seen by the health practitioner
	 Recurring ailment or affliction causing infirmity in daily life
	> Satisfaction with quality of health service
Personal	> How old when completed full time education
Development	➤ Highest level of education
(PD)	> Satisfaction with education
Personal	Distance from law enforcing facility
Safety (PS)	 Perception of physical safety(walking home after dark)
Governance	> Trust in institutions:
and Basic Rights	 government
(GBR)	legal system
	• police
	 Took part in labour union gathering or that ofactive political party
	 Took part in protestationor being part of appeals and pleas in organised manner
	How would you rate quality of following public services:
	 health service
	education system
	public transport
	child care
	care for elderly
	\cdot
	state pension

Inter Descend	Fragues as of direct contact with people living outside the household.
Inter-Personal Relations and	Frequency of direct contact with people living outside the household:
	Any of the parent
Social Cohesion	any of the siblings or relatives
(IPRSC)	Frequency of indirect contact (phone, e-mail, post) with people living outside the household:
	any of your children
	mother or father
	 friends or neighbours
	People most supportive when advice needed about serious personal or family matter
	Involvement in activities outside paid work:
	 Looking after older/incapacitated relations
	 voluntary and charitable activities
	The extent to which fellow countrymen obey rules when it comes to:
	Abiding to pay taxes
	 Following rules oftraffic
	 being considerate to people
	Opinion on level of tension between various groups in the country:
	Wealthy and impoverished
	Employers and employees
	Males and females
Natural and	Number of reasons to deplore the following:
Living	Undesirable noise
Environment	Lack of clean air
(NLE)	 Unable to enjoy approaches to parks and greenery
` '	The water quality
	Lawlessness ,brutality or destruction
	Proximity to following facilities:
	Food store or super market
	post office
	banking facility
	recycling facility
	, ,
Overall	- recreational raciney
'	optimist about future
Life (OEL)	life close to how one wants
	 competition forces to do things not correct
	life too complicated to easily find ones path
	 feeling of non appreciation by others
	 looked down upon by those better off
	Level of satisfaction with the following:
	 present job
	 present accommodation
	present health
	present social life
	Level of importance of the following in ones Quality of Life:
	Desirable occupation
	Desirable level of living
	Desirable level of housing
	good family life
	a good health
	a good social life
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Source: PCA results generate through SPSS

Multivariate Regression Analysis for QoL and well-being is carried using variables in selected domains of life allowing the present researcher to combine several predictor variables into one analysis (Eurostat Quality of Life Survey 2007). The dependent variable in this analysis being the Overall Experience of Life (OEL) domain which encompasses all relevant indicators previously arrived at through the PCA method

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OEL = f(MLC, PAQ, HAP, PD, PS, IPRSC, GBR. NLE)
OEL = \beta_0 + \beta_1 MLC + \beta_2 PAQ + \beta_3 HAP + \beta_4 PD + \beta_5 PS + \beta_6 IPRSC + \beta_7 GBR + \beta_8 NLE + \mu Where OEL = Overall \ Experience \ of \ Life, \ it \ is \ achieved \ by \ summing \ the \ responses \ of \ all \ its \ indicators. MLC = Material Living Conditions PAQ = Productive \ Activity \ and \ Quality HAP = Health Access and Perception PD = Personal \ Development
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PS = Personal Safety

IPRSC = Interpersonal Relations an Social Cohesion

GBR = Governance and Basic Rights

NLE = Natural and Living Environment

 β_0 = Y-intercept

 β_i = slopes with respect to corresponding variable

 μ = error term

Results and Discussion

Regression analysis is applied to the data to analyze the factors affecting quality of life in the districts. The model is estimated for rural and urban areas of each district and the results are tabulated.

Table 3 *Estimation of quality of life in district Abbotabad*

Variables		Rural		L	Jrban		٥١	Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	6.002	4.191	.004	7.110	2.263	.109	4.594	3.53	.002	
MLC	.374	2.851	.046	1.201	2.51	.029	.405	7.78	.000	
PAQ	.140	35.001	.000	321	-1.293	.287	.211	4.05	.005	
HAP	485	-1.931	.095	043	226	.836	188	-1.12	.274	
PD	.179	2.112	.073	.239	4.979	.005	.215	3.06	.006	
PS	.242	2.987	.023	.343	7.795	.000	.111	2.77	.036	
GBR	018	138	.894	687	-1.908	.152	081	63	.535	
IPRSC	147	300	.773	.137	7.210	.007	.222	3.41	.041	
NLE	1.418	3.328	.013	-2.590	-3.323	.045	-1.171	-3.63	.002	
R^2		0.886		C).918		0.729			
F-Statistic		6.771		4.186			6.380			
Sig F		.010		0.133			0.000			
D.W		2.29		1	L.549		1	.784		

