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Determinants of Primary School Enrollment in Pakistan: Is Poverty a Hurdle in the Way of Educational Attainment?

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Abstract

The objectives of this paper are to examine the impact of poverty on primary school enrollment and to look for reasons behind never enrolled in school in Pakistan. The micro level data of Household Income and Expenditure Survey (HIES) 2010-11 is used for analysis. The children of age 6-12 year, who are currently enrolled in primary school or out of school, are considered as a unit of analysis. The paper employs logistic model to accomplish the objectives. The results reveal that school enrollment is negatively related to poverty, household size, distance to the nearest school whereas school enrollment is affected positively by age and gender of child (male), parental education, region of residence (urban) and household assets. Household income does not play any significant role to school enrollment. The region of residence (urban region) has significant positive effect on girls' enrollment; however it is insignificant for boys. Availability of school matters more for girls' school enrollment than that of boys. We can safely conclude that poverty is a hurdle in the way of educational attainment in Pakistan.

Keywords: Poverty, primary school enrollment, education and logit model

Introduction

Education is a basic right of every citizen. It plays an important role in the development of human capital of any nation and human capital is considered as an engine of economic growth of any economy. There are many aspects of human capital such as formal education, on job training, skills and experience but education is the most important aspect of human capital.

Increase in literate population is one of the main objectives of Millennium Development Goals (MDGs). Literacy rate for the population of age 10 year and above for year 2010-11 was 58% [PSLM survey (2010-11)]. This rate is very low as compared to target literacy rate of Millennium Development Goals which is 80 percent till 2015. Enrollment ratio in schools constitutes the largest part of the investment of human capital in most of the societies [Schultz (2002)]. In terms of enrollments, Pakistan has been historically lagged behind other countries of South Asian Association for Regional Cooperation (SAARC). There are many reasons for low enrollment and literacy rates in Pakistan. Some of the main hurdles in the way of educational attainment and human capital accumulation in Pakistan are poverty, inadequate supply of government schools, lack of basic infrastructure, high inflation, low

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spending on education, gender disparity, poor conditions of public and private schools, regional inequalities, lack of qualified teachers and adequate resources, high fees in private schools, poor educational policies and their implementation etc. [Alderman, (2001); Toor and Parveen, (2004); Baluch and Shahid, (2008); Ahmad et al. (2013)]

The existing literature has highlighted many factors that influence school enrollment decision and gender gap in education in Pakistan. The focus of literature is on demand side variables of school enrollment e.g. gender and age of child, parental education, household income, household asset etc. The school enrollment is not only determined by demand side but also by supply side variables. School access is one of the important supply side determinants of school enrollment, especially for girls' school enrollment [Ansari (2013)].

There are two hypothesis about the relationship of educational attainment and poverty. One of them is adopted by Afzal et al (2010); Chaudhry and Rahman.(2009), Njong, (2010) that education increases job opportunities and improves skills which in turn play a vital role in poverty alleviation. The other one is that poverty is a main reason for why children do not enroll or dropout before the completion of (primary) education. Poor households cannot afford school fees, cost of school uniform, shoes, books, transport and stationary. Although government provides free books, uniform, etc. at primary level but opportunity cost of attending school is high for poor households as compared to children belong to non-poor households. Therefore, children belong to poor households do not get enrolled in school and join labor market to support their families [Arif et al (1999)]. In this paper we hypothesize that poor households behave differently from non-poor while deciding whether to enroll their children in school or not. The impact of poverty on school enrollment has not been widely addressed. Therefore, this paper is an attempt to empirically examine that whether poverty is a hurdle in primary school enrollment by using data of HIES (2010-11).

The rest of the paper is organized as follows. The section 2 of this paper discusses the relevant existing literature on the issue. Section 2.1 reviews the studies on the demand side determinants of school enrollment whereas section 2.2 presents the review of the literature conducted on supply side determinants of school enrollment. Section 3 discusses model specification, description and construction of the variables and; data source. Section 3.1 describes the model. Section 3.2 discusses variables and their construction. The data source and working sample is presented in section 3.3. Section 4 analyzes the descriptive statistics of sample data and interprets empirical results of the paper. The reasons behind never enrolled in school are also discussed in this section. The conclusions and policy recommendations are presented in the last section

Literature Review

This section reviews some important studies conducted to explore factors which influence school enrollment. Most of the studies are made on the demand side determinants of school enrollment. To the best of our knowledge only two studies, regarding the effect of poverty on school enrollment, are available in the literature. One of them is conducted on Pakistan by Arif et al (1999) and other one is made on Guatemala by Hallman et al (2006). The study on Pakistan is about 17 year old and its data set is also different from this paper.

Review of studies on demand side determinants of school enrollment

This section discusses some important studies which focus on the demand side determinants of school enrollment such as child, household and parental characteristics.

Child characteristics

Most of the studies found positive impact of age of children on their school enrollment. School enrollment is non-linear function of child's age [Drèze and Kingdon, (1999)]. In other words, probability of school enrollment of children increases with decreasing rate as the age of children increases [Arif et al. (1999); Toor and Parveen (2004), Khan and Ali (2005)]. Gender of child is another important factor which influences school enrollment in developing countries like Pakistan. Boys are preferred in intra household allocation of resources whereas investment on girls' education is quite low in Pakistan because girls' education is considered less productive for the household [Arif et al (1999), Connelly et al (2003), Mabika and Shapiro (2011)].

Parental characteristics:

Parental education is one of the most significant demand side variable of school enrollment. Drèze and Kingdon (1999) empirically proved that boys' school enrollment was mostly influenced by fathers' education while girls' schooling was mostly influenced by mothers' level of education. It implies that inter-generational 'same sex' effects are stronger than inter-generational 'cross-sex' effects. Khan and Ali (2005) found that mother education was more important for increasing school enrollment. Similar results were found by Toor and Parveen (2004) and Sathar et al (2013) for Pakistan, Kurosaki et al (2006) for India and Zhao and Glewwe (2010) for China.

Household's characteristics

Household asset is another important variable which positively affects school enrollment. Drèze and Kingdon (1999) and Ansari (2013) concluded that household wealth increased the school enrollment of both male and female children but the effect was relatively highly significant for girls' school participation. Khan and Ali (2005); Hallman et al (2006); Deng et al. (2012); Sathar et al (2013) found similar results. Hallman et al (2006) concluded that household assets were responsible for gender gap in education. Deng et al. (2012) evidenced that in rural areas, parents invested more on boys regardless of family economic position. Ahmad et al (2013) established that pro male gender bias was higher at lower wealth level for Pakistan. Filmer and Pritchett (2001) found similar results for India.

Household size

Two hypotheses are available in the literature regarding the impact of household size on school enrollment. First, larger the household size, lower the per capita income which in turn reduces school enrollment. Therefore, household size has negative impact on school enrollment [Arif et al. (1999), Drèze and Kingdon (1999), Khan and Ali (2005), Deng et al. (2012), Qureshi (2012)]. Second, increase in household size leads to more earning hands and therefore children from larger household size are more likely to be enrolled [Baluch and Shahid (2008)].

Supply side determinants of school enrollment

Alderman et al (2001) and Siddiqui and Imran (2007) opined that increase in the distance to the nearest school reduced the probability of school enrollment. Negative impact of distance on school enrollment is higher in rural areas as compared to urban areas [Toor and Parveen (2004)]. It was documented that girls' schooling was more sensitive to distance. Similar results were found by Lloyd et al. (2005). Sathar et al (2013). Baluch and Shahid (2008) came with insignificant impact of distance on primary school enrollment in district Lahore of province Punjab, Pakistan.

Model Specification, Estimation Methodology and Data Source

Model Specification

Dependent variable used in the paper is school enrollment which is a dummy variable having value 1 for those children who are enrolled in a particular class and 0 other wise. Therefore, logit model would be relatively a better model to assess the impact of poverty and other factors on primary school enrollment in Pakistan [Faux and Ntembe (2013) and Arif et-al (1999). Logit model consider the following presentation of school enrollment,

$$P(Y_i = 1) = \frac{1}{1 + e^{-(\alpha + X_i\beta)}} \quad (1)$$

Where $P(Y_i = 1)$ is probability that child is enrolled. X_i is the vector of independent variables, α is intercept and β is the vector of coefficients. Let suppose

$$\alpha + X_i\beta = G$$

then equation (1) can be written as

$$P(Y_i = 1) = \frac{1}{1 + e^{-G}} = \frac{e^G}{1 + e^G} \quad (2)$$

Equation (2) is known as logistic distribution function. If the probability of enrollment is given by equation (2), then the probability of not enrolled can be represented as follows:

$$P(Y_i = 0) = \frac{1}{1 + e^G} \quad (3)$$

By dividing equation (2) by (3), we get following equation

$$\frac{P_i}{1 - P_i} = \frac{1 + e^G}{1 + e^{-G}} = e^G \quad (4)$$

$\frac{P_i}{1 - P_i}$ is the ratio of the probability that a child is enrolled to the probability that he is not enrolled. If we take natural log of the equation (4), we obtain the following equation,

$$Y_i = \ln\left(\frac{P_i}{1 - P_i}\right) = G \quad (5)$$

As we have mentioned that $G = \alpha + X_i\beta$,

$$\text{Therefore} \quad Y_i = \alpha + X_i\beta \quad (6)$$

For estimation purpose

$$Y_i = \alpha + X_i\beta + \varepsilon \quad (7)$$

Where “ Y_i ” is the log of odd ratio and ε is stochastic error term “ X_i ” is the vector of explanatory variables and β is the vector of coefficients. This paper includes three sets of demand side independent variables which may affect school enrollment. First category is child's characteristics which include age and gender of child. Second category is household's characteristics which include household size, household's poverty status, household income and assets, household dependency ratio, area of residency and province of residency. Third category of independent variables is parental characteristics.

This category includes parents' education level. School access, which is a supply side determinant of school enrollment, is also one of the independent variables of the school enrollment. The following econometric equation is estimated:

$$SE_i = \beta_0 + \beta_1 AGE_i + \beta_2 AGESQR_i + \beta_3 GEND_i + \beta_4 HS_i + \beta_5 HPOV_i + \beta_6 HINC_i + \beta_7 HASET_i + \beta_8 DEP_i + \beta_9 DURB_i + \beta_{10} SAVL_i + \beta_{11} DSINDH_i + \beta_{12} DKPK_i + \beta_{13} DBAL_i + \beta_{14} FEDU_i + \beta_{15} MEDU_i + \varepsilon_i \quad (8)$$

Description and construction of variables used in the model

SE= School enrollment having value one for the child who is enrolled and zero otherwise

Child's characteristics

AGE = Age of a child in complete years

AGESQR = Age square of child in complete years

GEND = Gender of child. It is a dummy variable having value one for male and zero otherwise

Household's characteristics

HS = Household size

HPOV = Household Poverty status. It is a dummy variable having value one for poor household and zero otherwise

HASET=Household asset index constructed by using principal component analysis (PCA).

DEP = Dependency ratio

DURB =Dummy variable of area having value one if child belongs to urban areas and zero otherwise

SAVL = is school availability measured by walking distance to the nearest school in minutes. We introduce five categorical variables of distance

DIST1 =1 if walking distance to the nearest school is 1 to 14 minutes and zero otherwise

DIST2 =1 if walking distance to the nearest school is 15 to 29 minutes and zero otherwise

DIST3 =1 if walking distance to the nearest school is 30 to 44 minutes and zero otherwise

DIST4 =1 if walking distance to the nearest school is 45 to 59 minutes and zero otherwise

DIST5 =1 if walking distance to the nearest school is 60 minutes and above; and zero otherwise

To avoid dummy variables trap we introduce four dummy variables for distance and take DIST1 as a reference category.

For four provinces we include three dummies for Sindh, KPK and Baluchistan, keeping Punjab as reference category.

DSINDH=1 if household belongs to province Sindh and zero otherwise

DKPK =1 if household belongs to province KPK and zero otherwise

DBAL =1 if household belongs to Baluchistan and zero otherwise

Parental characteristics

FEDU = is father education measured in number of years of schooling

MEDU = is mother education measured in number of years of schooling

Poverty measurement

Poverty is deprivation in wellbeing which consists of many dimensions. Low level of income, inability to get the basic goods and services, low level of health, education, clean water etc. are the some important dimensions of poverty [World Bank (2012)]. We can classify them into two main dimensions; monetary and non-monetary dimensions of poverty. Income and

consumption are two measures of well-being under the monetary dimension of poverty. There is considerable literature on these two alternative measures of poverty. However, most of the studies have favored the consumption based poverty measure [(Meyer and Sullivan (2003) and (2009)]. These studies are of the view that consumption is a better measure of material well-being than income for the following reasons. Firstly, actual consumption captures permanent income therefore consumption reflects the long term prospects of a household while income is just an element that allows consumption of goods and services. Moreover, it also better fit the illegal activity and reflects the government and private transfer. Secondly, consumption directly measures the household well-being. Current income may be misleading indicator of household well-being because earnings of household subject to temporary fluctuations. Thirdly, consumption is better indicator of well-being particularly in the developing countries where a large part of income is not monetized as households use their own production, so it is difficult to price these goods [Meyer and Sullivan (2003)]. The income is under-reported by most of the households to avoid income tax. A study on the alternative measures of poverty by Meyer and Sullivan (2011) showed that income is under-reported in U.S. They showed that overall non response rate was high in income data than in expenditure data in U.S. Fourthly, consumption provide better picture of actual standard of living as compared to income because it not only reflects the household ability to meet their expenditures with their current income but also the access of household to credit market, saving and dissaving and ownership of durable goods [Meyer et al (2003)]. Similarly, household does not spend all his income rather some part of household's income is saved therefore current income is not a good measure of household well-being. The existing literature shows that consumption¹ based well-being is better indicator than income based well-being for those who have few resources and it should be used to measure the material well-being [Meyer et al (2009)]. Therefore, the present paper uses consumption expenditures as an indicator of poverty measurement. We use poverty line Rs. 1742 per month per adult equivalent developed by Malik et al (2014) for the year 2010-11

Construction of asset index

Asset index is used as proxy variable for economic status of a household. For this purpose we use household assets ownership to construct asset index. HIES provides informations on 20 assets like ownership of watch, T.V set, bicycle, mobile, refrigerator, car, fan, iron etc. If household owns a particular asset, value 1 is assigned to it, otherwise zero. We use this data on asset ownership called asset indicators or asset variables to construct asset index. The problem is how to assign weights to different asset in order to construct asset index. In the literature three methods are available to assign appropriate weights to different assets [Filmer and Pritchett, (2001); Moser and Felton, (2007)]. Method 1 is to use prices of assets as weights. Though it is easy method but HIES does not collect information on prices of the assets. Method 2 allocates equal weights to each asset. The limitation of this method is to assign equal worth to watch and car though the contribution of these assets in household wealth is different. The third method is Principal component analysis (PCA). It is the most appropriate method to construct an index [Filmer and Pritchett (2001)]. Hence this paper

1 Arif et al (1999) used income based poverty line to estimate the impact of poverty on primary school enrollment

uses statistical procedure of principal component analysis for determining the weights for asset variables used in the construction of asset index.

Data source and working sample

The micro level data of Household Integrated Economic Survey (HIES) at national/provincial level for the period 2010-11 is used. Official age for primary school children is 5 to 9 year.

Table 3.1 Age wise distribution of enrolled children in grade 1 to 5

Age	percentage	Cumulative percentage
5	4.4	4.4
6	9.9	14.3
7	14.7	29
8	17.6	46.6
9	13.2	59.8
10	17.1	76.9
11	8.7	85.6
12	7.8	93.5
12+	6.5	100

Source: computed by authors from the data of HIES 2010-11

However, this age group is very narrow [Arif et al. (1999)]. Therefore, this paper considers children of age 6 to 12 year who are currently enrolled or out of school. The selection of this age group is based on the analysis of age wise distribution, reported in table 3.1, of the children who are currently enrolled in grade 1 to 5.

Results and Their Interpretation

This section comprises of four sub-sections. First sub-section makes descriptive analysis of the characteristics of sample data. Sample data is also divided into urban and rural areas for comparison of statistics. The second sub-section reports percentage of children enrolled in primary school by gender, place of residency and poverty. The third sub-section discusses the results of the estimation of logit model. We run five separate logit regressions for primary school age group children. Last sub-section highlights the reasons behind drop out from or non-enrollment of children in school.

Descriptive analysis

Overall and area wise descriptive statistics of sample children are presented in table 4.1. The statistics reveal that 29% of sample children belong to poor households in Pakistan. In rural areas, 34% children belong to poor household while only 20% of the children belong to poor households in urban areas. It means that Poverty is more pronounced in rural areas as compared to urban areas. Out of total sample children, 69% children are enrolled in grade 1 to 5. However, there are significant disparities in school enrollment across regions. In urban areas 81% of the sampled children are currently enrolled in grade 1 to 5 while in rural areas this percentage is only 63%.

Table 4.1: Statistics of children of age 6 to 12 year in Pakistan at overall, urban and rural level

VARIABLE	OVERALL	URBAN	RURAL
AGE (mean age in years)	8.67	8.61	8.7
HS (mean)	8.55	8.4	8.63
HINC(mean)	2601	3230	2265
FEDU(mean)	5	6.5	4
MEDU(mean)	1.7	3.4	1
SE (% enrolled)	69	81	63
HPOV(% poor)	29	20	34
No. of observations	17354	6037	11317

Source: Computed by authors from data available in HIES 2010-11

Average age of the sample children is about 9 year in both urban and rural areas. Average household size is 8. Average household size in rural areas is approximately 9 members. The reported average per capita income per month of the sample households is Rs2600. This figure is high in urban areas which is Rs. 3230 as compared to Rs. 2265 in rural areas. The table also reveals that average year of education of the mothers of sample children are approximately 2 year as compared to father education which is 5 year. There is also significant difference in average year of parental education across urban-rural areas. Average education of urban father and mother is comparatively high than that of rural areas.

School enrollment by poverty, region, and gender

Poverty not only includes inability to get the basic goods and services but also includes low level of education and health. In this paper we hypothesize that poor households behave differently than non-poor households while deciding whether to enroll their children or not. Education is expensive for poor households because they cannot afford school fees, uniform and shoes. Even though primary education is free but opportunity cost of going to school for poor households is high. Therefore, children belong to poor households do not enroll in primary school. So, children of poor households are less likely to receive education than that of non-poor households.

