## **Determinants of Occupational Choice among Four Provinces of the Pakistan**

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### ABSTRACT

An occupation symbolizes the social and economic position of an individual in the society. Therefore it is important to evaluate the structure of occupations and to emphasize the various determinants on the basis of which individuals make their occupational choices. The current study emphasize on the main objectives like the socioeconomic factors of occupational choice in Pakistan's labor force market. Study sample of 69839 regular wage employees of age 16 years to 65years is taken from the Labor Force Survey 2009-10. The comparative analysis of occupational choice among provinces of the Pakistan is examined. The multinomial logistic model is applied for the analysis of occupational choices in Pakistan especially among four provinces. Age, Gender, Education, Training, Living time in the district of the employment and marital status are considered as explanatory variables in the Multinomial logit model. This study helps us to understand the reasons of the occupational choices among four provinces of the Pakistan.

Keywords: Occupational choice, Provinces of Pakistan, Pakistan labor force market, Multinomial logit model

### 1. INTRODUCTION

Occupational choice is a very serious issue because not only the individual's future life depends upon it but also it participates in the development of a country. Occupations can enrich the production of a specific product, which may significantly participate in GDP of a country [1]. Furthermore to control the unemployment rate a country needs to highlight the occupations that are less participating. Occupational choice was not a dilemma, usually the profession of family head was adopted by the offspring. The son of a landlord would become a landlord and the son of a tenant would become a tenant the son of cobbler would become a cobbler and many other examples. With the awareness, acknowledgment, modernization and industrialization the demand for skilled labor force created in the market and people gradually move towards the selecting the jobs or professions [2].

Everyone is not fit for every occupation; peoples differ to one another with respect to preferences, utility, skills, productivity, strength, education, area of interest etc. As economic theory also speaks that peoples are different in productive capacity and opportunity cost related to the labor supply. When we considered labor services as a commodity in the labor market and labor is definitely different in its distinctiveness, so it cannot be measured as a homogenous service or commodity. These different capabilities are the determinant of an individual occupation selection. So individuals have to decide in which occupation they want to go [3].

Therefore the choice of a profession or selecting the career is a very important because the life of an individual will remain associated with that occupation he

has chosen. If an individual fails to select the right profession then he or she may have to face the number of problems in whole the life that is why it is very important to choose the right profession. Generally we have 28 <sup>1</sup>International Labor professions in our dataset; Organization has categorized these 28 occupations into 9 major professions.

Many studies have been conducted on occupational selection in Pakistan, this study addresses that issues that were not focused before. Our research provides an empirical evidence for occupational choice across the country. This research will contribute to know the determinants of occupational choice in each province of the Pakistan. It also compares the socioeconomic determinants of occupational choice among every province of the Pakistan. The data from a Pakistan labor force survey 2009-2010 is used for this study.

This research study has following objectives.

### 1.1 Objectives

- To find the social and economic determinants of career selection / occupational choice.
- To compare the social and economic magnitudes of occupational choice among the four provinces of Pakistan.

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• To make a policy formation in the light of the results that could lead to appropriate career selection / occupational choice.

### 2. REVIEW OF LITERATURE

The purpose of the literature review was to become familiar with the related research efforts that were commenced in the past period at national and international level regarding 'socioeconomic determinants and factors at the back of the occupational choice. It provided a chance for evaluation with other research analysis in Pakistan and elsewhere. Several different methods exist in the literature to estimate the determinants of occupational choice. The under mentioned studies would help us to better understand the factors, determinants and hindrances in the way of occupational choice.

[4] described the relationship between the occupational choice and the way of development. They found that there was a strong relationship between the growth of a country and occupation selection. Owing to reinvest the new stream of occupations generated that led to the development. It was concluded that wealth distribution should be reduced for this purpose redistributive taxation was needed to impose. [5] Found the factors that were responsible for occupational selection in Germany. They found the determinants of Profession selection and how they were dissimilar by ethnicity and gender. Five occupations craft, blue collar, white collar, menial and professional were considered as the dependent variable. Human capital was considered as explanatory variable that covers education, experience, training, German language fluency, sex and family background. It was found that education is positively associated with the profession higher education led to choose the higher ranked occupation.