Source: Survey results 2014

The table above shows that material living conditions (MLC) is positively and significantly related to quality of life in rural areas (0.374) as well as in urban areas (1.201). Productive Activity and Quality (PAQ) is positively related (0.140) and significant to quality of life in the rural areas of the district. However, in the urban area of the district, this variable shows negative relation (-0.321) but the coefficient is not significant. The Health Access and Perception (HAP) is negatively related to the quality of life in all the three areas of the district. Personal development (PD) is positively related to the quality of life in all the three areas of the district that is rural, urban and combine. Personal Safety (PS) and security is directly and significantly affecting the quality life of the respondents. Governance and Basic Rights (GBR) is negatively related to the quality of life in all the three areas. Inter-Personal Relation and Social Cohesion (IPRSC) is negatively related (-.147) to quality of life in the rural areas of district Abbotabad. Natural and Living Environment (NLE) is positively related (1.418) in the rural areas of the district to quality of life. However, this relation is negative in the urban areas of the district as well as in the overall district level.

Table 4 *Estimation of quality of life in district Bannu*

Variables	Ru	Rural			Urban			Overall		
	Coefficient	t	р	Coefficient	t	Р	Coefficient	t	р	
Constant	3.024	1.067	.346	1.836	1.427	.249	2.306	1.426	.17	
MLC	1.106	3.331	.001	534	-2.449	.092	.198	8.250	.00	
PAQ	.382	3.410	.020	.303	3.695	.005	010	035	.97	
HAP	336	549	.612	.297	5.210	.001	.221	3.298	.01	
PD	038	094	.930	.207	3.261	.047	.147	4.083	.00	
PS	.240	3.157	.029	.222	5.692	.001	.335	4.785	.00	
GBR	336	786	.476	.427	3.416	.024	051	223	.82	
IPRSC	132	114	.915	.583	2.859	.065	022	070	.94	
NLE	137	339	.751	-1.269	-4.979	.016	154	727	.47	
R ²	0.	504		0.9	957		0.266			
F-Statistic	0.	508		8.289			0.727			
Sig F	0.	0.808			0.55			0.667		
D.W	1.	774		1.868			1.913			

Source: Survey results 2014

Looking at the results for district Bannu, Material Living Conditions (MLC) is positively and significantly related (1.106) to Quality of Life (QoL) in the rural areas and the overall district (.198). While MLC is negatively related to QoL in urban areas(-.534). Productive Activity and Quality (PAQ) is positively and significantly related to QoL in both rural and urban areas of the district. However in the overall district context there is a negative relation between PAQ and QoL but the coefficient is not significant (.972). Health Access and Perception is negatively related to QoL (-.336) in the rural areas of the district. While in the urban areas and in the overall context of the district HAP is positively related to QoL (.279) and (.221) respectively. Personal Development (PD) is negatively related to QoL in the rural areas (-.038). There is however a positive relationship (.207) and (.147) respectively in the urban and overall district context between PD and QoL. Personal Safety (PS) has a positive relation with QoL in the rural and urban areas and also at the overall district. Governance and Basic Rights (GBR) is negatively related to QoL (-.336) in the rural areas of the district. However in the urban areas as well as the overall context a positive relation between GBR and QoL is observed. Inter Personal Relations and Social Cohesion (IPRSC) has a negative relation with QoL in the rural areas and also in the overall district. Natural and Living Environment (NLE) for district Bannu is negatively related to QoL in all three areas viz: rural, urban and both areas combined.

Table 5Estimation of quality of life in district Charsadda

Variables	Ru	ıral		Ur	ban		Ove	Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	4.261	3.346	.004	.759	.577	.589	2.792	3.510	.001	
MLC	076	176	.863	.437	11.205	.000	.207	12.937	.000	
PAQ	.328	2.288	.037	155	492	.643	.231	1.911	.066	
HAP	035	193	.849	.229	19.083	.000	.033	.236	.815	
PD	.221	3.069	.019	.117	1.219	.277	.133	1.804	.082	
PS	058	314	.758	.399	2.375	.061	.280	2.456	.087	
GBR	129	584	.568	089	407	.701	016	113	.911	
IPRSC	.354	3.687	.086	374	-1.113	.316	224	987	.332	
NLE	939	-2.17	.046	.739	14.436	.000	142	539	.594	
R^2	0.4	447		0.	736		0.4	127		
F-Statistic	1.	518		1.	1.741			2.702		
Sig F	0.3	231		0.3	280		0.024			
D.W	2.:	118		1.9	920		2.3	118		