Table 4.2: Percentage distribution of 6-12 year old children enrolled in primary school by gender, poverty and place of residency

	Poor	Non-poor	Total
Overall			
Both sexes	57%	74%	69%
Boys	64%	81%	76%
Girls	50%	68%	62%
Urban			
Both sexes	66%	85%	81%
Boys	71%	88%	84%
Girls	59%	83%	78%
Rural			

Both sexes	54%	68%	63%
Boys	61%	76%	71%
Girls	47%	58%	55%

Source: Computed by authors from data available in HIES 2010-11

In table 4.2 we have reported the break-up of the sample data of 17354 children by gender, poverty status and area of residence. These statistics indicate that percentage of enrolled children (57%) from poor households is low as compared to the children (74%) who belong to non-poor households. Enrollment percentage also differs across genders. The results of table 4.2 reveal that girls are less likely to be enrolled in primary school as compared to boys. There is also significant difference in primary school enrollments across urban-rural areas. Percentage of enrolled children who belong to rural areas is 63% as compared to 81% in urban areas. From these statistics we can conclude that poverty and place of residency are responsible for gender and region disparities in education. Gender disparities in education are quite high in poor households in both urban and rural areas. Gender disparity is high even in non-poor households in rural areas. However, gender gap in primary enrollment is low in urban areas and non-poor households. In urban areas non-poor households enroll their children irrespective of their gender. Table 4.2 helps us to conclude that poverty, gender and region are the important variables for school enrollment. Poverty reduces school enrollment and this negative effects of poverty on school enrollment is more noticeable for rural areas and girls. However, the effects of these and other variables are estimated empirically in next sub-section.

Regression analysis

The problem of multicollinearity arises when two independent variables correlate with each other. The correlation between dependency ratio and household size is 81%. Due to this high positive correlation we exclude variable "dependency ratio" from the analysis. Similarly, household income and household assets are expected to correlate positively with each other. The correlation between these two independent variables is found 42%. Correlation between household income and school enrollment is only 12% whereas correlation between household assets and school enrollment is 34%. It shows that correlation between independent variables is stronger than the correlation between independent and dependent variables. To avoid the problem of multicollinearity we estimate two models. In model I, we include all explanatory variables except household income whereas in model II; we include all independent variables except household assets.

The estimates of equation (8) are partial slope coefficients. Each coefficient measures the change in log-odds for one unit change in the value of that explanatory variable, holding other variables constant. The results of the logit regression are reported in table 4.3.1. The coefficients of all variables have expected signs and consistent with theory.

Child's characteristics:

Estimated coefficients of age and age square are positive and negative respectively. Therefore our results confirm that school enrollment increases as the age of the child increases, reaches to a maximum and then start to decline. The coefficient of gender has positive sign which indicates that boys are more likely to be enrolled than girls. These results are consistent with the results of Arif et al (1999); Khan and Ali (2003), Connelly et al

(2003); Mabika and Shapiro (2011)]. These empirical results substantiate our summary statistics presented in table 4.2. The descriptive statistics and empirical findings indicate that there is strong gender disparity in primary school enrollment in Pakistan.

Table 4.3.1: Logit regression effect of independent variables on school enrollment of children of age 6-12 year

	MODEL I	MODEL II
Variable	Coeff.	Coeff.
Constant	-6.69*	-7.16*
AGE (years)	1.87*	1.85*
AGESQR	-0.11*	-0.10*
GENDER (male=1)	0.86*	0.82*
HS	-0.04*	-0.001
HPOV (poor=1)	-0.18*	-0.50*
HINC		0.00000695
HAST	0.12*	
DIST2	-0.62*	-0.61*
DIST3	-0.63*	-0.71*
DIST4	-1.38*	-1.32*
DIST5	-2.4*	-2.66*
URB (urban=1)	0.12**	0.45*
FEDU	0.08*	0.10*
MEDU	0.12*	0.15*
DKPK (kpk=1)	-0.07	-0.09
DSINDH (sindh=1)	-0.86*	-1.11*
DBAL (Baluchistan=1)	-0.73*	-0.81*
Number of obs	(17354)	(17354)
LR chi2(16)	(4948.97)	(4478.39)
Prob > chi2	(0.0000)	(0.0000)
Pseudo R2	(0.2315)	(0.2095)

Note: * and ** show significant at 1 and 5 percent significance level respectively

Households' characteristics:

Household size and household assets turn out significant factors of school enrollment. The results reveal that household size significantly reduces the probability of school enrollment. Therefore the paper supports the view that bigger household size is not favorable to school enrollment. Household asset ownership has significant positive impact on the probability of school enrollment because asset is long term economic resource than income.

The coefficient of poverty is significantly negative in both models. It indicates that children belong to poor households are less likely to be enrolled in primary school as compared to children belong to non-poor households. It can be concluded that poverty is one of the hurdles in the way of educational attainment in Pakistan. It may be due to the fact that opportunity cost of going to school for poor households is high therefore, children belong to poor households do not enroll in primary school. This finding is in line with the result of Arif et al (1999). Our findings also reveal that household per capita income has no

significant effect on the probability of primary school enrollment. It may be due to the fact that income is subject to fluctuations. Moreover, most of the people do not report their exact income. Therefore, income is not a good indicator of household's economic status. Our result supports Deng et al. (2012) point of view that asset is long term economic resource as compared to household income. Therefore, asset variable has more explanatory power in the model than that of household income

The results also reveal that parental education positively and significantly affects primary school enrollment. However, the coefficient of mother education is comparatively higher than that of father education which means that mother education has pronounced effect on school enrollment as compared to father education. Our results are consistent with Kurosaki et al (2006), Zhao and Glewwe (2010) and Khan and Ali (2003).

Availability of primary school:

Distance to the nearest primary school is another significant determinant of primary school enrollment. The coefficients of all distance dummies are significant and have expected negative signs, which show that distance to the nearest primary school significantly reduces probability of school enrollment. The coefficients of DIST2 and DIST5 have lowest and highest absolute values respectively among all distance dummies. It indicates that as distance to the nearest school increases, the probability of school enrollment decreases. These results help us to conclude that primary school enrollment is not only determined by demand side variables but also by supply side variables. These results are consistent with the results of Lloyd et al (2005) Anjum and Imran (2007); Alderman et al (2001) and Sathar et al (2013).

Place of residency:

The positive coefficient for urban area suggests that children who belong to urban areas are more likely to be enrolled than children who are from rural areas. In rural areas, distance to school is greater, school facilities are poor, need for child labor is more and awareness in people is low. Therefore, the children who belong to rural areas are less likely to be enrolled in primary school.

Province of residence:

For four provinces, we have included three dummies where Punjab is the reference category. All provincial dummies have negative signs. The dummy for province Khyber Pukhtoonkhwa (KPK) has expected sign but insignificant. Negative signs of dummies of Sindh and Baluchistan provinces show that children from these provinces are disadvantaged in enrollment as compared to children of province Punjab.

Overall model is significant at one percent level of significance as value of Likelihood Ratio (LR) is quite high and probability of chi square is 0.0000. It shows that all variables in the model are jointly important and cannot be excluded. The conventional measure of goodness of fit, R Square, is not meaning full particularly in the model where the dependent variable is binary [Gujarati (2004)]. Therefore, other similar measures of goodness of fit, McFadden and Pseudo R^2 are also available. The value of Pseudo R^2 is 24%, which shows that our model is good fit. However, goodness of fit of probabilistic models is not important. The important things are the expected signs of the coefficients and their statistical significance level [Gujarati (2004)].

Gender wise regression analysis:

In order to compare the differential effects of explanatory variables on gender's enrollment, we have estimated separate regressions for boys and girls. The results are reported in table 4.4.1. The effects of some of the independent variables differ across gender.

Differential effects of age of children on probability of school enrollment explain very interesting fact. The coefficient of age for boys is higher than that of girls which shows that the incremental impact of age on school enrollment is high for boys as compared to girls. It reflects the fact that enrollment of girls is delayed as compared to boys in Pakistan. The coefficient of place of residence is insignificant in boys' regression however; it is highly significant predictor of school enrollment in girls' regression. It indicates that boys enroll in primary school irrespective of their locality whereas girls who belong to urban areas are more likely to be enrolled in primary school as compared to girls of rural areas. It reflects the fact that unlike in rural areas, there are adequate school facilities available for girls in urban areas. Moreover, parents' attitude towards girls' education is different across the region. Consequently, rural-urban disparity is higher for girls' schooling. The findings of this paper with respect age and place of residency of children are consistent with the results of Khan and Ali (2005). The results show that poverty significantly affects primary school enrollment. In contrast to Khan and Ali (2005), the results of our study reveal that negative impact of poverty is higher for boys as compared to its effect on girls. It may be due to the fact that boys from poor household are more likely to join labor market than girls. Therefore, opportunity cost of boys' schooling is higher than that of girls' schooling. So, boys from poor household do not enroll in primary school and join labor market

Table 4.4: Logistic regression effects of explanatory variables on school enrollment of boys and girls of age 6-12 year

	Boys	Girls
Variable	Coefficient.	Coefficient
Constant	-6.48*	-6.16*
AGE(years)	1.97*	1.80*
AGESQR	-0.11*	-0.10*
HS	-0.04*	-0.04*
HPOV (poor= 1)	-0.24*	-0.11***
HAST	0.11*	0.13*
DURB (urban= 1)	-0.07	0.32*
DIST2	-0.48*	-0.75*
DIST3	-0.78*	-0.45*
DIST4	-1.62*	- 1.13*
DIST5	-2.25*	-2.9*
FEDU	0.09*	0.07*
MEDU	0.07*	0.15*
DKPK	0.37*	-0.43*
DSINDH	-0.65*	-1.07*
DBAL	-0.31*	-1.16*
Number of obs	(9190)	(8164)

LR chi2(16)	(1992)	(2745.94)
Prob > chi2	(0.0000)	(0.0000)
Pseudo R2	(0.2000)	(0.2539)

Note: *and *** show significant at 1 and 10 percent significance level respectively

It is also evident from table 4.4 that positive impact of household assets is higher on girls' school enrollment than that of boys. It indicates that households, who have more assets, are more inclined to girls' education.

Some of the previous studies have empirically proved that girls' schooling is mostly influenced by mother's education whereas father's education has more strong positive impact on boys' schooling. It is claimed that inter-generational 'same sex' effects are stronger than inter-generational 'cross-sex' effects [Drèze and Kingdon (1999); Khan and Ali (2005)]. Our findings reveal the same story. The coefficients of both father and mother education have positive signs in both models however, coefficient of mother education in girls' regression is higher as compared to coefficient of father education. The same is true for father education in boys' regression that is the coefficient of father education is higher than that of mother education. We conclude from these results that mother's education matters more for girls and father's education is more important for boys. One possible explanation of these findings could be the role of sons in Pakistani society to take care of the parents when they are old. These results are consistent with the results of Khan and Ali (2005); Drèze and Kingdon (1999).

The results also reflect that girls, who belong to Baluchistan and Sindh provinces, are less likely to be enrolled in school as compared to boys from these provinces. The coefficient of dummy of KPK is positive for boys and negative for girls. It indicates that boys from province KPK are more likely to be enrolled in school than boys from province Punjab. However, girls from KPK are at disadvantaged in terms of primary school enrollment as compared to girls of province Punjab.

Inter-regional analysis:

It is clear from the table 4.3.1 that area of residence is one of the significant variables of school enrollment in overall regression. Table 4.3.2 shows that coefficient of region of residence is highly significant for girls and insignificant for boys. Therefore, it is logical to run separate regressions for urban and rural areas in order to compare regional disparities in primary school enrollment.

Differential effects of child's characteristics:

The results of urban and rural regressions reported in the table 4.5.1 reveal that age and gender of children have different effects on school enrollment in rural and urban areas. Positive impact of age on school enrollment in urban areas is greater than that of rural area. These estimates reflect the fact that in rural areas, children's enrollment is delayed. The coefficient of gender is also positive for both urban and rural sample which shows that probability of school enrollment is higher for boys than that of girls. However, coefficient of gender is comparatively higher for rural areas as compared to urban areas. These results show that gender disparity in school enrollment is comparatively higher in rural areas as compared to urban areas. Our results are consistent with Arif et al (1999) and Connelly et al (2003).

Differential effects of household's characteristics:

The differential effects of poverty on school enrollment reveal very interesting results. Poverty has significant negative effect on primary school enrollment in both urban and rural areas. However surprisingly, the negative impact of poverty on primary school enrollment is higher in urban areas as compared to rural areas. There may be two possible explanations for these differential effects. First, transportation expenses and other household expenditures are comparatively higher in urban areas. So, it is difficult for poor households in urban areas to enroll their children in school. Second, availability of job opportunities are more in urban areas than in rural areas, so opportunity cost of schooling is comparatively high in urban areas. Therefore, children who belong to poor households join labor market to contribute to the income of their household.

Table 4.5.1: Logistic regression effect of explanatory variables on region wise school enrollment of children of age 6-12 year

	Urban	Rural
Variable	Coefficient.	Coefficient
Constant	-7.12*	-6.5*
AGE	2.02*	1.80*
AGESQR	-0.11*	-0.10*
GENDER (male=1)	0.57*	0.97*
HS	-0.05*	-0.03*
HPOV (POOR=1)	-0.21**	-0.17*
HASET	0.12*	0.12*
DIST2	-0.44*	-0.68*
DIST3	-0.40	-0.69*
DIST4	1.93	-1.64*
DIST5	-2.70**	-2.3*
FEDU	0.08*	0.08*
MEDU	0.15*	0.09*
KPK	-0.05	-0.06
SINDH	-0.73*	-0.93*
BAL	-0.5*	-0.84*
Number of obs	(6037)	11317
LR chi2(16)	(1404)	(2981)
Prob > chi ²	(0.0000)	(0.0000)
Pseudo R ²	(0.2406)	(0.2000)

Note: *and ** show significant at 1 and 5 percent significance level respectively

Differential effects of school availability:

The coefficients all distance dummies are highly significant for rural area regression. Moreover, negative effects of all distance dummies are higher in rural area as compared to urban area. These results reflect the fact that unlike in urban area, primary schools are not available at the nearest distance in rural areas. Therefore, negative effect of distance to primary school is more pronounced in rural areas as compared to urban area. The results of our study support Toor and Parveen (2004) point of view

Differential effects of parental education:

Parental education has positive effect on school enrollment in both urban and rural areas. However, the incremental impact of mother education on primary school enrollment is relatively higher in both urban and rural areas than that of father education. It indicates the fact that mother education is better determinant of school enrollment than father education for both areas.

Differential effects of province of residency:

Coefficients of all provincial dummies have negative signs which indicate that children belong to three provinces; Sindh, KPK and Baluchistan, are less likely to be enrolled as compared to children from province Punjab. However, values of the coefficients are relatively higher for rural areas as compared to the values coefficients for urban areas. These differential effects of provincial dummies show that children who belong to rural areas of these three provinces are disadvantaged in terms of enrollment in school as compared to urban children.

Reasons for not being currently enrolled:

PSLM/HIES poses a question to the respondents at the time of survey that why a child is not enrolled in school. For the ease of interpretation and comparison, the responses have been presented separately by gender in table 4.6. The statistics reveal that households reported two primary reasons of not being currently enrolled for both boys and girls that child was too young .and unwilling to go to school. Expensive education is third primary reason of not being currently enrolled for only boys quoted by 12.5 percent the households. However, third reason cited by the most of the respondents for non enrolled girls was that their parents did not allow them to go to school.

Table 4.6: Percentage distribution of reasons for never enrolled for girls and boys of age 6-12 year

Reasons for never enrolled	Girls	Boys
Too young/old	24.8%	32.6%
Child not willing	22.2%	31.5%
Parents do not allow	20.2%	1.6%
Education is expensive	9.1%	12.5%
Too far flung	7.2%	6.2%
Shortage of male/female teachers	4.0%	1.4%
Had to work at home	4.1%	0.7%
Others	8.4%	13.5%
N	(3999)	(3104)

Source: Calculated by authors from data available in HIES 2010-11

Conclusion and Policy Recommendations

The objectives of this paper are to explore the impact of poverty on primary school enrollment and look for reasons behind never enrolled in school. The other demand and supply side determinants of primary school enrollment are also analyzed. The results help us to conclude that child characteristics, household characteristics, parent's characteristics,

place of residency, province of residency and access to school are the important determinants of primary school enrollment in Pakistan. The probability of school enrollment is negatively related with poverty, household size and distance to the nearest school. The children belong to Sindh and Baluchistan provinces are at disadvantaged in terms of school enrollment. Parental education, household asset, age and gender of child (male) and place of residence (urban) are positively related with school enrollment. Place of residency turns out an important factor for only girls' school enrollment. Children and especially girls belong to rural areas are disadvantaged in school enrollment. Gender gap in enrollment is also high in rural areas.

This paper identifies a number of factors responsible for lower primary enrollment. Some factors are significant from policy point of view. Age of children is one of significant factors which positively affect school enrollment. Delayed enrollment is more pronounced in rural areas and among girls. So, in order to enhance school enrollment and avoid delayed enrollment, government should concentrate on pre-schooling facilities. Poverty is a hurdle in educational attainment. Therefore, policy makers should focus their attention towards the poor households to increase school enrollment. Credit availability to poor household may play an important role in enhancing school enrollment. The negative impact of distance to the nearest school is more pronounced for rural areas and girls. To increase primary school enrollment and reduce gender gap in enrollment, government should construct primary school and especially girls' primary school at the nearest distance.

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Daylight Saving Time and Potential of Electricity Conservation: A Case Study of Geographical and Seasonal Factors of Pakistan

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Abstract

This study assesses the potential of electricity conservation due to daylight saving time (DST) for the case of Pakistan by analyzing various geographical and seasonal factors connected with the working mechanism of DST. Graphical analysis of these factor has been employed in order to calculate potential benefits of DST. The analysis shows geographical location of Pakistan is suitable for DST implementation in Pakistan. The estimates of this study indicate electricity saving of 640 Megawatts. This potential conservation can save up to RS 3.5Billion.

Introduction

Daylight Saving Time (DST) is a widely-used measure to reduce electricity consumption and it has been implementing in many countries since the World War I. In DST period, clocks are advanced by 1 hour in the spring and are adjusted back to status-quo time² in the autumn. The intention behind this clock time adjustment relies on the notion that the general public's activities will follow the DST clock, which provides an extra hour of daylight in the afternoon. This extra hour eventually results in conservation of electricity resources due to less electricity load generated by lightening appliances (Mirza and Bergland, 2011). Technological advancements and exponential innovations have set the human activities by the clock rather than the naturally occurring day night cycle along the day (Kellogg and Wolf, 2008).

