DESCRIPTIVE ANALYSIS OF DETERMINANTS OF QUALITY OF HOUSING IN PAKISTAN

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ABSTRACT
The paper sets out to examine the descriptive analysis of Determinants of Quality of Housing (e.g. Katcha, Pucca and Semi-Pucca) in Pakistan in relation to Provincial and Regional(Rural and Urban) basis. The paper shows descriptive results particularly with reference to dependency ratio, family size, age group, education, income, employment, and industrial classification of the household head. For the analysis primary data was used, which was taken by Pakistan Social and Living Standard Measurements Survey (PSLM) Round I (2004 to 2005). By nature the data is micro level and collected by Federal Bureau of Statistics division Islamabad. While for analysis cross tab of SPSS software is used. Finding shows that maximum household heads living in pucca houses lies in urban areas of Sindh and Punjab provinces where as maximum household head living in Katcha houses lies in Balochistan and Khyber Pakhtoon Khuwa provinces. Maximum of the household head are engaged in Agricultural sector, while the majority of the household head having pucca houses are living in urban region as against to household head living in ketcha houses which are majority in rural region. Impact of age group, dependency ratio and grand income of household head has positive in determinants of quality of houses.
Keywords:Quality of Housing, DIKhan, Economic Analysis

INTRODUCTION
Housing, being the second basic human need after biological need, mainly depends upon the economic status of the household. By economic status we mean the poor and the non poor. Obviously, the housing and other social profiles are different between the poor and the non-poor. In the rural areas of the Pakistan, most of the households are facing acute problems of potable water, lack of toilets and adequate sanitation systems [PSLM, Rehman Atta ur and all] The habitation density level comes to more than three persons per room in Pakistan which is significantly higher than the tolerably over crowding level proposed by the United Nations [,Rehman Atta ur and all, Pakistan Economic Survey, and Zaman uz Farooq].

Houses are not simply a building but they are the center of day to day activities. If we see the situation of the Pakistan the situation is worse. The report shows that only 86% of household own their living units while 7 % are living in rented buildings, about 6.12% have rent free units and 0.96 are living in subsidized residential units. In the same way about 24% are living in a single room while 6.62% have access over five rooms or more[Ali and all][J Weisbord and all][PSLM]. The growth in the number of housing units has lagged behind the growth of population and consequently, the size of the housing deficit has increased over time. [Rehman atta and all][Riaz][Siddiqui and all][Syed M and all]

Review of Literature
Earlier studies and discussed which were made by different economist , statisticians and other experts on housing are summarized as under; Pakistan Economic Survey: (2005-06) Due to the importance of Housing sector in the country's economic development the instant measures to construct the housing industry at priority bases has declared by the government in the form of national housing policy. In this regard the government

realized the importance by providing a variety of incentives for this industry to developers and builders. Pakistan Social & Living Standards Measurement Survey (2007- 08) According to the survey in the rural areas of the Pakistan most of the households haven't access to the adequate safe drinking water, lack of toilets and sanitation system. The government of Pakistan is planning to increase the facilities of safe drinking water and to improve the sanitation system specially in rural areas.

Rehman and Siddiqui (2008) The study have the view point that by increase in the demand for housing is the result of high population growth. During 1980 to 2000 the population growth rate was greater than 2% while 1.9 % was the supply rate of providing housing in this period. The population growth rate is higher in the urban areas due to in migration from the rural areas, which has increased the burden on limited housing supply. Kochera, (2007) concluded that at present the affordable housing solution in United Nation to serve the needs is outpacing the ability of local government and federal state. However to improve the housing problem across the nation, Housing Trust Fund is established. These funds provide funds to the old households for reducing the housing problems recognized by the government.

Halifax (2007) believed that the housing is unaffordable, for the majority of Britain's key workers, who include the police, nurses, teachers, social workers, and health care assistants. In 70 % of town across the country, property is now too expensive for key workers, up from 65% last year and just 36% five years ago. There are as many as 20 towns in Great Britain. The average house price is about 10 times higher than the key workers average earning. State of Human Rights (2007) Shows that in Pakistan specially in big cities there is a big

problem of lack of housing although government official has announced for residential colonies, hotels, luxurious apartment but all these facilities are for rich or for governmental employees. Poor and even middle salaries personals are ignored.