Source: Survey results 2014

For district Charsadda, the results show that Material Living Conditions (MLC) is negatively and significantly related (-.076) to QoL in the rural areas), while it is both positively related to QoL and also its coefficient significant for the urban areas and the overall district. Productive Activity and Quality (PAQ) has positive relation to QoL is observed (.328) in the rural areas and in the overall district context (.231). However at the urban level PAQ has a negative relation with QoL (-.155) but the coefficient is not significant. Health Access and Perception (HAP) is negatively (-.035) related to QoL in the rural areas of district Charsadda. While in the urban areas and in the overall district context HAP is positively related to QoL (.229) and (.033). Personal Development (PD) is positively related to QoL in all three areas i.e. rural (.221) urban (.117) and overall district (.133). Personal Safety (PS) has a positive relation with QoL for the urban areas (.399) and in the overall district level (.280). While it is negatively related to QoL in the rural areas of district Charsadda (.058). Governance and Basic rights (GBR) has a negative relation with QoL in all three areas i.e. rural (-.129), urban (-.089), and overall (-.016). Inter-Personal Relations and Social Cohesion (IPRSC) apart from the rural areas (0.354), has a negative relation with QoL in the urban areas (-0.374) and overall district (-0.224).Natural and Living environment (NLE), with the exception of the urban areas where a positive relationship between NLE and QoL exists (0.739).

Table 6

Estimation of quality of life in district D.I. Khan

Variables	Ru	ıral		Urk	Urban			Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	3.767	2.680	.021	-1.326	408	.704	1.956	1.483	.15	
MLC	.446	1.496	.163	.335	4.135	.005	.494	1.832	.079	
PAQ	.945	2.473	.031	.390	7.090	.000	.404	13.466	.000	
HAP	228	967	.355	.556	3.633	.007	068	313	.75	
PD	105	-1.01	.332	.742	4.313	.031	.325	3.421	.00	
PS	.299	2.292	.043	.106	3.028	.091	.328	2.620	.01	
GBR	493	-2.87	.015	057	151	.887	242	-1.615	.11	
IPRSC	794	-2.64	.023	.498	3.276	.004	190	684	.50	
NLE	.201	4.568	.008	130	189	.860	.325	2.778	.04	

R ²	0.741	0.608	0.583
F-Statistic	3.926	0.776	4.195
Sig F	0.020	0.649	0.003
D.W	1.875	1.929	2.199

For Dera Ismail Khan (DIK) the Material Living Conditions (MLC) for the rural, urban and overall results show a positive relationship (.446), (.335) and (.494) respectively with the Quality of Life (QoL). Productive Activity and Quality (PAQ) is also positively and significantly related to QoL in district DIK. Health Access and Perception (HAP) has a negative relationship with Quality of Life for the rural areas (-.228) and overall (-.068) district of DIK. Personal Development (PD) is positively related to QoL in urban areas and the overall district perspective for DIK. While for the rural areas of DIK there exists negative and insignificant relationship between Personal Development and Quality of Life (-.105). Governance and Basic Rights (GBR) is negatively related to Quality of Life in all areas i.e. rural, urban and overall (-.493), (-.057) and (-.242). Inter-Personal Relations and Social Cohesion (IPRSC) variable apart from the urban areas (.498) and being significant for it at 1% level of significance is negatively related to Quality of Life (QoL) in the rural areas (-.057) and in the overall DIK district perspective (-.190). Natural and Living Environment (NLE) is positively related to Quality of Life (QoL) for rural and overall district DIK level, (.201) and (.325) respectively.

 Table 7

 Estimation of quality of life in district Haripur

Variables	F	Rural		Uı	ban .		Ove	erall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	4.095	1.156	.292	7.371	1.169	.450	7.565	1.647	.120	
MLC	.401	9.113	.000	.214	7.925	.000	1.925	7.156	.000	
PAQ	200	440	.675	1.269	2.632	.019	582	-1.118	.281	
HAP	.353	11.767	.001	2.596	2.837	.040	.001	.002	.998	
PD	.134	2.161	.039	-1.257	-1.217	.438	.396	10.703	.000	
PS	108	619	.559	1.230	36.176	.000	.181	2.784	.006	
GBR	023	078	.940	905	-1.112	.466	.218	2.158	.060	
IPRSC	.242	3.184	.043	3.083	4.721	.003	.401	3.260	.030	
NLE	397	404	.700	-12.543	-2.162	.276	600	424	.678	
R^2	C	.394		0.	957		0.468			
F-Statistic	C	.488		3.	3.171			1.652		
Sig F	C	0.829			0.408			0.192		
D.W	2	.032		2.	2.306			1.961		