Therefore, governments around the globe use DST as a measure to manipulate the daily routine cycle of people by advancing the clocks by one hour to adjust the routine of people according to sunrise and sunset to conserve electricity. In recent years, there has been a resurgence in studying and quantifying the impact of daylight savings time on electricity consumption (Mirza and Bergland, 2011). This renewed interest in studying the impacts of DST has been due to the change in prices of primary energy commodities in recent years, depletion of non-renewable energy resources, climate change and the drive to attain sustainable energy³ security.

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² Status quo time often called as the Standard time. It is official synchronization of clocks for a specific country or a region.

³ The sustainable energy sources provide the required energy without depleting the energy sources in order to secure energy sources for future generation Lemaire (2010).

It is believed that by aligning the routine of the general public to the natural occurrence of daylight cycle, substantial amount of electricity used for lightning appliances can be saved (Momani et al., 2009; Mirza and Bergland, 2011; Verdeju et al., 2015).

Background

The basic idea of daylight saving time was proposed by Franklin (1784) in a satirical letter to the Journal of Paris, he proposed that expenditures on tallow wax⁴ can be minimized by using daylight optimally. Decades after the basic idea, Willet (1907) suggested the advancement of status quo time by one hour. Since then, the pros and cons of daylight savings time have been frequently debated among the policy makers and the academicians. According to Time-and-date database at present, DST is being implemented in more than 70 countries and territories and it affects about 2 billion population around the globe.

Despite the century old history of DST and its worldwide implementation, it is also considered controversial as it alters the routines of the public and is criticized due to the inconvenience caused by the clock time changes (Mirza and Bergland, 2011; Kellogg and Wolf, 2008). On the contrary, countries around the globe sometimes extend the DST period to save electricity (Kellogg and Wolff, 2008). It is also observed that there has only been a limited focus on quantifying the impact of DST, whether it conserve energy or otherwise (Kissell, 2007).

Apart from the variations in its implementation and results, DST is the widely-used measure to align the general public's routine with the naturally occurring daylight cycle to save electricity. High energy prices, economic downturn, climate change and resource depletion have jointly caused the rise in importance of energy conservation and optimal utilization of natural sources. Countries around the globe include DST as a vital part of their electricity demand management strategies. Pakistan also adopted the DST policy for the period of two years, as a measure to dilute the electricity crises.

Implementation of DST in Pakistan

Pakistan is facing severe electricity shortfall since 2005 because widening gap between electricity demand and supply. In summer duration of the load shedding exceeds 10 to 12 hours in urban areas, whereas rural areas face 18 to 20 hours of load shedding due to the shortfall of more than 7000 MWs (Malik, 2012). According to the Economic Survey of Pakistan 2014-15, inefficiencies in generation, transmission and distribution system; rising demand, system losses, less water availability for hydel power and circular debt⁵ are the reasons behind lesser amount of electricity generation as compared to the installed capacity. Keeping in view the potential benefits of DST, Government of Pakistan implemented DST between 1st June 2008 to 31st October 2008 and 15th April 2009 to 31st October 2009. For this purpose, on 14th May 2008, the cabinet decided to advance the clocks by one hour (GMT+5 to GMT+6). Similarly, on 15th April 2009 Government of

⁴ Tallow wax unlike bee wax is a human-made wax that contains animal fats. It is then rendered and cooled to use it in candles and other stuff for lightening.

⁵ "Circular debt occurs when one entity facing problems in its cash inflows holds back payments to its suppliers and creditors. Thus, problems in the cash inflow of one entity cascades down to other segments of the payment chain." (Ali and Badar, 2010)

Pakistan ordered to advance the clocks by one hour. The prime objective was to use the increased hour of daylight during the period of DST to dilute the worsening energy shortage in summer. In addition to this, the cabinet also approved the Energy conservation plan. Around 500MWs of electricity reduction was expected by closure of shopping malls, plazas and commercial centers after 09:00pm. An executive order issued by the Prime Minister's office restricted the use of air conditioners for the morning peak (08:00am – 10:00am). But after its implementation in 2009, government decided against the further implementation of DST policy in Pakistan due to uncertain reasons. Besides, government did not conduct an impact assessment as a mean to evaluate the DST implementation policy.

This study assesses the underlying factors connected with DST as a mean to get insights of DST mechanism for the case of Pakistan, thus after analyzing concerned factors and evaluating previously implemented DST policy, this study will recommend important policy implications. So, that it would get easier for the policy makers to make an informed decision regarding reimplementation of DST policy in future.

As mentioned earlier, there is a resurgence around the globe to conserve electricity to attain sustainable energy security. Following this lead, Ministry of Water and Power developed a long term National Power Policy 2013, which aims to address the core issues in order to overcome the ongoing energy crises in Pakistan. The salient features of this policy include promotion of world class efficiency in entire electricity mechanism⁶ and cultivation of energy conservation culture in Pakistan etc. Similarly, Vision-2025 by Planning Commission of Pakistan has also reiterated the need of energy conservation culture till the grass root level. Furthermore, Minister for Water and Power in a recent press brief⁷ has laid great stress on electricity saving, he said:

"We will overcome energy crises in 2 to 3 years. We can save up to 1600MWs by giving up profuseness. Nation should play its role in saving the electricity".

Hence, DST can be one of the measures to initiate the power saving culture which can help in easing out electricity demand pressures at least in the short run.

Objectives of the Study

This study carries following objectives:

- a. To analyze the factors directly connected with DST mechanism for the case of Pakistan.
- b. To quantify the financial impact of day light saving time policy in Pakistan.

Organization of the Study

Next chapter provides working mechanism and conceptual framework of DST. Geographical factors associated with DST in the context of Pakistan are discussed in section 3 whereas the section 4 presents the graphical analysis. Section 5 explains results and their financial impacts. section 6 articulates conclusion and policy recommendations based on the findings of this study.

⁶ Electricity mechanism includes process of electricity generation, transmission of generated electricity and in the end distribution to the end users.

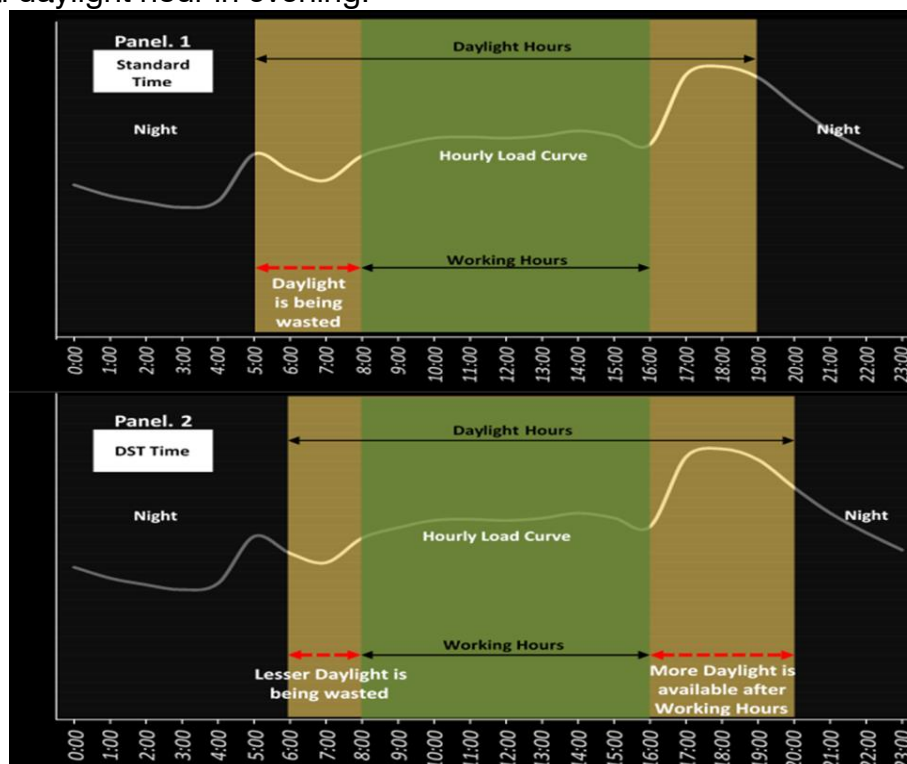
⁷ The Nation (2015, February 10). Khawaja Asif vows to overcome energy crisis in 2-3 years. The Nation. Retrieved from <http://www.nation.com.pk>

Conceptual Framework

It is obvious from the existing literature that certain geographical and seasonal factors are directly connected with the working mechanism of Daylight saving time (DST). This section takes a thorough look into these factors to develop a precise understanding of the conceptual framework and working mechanism of DST in general as well as in the context of Pakistan in order to get insights about potential benefits of DST. DST mechanism uses the optimum utility through naturally occurring daylight instead of using artificial lightening to illuminate residences and commercial places. This swop can be achieved by forwarding the clocks by one hour in spring and retard them back in autumn. Consequently, there will be more daylight hours in evening after the working hours whereas the number of daylight in the morning reduces (Mirza and Bargland, 2011).

Figure.1 shows the comparative transition of daylight in 24 hours of a day in Standard time and DST time. For this purpose, Daylight hours, working hours and night hours have been superimposed in figure 1. Panel 1 of the figure shows daylight transition in standard time whereas Panel 2 depicts the same setting in DST time. As shown in the panel 1, day starts at 5:00am in the morning when sun rises but working hours starts at 8:00am. Consequently, the general public waste three hours of daylight whereas in evening there are only three hours of daylight available after the working hours ends at 4:00pm in standard time. As mentioned earlier, DST transition advocates an additional hour of daylight after the working hours. Therefore, advancement of one hour in standard time alters this daylight transition and advancement.

As shown in the panel 2 of the figure 1, after advancing the clocks by one hour, the wastage of daylight is reduced in the morning and more daylight is available after the working hours. Thus, an extra hour of daylight will eventually reduce the demand generated by the lightening appliances (Momani *et al*, 2009). Therefore, it can be tated hat the DST causes an earlier start of the day cvzcan provides one additional daylight hour in evening.

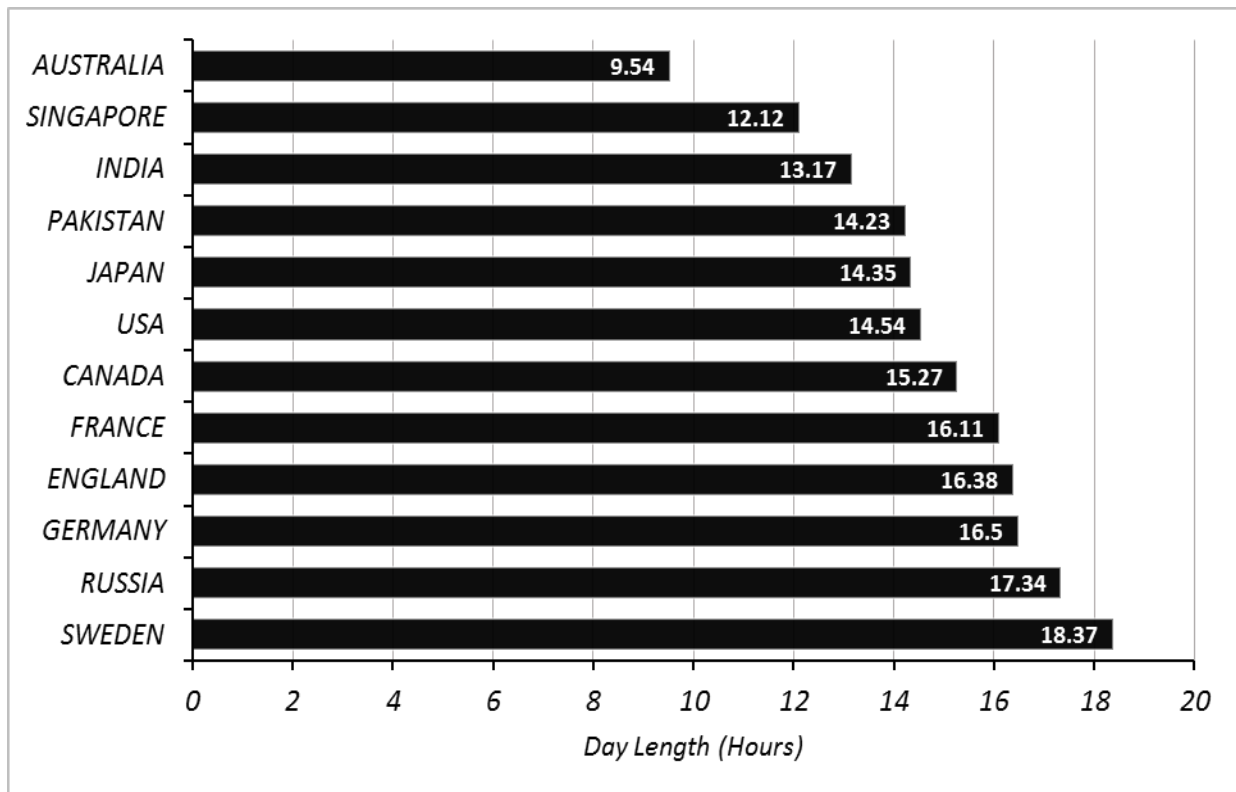


This alteration in standard time can potentially cause the reduction in electricity loads in Pakistan as it has decreased the electricity loads by 0.2 percent in the case of Jordan (Momani et al, 2009). This proposed iteration of daylight leaves two questions for the case of Pakistan.

- i. Does DST have potential to conserve electricity by starting working hours earlier than the status quo time?
- ii. Does DST potentially save electricity by providing more daylight hours in evenings?

As this entire mechanism runs through the sunrise and sunset and it is directly connected to timings of general public's sleeping time and when they wake up in the morning. It is imperative to analyze the geographic and seasonal factors such as timing of sun rise and sun set, daylight duration and daily temperatures that can have impact on DST in order to conserve electricity. Day length, is the time from the sunrise to the sunset. Day length varies throughout the year and across the countries. Figure. 2 elaborates the variation in day length in various countries on Summer Solstice. Solstice is the event which occurs two times a year when sun reaches its highest or lowest point in the sky. June solstice (22nd June) is the longest day whereas December solstice (22nd Dec) is the shortest day in Northern

Figure 1: Day Length in Different Countries on June Solstice



Source: TimeandDate.com

hemisphere. While the countries in the Northern Hemisphere have their longest daylight period such as Pakistan, countries in the Southern Hemisphere such as Australia, experience their shortest daylight period and vice versa. This variation in day length is due to the geographical setting of the Earth and it depends on latitude⁸ and longitude⁹ which also varies across the geographic location of the countries. On the basis of these two parameters Earth can be divided into two horizontal hemispheres, namely Northern hemisphere and Southern hemisphere (Figure 3).

This cross country and over the time variation in day length compels the policy makers to form different time zones and adjust the clocks to utilize the increased day length in summer to conserve the electricity and for other social and economic gains. Many countries across the globe utilizes this setting as a measure to optimally use daylight for electricity conservation. Fig.4 shows the estimated electricity conservation from different countries of the World by using DST (Aries and Newsham, 2008). According to the study conducted by Aries and Newsham (2008) the average electricity conservation due to DST policy is 0.5 percent. Taking these electricity savings as an example, Pakistan can also utilize the benefits of Daylight saving time in order to ease itself from the worsening electricity shortage. Before analyzing the underlying geographic and seasonal factors of DST for the case of Pakistan the next section of this chapter overviews the prevailing electricity crises of Pakistan.

Figure 2: Geographic Setting of the Earth

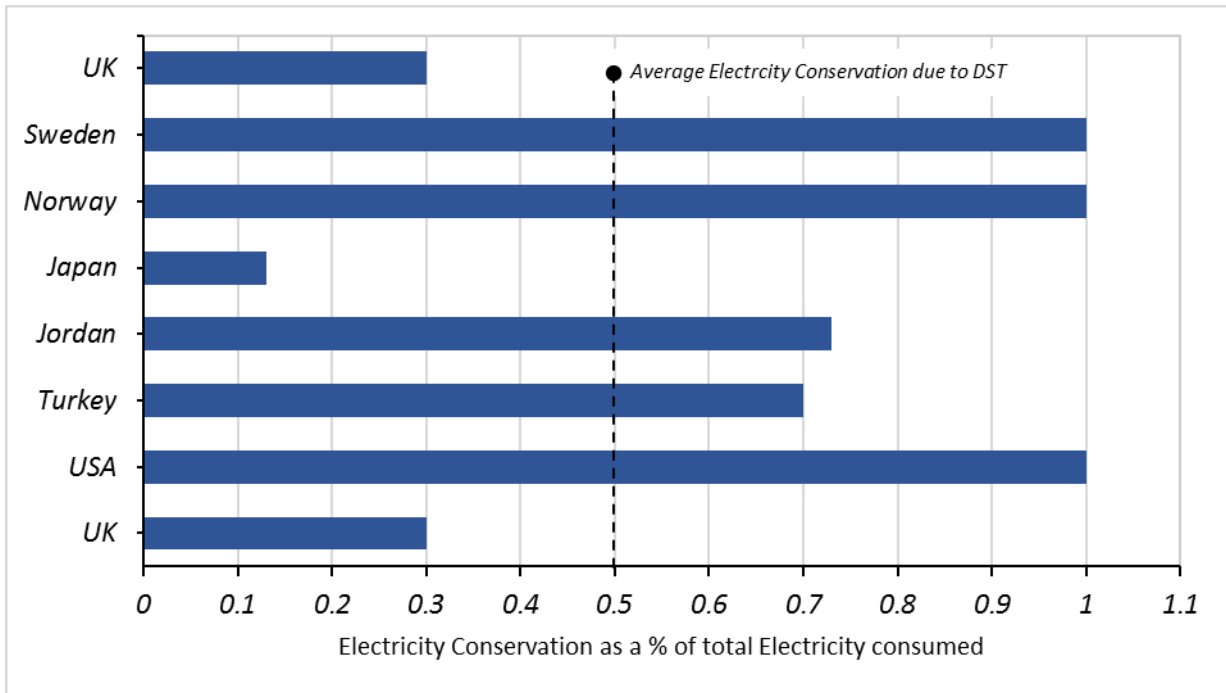


Source: Britannica Encyclopedia, (2015)

⁸Latitude (ϕ) is a geographic coordinate that specifies the north-south position of a point on the Earth's surface. Latitude is an angle which ranges from 0° at the Equator to 90° (North or South) at the poles.

⁹Longitude is a geographic coordinate that specifies the east-west position of a point on the Earth's surface. It is an angular measurement, usually expressed in degrees and denoted by the Greek letter lambda (λ).