The shortfall of the housing has been increased to 500,000 for the next 20 years. While 50% of the current houses are 50 years old which has to be changed. In the same way in urban area 50 % are living in substandard houses, which are squirted. Moritz (2007) in his Affordable Housing Research Report says that in the 1st quarter of 2006 the United State Department of Housing and Urban Development compared with the same quarter of 2005, there was "a 10.3-percent increase in the median house price and a 63-basis-point increase in the mortgage interest rate." In the second quarter of 2006, "housing affordability declined from the first quarter of 2006 and from the second quarter of 2005 " United State Department of Housing and Urban Development reports that the second quarter of 2006 the national median price of a new home was $241,100; the median price of an existing home was $227,300. The decline in housing affordability "from the second quarter of 2005 resulted from a 4-percent increase in the median house price and an 80- basis-point increase in the mortgage interest rate" Ali .(2008) Says that the adequate housing is recognized by the new Millennium Development Goal to develop lives up to hundred million slum settlers Net shot fall of housing in Pakistan is about 270,000 units per annum. Here it was also argued that environmental risks should also be taken into account when the policies for the developing houses for the poor are made. It is also suggested that priority to health, environment, location and infrastructure should be given.

Tesfaye (2007) concluded that in Addis Ababa demand for housing is greater than supply. Low supply and high demand for housing has pushed the prices of the residential houses up and beyond the purchasing power of the majority of the residents of the Ethiopia. In such a condition efforts are needed in demand and supply of housing and infrastructure. Gyourko (2009) have the view point that there is no balance in the housing market since long. Availability of data has played a vital role in recent years in the understanding of housing market. He said that if demand is not powerful for a certain commodity then the supply has not any effect on the price of that commodity, and if supply of a commodity has no restriction then the prices will be approximately equal to the production cost, and demand e i not effect on prices. If practically seen, there is strong negative correlation in the housing permits and the housing price in the market.

Riaz (2005) concluded that the largest industry of the Pakistan is housing among the among the 20 countries of the World and the Business of Real Estate is on the top, yet against the demand of 700000 houses a year only 300000 are prepared. So the deficit became 400000 a year. Restsinas (2003) explore that housing market is same like the commodities market in USA where market forces plays their role. It is different, due scarce supply which is due to many constraints like ban on housing manufacturing according to him if we remove these constraints more buildings will be constructed. While he also added that bifurcation in earnings is also a constraint.

Richards (2009) summarized that in recent years due to high population growth and increase in income demand for new housing became higher. While at supply side due many factors it is low which has created higher prices of housing. Moreover he covered three topics: in this discussion which are housing cost in Australia, supply and demand for housing and as result high prices of the houses. Cooper (2007) concluded that everyone want to live in a house which is decent and affordable where he can live happily and secured. Researcher further said that a decent house should be closer to school, transport and health units. Department also have view point that good housing is not only an matter for the family but it is an improvement for our economic, environmental and social wellbeing..

Malik (2007) in the meeting of "Advisory Moatasim Board on Housing and Infrastructure" said there are opportunities of investment in housing sector due to increase in the demand of housing units. "Demand of houses would reach to 500,000 within next twenty years," he further added that in 1988 the shortage of housing was about 4 million, which increased to 6 million currently. He concluded that Rs. 150 billion and land cost, were invested for 3.5 million houses. Siddiqui (2005) pointed out that population have to decide about their priorities about facilities themselves. For that purpose they have collective funds to achieve their targets. The schemes are designed to be fixed and no standards for plan and quality of housing are imposed. It is observed that to implement strategies without bringing changes in the structure of the society's power and unequal relationship between katchi abadi and government is impossible.

MOTHODOLOGY AND DATA SOURCE

The analysis is made by using cross tab of SPSS software to see the effect on quality of housing among the provinces. The sample size of four provinces, in the survey according to Pakistan Social and Living Standard Measurements Survey (PSLM),

was fixed at 14578 households in 5204 villages. In our report PSLM Round I (2004 to 2005) data is used, which is micro level (unit record) collected by Federal Bureau of Statistics (FBS) Statistics division, Islamabad.

OBJECTIVES OF THE PUBLICATION

The major objective of the publication is to descriptively explore the status of quality of housing, with relation to employment and industrial classification of the household head. To see the effect of age, dependency ratio, family, education of the household head and income of the household head on quality of housing.