The table above shows that Material Living Conditions (MLC) has a positive relation with Quality of Life (QoL) in the rural (.401) and urban (.214) areas of district Haripur where the coefficients are also significant at1% level of significance; however for the overall district MLC is negatively related to QoL (-1.923). Productive Activity and Quality (PAQ) has a negative and insignificant relation with QoL in the rural areas and overall district context (-.200) and (-.582) respectively. However, in the urban areas of the district Haripur PAQ has a positive relation with QoL. Health Access and Perception (HAP) has a positive relation with QoL in all three areas i.e Rural, urban, and overall district (.353), (2.596) and (.001) respectively and except for overall district the rural and urban coefficients are significant at 1% level of significance. Personal Development (PD) is positively related to Quality of Life in rural areas (.134) and overall district context (.396); however, in the urban areas there exists a negative relation between PD and QoL (-1.257). Personal Safety (PS) has a positive relation with QoL in the urban areas (1.230) and overall district combined (.181); however for the rural areas of district Haripur personal safety has a negative relation with QoL (-.108). Governance and Basic rights (GBR) is negatively related to Quality of Life in the rural and urban areas of district Haripur (-.023) and (-.905) respectively. For the overall district combined the variable GBR is positively related to QoL (.218). Inter-Personal Relations and Social Cohesion (IPRSC) for district Haripur is positively related to Quality of Life at all three areas i.e. Rural (.242), urban (3.083) and overall district combined (.401). Natural and Living Environment (NLE) shows a negative relation in all areas i.e rural (-.397), urban (-12.543) and overall district Haripur (-.600).

 Table 8

 Estimation of quality of life in district Kohat

stimation of que	inty of life in distric	t Nonat								
Variables	Ru	ural		U	Urban			Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	1.993	1.646	.161	046	-3.220	.000	2.053	2.441	.030	
MLC	.288	3.600	.004	1.362	2.060	.000	.683	1.902	.080	
PAQ	590	-1.29	.252	2.201	3.488	.003	584	-1.643	.124	
HAP	.365	5.983	.004	1.080	2.200	.000	.433	14.931	.000	
PD	.053	.303	.774	056	2.074	.043	.156	2.229	.074	
PS	.141	2.014	.046	-1.226	-1.96	.000	168	-1.197	.253	
GBR	131	418	.694	.301	7.699	.000	273	998	.336	

IPRSC	1.454	2.764	.013	.874	9.298	.000	.956	2.030	.063	
NLE	249	760	.481	.103	2.050	.000	.325	4.514	.004	
R^2	.618				1.000	.586				
F-Statistic	1.011			.000			2.299			
Sig F	.520			.000			.088			
D.W	1.9	1.989			1.745			1.727		

The Material Living Conditions (MLC) for district Kohat in all three areas is positively related to Quality of Life (QoL) being (.288) in the rural (1.362) in the urban and (.683) in the overall. Productive Activity and Quality (PAQ) for rural areas (.590) and overall district combined (.-584) is negatively related to Quality of Life.; whereas in the urban areas it has a positive relationship with QoL (1.990). Health Access and Perception (HAP) has a positive relation with the QoL for district Kohat in all three areas: rural (.365), urban (1.080) and overall district context (.433). Personal Development (PD) variable for rural areas is positively related to QoL (.053), whereas it is negatively related to QoL in the urban (-.056) and overall district context (-.168). Personal Safety (PS) too is only positively related to QoL for district Kohat in the rural areas while it has a negative relation with QoL in the urban and overall district (-1.226) and (-.168) respectively. Governance and Basic Rights (GBR) for district Kohat has a positive relation to QoL in the urban areas (.301), but has a negative relation to QoL in the rural and overall district context (-.131) and (-.273) respectively. Inter- Personal Relations and Social Cohesion (IPRSC) is positively related to QoL in all three areas i.e rural (1.454), urban (.874) and overall combined (.956). Natural and Living Environment (NLE) there is a positive relation between NLE and Quality of Life for the urban areas (.103) and overall district of Kohat (.325) while it is negatively elated to QoL for the rural areas (-.249).