Figure 3: Electricity Conservation Due to DST in Different Countries



Source: Aries and Newsham, 2008

Geographic and Seasonal factor of DST in Pakistan

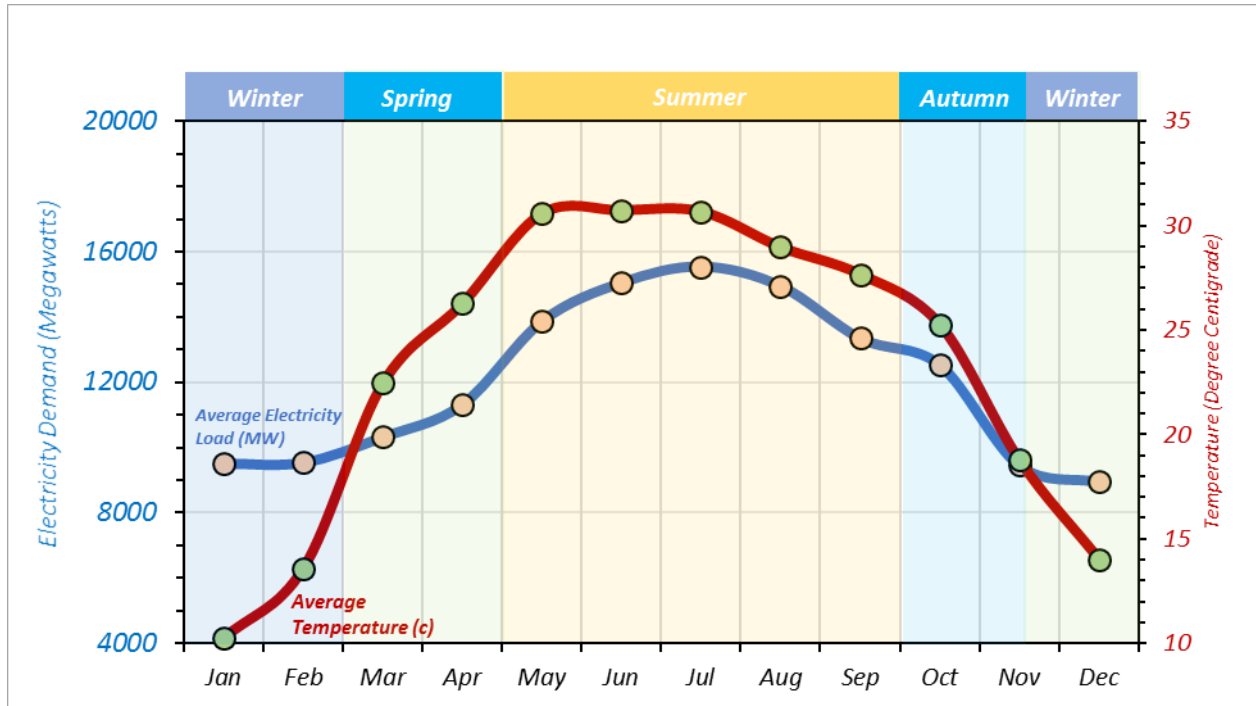
Average Day length in Pakistan

Geographically, Pakistan lies in the temperate zone of Northern Hemisphere, above the tropic of cancer¹⁰, which makes its climate varies from tropical¹¹ to temperate¹². Temperature start to rise from the months of April and May which causes rise in electricity demand due to increased usage of cooling appliances, whereas demand started to decrease in fall due to decrease in temperature.

¹⁰ An imaginary line $23\frac{1}{2}$ degrees north of the Equator. The highest reached point of the sun in Northern hemisphere.

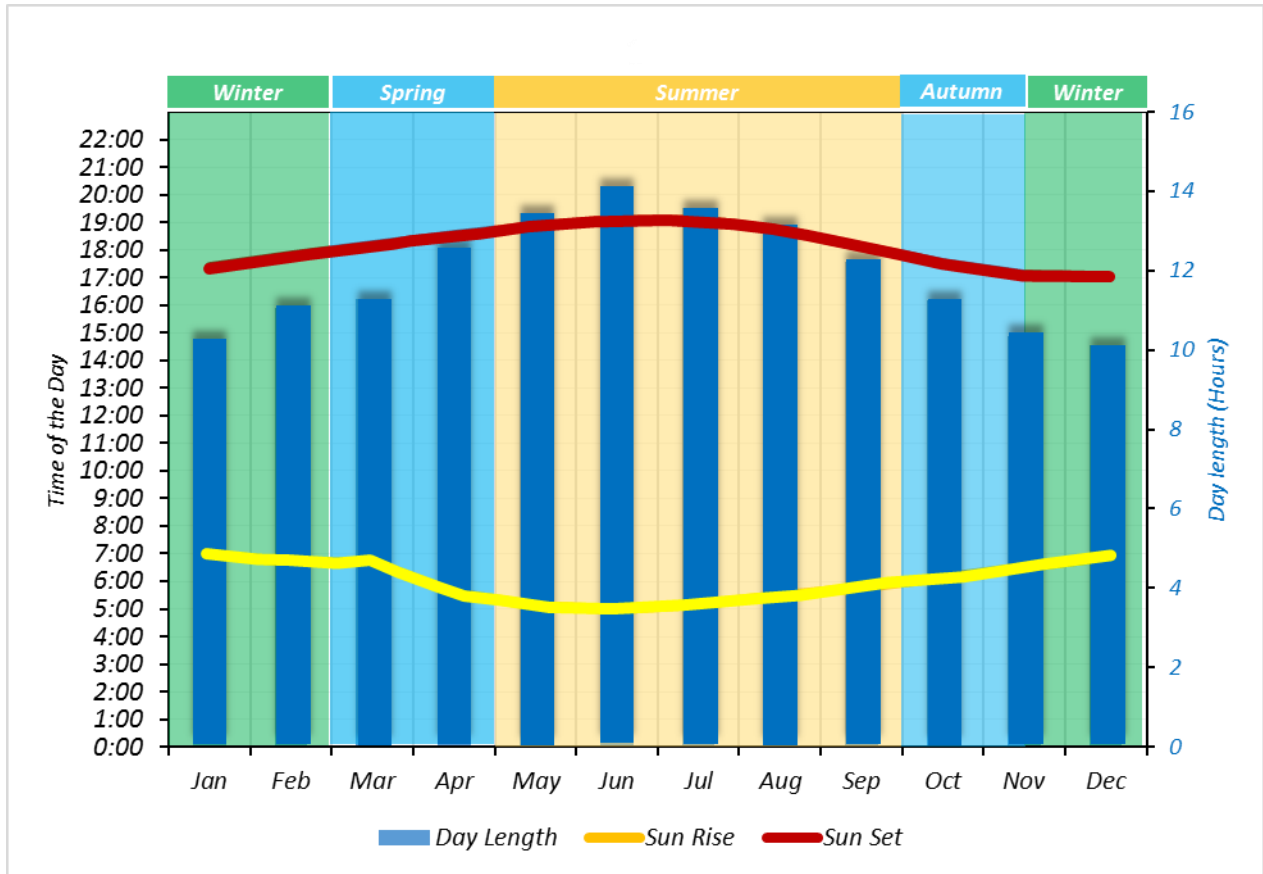
¹¹ Tropical climate refers to the climate of places where average temperature remains above 18°C.

¹² In Temperate climate zones temperatures remain at moderate level. It neither gets burning hot in summer nor does it reach at freezing point in winters.

Figure 5: Seasonal Comparison between Electricity demand and Temperature

Source: National Power Control Company, Wunderground.com,
 Author's own calculations

The duration from April to October also provides plenty of sunshine hours in Pakistan. Day length in Pakistan also varies throughout the year. In Pakistan, average sunrise time in January is 06:59am whereas in June the average sunrise time is 5:00am in morning. Therefore, the sunrise timing varies to almost 2 hours from January to June. Similarly, average sunset time in January is 05:23Pm whereas in June, Sun sets at 07:07Pm that implies that the sun is setting almost 1 and half hour later than it sets in January. Figure

Figure 6: Day Length in Pakistan

6 shows the average sunrise and sunset and their underlying difference (Day length) in Pakistan. The month of June is the month with the longest day length that is 14 hours and 7 minutes for the case of Pakistan. Next section analyze the general characteristics of load curves and compares them under different scenarios in Pakistan.

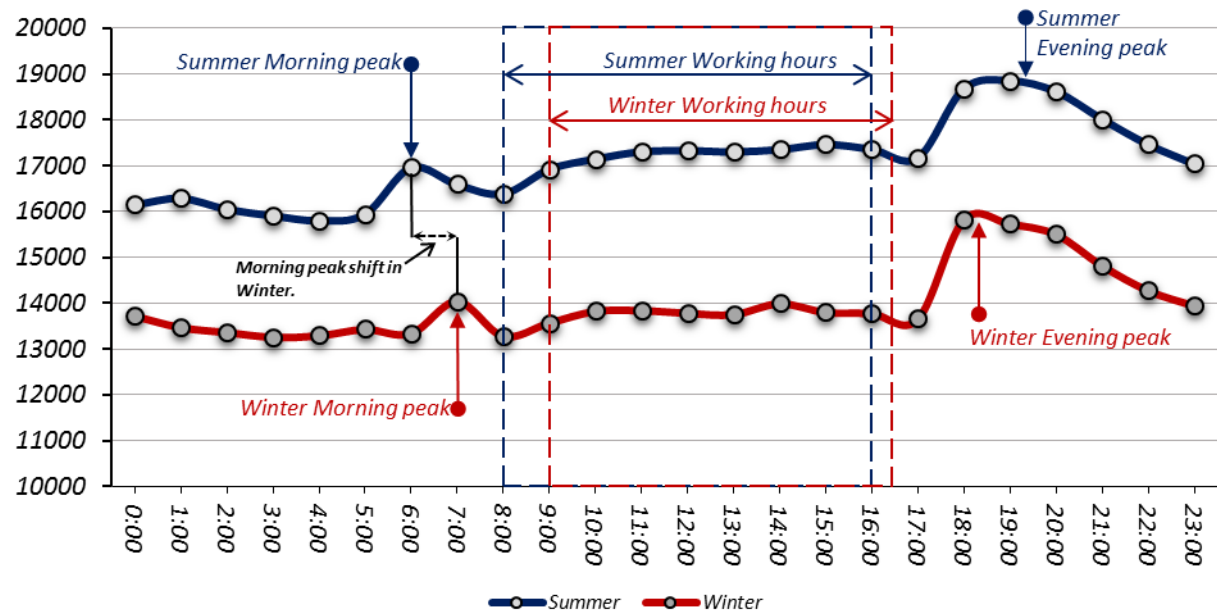
Hourly electricity loads in Pakistan

The daily hourly electricity curve can be defined as, “Load curve shape is a function of consumer demand, and it explains how *electric* load varies over a specific period of time.” (Willis, 2004).

Two universal aspects can be seen in average electricity load curves. These are morning and Evening peaks. Morning peak is the time when general public collectively switch on electrical appliances in order to get ready for their school, colleges and work places etc. Therefore, this collective electricity demand generate peak load hours. Similarly, evening peak hours is the duration when general public uses electricity in evening hours in order to illuminate their homes and commercial places. This evening peak time also provides a good leisure time activity for working class. Hence, increased usage put upward pressure on electricity demand.

This section overviews average hourly demand curves and make seasonal, as well as working days and weekend comparison in order to understand the general dynamics of electricity usage of public in Pakistan. Furthermore, analysis of demand peak is imperative for any electrical system, so that the forecasting and managing

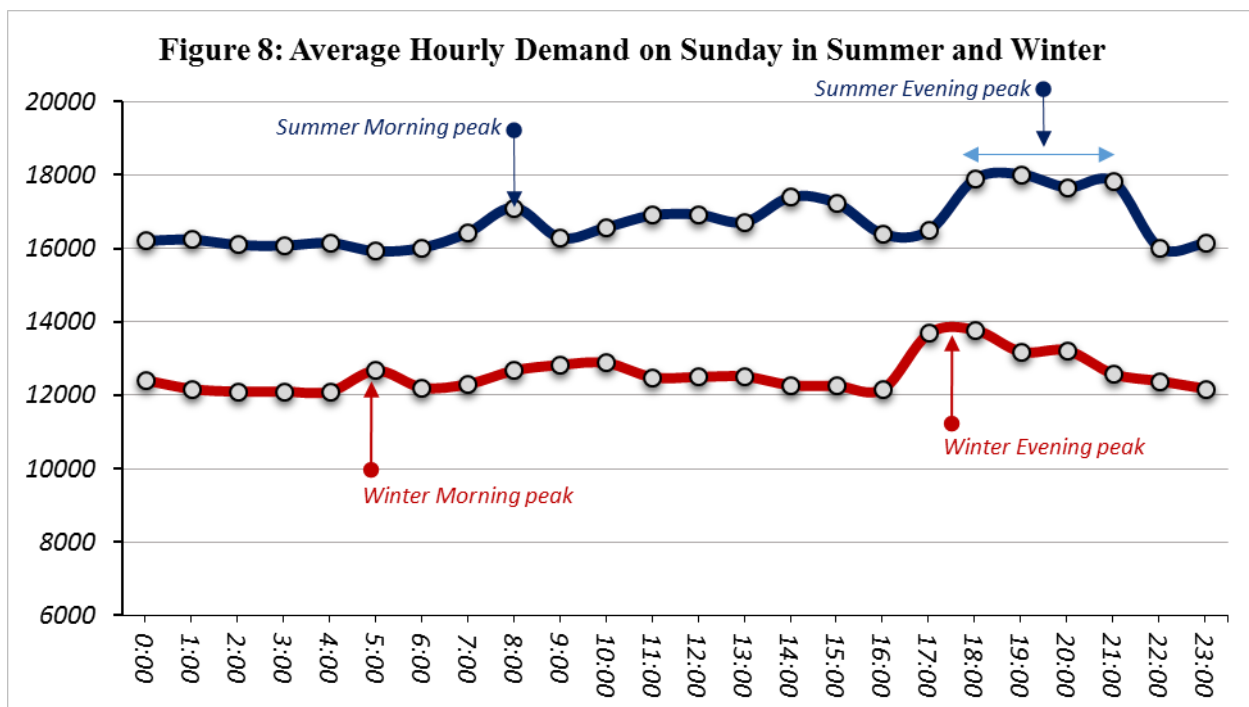
Figure 7: Average Hourly Electricity Loads on Working Days in Summer and Winter



Source: Author's own calculations
National Power Control Company

peak demand would get easier. For the case of Pakistan Fig. 7 explains the comparison based on average electricity demand in summer and winter. According to figure 7 morning and evening peaks can be observed in both summer and winter load curves with the exception that latter curve has a delayed morning peak. The time delay indicates that general public wake up late in winters, as government and other private offices start late. Overall electricity demand is lesser in winter compared to summer. This overall difference can be attributed to reduced share of cooling appliances in winters. General public in Pakistan uses alternative fuel in order to warm their residential and commercial places in winter. This shift also decrease the electricity usage in winter as compared to summer season in Pakistan.

Figure 8 makes seasonal comparison of electricity demand curves on Sundays. It can be

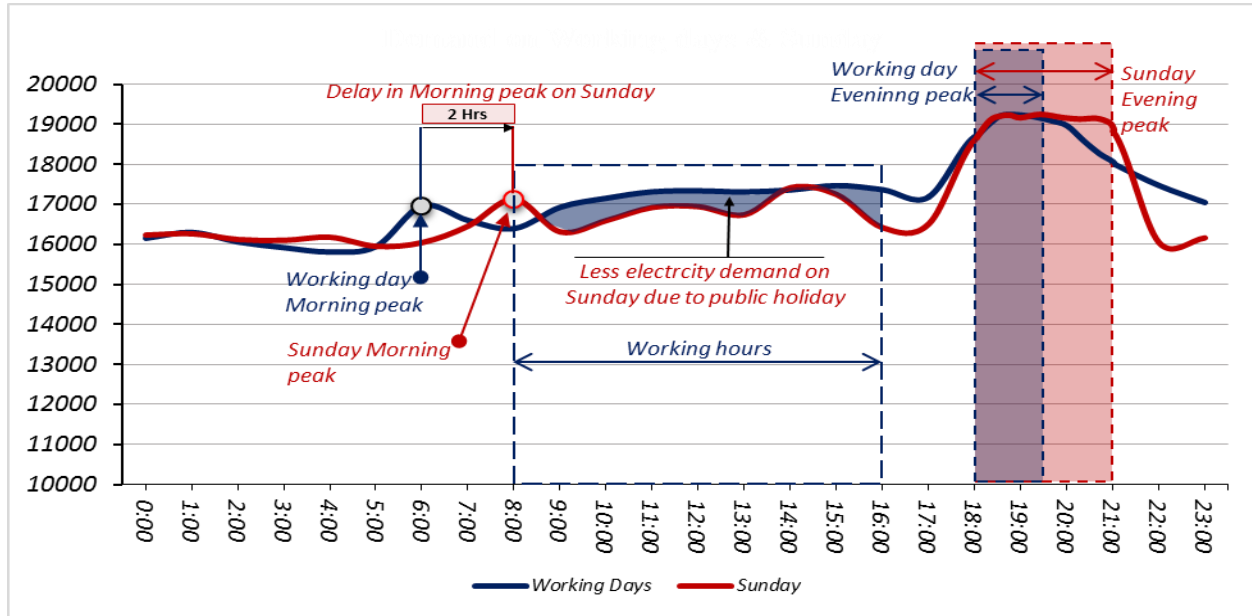


Source: National Power Control Center, Author's own calculations

seen from figure that electricity demand is lesser than in winter than it is in summer. But exception in this case is the evening peak which has lesser duration in winter as compared to Sundays in summer. Another scenario under which electricity load curves can be compared is the difference between demand of working days and demand of weekend in summer. The average electricity demand of working days and Sunday is superimposed in Figure 9.

Three observations can be made from the comparison, at first, morning peak is delayed by 2 hours on Sunday as compared to working days this implies that the general public tends to wake up late on Sunday. Secondly, the duration from 8:00am to 4:00pm (Official working hours) shows lesser electricity demand as compared to normal working days, mainly

Figure 9: Average Electricity Demand of Sundays and Working Days



Source: Author's own calculations, National Power Control Company

because of public holiday. Third, observation is the longer duration of evening peak on Sunday as compared to working days. This observation implies that on Sunday, people tends to remain awake late than they use to in working days, consequently, results in higher electricity loads in evening peak time. From figure 7, 8 and 9, it is obvious that electricity demand is higher in peak hours as compared to normal hours in each of the scenario and these peak hours of electricity usage are in good agreement with existing evidences in literature (Mirza and Bergland, 2011; Momani et al., 2009). Hence, reducing loads in these peak hours can potentially conserve electricity as this increased usage of electricity is mainly due to the increased usage of lightening appliances (Momani et al, 2010). Therefore, as the iteration of DST advocates more daylight in evenings, it can potentially save electricity due to less usage of lightening appliances. Hence, it can conserve electricity in Pakistan as well.