[6] Found the determinants of occupational selection in the Colombian labor market. It was observed that people decided to be self-working if their utility was greater than the employed by others. It was found that earning was the significant factor to be self employed. Further it was also observed that education had negative while age had a positive association with self employment. [7] Observed the procedure of occupational selection of young people in due to their education level, parent's occupation at the age adulthood and parental occupational background. The research study concluded that adolescent with better educational achievements but less determined and poor family background faced troubles and restrictions in the way of their occupational choice.

Furthermore [8] conducted a study to find the factors that were responsible for career selection. The

factors that influenced the career choice like, gender, expectations, employment security, prestigious, ability, knowledge, personal interest, financial support and learning experience was considered in the analysis. It was concluded that the most influencing factor was the personal interest and [9] found the factors that were responsible for job selection of rural labor refugees in Shanghai. Gender, Education, marital status, residence was considered as explanatory variables. It was found that education was the most important cause in the selection of the occupations in the rural labor.

In Pakistan [2] explored that job satisfaction was a major factor that influenced career selection. They found the relationship between job satisfaction and career selection. Gender, Marital status, number of dependents, monetary facility, Age, Number of years spent in a career was considered as explanatory variables. The respondents were providing services at higher rank like doctors, professors and managers etc. They concluded that job satisfaction positively related with monetary benefits, job environment, interest and traits. Better selections of the career enhance the job satisfaction.

### 3. METHODS

Econometric models and methods are used to present empirical confirmation to economic problems. In it mathematical and statistical methods are applied to so that appropriate policy implications can be extracted on the basis of results to solve the confronted economic problem.

### 3.1 Data

Cross sectional data of the Labor Force Survey (LFS) for Pakistan conducted by the Federal Bureau of Statistics Pakistan 2009-10 was used for the analysis. Labor Force Survey (LFS) for Pakistan 2009-10 included the information about 2, 63, 501 individuals. Data were collected over four quarters in a year to capture the effects of seasonal variations. According to Pakistan Labor Force Survey 2009-10 the total respondents are 263501 wherein Punjab 117866, in Sindh 61929, in KPK 45954 and in Baluchistan these are 37751. The total Male labor force is 136001 and female 127500. We are taking 9 occupations and considering 16 to 65 years age only therefore our data shrinks to 69839 respondents.

### **3.2 Variables of the Model**

Occupations have been classified into following 9 different major categories after merging 28 occupations, set by International Standard Classification of Occupation ISCO 2008. By combining different micro occupations following nine dummy variables of merged occupations were generated as follows:

### Table 1: Scheme of Merged and Micro Occupations according to ISCO 2008

Merged Occupations	Micro Occupations
Manager	Legislator or senior officer, corporate manager, general manager, physical or engineering or science professional,
Professional	Life science and health science, teaching professional, other professional, physical or engineering or science associate prof,
Technical	Life & health source. Associate prof, teaching associate professional, other associate professional,
Clerks	Office clerk, customer service clerk,
Service	Personal or protective services workers, model or sales person or demonstrators,
Skilled	Market oriented Skilled/ fishery worker, subsistence Agri. & fishery workers,
Craft	Extraction & building trade worker, metal machinery and related trade worker, precision handicraft printing related worker, other craft & related trade worker, stationary plant & related operator,
Plant	Machine operator & assemblers, driver and mobile plant operator, sale and service elementary occupation,
Elementary	Labourers in Agri/ fishery, in mining construction manufacturing & transport,

We assign as Manager = 1, Professionals = 2, Technical = 3, Clerks = 4, Service = 5, Skill = 6, Craft = 7, Plant = 8 and 9, if the choice of occupation is Elementary