Table 9 *Estimation of quality of life in district Lower Dir*

Variables	Ru	ural		Ur	ban		Ove	erall	
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р
Constant	3.207	2.256	.054	-1.116	650	.562	1.574	2.009	.058
MLC	.333	3.872	.013	.577	4.243	.007	.448	2.502	.06
PAQ	008	034	.974	089	438	.691	.015	.111	.91
HAP	.185	2.890	.051	.695	2.556	.079	004	028	.97
PD	.313	4.347	.007	.279	11.160	.000	.331	2.970	.00
PS	.116	2.100	.063	.546	3.212	.027	.060	.613	.54
GBR	.004	.022	.983	824	-2.330	.102	.047	.408	.68
IPRSC	.160	2.352	.042	1.511	3.730	.034	.629	2.744	.01
NLE	307	-1.29	.232	.553	4.182	.009	141	859	.40
R^2	.5	79		.921			.576		
F-Statistic	1.3	375		4.380			3.396		
(Sig F)	(.332)			(.026)			(.031)		
D.W	1.	825		2.	122		1.735		

Material Living Conditions (MLC) is positively related to Quality of Life in all areas i.e. rural (.333), urban (.577) and combined for district of Lower Dir (.448). Productive Activity and Quality (PAQ) is negatively related to QoL in the rural and urban areas (-.008) and (-.089) respectively; whereas it is positively related to QoL in the overall district context (.015). Heath Access and Perception (HAP) for district Lower Dir has a positive relation with QoL in the rural and urban areas but a negative relation to QoL in the overall district level (.185), (.695) and (-.004) respectively. Personal Development (PD) for all three areas show a positive relation between Quality of Life and PD rural (.313), urban (.279) and overall district (.331). Personal Safety (PS) is positively related to QoL in all areas i.e. rural (.116), urban (.546) and overall district Lower Dir (.060). Governance and Basic Rights (GBR) there is a positive relation between GBR and QoL for district dir at the rural and combined rural-urban level but a negative relation at the urban level (-.824). Inter-Personal Relation and Social Cohesion (IPRSC) the table shows a positive relationship between all the areas i.e. rural (.160), urban (1.511) and overall (.629). There is a negative relationship between Natural and Living Environment (NLE) and QoL in the rural areas as well as the overall district level of district Lower Dir (-.307) and (-.141) respectively. There is however a positive relationship between NLE and QoL at the urban level.

Table 10 *Estimation of quality of life in district Mansehra*

Variables	Ru	ıral		Ur	Urban			Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	3.757	3.088	.007	3.651	1.250	.258	2.484	2.267	.031	
MLC	.606	3.673	.018	.540	3.272	.060	.195	10.263	.000	
PAQ	488	-1.84	.085	.232	16.291	.000	167	811	.424	
HAP	.137	2.322	.064	809	-1.626	.155	.075	.360	.721	
PD	.300	2.637	.019	196	566	.592	.338	3.325	.002	

PS	.320	2.791	.014	.796	2.135	.077	.309	3.037	.005
GBR	067	510	.617	498	-1.179	.283	167	-1.436	.161
IPRSC	.586	4.924	.003	.455	2.18	.031	.388	12.516	.000
NLE	286	-1.39	.194	.940	1.974	.096	071	383	.704
R^2	.6	80		.6	35		.5	16	
F-Statistic	2.9	909		1.3	303		3.9	996	
(Sig F)	(.03	36)**		(.3	84)		(.00)3)***	
D.W	1.8	319		1.9	944		1.	754	

For district Mansehra, Material Living Conditions (MLC) is positively related to Quality of Life in all three areas i.e Rural (.606), urban (.540) and Total district combining rural and urban area (.195). Productive activity and Quality (PAQ), there is a positive relation in the urban areas (.232) with the QoL but it has a negative relation with quality of life for the rural areas (-.488) and overall district context (-.167). Health Access and Perception (HAP) is positively related to QoL in district Mansehra's rural areas and overall district context while it has a negative relation with QoL for the urban areas (-.809). Personal Development (PD) has a positive relation with Quality of Life both in the rural areas (.300) and the overall district context (.338) and the coefficients are also significant at 1% and 5% level of significance respectively. Personal Safety (PS) has a positive relation with Quality of Life for all three areas i.e. rural (.320), urban (.796) and overall district (rural-urban combined) (.309). Governance and Basic Rights (GBR) has a negative relationship with QoL in all three areas i.e. rural (-.067), urban (-.498) and overall district context (-.167). Inter-Personal relations and Social Cohesion for the district are positively related to quality of life in rural (.568) urban (.455) and combined (.388) areas of district Mansehra. Natural and Living Environment (NLE) for the rural and overall district context is negatively related to Quality of Life. While there is a positive relation between NLE and QoL in the urban areas.