Next section of this chapter explores the potential electricity conservation of illumination time in DST period across the year by comparing the sunrise and sunset timings with sleeping and wakeup timings of general public in Pakistan.

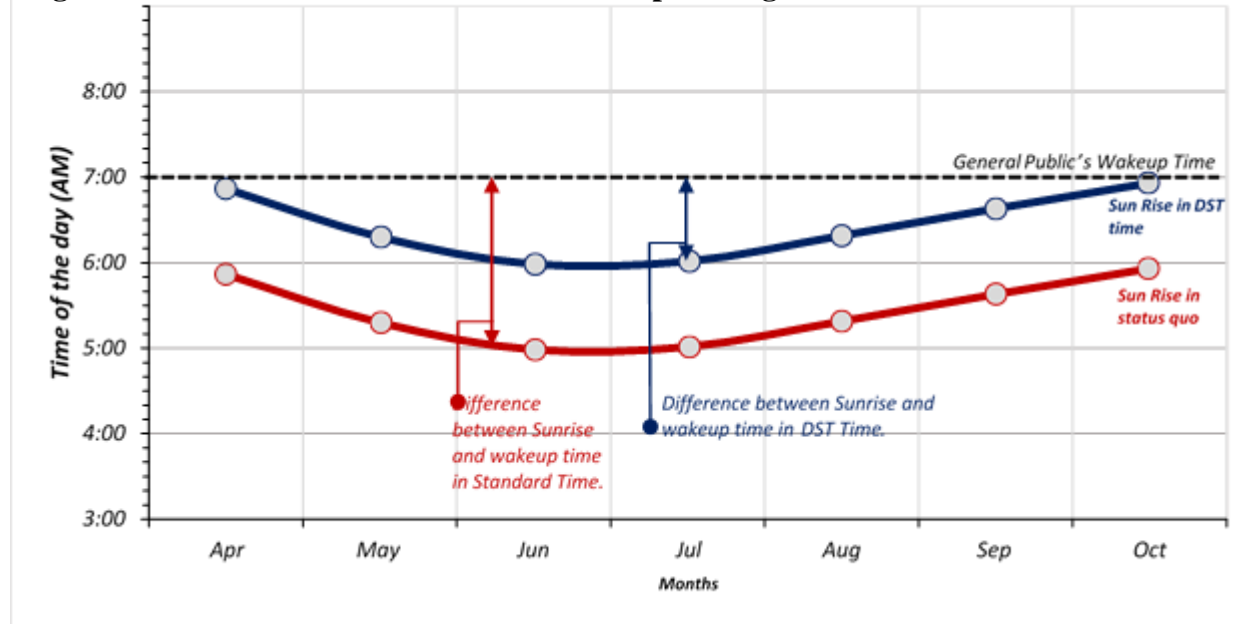
Graphical Analysis

Illumination Time and Potential DST Conservation in Pakistan

For the case of Pakistan, the waking up and sleeping time of general public is figured to be at 7:00am in morning and 10:00pm in night. Figure 10, and 11 show the sunrise and sunset times obtained from timeanddate database (www.timeanddate.com).

Figure. 10 shows possible difference in wake-up timing and sunrise in with and without DST periods. The average wake up time of general public is assumed at 7:00am. In the month of

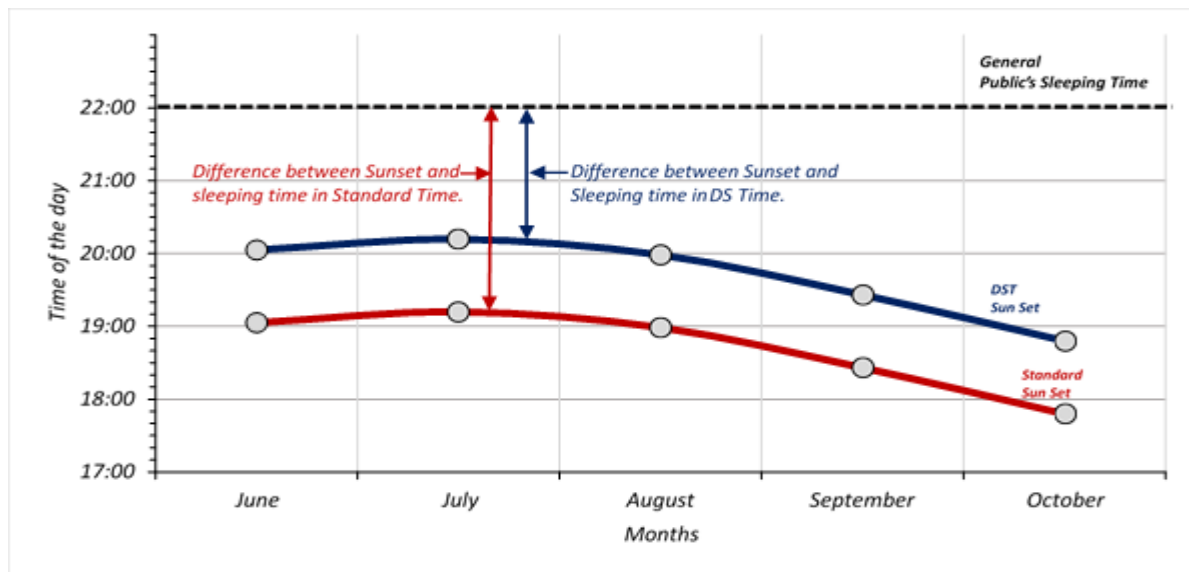
Figure 10: Difference in Sun Rise and Wake up Timing in Standard and DST time.



Source: Author's own calculations, timeanddate.com

June, Sun rises at 5am that implies the difference in sunrise and wake up time is 2 hours when DST is not implemented. Consequently, the general public waste two hours of daylight whereas in October, this wastage is one hour. In the same figure the blue line shows the sunrise in DST period, which is now rising at 6:00am because the clocks are now forwarded by one hour. Hence, only one hour of daylight is being wasted. This transition of daylight potentially shift one more daylight hour in evening in DST period.

Figure. 11 explains the difference in sunset and sleeping time of general public in DST and Status quo time. The sleeping time of general public is supposed to 10:00pm in night. In the month of June sunsets at 7pm that means the general public uses artificial lightening up to their sleeping time that is assumed at 10:00pm. This difference can be reduced by using DST. As shown in the figure blue line depicts the sunset timing in DST period whereas red line shows sunset in standard time. It is obvious from the figure that the illumination period is decreased in DST period.

Figure 11: Difference in Sunset and Sleeping Timings in Standard and DST Time

Source: Author's own calculations, timeanddate.com

Table.1; Illumination time in Pakistan

Months	Days in month (dm)	Sleeping Time (ST)	Without DST			With DST			Illumination time Difference (TS-TSd)
			Sunset (ss)	Difference D1 = (ST - SS)	Total hours per month TS=(D1 x dm)	Sunset (SSd)	Difference D = (ST - SSd)	Total hours per month TSd=(D x dm)	
Jan	31	10:00Pm	17:23	4h 37m	143h 12m	05:23	4h37m	143h 12m	0
Feb	28	10:00Pm	17:48	4h 12m	117h 6m	05:48	4h12m	117h 6m	0
Mar	31	10:00Pm	18:10	4h 50m	118h 8m	05:10	4h50m	118 h8m	0
Apr	30	10:00Pm	18:32	3h 28m	104h	07:32	2h28m	74h	30h
May	31	10:00Pm	18:52	3h 08m	97h 13m	07:52	2h08m	66h 13m	31h
Jun	30	10:00Pm	19:07	2h 53m	86h 5m	08:07	1h53m	56h 5m	30h
Jul	31	10:00Pm	19:06	2h 54m	89h 9m	08:06	1h54m	58h 9m	31h
Aug	31	10:00Pm	18:43	3h 17m	101h 8m	07:43	2h17m	70h 8m	31h
Sep	30	10:00Pm	18:08	3h 52m	166h	07:08	2h52m	136h	30h
Oct	31	10:00Pm	17:31	4h 29m	138h 9m	06:31	3h29m	107h 9m	31h
Nov	30	10:00Pm	17:06	4h 54m	147h	05:06	4h54m	147h	0
Dec	31	10:00Pm	17:04	4h 56m	152h 9m	05:04	4h56m	152h 9m	0
Yearly	365				1463h 8m			1249h 8m	214h

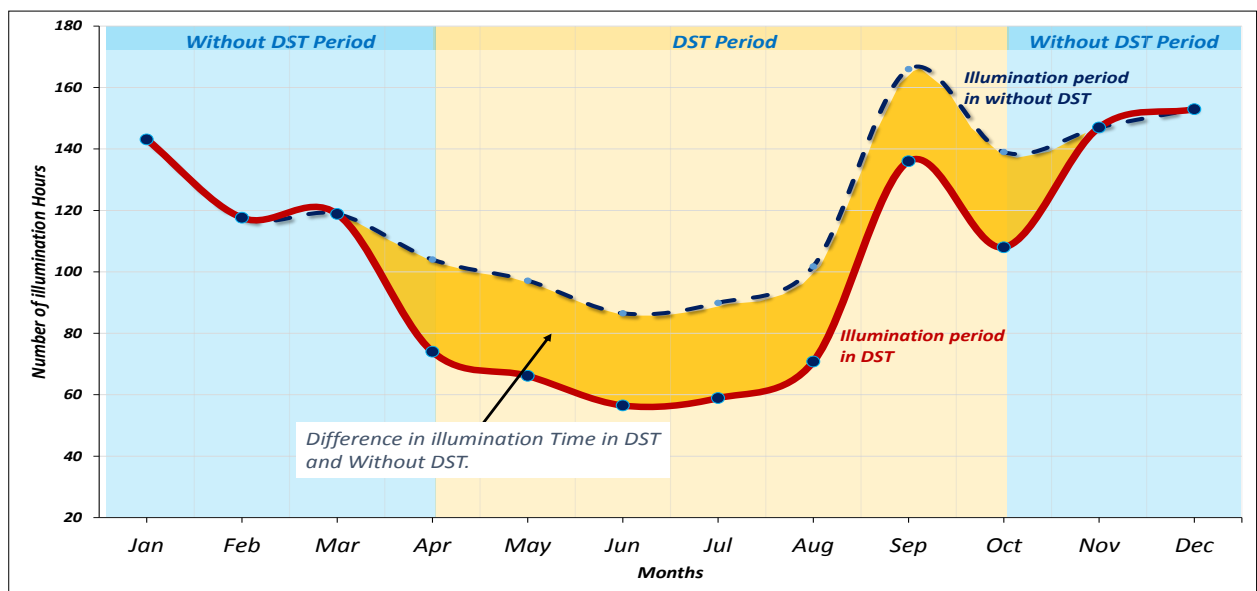
The illumination time is the duration when general public uses artificial lightening appliances to light their homes and commercial places in order to make up for sunlight when sun sets. For example, in month of January the illumination time (Sleeping Time – Sunset) in Pakistan

is 4 hours and 37mins per day (5:23pm – 10:00pm). By multiplying per day illumination time by 31 (Days of month) we can calculate the total per month illumination time for the month January. In the case of Pakistan, it is (04h 37m x 31= 143hours). Since, DST is not implemented in January, the difference between illumination time in DST and without DST is zero. Similarly, in the month of July when the DST is implemented, the duration of illumination time is reduced by one hour, illumination time is now 1 hour and 54mins per day (10:00pm – 08:06pm). Total illumination time in July will be 58h 9m (1h 54m x 31). Table 1 shows the monthly illumination time by applying aforementioned procedure for each month in DST and without DST respectively.

Table 1 estimates the illumination time difference D and D1 for period with DST and without DST respectively. By multiplying D and D1 with dm (Days in month) total savings TSd and TS have been calculated for with and without DST periods. Illumination time difference is then calculated by subtracting TSd from TS. The total illumination time without DST is 1468 hours, whereas implementation of DST reduces this time by 214 hours in Pakistan (Figure 12).

This reduced illumination time can conserve electricity used by general public for artificial lightening appliances. Minimum potential electricity conservation can be calculated by using reduced illumination time, capacity of illumination appliances (watts) and total consumers. According to power system statistics (2014-15) published by National Transmission and Despatch Company (NTDC) the total domestic electricity consumers in Pakistan are 20,148,495 and Commercial consumers are 2,723,708.

Figure 12: Comparison of Illumination Time in DST and Without DST Periods



Source: Author's own calculations

If every consumer switch off just one fluorescent bulb¹³ of 25 watts for one hour, every 4 consumers will conserve 100 watts electricity and every 40 consumers will save 1000 watts (1kw) of electricity. The total electricity conserved can be calculated as follows:

¹³ One Fluorescent energy saver bulb of 25watts is used to lighten an average room.

Total consumers (C) = 22872203

Conservation by 1 consumer = 25watts per hour

Conservation by 4 consumer = 100watts per hour

Conservation by 40 consumer = 1000watts per hour (1kwh)

Hence,

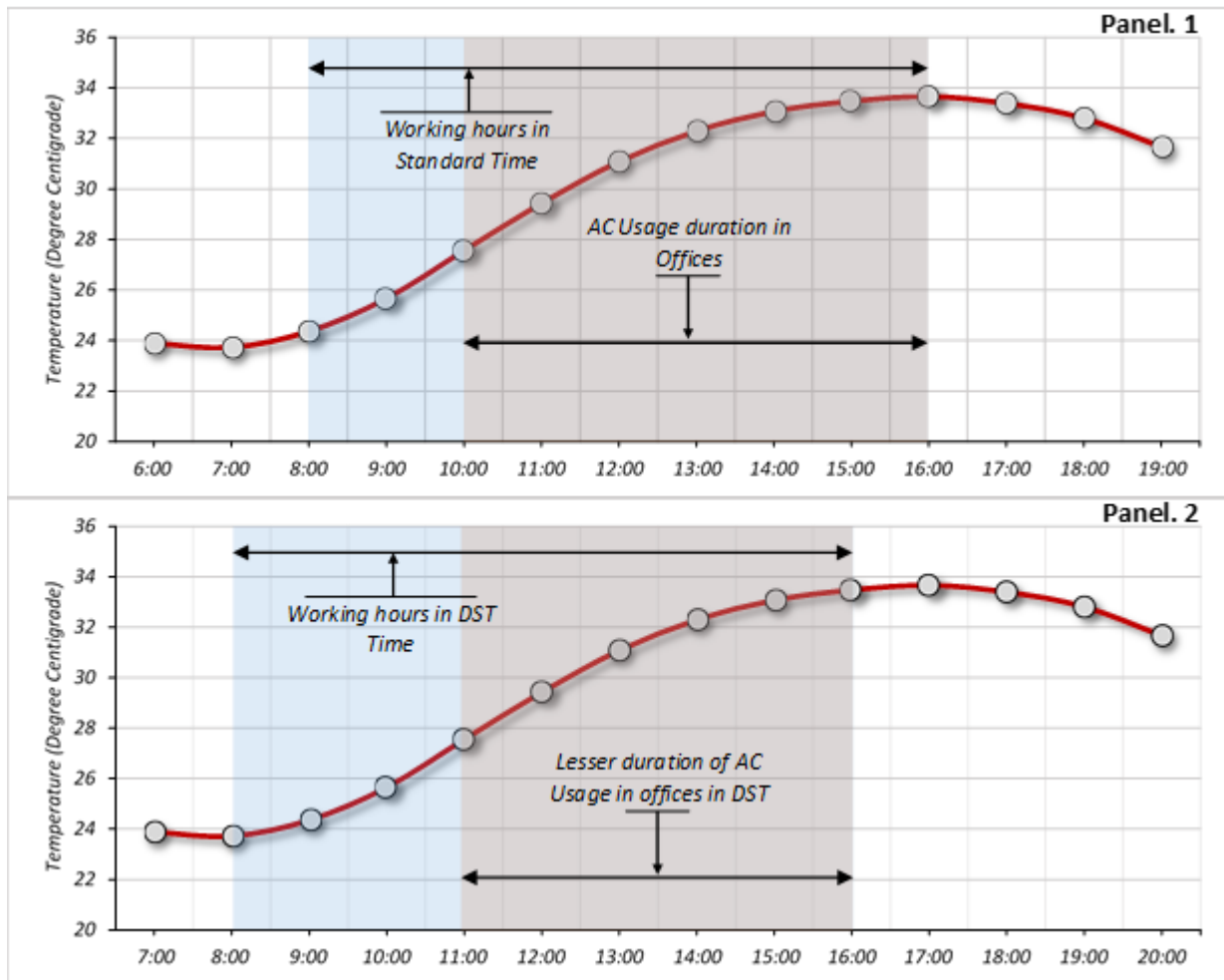
$$\text{Total conservation in Kwh} = \frac{22872203}{40} = 571805.08 \text{ Kwh}$$

The potential electricity conservation by switching off just one fluorescent bulb (25watts) is 571805.08 Kwh that is equals to 571.81 MWs per day.

The proposed electricity conservation is in line with previous studies conducted by other researchers such as Kotchen and Grant (2008) who argued that DST can save electricity by reducing artificial lightening loads. The proposed potential electricity savings are also in good agreement with study conducted by (Aries and Newsham, 2008) which suggested that an average of 0.5 percent of total electricity can be saved as a result of decreased consumption of residential and commercial consumers due to DST. However, many studies suggest no effect and some studies suggests overall energy penalties (Aries and Newsham, 2008).

DST and usage of Air conditioners in Pakistan

Another potential electricity conservation can be made by reducing duration of the Air conditioners in public and commercial offices by adding the low temperatures hours of morning in working hours by implementing DST in Pakistan. Fig. 16 shows the comparison of average summer temperature in DST and without DST time span in Pakistan. Obviously DST has no impact on naturally occuring temperatures, but the virtues of DST can be utilized in order to adjust office working hours according to temperature.