# 3.3 Independent Variable for Multinomial Logistic Regression

### 3.3.1 Gender (Gender)

A dummy variable for gender that is, Male = 1 and Female = 2

### 3.3.2 Age (Age Groups)

Age variable was available in LFS 2009-10 as a continuous variable that was further converted into a categorical variable with different group showing four different stages of life. Age of the respondent in groups [Age Group (1=16 to 26, 2=27 to 37, 3=38 to 48, 4=49 to 65)]

### 3.3.3 Living Time Period in the District of Employment (L.D)

This variable was used as an alternative for social contacts. Labor force Survey 2009-10 data presented the information about the living time period in the district of employment of respondents. There were five categories mentioned in the LFS 2009-10. They were reconstructed by merging two categories of 'less than 1 year' and '1-4years' into one category of 'less than 5 years'. Hence the consequential new constructed variable is a categorical variable for living time period of the respondent in the district of employment L.D (1=since birth, 2=above 10 years, 3=5 to 9 years, 4=Less than 5 years)

### 3.3.4 Education

Categorical Variable of Education with four categories is as, Education of the respondent, Education (1=No formal education, 2= primary, 3=middle & matric, 4=inter & graduation, above graduation)

### 3.3.5 Training (Job Training)

Dummy variable of Training that is, Training of the respondents (2=yes for any type of training, 1=No)

### 3.3.6 Marital Status (M.S)

There were four categories available for marital status in LFS 2009-10, of which two widows or widower and divorced was combined together in one category. Marital Status of the respondent (1=Never married, 2=Married, 3=widower and divorced)

### 3.4 Multinomial Logistic Regression Analysis

In this research study, explained variable of occupational choice of the respondent was considered as a categorical variable with nine groups. Micro data of Pakistan Labor Force Survey (LFS) for the years 2009-10 comprises of 28 occupational groups which were further combined into nine groups according to the International Standard Classification of Occupations, 2008 (ISCO 08).

Occupational choices were combined under following scheme.

Multinomial Logistic (MNL) Regression model was applied to examine the socioeconomic factors that were responsible for the occupational choices in four provinces of the Pakistan. Nine different occupational categories that mutually replaceable are not in the natural order. So Ordered Probit Model could not be used for analysis; the multinomial logit model was selected. In Multinomial Logistic Model one category of the dependent variable, last category would be taken as the reference category. In the present study, the last category "Elementary" was taken as the reference category.

The utility function  $U_{i}$  of an occupation can be written as

$$U_{jp} = f(X_i) + e_{ip}$$
.....(1)  
Where:

j=1,2,3,....,m and p= 1,2,3,....,n e<sub>ip</sub> Represents error term

If variable OCC<sub>ip</sub> represents the selected occupation, then

$$OCC_{jp} = 1 \text{ if } U_{jp} = \max(U_1, U_2, \dots, U_m)$$
(2)  
$$OCC_{jp} = 0 \text{ Otherwise}$$

$$U_{jp} = f(Gend_p, Age_p, L.D_p, Edu_p, Train_p, M.S_p) + e_{jp}$$
(3)

Equation 3 produces following selection probabilities:

$$\begin{split} P_{o}(OCC_{j} &= 1) &= \frac{1}{1 + \sum_{j=1}^{l} \exp(\beta_{o} + \beta_{1}Gend + \beta_{2}Age + \dots + \beta_{6}M.S)} \dots \dots (4) \\ P_{s}(OCC_{j} &= 1) &= \frac{\sum_{j=1}^{l} \exp(\beta_{o} + \beta_{1}Gend + \beta_{2}Age + \dots + \beta_{6}M.S)}{1 + \sum_{j=1}^{l} \exp(\beta_{o} + \beta_{1}Gend + \beta_{2}Age + \dots + \beta_{6}M.S)} \dots \dots (5) \end{split}$$

Where:

 $P_o$  Refers to the probability that an individual has in the base occupation and  $P_s$  Refers to probability that an individual is in the occupation other than base i.e. 1,2....m.

#### 4. RESULTS

The results of a multinomial estimation for occupational choice of the regular paid employees for the socioeconomic factors were specified in the following tables . The results for occupational choice were given in eight occupational categories as Manager, Professional, Technical, Clerical, Service, Skilled., Craft and Plant Operator while the Elementary Occupation was taken as the reference category. Comparative analysis among province is examined to know, what factors influences more to the provinces. The evidences from the tables help us to understand the provincial differences.