DESCRIPTIVE STATISTICS OF QUALITY OF HOUSING

Each category shows the Katcha, Semi-Pucca and pucca houses separately. Similarly, the Provincial explanation is followed by the urban / rural explanation.

1. DEPENDENCY RATIO

Dependency ratio ranges from 'up to 2' to 'larger than 6' as shown in the table 1 below

Table 1 Effect of Dependency Ratio on the Quality of Housing at Province Level

Provinces	Quality	Up to 2	> 2 – 4	> 4 – 6	> 6
Punjab	Katcha	347	292	150	114
	Semi-Pucca	634	681	410	269
	Pucca	790	864	561	328
Sindh	Katcha	303	490	299	257
	Semi-Pucca	93	133	111	75
	Pucca	413	581	331	234
KPK	Katcha	210	371	306	248
	Semi-Pucca	137	212	142	127
	Pucca	175	245	217	193
Boluchistan	Katcha	303	579	430	259
	Semi-Pucca	27	73	58	35
	Pucca	57	104	75	66
Urban	Katcha	194	266	150	115
	Semi-Pucca	346	417	238	175
	Pucca	979	1201	754	508
Rural	Katcha	969	1466	1035	763
	Semi-Pucca	545	682	483	331
	Pucca	456	593	430	313

Source: Researcher own calculation.

Table 1 shows the situation of quality of housing with respect to dependency ratio. In both Punjab and Sindh, number of pucca houses are larger than the others all categories of dependency ratio. On the other hand, in *the then* KPK and Boluchistan, number of pucca houses is inversely related with the dependency ratio. The details are given in Table 1. When we see the urban- rural comparison, the result is quite obvious and consistent. That is, in urban area the pucca houses are larger than the other in each category of dependency ratio, whereas in rural area, the ketcha

houses are larger than the others in each category of dependency ratio.

2 FAMILY SIZE.

The provincial comparison of the effect of family size on quality of housing is shown in Table 2. In the provinces of Punjab and Sindh, the number of pucca residents is higher irrespective of the family size. We mean that pucca houses are larger as along as family size increases. Bu the situation is opposite in the rest of the provinces (the then KPK and Boluchistan). That is, katcha houses are higher in all family sizes in both abovementioned provinces. The pucca houses are larger in urban area in all category of family size. While in rural area, katcha houses are in majority irrespective of the family size, as shown in Table 2.

Table 2 Effect on Quality of Housing by the change in Family size

Region	Quality	Family size in Grouping			
		Up to2 members	3-4 members	5-8 members	More than 8 members
Punjab	Katcha	63	191	504	216
	Semi-Pucca	145	359	1232	436
	Pucca	148	499	1618	560
Sindh	Katcha	76	255	686	369
	Semi-Pucca	33	64	217	132
	Pucca	59	319	858	393
KPK	Katcha	49	175	628	404
	Semi-Pucca	31	95	343	246
	Pucca	44	125	493	313
Boluchistan	Katcha	63	266	897	402
	Semi-Pucca	4	16	123	58
	Pucca	9	52	155	101
Urban	Katcha	36	104	390	236
	Semi-Pucca	73	181	699	319
	Pucca	181	661	2052	846
Rural	Katcha	215	783	2325	1155
	Semi-Pucca	140	353	1216	553
	Pucca	79	334	1072	521

Source: Researcher own calculation

3 AGE GROUP

The range of the age household head is 'less than 30 years' to 'larger than 70 years'.

Number of pucca houses is larger in both Punjab and Sindh provinces. This is true in all age groups except in minimum age group in Sindh, where the katcha houses are larger than semi-pucca and pucca houses. When we compare the urban area with the rural, we have observed the obvious behavior, that is, pucca houses age larger in urban area than in the rural area, in all categories of age group.