Figure 13: Average Temperature and Electricity demand in DST and Without DST Period

Panel (1) of figure 13 shows average temperature from 6:00am to 7:00pm. Office working hours in Pakistan starts at 8:00am in morning till 4:00pm afternoon. If an office switch on its AC at 10:00am when average temperature in summer season is around 28 degree centigrade. This implies that the AC will remain on for next 6 hours till 4:00pm.

On the other hand, panel (2) of the same figure shows the average temperatures in DST period. As clocks are now advanced by one hour, working time starts one hour earlier than it used to start in status quo time. If office follows the same timing to switch on ACs at 28 degree centigrade, it is obvious from the figure 16 that now the AC time span has reduced by one hour (11:00am-4:00pm). This reduced AC time span can also contribute to total electricity conservation due to DST. An average Air conditioner uses 1000watts per hour. The total electricity usage by 100000 ACs per hour is 100 megawatts hours. Therefore, by reducing the amount of AC time span, significant amount of electricity can be saved.

Total proposed electricity conservation due to DST

Previous sections of this chapter calculate minimum potential electricity conservation in context of factors that are directly associated with DST such as reduced illumination time and reduced AC time span for the case of Pakistan. The total proposed minimum electricity conservation can be calculated by adding these two proposed measures is Potential saving

due to reduced illumination time + Reduced illumination due to AC usage (548MWs + 100MWs) is 648MWs per day.

This proposed electricity conservation can potentially dilute the electricity crises in Pakistan, where supply and demand gap average reaches 2000-3000MWs in summer.

In a nutshell, this chapter has discussed following important aspects to understand mechanism associated with DST. At first, there are various geographic and seasonal such as day length, sunrise, sunset, daily hourly electricity demand patterns, illumination time period and temperature. Secondly, this chapter overviews these factors in the context of Pakistan, in order to develop an understanding of underlying factors connected to DST before going into empirical estimations. After analyzing the aforementioned factors, it can be stated that DST can be used to potentially conserve electricity in summer for the case of Pakistan as in DST illumination duration can be reduced by 214 hours per month. Similarly, by adding low temperature hours of morning to working hours, AC usage may be reduced.

Financial Impacts of DST

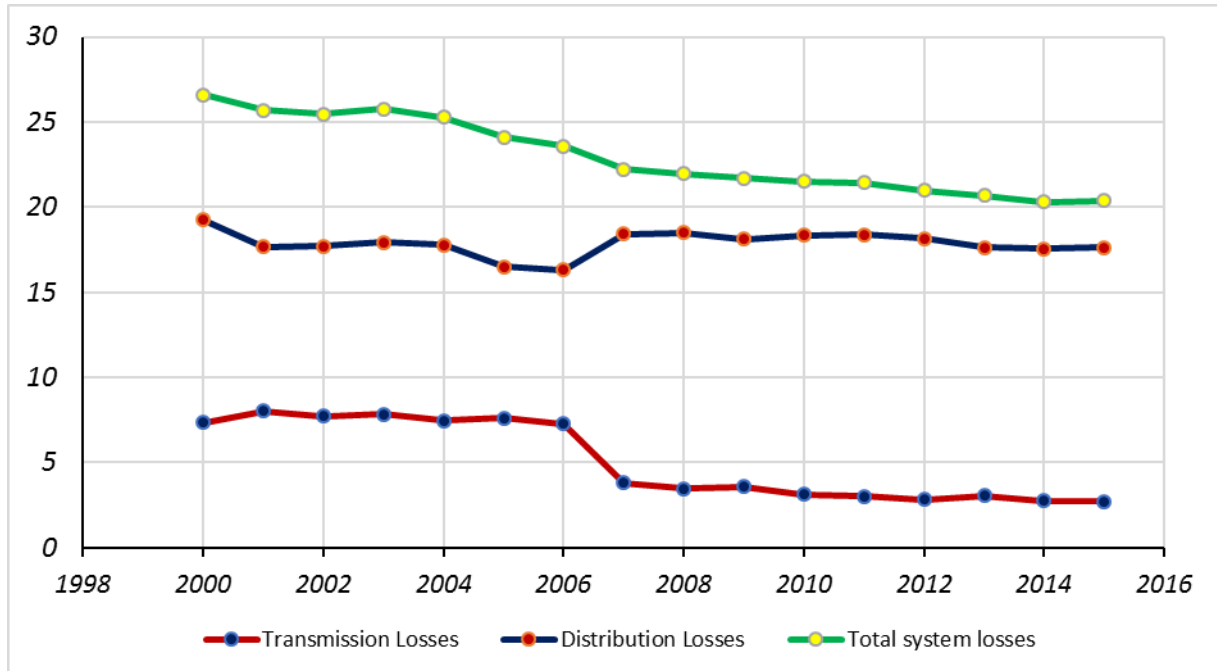
The comprehensiveness of the analysis can be enhanced by calculating the exact financial savings resulted due to DST policy in Pakistan. Analysis in previous section depicts an average hourly reduction of 648MWs per day.

In terms of energy conservation by converting megawatts of electricity to British Thermal Unit (BTU) i.e. $1\text{MW} = 3412142.45\text{BTUs}$ hence, 648 MWs are equal to 2211068307.6 BTUs. To make it more elaborative BTUs have been converted into TOEs¹⁴ which is more precise measure to calculate energy consumption. 1 TOE is equal to 39.683million BTUs, similarly, 321.494MWs implies 55.71 TOEs energy conservation. According to economic survey of Pakistan 2014-15 the Total amount of energy used in Pakistan is equal to 24.1 million TOEs during year 2014 to 2015. This shows that the DST can conserved 0.98 percent of the total energy consumption in Pakistan

¹⁴ Ton of oil equivalent (TOE) is a unit of energy. Amount of energy released by burning one tone of crude oil approximately equal to 42 Giga Joules. Similarly, 1 TOE = 41.868 Giga Joules = 11, 630 Kilowatt Hours = 39.683 million Btu]

According to state of industry report 2014 issued by NEPRA, the price of 1KWh produced by GENCOs is 1356 Paisa that implies 1MWh of electricity costs up to Rs 13560. In pursuit of financial savings, the estimates suggest that the average annual saving due to DST is around 3.21 billion Rs. per annum to end user customers.

Figure 14: System losses (% of total electricity generated)



Source: PEPCO, 2015

NTDC, 2015

Another important point in the perspective of electricity generation is to consider is system losses in Pakistan. According to power system statistics 2015 total system loss in Pakistan is 20.38 percent of total electricity generated (Fig. 20). So, eventually, if DST decreases electricity demand by 648 Megawatts the net conservation in electricity generation perspective would be 20.38 percent higher than it is in the context of end user consumers on the account of total system losses. As, in order to meet demand of 648 Megawatts, power generation companies require to generate demanded amount + System losses ($648 + 65.52 = 713.52$ MWs) so, that the system loss may get covered in order to meet the actual demand. Another interesting fact that can be imperative for policy making is that the electricity exported to Karachi Electric (K-Electric). Karachi is the biggest city of Pakistan and it is currently being provided with electricity by K-Electric. K-Electric is an independent power company. Electricity generation, transmission and distribution within Karachi is controlled by K-Electric. According to K-Electric, it generates almost 52 percent of total electricity needed, moreover it also acquires electricity from IPPs and NTDC. National transmission and dispatch corporation (NTDC) transmits 630MWs from its system to Karachi, which increases the loads-shedding in other parts of the country as shortfall widens. DST policy can make up for this shortfall by providing additional 648 MWs in peak hours.

CONCLUSION

In Pakistan DST was implemented for two years in 2008 and 2009. According to estimates the overall average electricity that can be saved due to DST is 648MWs per day. Consequently, these savings correspond financial benefits of up to 3.21 Billion Pakistani Rupees to the end-user consumers whereas, at the same time DST policy can lead to 20.67 percent more financial savings in pursuit of electricity generation compared to end users. Moreover, in the terms of Tons of Oil equivalent (TOEs), DST accounts for conservation of 55.71 TOEs.

It is obvious from the results that the potential implementation of DST policy can bring positive impacts on daily hourly load, as a result, electricity demand can be decreased in DST period in Pakistan. Therefore, in the light of analysis of underlying geographic and seasonal factors the DST policy is highly recommended in case of Pakistan. Additionally, the geographical and seasonal factors' analysis advocate that by just making a mere change of one hour in the routine cycle of general public to align it with natural cycle of daylight, enormous benefits can be achieved. Hence, this study also suggests the general public to optimally use natural sources instead of using artificial lightening appliances.

Policy Implications

This study has done comprehensive analysis of geographical and seasonal factors of Pakistan, to fully understand the working mechanism and potential benefits of DST policy. In order to implement this policy to dilute the ongoing electricity crises in Pakistan. On the basis of the results it is concluded that DST can reduce electricity loads by at least 648MWs. These estimates combined with analysis of geographical and seasonal factors recommend following important policy implications.

To begin with, Pakistan lies in a geographic zone which is suitable for the regular implementation of DST policy. In summer, there are plenty of unused sunshine hours as general public wake up late in the morning and consequently, sleep late as well. Moreover, according to the empirical estimates the electricity demand reduced in DST period in Pakistan. Hence, this study recommends the alteration in Pakistan Standard Time from GMT 5+ to GMT 6+ in summer. Sangupta and Ahuja (2012) has also proposed similar policy implication for the case of India. Furthermore, another important policy decision that can be drawn from this study is, instead of closing shops, malls, plazas and other commercial places by one hour earlier, policy makers may look into the reimplementing of DST in Pakistan. Another imperative policy suggestion before going into the implementation of DST is to educate the general public and spread awareness among the masses about the potential benefits and working mechanism of DST as manipulation with standard time causes widespread confusions. Another important point to deal with confusion in policy making perspective is to implement this policy regularly year after year. Furthermore, regular evaluation of public policies helps to promote overall economic efficiency.

Limitations of the study

On account of this reduction in electricity loads, the regular implementation of DST is advised but this study has solely focused on electricity demand and geographic factors of Pakistan. But the implications of DST are more than just the reduction in electricity loads. Daylight saving times causes widespread confusion in general public, particularly in rural

areas; lower quality of sleep and other psychological complications (Kantermann et al., 2007, Harrison and Horne, 2000). Hence, DST should be implemented after taking these limitations into the account. Furthermore, the mechanism of DST is directly connected with certain geographic and seasonal dynamics that varies across the countries. Hence, these results only imply DST characteristics from Pakistan and cannot be generalized for other countries. In order to implement DST in their respective countries policy makers should focus all the concerned factors.

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Globalization and Economic Growth: Evidence from Pakistan

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Kafait Ullah^{****} and Iftikhar ul Hasnain^{****}

Abstract

This study scrutinizes the impact of two dimensions of globalization—economic and political globalization—and overall globalization on economic growth during 1973-2011 for Pakistan, using a novel and unique dataset on various aspects of globalization. By using ARDL Bound testing approach and ECM, it is revealed that there exists both short and long run relationship among the variables in the model. The long run elasticities of overall and political globalization are positive; thus they are both beneficial for Pakistan. However, the long run coefficient of economic globalization impedes economic growth which can be a reason of high deficit in current account and non-development foreign capital inflows. We conclude that, from the perspective of long-term economic growth, it may be desirable for Pakistan to push for political and overall globalization.

Keywords: Globalization, Economic Growth, ARDL, Pakistan

JEL Classification: F6, O4, C22

Introduction

Globalization can be defined as the expansion of scale, deepening of social interaction and liberalizing transactional flows with dissolving of national borders (Held and McGrew, 2004). It enhances the removal of trade barriers and increases allocative efficiency by allowing countries to produce products at which they have comparative advantage or economies of scale (IMF, 2005). There are many kinds of globalizations including, economic, political and social globalization. In this paper, economic globalization can be measured by adjusting the trade intensity, the sum of net export as share of national income. In this regard, all possible flows of economic and financial resources including foreign direct investment (FDI), payment to foreigners, net export and portfolio investment. In addition, some trade related restriction—like tariff rate, hidden import barriers, capital account restrictions and international trade tax—may also be incorporated in norms of economic globalization. Political globalization is defined as the removal of international political barriers in the shape

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of assigning membership at international organizations, international diplomatic relations, international treaties and participations in the UN Security Council missions.

In the existing literature, it is noted that the studies measure globalization at a sub-dimension proxy while they ignore overall impact of globalization. Moreover, the dimensions of globalization like, economic, social and political are not well specified. And there is divergent views regarding the benefits and detriments of globalization in the literature. In order to fill the gap, we discuss economic, political and overall globalizations which are extracted from KOF database developed by Dreher (2006). This study analyzes the impact of each types of globalization on economic growth during 1973-2011 for the first time in Pakistan.

There is voluminous literature in the field of globalization. Like Borensztein *et al.* (1998) argued that FDI affects economic growth through transfer of technology. In his empirical study he found that the effects of foreign capital inflows are more on economic growth than its effects on domestic investment. Since in the existing literature, the mostly used proxies for globalizations are trade and capital inflow or the openness to these inflows. Analyzing these proxies, many studies conducted researches to link globalization with various scenarios like Linda *et al.* (2001) and Mah (2002) utilized these proxies to examine globalization-inequality relationship.

Reuveny (2003) found that globalized economy imposed fewer taxes, and are associated with the more globalized economy. Moreover, Vaubel (1999) analyzed globalization-growth linkages and concluded that liberalized economy is associated with the less government consumptions. However until now most researches have analyzed cross-country analysis. Like Chanda (2001) employed the index of openness to capital account as proxy of globalization to conclude that developing countries are suffering from inequality problems. Using the same proxy, Alesina *et al.* (1994) showed no impact of opening of current account on economic growth. Additionally, Do-i-Allar (1992) analyzed links between economic performance and openness to trade, and Frankel and Romer (1996) scrutinized the relationship between growth and actual trade inflows using the same proxies. In results, both the actual trade flows and openness to trade are positively associated with the economic growth. In the study of Dollar and Kraay (2004) it is urged that those developing countries which adopted tariff reduction policy got considerable gains by increased trade while the others are losers. While discussing the globalization-growth nexus in South and East Asian countries, Nasim (1988) suggested adopting technology in the social, political and economic dimensions. All these cross-section studies involve in endogeneity problems and it may imitate the time invariant characteristics instead of globalization's consequences, hence reflecting ambiguous causality directions. Taking these problems into account, some studies are also available on panel data analysis. Like Dollar and Kraay (2001) concluded that higher economic growth is a consequence of globalization proxied via FDI and trade inflow. Moreover, in the study of Greenaway *et al.* (1999) evidence is provided to show positive influence of international trade on economic growth. However, Levine (2002) on the other hand, found no robust effects of FDI on GDP growth.

In the perception of Rana (2004), globalization unites people through liberalization that fosters the growth rate and ultimately reduces poverty. Interestingly, Bhagwati (2004) also claims that liberalization and integration resulted with the economic globalization brings better advantage to the poor via direct link and income effects. Easterly (2007) proposed globalization for rich countries that would attract both physical labors and investment for

higher productivity. Dollar (2007) defended globalization and claimed that the integration of poor countries with the rich countries provides opportunity to increase standard of living of poor people. Thomas (2007) contends that 80 percent of the share of global products owned by 1000 people in industrialized countries is equal to 0.3 percent of the same amount of people in the developing countries indicating non-ignorable income inequality. In political globalization, many international organizations are involved to increase the skills and learning activities of human capital that in turn increases productivity (Lucas, 1990).

Globalization results in increased capital flows leading to rise in demand of skilled labors. Moreover, it is also believed that skilled workers attract investment and physical capital which is a good sign for economic growth (Nunnemkamp, 2002; Velde and Morrissey, 2003). The studies of Alesina *et al.* (2000) urged that political integration has positive effects on economic growth. On the contrary, their empirical study assures that the size of the economy becomes less important as economy converges to free trade regions. Similarly, Aghion and Howitt (1998) believe that economic integration influences economic growth positively through the channel of market competitions and structure. Economic integration when accompanied with political integration would lead to more innovations along with the stronger economic growth and higher welfare (Brou and Ruta, 2011). Martin *et al.* (2012) also claimed that political and economic integration to be complementary factors. In the empirical study of Khan *et al.* (2007), the effect of FDI on economic growth is analyzed for Pakistan during 1981-2008. They concluded that FDI has—in both long and short run—positive effects on economic growth. Syed *et al.* (2008) analyzed the globalization's effects on Pakistan's economy with the help of computable general equilibrium model and found negative impact of globalization on SMEs in Pakistan. This paper is organized as follows: section 2 explains the data and model specifications; section 3 discusses the results of the empirical analysis; section 4 concludes.

Data and model specifications

Data Specification

The variables for overall and sub-dimensions of globalization have been extracted from the latest version of KOF¹⁵ database for globalization developed by Dreher (2006)¹⁶. The economic globalization (EGLO) is measured through two dimensions namely; actual flows and trade & capital restrictions. Actual flows consists of FDI, trade, portfolio investment and income payments to foreigners. While the trade restrictions include trade barriers in terms of tariff and taxes on international trade and capital controls. All of these are measured as a percentage of GDP. A country at a certain stage is considered to be less globalized if it receives higher revenue from international trade taxes. Whereas political globalization (PGLO) is measured by number of embassies in a countries, membership of international organization and number of participation in UN Security Council missions. The overall globalization (OGLO) is summed up by not only including political and economic

¹⁵ KOF Swiss Economic Institute

¹⁶ In order to present clear picture the components of globalization index of KOF database developed by Dreher (2006) along with the weights assigned to them are illustrated in appendix

globalization but also the social globalization¹⁷. Moreover, economic growth is measured by real GDP per capita measured in local currency unit at constant year of 2005. The data for economic growth is extracted from World Development Indicators (WDI), the database of World Bank. All data series are taken in natural logarithmic form during the period of 1973-2011 for Pakistan. In order to discuss the flow of data series of the candidate variables, Figure 1 and 2 plot graphs of these variables. The variables of EGLO and PGLO are in non-decreasing form with some structural breaks, like a sudden rise in PGLO in the year of 1988-89 and subsequent years as shown in Figure 1. While Figure 2 clearly shows a smooth increase in economic growth, despite of the fact that it remains at stable position since 2007-08.