Table 2: Multinomial Logit Model results for the Punjab Province

	Occupations ( Elementary is our reference category)								
Variables	Manager	Professional	Technical	Clerk	Services	Skilled	Craft	Plant Operator	
Male	2.95	0.188	0.106	1.312	2.204	0.173	0.572	17.259	
Female (Reference cat	tegory)								
Age (16 to 26 years)	0.346	0.124	0.275	0.54	1.056	0.523	0.902	0.888	
Age (27 to 37 years)	0.452	0.281	0.555	0.948	1.153	0.472	0.801	1.276	
Age (38 to 48 years)	0.683	0.652	0.922	1.489	1.214	0.645	1.024	1.629	
Age (39 to 65 years) Reference category									
L.D (Since Birth)	1.982	1.634	2.037	1.891	1.062	2.763	2.453	2.693	

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L.D (Above 10								
years)	2.062	2.037	1.443	1.705	1.12	0.936	2.239	2.806
L.D (5 to 9 years)								
	1.479	1.366	1.358	0.926	1.298	1.172	1.38	3.1
Living time period in	the District of	the Employment	t (less than 5	years) Re	ference cate	gory		
No formal education								
	0.089	0.005	0.002	0.002	0.128	0.78	0.413	0.51
Education (1 to 5								
years)	0.207	0.013	0.01	0.002	0.297	0.672	0.742	1.143
Education (6 to 10								
years)	0.532	0.06	0.169	0.222	0.658	0.855	1.14	1.734
Education (inter, gradu	uation & high	er) Reference ca	ltegory					
Did not get job	1.031	0.451	0.43	0.928	0.563	1.912	0.084	0.066
training								
Get job training (Refer	rence category	y)						
Marital Status (Not				T		1	T	
married)	1 931	3 755	1 878	1 295	9.87	2 4 3 5	1 669	1 951
Marital Status (	1.751	5.155	1.070	1.275	9.07	2.435	1.007	1.751
Married)	2.024	2 2 2 9	1 0 1 2	1 6 4 2	8 00¢	2 5 4 2	1 426	2.042
Marrieu)	2.024	2.338	1.812	1.042	8.000	2.342	1.420	2.942
Marital Status (Widow	v, Widower, L	Divorced) Referen	nce category					

Table 3: Multinomial Logit Model results for the Sindh Province

	Occupations (Elementary reference category)										
Variables	Manager	Professional	Technical	Clerk	Services	Skilled	Craft	Plant Operator			
Male	4.792	0.387	0.206	2.357	4.583	0.346	1.394	31.107			
Female (Reference cat	Female (Reference category)										
Age (16 to 26 years)	0.34	0.185	0.27	0.565	1.291	0.569	0.868	1.089			
Age (27 to 37 years)	0.445	0.474	0.502	0.556	1.046	0.459	0.786	1.114			
Age (38 to 48 years)	0.585	0.677	0.792	0.899	1.063	0.563	0.83	1.43			
Age (39 to 65 years) F	Reference cat	tegory									
L.D (Since Birth)	0.913	0.625	1.775	1.112	0.812	1.693	1.677	0.931			
L.D (Above 10 years)	1.091	0.866	1.828	1.151	1.279	0.685	1.669	0.975			
L.D (5 to 9 years)	0.874	1.405	2.065	1.202	1.137	0.52	0.948	0.575			
Living time period in	the District o	of the Employmer	nt (less than 5	years) Re	eference cates	gory					
No formal education	0.09	0.007	0.004	0.002	0.176	0.919	0.56	0.549			
Education (1 to 5 years)	0.219	0.043	0.011	0.007	0.403	0.806	0.926	1.041			
Education (6 to 10 years)	0.513	0.072	0.169	0.206	0.944	0.999	1.344	1.576			
Education (inter, grad	uation & hig	her) Reference c	ategory								
Did not get job training	0.79	0.907	0.354	0.345	0.49	1.85	0.048	0.045			
Get job training (Refe	rence catego	ry)									
Marital Status (Not married)	1.427	4.148	2.546	0.966	2.458	1.716	1.632	1.757			
Marital Status (	1.658	3.27	2.454	2.113	2.324	2.109	1.349	2.243			