Table 11Estimation of auality of life in district Mardan

Variables	Ru	ıral		Ur	ban		Ov	erall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	1.860	2.832	.010	3.745	4.316	.001	2.641	5.299	.000	
MLC	.118	5.363	.006	.332	27.667	.000	.082	16.400	.000	
PAQ	.326	2.252	.035	100	-2.346	.032	.441	2.845	.041	
HAP	.087	9.667	.001	.022	.178	.861	.371	3.198	.040	
PD	.130	1.888	.072	018	238	.815	.038	.728	.470	
PS	002	030	.976	.009	.128	.900	033	540	.592	
GBR	041	338	.739	028	260	.798	174	-2.311	.025	
IPRSC	.297	3.300	.048	.228	2.850	.036	.521	3.646	.001	
NLE	152	797	.434	.680	4.661	.000	.324	3.899	.000	
R^2	.3	96		.8.	67		.495			
F-Statistic	1.8	305		13.	13.090		5.765			
(Sig F)	(.1	.30)		(.00	0)***		(.000)***			
D.W	2.0	2.094 2.025					1.9	919		

Material living Conditions (MLC) for district Mardan is positively related to Quality of Life in all areas i.e. rural (.118), urban (.332) and total district combined (.082). Productive Activity and Quality (PAQ) has a positive relation with Quality of Life in the rural areas and the overall district context (.326) and (.441) respectively. While it has a negative relation with QoL for the urban areas (-.100). Health Access and Perception (HAP) for district Mardan is positively related to Quality of Life in all areas: rural (.087), urban (.022) and overall district combined (rural-urban) (.371). Personal Development (PD) has a positive relation to quality of Life for district Mardan in the rural areas and the combined, while it has a negative relation with QoL in the urban areas of the district (-.018). Personal Safety (PS) there is a negative relation with Quality of Life for district Mardan's rural areas (-.002) and also for the overall district combined (-.033); while PS has a positive relation to QoL in the urban areas (.009). Governance and Basic Rights (GBR) is negatively related to Quality of Life in all three areas i.e rural (.041), urban (-.028) and overall Mardan district combined (-.174). Inter-Personal relations and Social Cohesion (IPRSC) has a positive relationship with Quality of life in all three areas: rural (.297), urban (.228) and overall (.521). Natural and Living environment (NLE) for district Mardan is positively related to Quality of Life in the urban areas and the overall district context (.680) and (.324) respectively.

Table 12 *Estimation of quality of life in district Noshehra*

Variables	Rural			L	Urban			Overall		
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р	
Constant	-1.048	728	.478	024	-2.289	.000	-1.142	-1.04	.310	
MLC	.276	3.538	.047	-2.185	-7.904	.000	.260	5.652	.002	
PAQ	.324	2.050	.079	.239	3.330	.073	.273	2.084	.084	

HAP	.028	.189	.853	.134	1.367	.453	.070	.639	.530
PD	.235	2.210	.044	.279	3.856	.067	.231	2.962	.007
PS	.438	3.504	.004	.421	4.356	.032	.455	4.964	.000
GBR	.354	2.744	.030	092	-1.334	.345	.327	2.946	.036
IPRSC	.398	2.041	.099	2.180	11.474	.000	.426	1.905	.070
NLE	112	317	.756	3.630	6.349	.000	045	171	.866
R ²		.804			1.000			.821	
F-Statistic		7.179			17.823		1	12.586	
(Sig F)	((.001)***		(.000)***		(.	.000)***	
D.W		2.292			2.103			2.153	

Material Living Conditions (MLC) is positively related to Quality of Life for the rural areas (.276) and in the overall district context (.260) while there is a negative relation between MLC and QoL for the urban areas (-2.185). Productive Activity and Quality (PAQ) has a positive relation with Quality of life for all the areas: rural 9.324), urban (.239) and combined district (.273). Health Access and Perception (HAP) is also positively related to Quality of Life in the rural, urban and overall district. Personal development (PD) for district Nowshehra is positively related to Quality of Life in the rural (.235), urban (.279), and overall district (.231). Personal Safety (PS) too has a positive relationship with Quality of Life in all three areas: rural, urban and Overall district. Governance and Basic Rights (GBR) for district Nowshehra is positively related to quality of Life in the rural areas (.354) and the overall district context (.327) while it has a negative relation to QoL for the urban areas(.092). Inter-Personal Relations and Social cohesion (IPRSC) has a positive relation with Quality of life for the rural (.395) urban (2.180) and overall district level (.426). Natural and Living Environment (NLE) is negatively related to Quality of Life for the rural (-.112) and total district (-.045) while it is positively related to QoL in the urban areas (3.630).