Figure 4: Graphs of Economic Globalization and Political Globalization

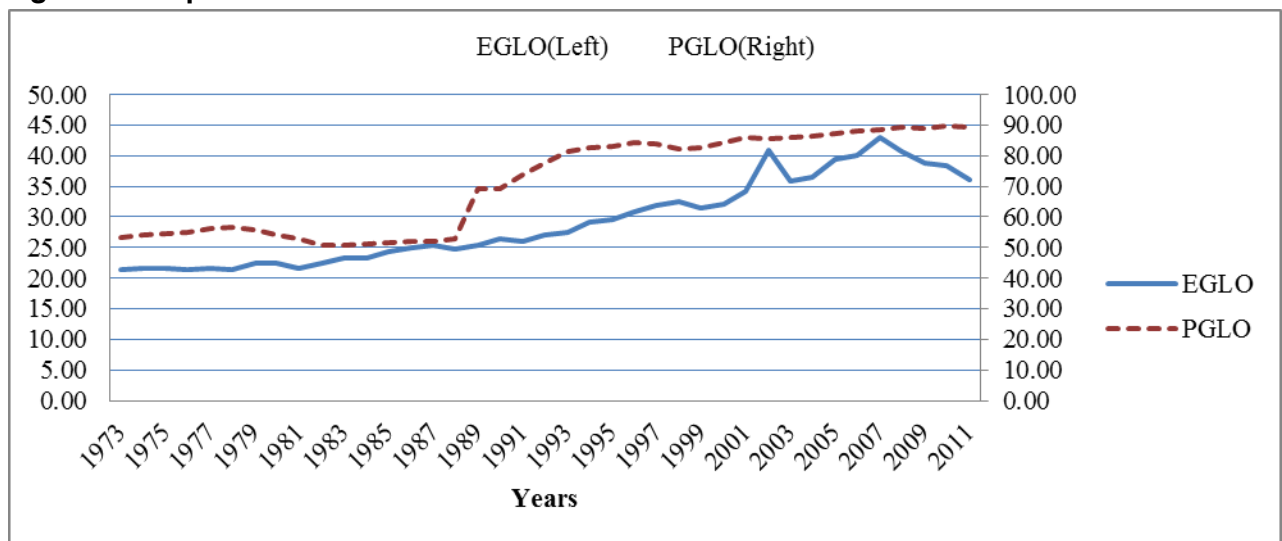
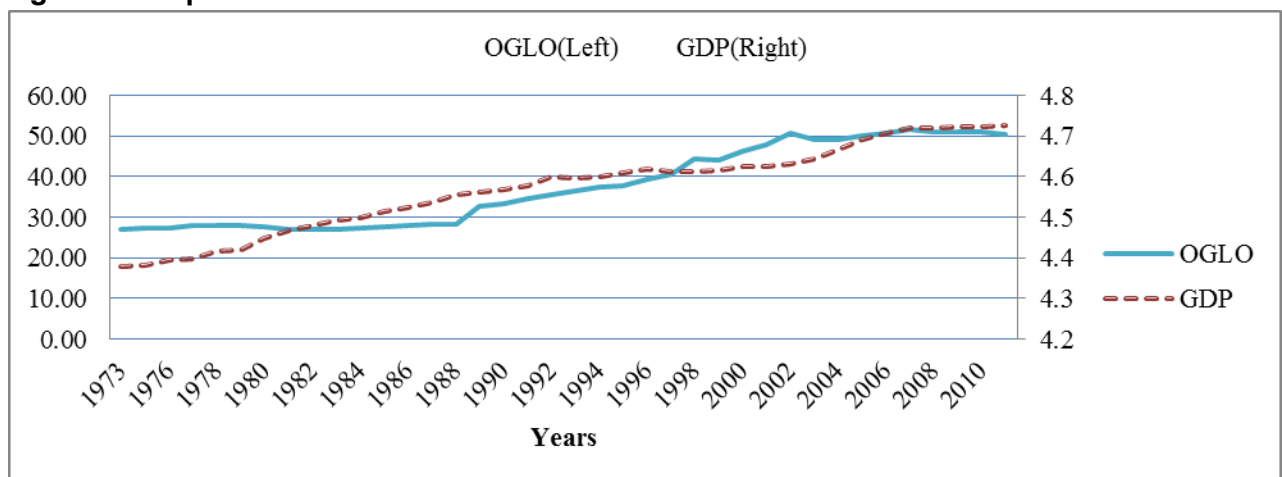


Figure 5: Graphs of Economic Growth and Overall Globalization



Econometric Methodology

In order to find the relationship between globalization and its sub-dimensions and economic growth, it is assumed that the data series must satisfy stationary assumption. Because a

¹⁷ Dreher (2006) also calculated social globalization that includes data on personal contact, information flows and cultural proximity, and overall globalization is the sum of social, political and economic globalization.

non-stationary data produces high R^2 even for theoretically non-related variables and produces spurious results, and reduces the quality of inferences drawn from calculated estimates (See Granger *et al.*, 1974). To check the stationarity assumption, this study employs Augmented Dickey Fuller and Phillips Perron unit root tests. If it is found that the data is non-stationary at level, the variable series should be differenced (d) time until the series is made stationary.

This study finds co-integration by bound test within ARDL framework developed by (Pesaran *et al.*, 2001). This test is advocated by (Tang, 2001 & 2002, Khan *et al.*, 2007, Uddin, 2013 etc.) by arguing the following characteristics. *Firstly*, it is comparatively suitable for small sample size than the other tests. *Secondly*, bound test is applied regardless to the variables integrated at different orders of $I(0)$ or $I(1)$ until $I(k)$. *Thirdly*, in order to tackle the problem of endogeneity and simultaneity, it can estimate both long run and short run estimates of parameters simultaneously. The ARDL framework for economic growth is as under:

$$\Delta GDP_t = c_1 + \beta_{11}GDP_{t-1} + \beta_{12}OGLO_{t-1} + \beta_{13}EGLO_{t-1} + \beta_{14}PGLO_{t-1} + \sum_{i=1}^p \alpha_i \Delta GDP_{t-i} + \sum_{i=1}^q \varpi_i \Delta OGLO_{t-i} + \sum_{i=1}^{q_1} \gamma_i \Delta EGLO_{t-i} + \sum_{i=1}^{q_2} \delta_i \Delta PGLO_{t-i} + v_i$$

ARDL framework bound test assumes two sets of critical values. One set takes on the assumption that the data series of all variables are stationary at level i.e. $I(0)$ whereas other set supposes that all variables are co-integrated with order one i.e. $I(1)$. If the calculated value of F-statistic is greater than the upper bound critical value then the null hypothesis of no co-integration should be rejected. Contrary to this, if the calculated value of F-statistic is less than lower bound critical value then the null hypothesis of no co-integration cannot be rejected. The result will be indecisive if calculated F-statistic lies within the region of the upper bound and lower bound limits. If it is found that there exists long run co-integration among the variables, the next phase of this study is to measure long run elasticity of the parameters using normalized method developed by Pesaran *et al.* (2001). Moreover, the error correction model is also calculated to find the short run effects of each independent variable on economic growth. The statistically significant error correction term associated with negative sign provides information about the existence of long run relationship in the model. The Error Correction Models for GDP are as under:

$$\Delta GDP_t = c_1 + \sum_{i=1}^p \alpha_i \Delta GDP_{t-i} + \sum_{i=1}^q \beta_i \Delta OGLO_{t-i} + \sum_{i=1}^{q_1} \gamma_i \Delta EGLO_{t-i} + \sum_{i=1}^{q_2} \delta_i \Delta PGLO_{t-i} + \lambda_1 EC_{t-1} + v_i$$

Where c_1 is a constant term, p and q , q_1 and q_2 are maximum lag length selected via Schwartz Information Criteria (SIC). Moreover, v_i represents white noise random term in the above equations. The feedback coefficient is represented by λ which shows the adjustment of previous period to the long run equilibrium. To check the model stability, recursive regression residuals tests including the cumulative sum (CUSUM) and cumulative sum of square (CUSUMSQ) tests are employed (Brwon *et al.*, 1975). Additionally, different diagnostic tests are also applied to detect that whether the primary assumptions of OLS including misspecification, autocorrelation, heteroscedasticity and normality are satisfied.

Empirical analysis

As discussed in earlier section, the ADF unit root test detects that all variables are non-stationary at level and stationary at first difference. In other words, the variables under consideration are co-integrated of order one i.e. $I(1)$. The same results are also supported by Phillips Perron unit root test (See Table 1 for details). By using ARDL Bound testing approach, displayed in Table 2, it is found that there exists long run relationship between the underline variables. Because for both GDP as well as OGLO model, the Wald test is greater than the upper bound critical values provided by Pesaran (2001). In addition to this, the long run elasticity for EGLO, PGLO and OGLO are calculated via normalization method. The long run elasticity of EGLO is insignificant. On the other hand, both political globalization ($p \leq 0.10$) and overall globalization ($p \leq 0.10$) have non-decreasing impacts on economic growth as they are associated with coefficients having positive signs.

The long run relationship is also supported by the error correction term (-0.016) which is negative and statistically significant. This shows a slow feedback process to the long run equilibrium. In short run analysis EGLO, with positive coefficient, is beneficial for economic growth. On the contrary, political and overall globalization adversely affects economic growth. The short run negative effect and long run positive effect of PGLO suggests that in short run only monetary costs associated with PGLO are accounted for, since its benefits accrue over several years. The diagnostic tests show that all ordinary assumptions including normality, autocorrelation and heteroscedasticity are fulfilled.

Our findings have mixed support from previous empirical literature on the growth effects of globalization. For example, Syed et al (2008) find negative impact of globalization on SMEs in Pakistan. Similarly Khan et al. (2007), found that FDI has—in both long and short run—positive effects on economic growth Rana (2004) report that globalization unites people through liberalization that fosters the growth rate. Likewise Bhagwati (2004) also claims that liberalization and integration brings better advantage to the poor via direct link and income effects. Integration of poor countries with the rich countries provides opportunity to increase standard of living of poor people (Dollar, 2007). Political integration has positive effects on economic growth (Alesina et al. 2000). Economic integration influences economic growth positively through the channel of market competitions and structure (Aghion and Howitt, 1998). On the other hand Levine (2002) found no robust effects of FDI on GDP growth. The difference of results may due to many factors that differ across economies as adopted tariff reduction policy, stability of the financial sector, trade regime, political systems, stage of development, technological progress and socioeconomic characteristics of the population.

Table 1: Unit Root Tests

Augmented Dickey Fuller Unit Root Test					Phillips Perron Unit Root Test			
Var.	<u>Level</u>		<u>1st difference</u>		<u>Level</u>		<u>1st difference</u>	
	constan t	Constan t & trend	Constan t	Constan t & trend	constan t	Constan t & trend	Constan t	Constan t & trend
GDP	-0.707 (0.83)	-1.7344 (0.7171)	-4.615*** (0.0006)	- 4.5764** * (0.0039)	-0.7079 (0.8332)	-1.7344 (0.7171)	-4.354*** (0.0013)	-4.33*** (0.0073)
EGLO	-0.837 (0.796)	-2.5841 (0.2892)	-6.750*** (0.000)	- 6.6504** * 0.000)	-0.7749 (0.8147)	-2.5841 (0.2892)	-6.897*** (0.000)	-6.748*** (0.000)
PGLO	-0.648 (0.847)	-1.4150 (0.8403)	-5.460*** (0.0001)	- 5.3811** * (0.000)	-0.7623 (0.8182)	-1.7291 (0.7185)	-5.546*** (0.000)	-5.475*** (0.000)
OGL O	-0.106 (0.941)	-1.6699 (0.7450)	-5.620*** (0.000)	-5.454*** (0.000)	-0.2019 (0.9296)	-1.8191 (0.6756)	-5.712*** (0.000)	-5.648*** (0.000)

Notes: 1) All variables are in natural logarithm form. 2) Number in parentheses are MacKinnon (1996) one side p-values. 3) *** shows significance at 1% critical values.

Table 2: Bounds test of cointegration

Model	Wald- test	Pesaran's critical value		Conclusion
		CV at 5%	CV at 10%	
GDP(1,0,0,0)	52.26	10.838-16.087	8.654-13.272	Co-integration exists
OGLO(1,1,1,0)	20.39	10.838-16.087	8.654-13.272	Co-integration exists

Notes: 1) The sequence of the variables in ARDL models are ARDL (1,0,0,0) for overall globalization model. 2) ARDL for economic growth model is ARDL (1,1,1,0). 3) The Pesaran's critical values are calculated using 20000 number of replication through Microfit 5.01.

Table 3: Long run ARDL Coefficient Estimates

Economic Growth Model		
Regressors	Coefficients	p-values
EGLO	-1.9385	0.120
PGLO	3.1297	0.076*
OGLO	0.680	0.097
Diagnostic test statistics		
Diagnostic tests	Results	
LM test for serial correlation	1.3241	
JB test for normality	0.7954	
BP test for heteroscedasticity	2.354	
CUSUM	Stable	
CUSUMQ	Stable	

Note: 1) *, ** and *** shows significance at 10%, 5% and 1% critical values respectively

Table 4: Short Run Analysis

Dependent Var. (GDP)	Economic Growth Model	
	Coefficient	p-value
Δ EGLO	0.3223	0.044**
Δ PGLO	-0.0520	0.077*
Δ OGLO	-0.113	0.0891*
ECT	-0.016	0.083*

Note: 1) *, ** and *** shows significance at 10%, 5% and 1% critical values respectively.

Conclusions

This study aims to analyze the relationship between globalization and its dimensions with economic growth for the period of 38 years (1973-2011) in Pakistan. The KOF database for overall globalization and its sub-dimensions for Pakistan are utilized. In empirical results, the ADF and PP Unit root tests detects that all variables series are stationary at first difference. ARDL bound testing approach demonstrates the long run relationship in the models. In short run, economic globalization is positively related with the economic growth, while overall and political globalization deters it. The net effect of PGLO may not be visible in short run as its lag effects last for several years. The long run elasticities for EGLO, PGLO and OGLO are also calculated via normalization approach. The long run coefficient of EGLO is insignificant while it is significant for PGLO and OGLO. Therefore, we may conclude that economic globalization has insignificant while PGLO and OGLO has significant positive effects on economic growth in the short run, while political as well as overall globalization has significant positive effects on economic growth in the long run.

Our results draw some important policy implications for policy makers in Pakistan in particular and for developing countries at large. To maximize benefits from globalization it needs necessary to improve skills and education of worker for through formal as well as non-formal ways. Training and workshop could be useful tools in this respect. Stability of financial sector can be a key to absorb outflows of globalization. This study was just

confined to impacts of globalization on overall economic growth of the country however globalization affects different sectors of the economy in a different way. Future results may investigate this issue.

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Appendix

Table 5: Components of Globalization index

A	Economic Globalization	[35%]
(i)	Actual flows	(50%)
	Income payment to foreigners (% of GDP)	(22%)
	Foreign direct investment (% of GDP)	(29%)
	International Trade (% of GDP)	(23%)
	Portfolio investment (% of GDP)	(27%)
(ii)	Restrictions	(50%)
	Mean tariff rate	(30%)
	Hidden import barriers	(20%)
	Capital account restrictions	(26%)
	Taxes imposed on international trade	(24%)
B	Political Globalization	[28%]
	International organization membership	(34%)
	No. of embassies in countries	(34%)
	Participations in UN Security Council missions	(32%)
C	Social globalization	[38%]
(i)	Personal contact	(24%)
	Transfers (% of GDP)	(9%)
	Outgoing telephone traffic	(31%)
	Average telephone costs to United States	(33%)
	Foreign population (% of total population)	(26%)
	International tourism	(1%)
(ii)	Information flows	(39%)
	Internet hosts (per capita)	(15%)
	Number of Radios (per 1000 people)	(17%)
	Number of Internet users (as share of population)	(18%)
	Telephone mainlines (per 1000 people)	(18%)
	Daily newspapers (per 1000 people)	(16%)
	Cable television (per 1000 people)	(16%)
(iii)	Cultural proximity	(37%)
	Mc Donald's restaurants (per capita)	(100%)

Notes: 1) Source: Dreher (2006). 2) Parentheses indicates the assigned weights used to derive the indexes. 3) Their sum may not equal to 100 because of rounding.

Does Culture Contribute in Gender Equality? Panel Analysis of South Asian Countries

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Abstract

This study is in line with sustainable development goals and the focused area is South Asia where six out of eight countries are not even in top hundred countries with respect to gender equality. So, objective of this paper is to empirically investigate the relationship among culture and gender equality for South Asian countries. Independent variables are urban population growth, mobile subscription per 100, GDP per capita and to measure the culture LFPR is used as a proxy. Dependent variable is gender equality to measure this variable study uses seats held by women in national parliament. Data period for this study is 1990-2014 and data is collected from WDI and ILO. Fixed effect model is used for estimation and this model is selected on the basis of Hausman specification test. Results show that GDP per capita and urban population has negative and significant relationship with gender equality. While, mobile phone subscription and culture has positive and statistically significant relationship with dependent variable. So, on the basis of results, study suggested that developing countries should invest in ICT and income generation projects for sustainable development by providing equal opportunities for both male and female.

Keywords: Gender Equality, Culture, South Asia

Introduction

Gender equality is defined as providing equal access to education, health and employment also in political and economic decision making. Gender equality is not only the foundation of human right but also compulsory for peaceful and sustainable world. According to MDG's list the third and important goal is to achieve the gender equality in the world for sustainable development.

With respect to South Asia issues relating to gender are more complex. Although some countries are performing well in some indicators like education and health despite of that gender inequalities are present in South Asia. According to gender gap report in all regions the performance of South Asia is very poor. Total eight countries are in this region except Bangladesh and Srilanka remaining countries are not in first hundred countries. Even Bangladesh and Srilanka are not in top fifty countries.

In Global Gender Gap report 145 countries are ranked and according to the ranking Yemen is at 145th position while Pakistan is second worst country in the world in gender equality. Iceland, Norway, Sweden and Finland are those countries that have more gender equality.

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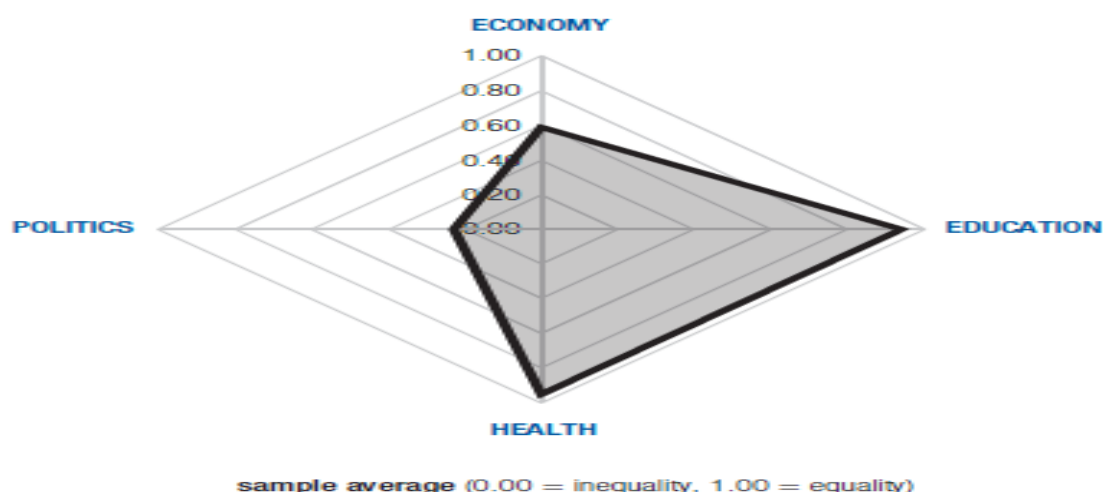
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Rwanda is developing country but showed improvement in gender equality and holds the 6th position in the ranking.