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Married)									

Table 4: Multinomial Logit Model results for the Khyber Pakhtoon Khwah Province

	Occupations (Elementary reference category)									
Variables	Manager	Professional	Technical	Clerk	Services	Skilled	Craft	Plant Operator		
Male	2.005	0.16	0.096	3.18	2.696	0.138	0.499	18.522		
Female (Reference category)										
Age (16 to 26 years)	0.39	0.145	0.284	0.34	1.091	0.639	0.947	1.078		
Age (27 to 37 years)	0.555	0.345	0.581	0.61	1.109	0.535	0.847	1.221		
Age (38 to 48 years)	0.724	0.658	1.151	1.17	1.146	0.639	1.04	1.324		
Age (39 to 65 years) Reference category										
L.D (Since Birth)	1.874	1.57	1.949	1.91	1.142	3.961	1.471	1.58		
L.D (Above 10 years)	2.122	2.752	1.409	2.02	1.366	1.499	1.485	1.913		
L.D (5 to 9 years)	1.331	2.953	1.372	1.04	1.309	0.768	1.159	0.605		
Living time period in	the District of	f the Employme	nt (less than 5	years) Re	eference categ	gory				
No formal education	0.078	0.004	0.002	0.003	0.173	0.827	0.414	0.502		
Education (1 to 5 years)	0.202	0.021	0.012	0.005	0.278	0.837	0.765	0.956		
Education (6 to 10 years)	0.417	0.055	0.122	0.136	0.554	0.778	0.887	1.118		
Education (inter, grad	uation & high	er) Reference of	category	n	1		1			
Did not get job training	0.971	0.627	0.34	0.591	0.493	2.255	0.053	0.036		
Get job training (Refe	rence categor	y)	•							
Marital Status (Not married)	1.99	1.883	1.119	5.386	2.49	1.367	2.205	1.329		
Marital Status ( Married)	2.158	1.35	0.973	3.90	1.726	1.667	1.577	1.701		
M.S [Marital Status (	Widow, widov	wer & divorced)	] =3 Reference	e category	ý					

### Table 5: Multinomial Logit Model results for the Baluchistan Province

	Occupations (Elementary reference category)									
Variables	Manager	Professional	Technical	Clerk	Services	Skilled	Craft	Plant Operator		
Male	2.176	0.36	0.12	3.60	2.82	0.218	0.638	13.47		
Female (Reference category)										
Age (16 to 26 years)	0.356	0.12	0.258	0.411	0.829	0.522	0.68	0.705		

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http://www.ejournalofbusiness.org											
Age (27 to 37 years)	0.483	0.323	0.478	0.652	0.987	0.5	0.821	0.966			
Age (38 to 48 years)	0.721	0.581	1.01	1.151	1.113	0.554	0.927	0.985			
Age (39 to 65 years) Reference category											
L.D (Since Birth)	2.058	1.176	1.95	2.526	1.361	2.634	2.768	1.855			
L.D (Above 10 years)	1.379	1.133	0.928	2.172	1.167	0.847	1.615	1.359			
L.D (5 to 9 years)	1.772	1.968	2.081	1.617	1.871	0.899	2.636	0.946			
Living time period in t	Living time period in the District of the Employment (less than 5 years) Reference category										
No formal education	0.079	0.008	0.002	0.002	0.124	0.944	0.437	0.473			
Education (1 to 5 years)	0.22	0.026	0.014	0.003	0.261	0.789	0.729	0.738			
Education (6 to 10 years)	0.473	0.075	0.129	0.163	0.579	0.909	0.997	1.164			
Education (inter, gradu	uation & high	er) Reference ca	tegory								
Did not get job training	0.84	0.676	0.361	0.816	0.618	1.671	0.061	0.039			
Get job training (Refer	rence category	()									
Marital Status (Not married)	1.235	2.48	1.071	0.473	1.088	1.328	1.332	1.729			
Marital Status ( Married)	1.476	1.814	1.155	0.526	0.969	1.56	0.987	2.506			
M.S [Marital Status (W	Vidow, widow	ver & divorced)]	=3 Reference	category	/						