Table 3 Age group

Province	Quality	<= 30	>30 & <= 50	>50 & <= 70	>70
	Katcha	138	493	286	57
	Semi-Pucca	265	1144	645	118
Punjab	Pucca	318	1540	822	145
	Katcha	292	743	323	28
	Semi-Pucca	74	266	98	8
Sindh	Pucca	208	925	453	42
	Katcha	207	632	363	54
	Semi-Pucca	75	352	255	33
KPK	Pucca	113	508	305	49
	Katcha	299	935	372	22
	Semi-Pucca	29	113	56	3
Boluchistan	Pucca	35	188	85	9
	Katcha	113	416	208	29
Urban	Semi-Pucca	149	710	353	60
	Pucca	399	2106	1097	137
	Katcha	823	2387	1136	132
Rural	Semi-Pucca	294	1165	701	102
	Pucca	275	1055	568	108

Source: Researcher own calculation

4. EDUCATION OF HOUSEHOLD HEAD

The table below 4 shows the quality of housing on the basis of the education of the household heads, starting from no education to higher education. In Punjab, majority of the household having no education are living in Semi-Pucca houses. As long as education level increases, the number of households living in pucca houses also increases. In Sindh and the then KPK, maximum households are living in katcha houses having no or primary education. In all other education levels, the maximum households live in pucca houses. In Boluchistan, the majority of the households are living in katcha houses irrespective of the education level. As far as, urban – rural situation is concerned, maximum of the urban households live in pucca houses in all education levels and opposite is true in rural area, means that majority of households live in katche houses

Table 4 Effect of education of house hold head on Quality housing

Province	Quality of housing	Nil	Primary	Middle	Secondary	Higher Secondary	Higher Education
	Katcha	644	169	85	55	10	11
Punjab	Semi-Pucca	1096	411	267	298	33	67
	Pucca	932	476	351	582	156	328
	Katcha	855	310	53	85	25	58
Sindh	Semi-Pucca	192	116	30	41	19	48
	Pucca	396	272	160	282	122	397
	Katcha	845	156	91	116	22	26
KPK	Semi-Pucca	392	88	79	88	24	44
	Pucca	324	109	129	200	63	150

Boluchistan	Katcha	1040	223	91	158	47	69
	Semi-Pucca	101	24	25	25	7	19
	Pucca	84	43	28	72	29	61
Urban	Katcha	398	135	70	91	29	43
	Semi-Pucca	556	227	153	203	44	89
	Pucca	867	534	443	808	306	782
Rural	Katcha	2986	723	250	323	75	121
	Semi-Pucca	1225	412	248	249	39	89
	Pucca	869	366	225	328	64	154

Source: Researcher own calculation

In the urban region trend for pucca is steeper than Katcha and Semi-Pucca, for all types of qualification. While the case of rural region is opposite to urban region, here trend for Katcha houses is higher for uneducated household heads.

5. EMPLOYMENT STATUS
The employment status ranges from 'unemployed' to 'others'. In Punjab, maximum households with different employment status live in pucca houses.

The situation is the same in Sindh except in 'other' category, where the maximum households live in katcha houses. In the then KPK and Boluchistan, in all categories of employment; the maximum households live in katcha houses except in employer category in KPK, where majority of households live in pucca houses. The majority of urban and rural households in all categories of employment are living in pucca and katcha houses, respectively.

Table 5 Effect of Employment Status on Quality Housing at Province Level

Provinces	Quality	Unemployed	Paid employee	Self-employed	Employer	Others
Punjab	Katcha	127	355	375	3	114
	Semi-Pucca	389	724	893	4	162
	Pucca	548	993	1115	31	138
Sindh	Katcha	84	390	467	2	443
	Semi-Pucca	45	150	163		88
	Pucca	234	807	498	20	70
KPK	Katcha	272	410	491	5	78
	Semi-Pucca	209	255	216	3	32
	Pucca	280	346	313	14	22
Boluchistan	Katcha	160	632	637	4	195
	Semi-Pucca	25	83	82		11
	Pucca	39	164	100	4	10
Urban	Katcha	109	337	274	4	42
	Semi-Pucca	253	532	443	5	39
	Pucca	726	1679	1243	55	37
Rural	Katcha	534	1450	1696	10	788
	Semi-Pucca	415	680	911	2	254
	Pucca	375	631	783	14	203

Source: Researcher own calculation

INCOME OF THE HOUSEHOLD HEAD

The table 6 describes the effect of income (ranges from up to thirty thousands to more than one lac rupees) on the .quality of housing in different provinces. In Punjab, majority of the houses are pucca in all income categories of the household heads in except in the range of Rs. 3 -5 thousands where majority of the households have semi pucca houses. In Sindh, the most of the households, having their income up to Rs. 60,000, are living in ketcha houses.