Table 13 *Estimation of quality of life in district Peshawar*

Variables		Rural		U	Irban		Overall			
	Coefficient	Т	Sig	Coefficient	Т	Sig	Coefficient	Т	Sig	
Constant	2.485	2.863	.007	2.167	2.125	.042	2.615	4.200	.000	
MLC	.440	10.732	.000	.625	3.765	.041	.456	3.081	.062	
PAQ	.176	4.000	.031	.103	2.784	.057	.149	1.474	.145	
HAP	.169	6.760	.006	.270	8.709	.002	.139	1.260	.212	
PD	.234	3.408	.002	.123	6.150	.012	.179	3.001	.004	
PS	048	571	.572	.154	1.744	.091	.171	3.167	.049	
GBR	189	-1.781	.084	156	-1.12	.269	161	-2.17	.038	
IPRSC	034	287	.776	.005	.022	.983	.035	.320	.750	
NLE	.245	1.986	.055	.329	2.367	.071	.188	1.880	.064	
R ²		.501			.244			.330		
F-Statistic		4.268			1.252			4.557		
(sig F)	(.	(.001)***			(.303)			(.000)***		
D.W		1.895			1.996			1.835		

Looking to the table it can be concluded that Material Living Conditions (MLCs) has positive impact on the quality of life in both the rural areas (0.440) and urban areas (0.625). Productive Activity and Quality (PAQ) is positively related (0.176) in both the rural areas and urban areas (0.103) of the district. Health Access and Perception(HAP) is positively related to the quality of life in all the rural and urban areas of the district. Personal Development (PD) is positively related to the quality of life in all the three areas of the district that is rural, urban and combine (0.234, 0.123, and 0.179 respectively). Personal Safety (PS) and security is negatively related to the quality life of the household in the district and positively related in the urban areas of the district. Governance and Basic Rights (GBR) is negatively related to the quality of life in all the three areas (-0.189), (-0.156) and (-0.161) respectively. Inter-Personal Relation and Social Cohesion (IPRSC) is negatively related (-.147) to quality of life in the rural areas of the district and positively related in the urban areas. Natural and Living Environment (NLE) is positively related (1.418) in the rural areas and positively related (0.329) in the urban areas of the district to quality of life.

Table 14 *Estimation of quality of life in district Swabi*

Variables	Rural			U	Urban			Overall		
	Coefficient	Т	Sig	Coefficient	T	Sig	Coefficient	Т	Sig	
Constant	2.858	2.655	.018	2.166	1.276	.249	3.566	3.806	.001	
MLC	.441	2.296	.034	.380	3.877	.074	.703	3.480	.022	
PAQ	.040	.241	.813	.725	2.418	.052	.033	.237	.814	
HAP	.160	4.210	.026	.014	.032	.976	.365	2.249	.032	
PD	.234	3.023	.009	038	322	.759	.020	.283	.779	
PS	072	799	.437	.197	3.648	.015	.207	2.250	.042	

GBR	.001	005	.996	390	-2.304	.061	179	-1.42	.164
IPRSC	.552	3.049	.079	.233	4.481	.032	145	812	.423
NLE	.188	4.000	.007	459	-1.528	.177	008	045	.965
R^2		.586			.849			.324	
F-Statistic		2.652			4.233			1.800	
(Sig F)		(.049)**		(.048)**			(.116)	
D.W		1.716			2.130			1.902	

The results show that Material Living Conditions (MLC) is positively related to quality of life in rural areas (.441) as well as in urban areas (.380). Productive Activity and Quality (PAQ) is positively related (.040) in the rural areas of the district. In the urban area of the district, this variable shows positive relation (.725). Health Access and Perception (HAP) is positively related (.160), (.014) and (.365) in rural, urban and combine respectively) to the quality of life. Personal development (PD) is positively related (.234) to the quality of life in all the rural areas and negatively related (-.038) in the urban areas. Personal Safety (PS) and security is negatively affecting (-.072) the quality life of the household. Personal Safety (PS) and security is positively related to the quality of life in the district. Governance and Basic Rights (GBR) is positively and insignificantly related to the quality of life in the rural areas and negatively related in the urban areas. Inter-Personal Relation and Social Cohesion (IPRSC) is positively related (.552) to quality of life in the rural areas and urban areas (.233) of the district. Natural and Living Environment (NLE) is positively related (.188) in the rural areas of the district to quality of life. However, this relation is negative in the urban areas of the district as well as in the overall district level.