### 5. DISCUSSION

Occupational Categories wise discussions is as under

### 5.1 Manager

In comparative analysis among provinces it was found that, gender of the respondents played a significant role to select an occupation. The meaningful difference was observed in the selection of the occupation "Manager" than the occupation "Elementary". As results showed that the male of the provinces Punjab, Sindh, KPK and Baluchistan were 2.95, 4.72, 2.00 and 2.17 times likely to choose the occupation "Manager" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Manager" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among provinces. The second category of the variable "The living time period in the district of the employment" was noted more likely to select the occupation "Manager" than the occupation "Elementary" for the Punjab, KPK, Sindh and Baluchistan provinces in comparison to the last category. Education also did not make many differences among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Elementary". Job training did not show the remarkable difference among the provinces. Only Punjab had more than 1 time likely to choose the occupation "Manager" than "Elementary" in comparison to the people who get

formal or informal training. Marital Status showed the same trend in the entire provinces for the selection of the occupation "Manager". The currently married peoples were found more eager to select the occupation "Manager" than the occupation "Elementary" in comparison to the unmarried and divorced people.

### 5.2 Professional

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation. The meaningful difference was not observed in the selection of the occupation "Professional". As results shows that the Male of the provinces Punjab, Sindh, KPK and Baluchistan were 0.18, 0.38, 0.16 and 0.36 times likely to choose the occupation "Professional" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Professional" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among provinces. The living time period of the district of the employment was noted more likely to select the occupation "Professional" than the occupation "Elementary" for the Punjab, KPK and Baluchistan

provinces. The results showed that in the Sindh province the living time period of the district of the employment didn't play a vital role. The results were more significant for the province KPK. Education also did not make many differences among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Professional" increases than the selection of the occupation "Elementary".

Job training did not show the remarkable difference among the provinces in the selection of the occupation "Professional". It showed that all the provinces had less than 1 time likely to select the "Professional" than the occupation occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Professional" except Punjab. The currently married peoples were found more eager to select the occupation "Professional" than the occupation "Elementary" in comparison to the unmarried and divorced people. In Punjab the unmarried people were noted to choose the occupation "Professional" than the occupation "Elementary" in comparison to those peoples who were divorced or widower.

### 5.3 Technical

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation. The meaningful difference was not observed in the selection of the occupation "Technical". As results shows that the Male of the provinces Punjab, Sindh, KPK and Baluchistan were 0.10, 0.20, 0.09 and 0.12 times likely to choose the occupation "Technical" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Technical" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among provinces. The living time period of the district of the employment was noted significantly likely to select the occupation "Technical" than the occupation "Elementary" for all the provinces. The results did not show the remarkable difference among the provinces. Education also did not make many differences among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Technical" increases than the selection of the occupation "Elementary".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Technical". It showed that all the provinces had less than 1 time likely to select the occupation "Technical" than the occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Technical" except Baluchistan. The currently unmarried peoples were found more eager to select the occupation "Technical" than the occupation "Elementary" in comparison to the married and divorced peoples. In Baluchistan the married people were noted to choose the occupation "Technical" than the occupation "Elementary" in comparison to those peoples who were married and divorced or widower.