Beyond that income, the majority of households have pucca houses. Moreover, in the then KPK, most of the households have katcha houses up to their income level of Rs. 70000, then maximum households have pucca houses beyond their income of Rs. 70000. In Boluchistan, most of the households have katcha houses in all income levels. In urban areas of the country, majority of the houses are pucca in all income levels, while the re verse is true in rural areas.

6. INCOME OF THE HOUSEHOLD HEAD

Province	Quality	Up to Rs3	>3-4	>4-5	>5-6	>6-7	>7- 8	>8-9	>9-10	>10
Punjab	Katcha	334	144	133	87	22	43	15	18	41
	Semi-Pucca	459	255	285	244	83	152	76	52	167
	Pucca	376	204	243	275	101	225	131	107	585
Sindh	Katcha	399	213	181	180	85	84	56	24	62
	Semi-Pucca	73	53	68	60	30	31	28	10	41
	Pucca	119	98	155	170	91	159	95	74	423
KPK	Katcha	342	134	143	137	34	62	33	23	63
	Semi-Pucca	154	61	60	64	23	44	26	18	48
	Pucca	121	52	73	81	25	75	44	34	0*
Boluchistan	Katcha	186	159	222	219	127	141	108	92	210
	Semi-Pucca	15	15	18	19	13	28	15	14	39
	Pucca	13	10	26	28	10	30	23	21	115
Urban	Katcha	112	71	83	103	38	58	45	31	112
	Semi-Pucca	173	124	156	142	53	113	70	30	150
	Pucca	245	179	286	337	142	330	205	168	1096
Rural	Katcha	1149	579	596	520	230	272	167	126	264
	Semi-Pucca	528	260	275	245	96	142	75	64	145
	Pucca	384	185	211	217	85	159	88	68	212

Source: Researcher own calculation

INDUSTRIAL STATUS OF THE HEAD

In Punjab, the majority of the houses are semi pucca whose heads belong to agriculture and construction sectors. While in the rest of the sectors the maximum houses are pucca. In Sindh, the majority of the houses are katcha, whose heads belong to agriculture and construction sectors. While in the rest of the sectors the maximum houses are pucca. The majority of the household heads in the then KPK

belonging to Unemployed, agriculture, construction and transport sectors live in the katcha houses. In the rest of the sectors, maximum households live in pucca houses. Boluchistan has the consistent behavior even industrial sector. That is, the maximum households have katcha houses in all industrial sectors. The majority of urban and rural households in all industrial sectors are living in pucca and katcha houses, respectively.

Table 7 Industrial Status according to Provincial Status

Provinces	Quality	Unemployed	Agriculture, Forestry, Fishery	Manufacturing	Construction	Wholesale & retail trade	Transport & storage	Social and personal services	Others
Punjab	Katcha	145	406	54	74	83	36	144	32
	Semi-Pucca	416	597	196	149	267	92	368	87
	Pucca	592	499	248	133	467	131	589	166
Sindh	Katcha	87	806	42	80	130	43	150	48
	Semi-Pucca	49	182	9	23	57	23	84	19
	Pucca	235	186	177	62	323	98	390	158
KPK	Katcha	301	420	27	121	132	58	141	56
	Semi-Pucca	226	124	22	47	110	40	106	40
	Pucca	297	76	36	42	186	52	202	84
Boluchistan	Katcha	164	649	13	105	208	110	258	121
	Semi-Pucca	25	55	2	10	38	19	45	7
	Pucca	39	41	10	14	54	27	100	32
Urban	Katcha	118	112	37	55	169	68	147	60
	Semi-Pucca	267	89	129	90	268	95	275	59
	Pucca	756	113	392	156	814	242	924	343
Rural	Katcha	579	2169	99	325	384	179	546	197
	Semi-Pucca	449	869	100	139	204	79	328	94
	Pucca	407	689	79	95	216	66	357	97

Source: Researcher own calculation

CONCLUSIONS
At Provincial level majority of household head having pucca houses, belongs to Punjab and Sindh provinces where as the household head of rest of two provinces have Katcha houses. It was also noticed that dependency ratio and age group has positive impact on the determinant of quality of housing. Analysis shows that with the increase in income quality of houses also increased from Katcha or Semi-Pucca to pucca. It was also observed that maximum of the household head are engaged with Agriculture sector. In the descriptive analysis of the region it was seen that in Urban region trend of majority of the household head is pucca houses as against to Rural region where trend for Katcha houses is higher.

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