Table 15 *Estimation of quality of life in district Swat*

Variables	F	Rural			Urban		0	verall	
	Coefficient	t	р	Coefficient	t	р	Coefficient	t	р
Constant	1.313	1.367	.188	3.349	3.506	.004	2.093	2.886	.006
MLC	.966	3.163	.005	.335	5.403	.031	.241	7.088	.000
PAQ	.239	1.792	.089	391	-1.142	.274	.289	2.033	.049
HAP	.277	3.847	.014	.355	2.934	.089	.190	2.714	.056
PD	045	451	.657	.352	3.347	.005	.273	3.413	.036
PS	007	051	.960	191	-1.306	.214	020	194	.847
GBR	207	-1.30	.209	267	-1.345	.202	078	600	.552
IPRSC	563	-1.65	.114	.290	2.736	.048	.244	3.935	.018
NLE	.555	2.561	.019	490	-1.893	.081	.036	.215	.831
R^2		.537			.595			.201	
F-Statistic	2	.756			2.383		1	286	
(Sig)	0.)	033)**			(.079)*		(.277)	
D.W	1	756			1.773		1	737	

Material Living Conditions (MLC) is positively related to quality of life in rural areas (.966) as well as in urban areas (.335). Productive Activity and Quality (PAQ) is positively related (.239) in the rural areas of the district. However, in the urban area of the district, this variable shows negative relation (-.391). Health Access and Perception (HAP) is positively related to the quality of life in all the three areas of the district. Personal Development (PD) is negatively related to the quality of life in the rural areas and positively related in the urban areas of the district. Personal Safety (PS) and Security is negatively affecting the quality of life of the household in all the three areas. Governance and Basic Rights (GBR) is negatively related to the quality of life in all the three areas. Inter-Personal Relation and Social Cohesion (IPRSC) is negatively related (-.563) to quality of life in the rural areas of the district. Natural and Living Environment (NLE) is positively related (.555) in the rural areas of the district to quality of life. However, this relation is negative (-.490) in the urban areas of the district as well as in the overall district level.

Conclusions

This study focuses on quality of life of individuals taking into account an individualistic ideology where the QoL depends on the unique experience of life for each person. The study attempted to concentrate on the province of Khyber Pakhtunkhwa and looked at the QoL and well-being of individuals in thirteen of its districts representing its major population. It followed an integrative approach to measuring Quality of Life. The results show that Material living conditions (MLC) affect the quality of life positively and significantly in all the districts in both the urban and rural areas, however in the urban areas of Nowshera and Bannu, and in the rural area of Charsadda it is negatively affecting the quality of life. Productive Activity and Quality (PAQ) is positively affecting the quality of life in almost all the targeted districts with some exemption. Health Access and Perception (HAP) affects the quality of life positively. Personal Development (PD) positively affects in all the areas of research, however in Bannu, D. I. Khan, and Swat in the rural area and Haripur, Kohat, Mansehra, Mardan, and Swabi in the urban area it is affecting negatively. Personal Safety (PS) and security is positively affecting the quality of life in almost all the areas of research. Governance and Basic Rights (GBR) in most cases has influenced quality of life in a negative way. Interpersonal Relation and Social Cohesion (IPRSC) influences QoL in the target areas in both positive as well as negative way. In

half of the areas it is affecting negatively and half of the areas it is affecting positively. Natural and living environment (NLE) affects the quality of life negatively in majority of the areas. As majority of the people are availing public facilities like schools, hospitals, public transport and state pension system, an effort to improve these facilities could benefit the masses and improve their quality of life. The lack of trust on the part of a majority of the respondents in the lagal system, the police and the government does little to ensure citizens of their rights and place in the society thus reducing their life quality. The government on its part could ensure good transparent governance and efficient law enforcement, which will go a long way towards enhancing the quality of life of the people. Efforts hitherto made albeit meagre call for further improvement. There is also a need to increase the information base so that a clearer picture in terms of deficiencies and relevant targets could be achieved. Also the type of questions used in small-scale and unofficial surveys (like the present) should be included in larger-scale surveys undertaken by official statistical offices and add to their statistical skill and prowess.

Limitations and Future Research Areas

Like all other studies, this study too has its limitations. For instance, upcoming studies can increase the sample size and can extend the research to a wider area, including the whole province of Khyber Pakhtunkhwa or can make comparison tootherprovinces/districts of the country. More indicators and factors of quality of life like public housing and waste collection system can also be included in the upcoming studies.

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