### 5.4 Clerical

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation "Clerical". The meaningful difference was observed in the selection of the occupation "Clerical" than the occupation "Elementary". As results shows that the Male of the provinces Punjab, Sindh, KPK and Baluchistan were 1.31, 2.35, 3.18 and 3.60 times likely to choose the occupation "Clerical" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Clerical" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among provinces. The living time period of the district of the employment was noted significantly likely to select the occupation "Clerical" than the occupation "Elementary" for all the provinces. The results did not show the remarkable difference among the provinces. The same trend was noted for the province Punjab and Baluchistan that was a more living time more chances to select the occupation "Clerical" than the occupation "Elementary" in comparison to those peoples who were the resident of the same district less than 5 years. Education also did not make many differences among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Clerical".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Clerical". It showed that all the provinces had less than 1 time likely to select the occupation "Clerical" than the occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Clerical" except KPK. The currently unmarried peoples were found more eager to select the occupation "Clerical" than the occupation "Elementary" in comparison to the married and divorced peoples. In the KPK province the significant figure was noted, as showing that unmarried peoples were 5.38 time like to choose the occupation "Clerical" than "Elementary" in comparison to the widow, widower and divorced.

### 5.5 Services

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation "Services". The

meaningful difference was observed in the selection of the occupation "Services" only in the province Sindh. As results shows that the Male of the provinces Punjab, Sindh, KPK and Baluchistan were 2.20, 4.58, 2.69 and 2.82 times likely to choose the occupation "Services" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Services" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among all the provinces. The living time period of the district of the employment was noted significantly likely to select the occupation "Services" than the occupation "Elementary" for all the provinces. The results did not show the remarkable difference among the provinces. Education also did not make much difference among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Services" increases than the selection of the occupation "Elementary".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Services". It showed that all the provinces had less than 1 time likely to select the occupation than the occupation "Elementary" "Services" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Services". But the figure for the province Punjab was found greater than the other provinces. In Punjab currently unmarried peoples were found 9.87 times and married peoples were found 8.00 times likely to choose the occupation "Services" then the occupation "Elementary" in comparison to the widow, widower and divorced people.

### 5.6 Skilled

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation "Skilled". The meaningful difference was not observed in the selection of the occupation "Skilled". As results shows that the Male of the provinces Punjab, Sindh, KPK and Baluchistan were 0.17, 0.34, 0.13 and 0.21 times likely to choose the occupation "Skilled" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Skilled" than the occupation "Elementary" in all the provinces. The results did not show meaningful differences among all the provinces. The living time period of the district of the employment was noted significantly likely to select the occupation "Skilled" than the occupation "Elementary" for all the provinces. The results did not show the remarkable difference among the provinces. All the province showed that the category since birth has more likely to choose the occupation "Skilled" than any other category. Education also did not make much difference among provinces. All the provinces almost had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Skilled" increases than the selection of the occupation "Elementary".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Skilled". It showed that all the provinces had more than 1 time likely to select the occupation "Skilled" than the occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Skilled". The currently married peoples were found more eager to select the occupation "Skilled" than the occupation "Elementary" in comparison to the unmarried and divorced people.

### 5.7 Craft

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation "Craft". The meaningful difference was not observed in the selection of the occupation "Craft".

Age of the respondents was found positive in relation to the selection of the occupation "Craft" than the occupation "Elementary" in all the provinces except Sindh. The results did not show meaningful differences among all the provinces. The living time period of the district of the employment was noted significantly likely to select the occupation "Craft" than the occupation "Elementary" for all the provinces. The results did not show the remarkable difference among the provinces. Education also did not make much difference among provinces. All the provinces had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Elementary".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Craft". It showed that all the provinces had less than 1 time likely to select the occupation "Craft" than the occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Craft". The currently unmarried peoples were found more eager to select the occupation "Craft" than the occupation "Elementary" in comparison to the married and divorced peoples.

### 5.8 Plant Operator

In comparative analysis among provinces we found that, gender of the respondents played a significant role in the selection an occupation "Plant operator". The meaningful difference was observed in the selection of the occupation "Plant operator". As results showed that the Male of the provinces Punjab, Sindh, KPK and

Baluchistan were 17.25, 31.10, 18.52 and 13.47 times likely to choose the occupation "Plant operator" than the occupation "Elementary" in comparison to the females respectively.

Age of the respondents was found positive in relation to the selection of the occupation "Plant operator" in all the provinces. The results did not show meaningful differences among all the provinces. The living time period in the district of employment was not extraordinarily different in all the provinces. Sindh and KPK had the same trend while Punjab and Baluchistan was different to one another. The province Punjab was significantly likely to select the occupation "Plant operator" than the occupation "Elementary". Education also did not make much difference among provinces. All the provinces had similar selection trends. It was evident from the results that as education increase the chances of the selection of the occupation "Plant operator".

Job training did not show the extraordinary difference among the provinces in the selection of the occupation "Plant operator". It showed that all the provinces had less than 1 time likely to select the occupation "Plant operator" than the occupation "Elementary" in comparison to that people who had the formal or informal training. Marital Status showed the same trend in the entire province for the selection of the occupation "Plant operator". The currently married peoples were found more eager to select the occupation "Plant operator" than the occupation "Elementary" in comparison to the unmarried and divorced people.

### 6. CONCLUSION

The most important objectives of this research study were to examine the socio-economic determinants of occupational choice in Pakistan's labor force market. The multinomial logistic model was applied in Labor Force Survey 2009-10 for the analysis of occupational choices.

Gender, Age, Living time period in the district of employment, Education, Training and Marital status was used in the multinomial logit model. It was found that human capital variables like age, education and training were significant factors in determining the occupational choice.

A dummy variable for gender had significant effects for all occupational categories. It was clear from the results that males were found more eager to select the occupations Manager, Clerical, Service, and Plant operator. In occupations professional, Technical, Skilled and craft females were found more likely to select theses occupation than males in comparison to the occupation "Elementary". Gender based discrimination was also found in the labor markets some occupations were associated with the females and some were associated with the males. These results showed that Gender has a significant impact on the selection of an occupation. These results harmonizing with [5, 10, 11]. Age was found significant for all the occupational categories except the Plant operator category. Age showed the positive association with all the occupational categories, with the increase in the age (up to 65 years) respondents found to select all the occupations more likely to the occupation "Elementary". Age is also considered as a proxy variable of the experience. These results harmonizing with [5, 6].

A categorical variable for the living time period in the district of employment was incorporated in the study which was not taken in the earlier literature. This variable showed the social contacts boundary for the employee to prefer to work his employment region on the basis of the time period that how much he has access to the occupation of his own choice. It showed the significant results for all the occupational categories except the occupations "Services" and "Skilled".

Education had a significant effect on high paying and service related occupational categories like Manager, Professional, Technical, Clerical and Service while education was not much significantly affecting the occupational choice Craft and Plant Operator categories in comparison to the occupation "Elementary". With the increase in education the peoples move towards high ranked jobs. The trend of these results matching with [9, 12, 13] and others.

Training was noted positively and highly related to the occupational choice of an individual for all occupational categories except the occupation "Skilled". Marital Status was noted highly significant factor for all the occupational categories except the occupation "Clerical". Married peoples were found more likely to select the occupations Manager, Clerical, Skilled and plant operator. Currently unmarried peoples were found more likely to select the occupations Professional, Technical, Services and Craft in comparison to the occupation "Elementary". Marital status depicts the social responsibilities of the individuals. Owing to this married people were found more participated in all the occupations.

A comparative analysis among provinces was examined. It was noted all the provinces had not significantly different to one another. Age, Education, Training and Marital status played almost similar role in all the provinces in the selection of all the occupations. Gender played the most prominent role in the selection of the occupation "Plant operator" and "Services". The Male form Sindh province were noted highly likely to choose occupation "Plant operator" and "Services" the occupations than all the other occupations in comparison to the females. The living time period in the district of employment significantly effects all the occupations in all the provinces except the province Sindh. The peoples of Sindh were not influenced much due to the living time period in the district of employment in the occupations Manager, Professional, Skilled and Plant operator.

### **6.1 Recommendations**

By keeping in view the above cited results and arguments, the research study proposed the following policy recommendations.

- 1. There is a need to introduce more occupational and educational opportunities.
- 2. It is essential to endorse education along with training as this study concluded that the education in the most important determinant.

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