In conclusion no one country closed the gender gap but many countries showed the improvement but still there is huge gender gap and according to World Economic Forum (WEF) 81 years are required to close this gender gap if the progress continues at current rate.

Many improvements have been made in MDG's around the world but still millions of people left behind. A lot of efforts are required to reach the most vulnerable people. Women still faces the discrimination in access to job and also in decision making. Despite of these improvements, the world still far to go for equal gender representation of private and public decision making. In developing region two third of countries have reached the gender uniformity in primary education. Political participation also increased but still there is one woman out of every five men in parliament (MDG, 2015).

Figure 1: Global performance, 2015



Source: Global Gender Gap Index 2015.

This figure shows the improvements that has made in the four sub-indexes of gender index figure indicates that 145 countries are covered in this report and they closed 96% gap in health between men and women, 98% in education. But the gap in political empowerment and economic participation remains very wide 23% and 59% respectively.

Gender equality is considered as the precondition for poverty reduction and very crucial for sustainable development. Gender is considered as the production of society and culture. This relationship is defined as the power between men and women also between norms and values about masculine and feminine roles and behavior. The analysis of gender with respect to culture is necessary for identity of individual and for their communities. The manner to understand culture is not alike across the cultures but it has different definitions in different communities that go ahead of a male and female dichotomy. Gender equality is basic ingredient for development and also a human right. From the past four decades a lot of improvement has been made to empower women and at the same time efforts are also made for men and boy to encourage them to reduce the gender gap in opportunities and rights.

Culture is the enabler and driver of development. As mentioned above culture is an enabler of sustainable development but it is also the source of creativity and innovation. Culture also contributes in all types of development and gender equality is essential for development. So, culture leads to development along with gender equality. So, it is important to study the relationship of these two important variables i.e. culture and gender equality.

A lot of studies have been done on this issue with political, social and economic variable but a very important variable culture is missing. It is also criticized that MDG's left the cultural dimension (Marana, 2010). So, the objective of this study is to analyze the impact of culture on gender equality for South Asian region by using secondary data. Why this study focuses on South Asian region for analysis because the performance of this region is very low among all the regions. In the selected sample of six countries four out of these six are not even in top 100 countries. That's why study selects this region for analysis.

Literature Review

This chapter presents the empirical studies on gender equality in different perspectives. Literature review is very important point of any research because it provides theoretical understanding, model understanding it also provide the understanding about sample selection and data sources it also inform about the gap of the study. In this study this chapter will provide understanding about the above mentioned points and find the gap on this specific issue gender equality and culture. Lot of work has been done on gender with different variables some studies are presented below:

Rabbani et al., (2015) investigated the cultural perspective of women empowerment in Chakwal in Pakistan. For that purpose study used primary data and data was collected from 150 respondents. The data was gathered over the period of 4 months by utilizing the interview guides and informal interviews. Results showed that religion, illiteracy, culture and family structure are specific factors that are contributing in the gender inequality in case of Chakwal.

Jonsson (2015) empirically investigated that Is FDI has any impact on gender equality. According to the author men and women has different place in society so what is the role of FDI in gender equality. Study sample consists of 24 countries from Latin America and Caribbean countries. Fixed effect model was used for empirical investigation and study showed mixed results. So, in the light of results there is need for further research in this area.

Jaffri (2015) investigated the impact of foreign direct investment and trade openness on gender equality in labour market in case of Pakistan. Study covered data period from 1982-2012. This was time series analysis so for estimation purpose simple OLS and ARDL was applied and results showed that FDI has positive impact on gender equality. Study suggested that to decrease labor force participation rate differentials in Pakistan enhance the trade openness.

Ibourk & Aamaghous (2014) the aim of this study was to contribute in the existing literature on remittances and empowerment in terms of economic activity and also in terms of social status. This study was at aggregate level and covered the sample of 58 countries. Data period that was covered in this study ranges from 1999-2010. Results were different when move in different regions. Results showed that local and regional factors played very important role in empowerment.

Sajid (2014) investigated the impact of socio political and economic factor of gender equality in Pakistan. Study covered the data period from 1980-2012. Variables that were used in this study were as follows urbanization, ICT, law and order and FDI. Data was collected from WDI and ICRG. OLS was applied to get the empirical results and results showed that economic growth, FDI along with improved situation of Law and Order has positive effect on gender equality. On the other hand remittances have negative effect on gender equality in case of Pakistan.

Sajid (2014) analyzed the impact of trade openness on gender equality in employment for 8 developing countries. Study covered the data period from 1980-2012. Data was collected from WDI and ICRG for some selected variables like trade, economic growth and law and order. Panel data was used for the empirical investigation. Random effect model through GLS was applied and results showed that positive relationship exists among these variables. Relationship is statistically significant at 1% level of significance. Results suggested that economic sector has strong influence on social sector in developing countries.

Sajid (2014) also investigated the impact of trade openness on gender equality in terms of education for eight developing countries. Data period ranges from 1980-2012 and data was collected from WDI and ICRG. For the panel data random fixed effect model was applied via GLS. Estimation results showed that trade openness positively affect the gender equality in education. This study also concluded that economic sector has influential impact on social sector.

Anyanwu (2014) the aim of this study was to analyze the feature of gender equality in term of employment in Africa this study empirically investigated the main determinants of gender equality in employment. Study used the data from 1991-2009 and cross sectional data was used in the study. Data was collected from WDI and for estimation purpose fixed effect model was used for empirical investigation. Results showed that GDP, ICT, trade openness and democracy has positive impact on gender equality in employment. Results suggested that women empowerment is compulsory for poverty reduction.

Oniyangi (2013) analyzed the impact of natural resources on gender equality. Sample of the study was 94 developed and developing countries. Data period ranges from 1984-2007. Study used natural resources in two forms first was point natural resources include oil and minerals and second category was diffuse like agricultural product. Data was collected from WDI. For estimation purpose fixed effect model was used and results showed that those countries that are rich in natural resources have greater gender inequality in terms of education. This effect varies from region to region. But the magnitude of gender inequality depends upon the institutions.

Naz et al., (2012) investigated the socio-cultural obstacles to women in political empowerment in Pakistan. Study was conducted in Tehsil Dargayi Malakand of District Khyber Pakhtunkhwa Pakistan. The data was collected from 200 graduate women. Interview method was used to collect the data purposive sampling technique is used for estimation. Equally qualitative and quantitative approaches were used. Data was analyzed from simple frequency and percentage. On the other hand hypotheses were tested with the help of chi-square test. Results showed that there exists lot of different socio-cultural obstacles including discriminatory social structure, patriarchy, feudalism, which reduced women political empowerment.

Khan (2010) highlighted the socio-cultural determinants of women empowerment in Punjab Pakistan. He used primary data and data was collected from 550 female respondents. Study restricted the sample to those females who are between the age 15-49. Study does not included the widows and divorced women. Interview method was applied to collect the data. A lot of statistical Methods i.e. mean, standard deviation, bar charts, t-distribution, chi square test for association, gamma statistic, were utilized to thoroughly present the information, and to develop the relationship among dependent and independent variables. Results of descriptive analysis highlighted that greater part of women had lack of resources, awareness regarding their rights and education in contrast with their husbands. They also had less decision making skill. Study emphasizes on the role of government and non government organizations.

Mandour (2009) checked the role of ICT on gender equality in Egypt. Focus of this study was wage differential and also in employment opportunities. Study covered the data period from 1996-2006. Pooled data was used for estimation purpose. Results showed that there exist positive relationship between ICT and demand female employment. In the light of results study suggests that IT labs can boost the women intellectual economic status.

Mikkola & Miles (2007) this study reviewed the literature on gender equality and economic development. Results of empirical and theoretical models discovered that challenges and facilities both exist. Findings suggested that literature was well-matched with long term trends in women's role in those western countries that curtail from technological improvement, as industrialization has made broad home-based production obsolete. Findings also showed that gender equality was not the reason of development while it was effect of development. Study suggested that there was need for active policies.

Chen (2004) investigated the role of information technology in improving gender equality. Sample consists of 209 countries and data period that was estimated ranges from 1960 - 2002. Ols and IV method with fixed effect model was used for estimation purpose. Results showed that ICT improves the gender equality in education and employment. Study also revealed that gender equality in education leads to gender equality in employment. Economic development also leads to improvements in gender equality.

Stulza & Williamson (2003) examined the relationship between culture, openness and finance. Study used the different proxies for cultural i.e. religion and language these variable could not be ignored while examining why investor protection differs across countries. Study covered the sample of 49 countries. Results showed that religion predicts variation well instead of trade openness. Culture proxies are also useful in understanding how investor rights are imposed across countries.

This chapter concludes that gender equality is very important social issue and important for economic and social development. Remittances, FDI, ICT, corruption, law and order effects the gender equality. Natural resources and urbanization also has an important effect on gender. But a very important variable that is missing in literature with reference to gender equality is culture. Culture plays very important for gender equality. Very limited literature exists on this relationship. Study explores only three studies with reference to culture and gender equality that are mentioned above these studies used primary data to investigate this relationship. So, on the basis of literature study finds the gap for the further research. Now the objective of this study is to find the relationship between culture and gender equality by using secondary data.

Data and Methodology

This chapter will focus on variable construction, data sources and also discusses estimation strategy. At the first step study represents the definitions of the variables that are included in the model. Main variables that are included in the study on the basis of data availability are as follows: Dependent variable is gender equality which is measured by proportion of seats held by women in national parliament. On the other hand independent variable are culture to measure this variable study uses female labour force participation rate and other independent variables are urban population growth annual, mobile subscription per 100 people and GDP Per Capita. Definitions of the selected variables are given below:

Dependent variable:

Proportion of seats held by women in national parliament:

The basic purpose of this paper is to analyze the impact of culture on gender equality in case of South Asian countries. The third MDG is about to promote gender equality to measure gender equality they present four indicators like:

- Proportion of seats held by women in national parliament
- Share of women in wage employment in non agriculture sector
- Ratio of girls to boy in primary, tertiary and secondary education
- Ratio of literacy rate women to men age (15-29) years old

In this study we use the seats held by women in national parliament is used as a proxy for gender equality.

Independent Variable:

Culture:

Culture can be defined in many ways but the most appropriate definition of the culture is "*Culture is the collective programming of the mind that distinguishes the members of one group or category of people from others*" (Hofstede, 2011). A lot of proxies have been used to measure culture some are as Hofstede cultural dimensions Hofstede collected data on culture and after analyzing the data Hofstede presented five dimensions of culture and use scale of 0 to 100 for each dimension higher the score more the dimension exists in the society. The dimensions are as follows:

Power/Distance:

Power and distance dimension refers to the inequality which exists in the society. High score means that high level of inequality and unequal distribution of power prevails in the society. On the other hand low score indicates that power is equally distributed.

Individualism:

Individualism refers to the interpersonal relationships among the people of society. It also shows the level of responsibility among the people of certain society. High score indicates that people have loose ties among each other and low level of responsibility. Low score on the other hand shows that people have high level of responsibility along with strong ties among them.

Masculinity:

Refers to that how much people are bound to the values about the work of men and women those societies have high score which shows that if women want to work they have to work in different professions with respect to men and societies having low score of masculinity means men and women of that society can work together in same profession.

Uncertainty/Avoidance Index (UAI):

This index shows the level of anxiety in a society that people of that society feel in the presence of uncertainty. High level of UAI shows that people are facing high level of anxiety. When people enjoy normal circumstances this is the indication of low level of anxiety in the society.

Long term Orientation:

This dimension is added in the Hofstede cultural dimension a in 1990. It shows that how society values long standing with his values and he found that Asian countries have high scores and western countries have low scores.

Cultural Fractionalization:

To measure culture another important variable is also used in the literature i.e. cultural fractionalization. This means that two randomly drawn people from a same population give different answers to the randomly selected people (Demset et al, 2015). Religion and language is also used as a proxy for culture (Stulz, 2003).

Female Labor Force Participation Rate:

Female labor force and fertility rates are not just indicators of economic and social performance but also capture the beliefs and attitudes of societies towards female role in the society. He also argued that increased labor force participation rate is due to gradual evolution of cultural beliefs regarding women role in society. Fernandez (2009) conducted a study and concluded that a men whose mother is a working lady this effect increases the probability that men's wife must work by 39% to 71%.

This study uses the female labour force participation rate as a proxy for culture. Reason behind the selection of this variable is data availability on other variables of culture and this is also a new dimension to measure culture literature also supports this proxy of culture. Female labor force participation rate as percentage of total means to extent which women are economically active. (Fernández, 2009) uses the Female labor force as a proxy for culture.

Urban population Growth:

Urban population growth refers to population who live in the urban areas. In urban areas people have more opportunities for education and mobilization which discourages gender bias.

Mobile Subscription Per 100:

Mobile subscription is the proxy for ICT more ICT leads to more opportunities to learn. Along this variable study uses GDP Per Capita is also used as an independent variable.

So, main model of the study is as:

$$\text{Gender Equality} = f(\text{culture, economic variables, demographic variable, ICT})$$

Gender equality = seats in national parliament

Culture = female labor force participation rate

Economic variable = GDP Per Capita

Demographic variable = urban population growth

ICT = mobile subscription per 100

Data and Estimation Strategy:

The objective of this study is to empirically investigate the relationship between culture and gender equality. Our sample of study is six South Asian countries, study is a panel study and data is collected from WDI. Data period that is covered in the study ranges from 1990-2014. Data period and variables are selected on the basis of data availability. As we are going to conduct panel study for panel analysis we use random and fixed model. The appropriate model is selected on the basis of Hausman specification test. After applying Hausman test both models are appropriate but fixed model is applied because this model provides best results in this case.

Results and Discussion

In the previous chapter we discuss variable construction and measurement. This chapter will present the results and discussion on the investigated relationship and also provide the support from existing literature. At the first step this chapter will discuss results of Hausman specific test and after this result of fixed effect model will be discussed. Results of Hausman Specific test are given below:

Table.3 Hausman Test

Test Summary	Chi-Sq. Statistic		Chi-Sq. d.f.	Prob.
Cross-section random	22.749065		4	0.0001
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
UOPGA	-1.052817	-0.636656	0.014347	0.0005
LFPR	1.240264	0.292101	0.048600	0.0000
GDPPC	-0.010442	-0.006523	0.000001	0.0001
MCSBH	0.221734	0.191929	0.000219	0.0440

Result shows that both models are appropriate for estimation. But in this case fixed effect is most appropriate model because it provides best results. So, on the basis of Hausman test we select the fixed effect test and the results of fixed model is given below

Table.4 Results of Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UOPGA	-1.052817	0.503901	-2.089331	0.0393**
LFPR	1.240264	0.262040	4.733113	0.0000*
GDPPC	-0.010442	0.001535	-6.803083	0.0000*
MCSBH	0.221734	0.032330	6.858441	0.0000*
C	-21.13199	8.058998	-2.622161	0.0101**

Note:* and ** shows the significance level at 1% and 5% level respectively

Relationship of Urban Population and Gender Equality

Above table presents the results of our main model the first relationship is about urban population growth and gender equality. Table shows that there is negative and statistically significant relationship exists among these two variables. The coefficient of this relationship is -1.05 which indicated that 1 unit increase in urban population will leads to 1.05 units decrease in gender equality. Generally it is viewed that when people move toward cities they have more opportunities for work along with better education and health facilities so this will cause to more gender equality.

But this relationship in case of South Asian countries is negative and significant this relationship can be supported from literature as in the high level of urbanization is seen in developing countries especially in Africa , Asia and Latin America but this is slum urbanization. Slum urbanization means an urban area having high level of population which is characterized by substandard housing (Women, 2008). World is becoming urbanized at a very faster rate in 19th century 2% people lived in urban areas now in 21st century 50% live in urban areas and this is increasing day by day. Men and women, girls and boys are experiences urbanization and benefitted differently. Although women in cities have greater opportunities to employment and education but they have less power to decision making opportunities. These results are also supported by another study according to women and housing rights programme urbanization is due natural increase in population growth not the consequence of migration (Cohre, 2008; Tacoli, 2013).

Relationship of FLPR and Gender Equality:

Next relationship is about culture and gender equality which is the main objective of this paper. As we discuss earlier that FLPR is a proxy for culture and in this study culture is positively related to gender equality and this relationship is also statistically significant at 1% level of significance. The coefficient 1.24 highlights that 1 unit increase in culture causes 1.24 units increase in gender equality. This association can also be supported from literature. Culture promotes gender equality. Poor quality of government, backwardness in social indicators and corruption is due to ethnic diversity (Easterly, 2001). Those societies which are characterized by pluralism have more gender equality. Pluralism is a concept which means that people from different ethnic and diverse societies share a common participation. These results are also consistent with (Blum et al., 2007). According to this study gender differences are due cultural differences. In literature it is also highlighted that we can use culture as tool to reduce the gender differences along with discrimination in ethnic group (Schalkwyk, 2000). By contrast a lot of studies exists that shows culture has negative effect on gender equality (Rabbani et al., 2015; Naz et al., 2012).

Relationship between ICT and Gender Equality:

Next relationship is about ICT and gender equality in this case this is positive and significant relationship. This relationship is statistically significant at 1% and the coefficient is 0.2 which show that 1 unit increase in ICT will lead to 0.2 units increase in gender equality. Results are consistent with the following studies (Mandour, 2009; Chen, 2004; Anyanwu, 2014). All these studies conclude that ICT infrastructure is crucial to improving gender equality. ICT provides education at less cost which will ultimately leads to equality in education and education equality causes to equality in employment. This study also highlight that improvement in gender equality reduces poverty.

Relationship between GDPPC and Gender Equality:

Relationship between GDPPC and gender equality is negative and significant. The coefficient is negative 0.02 and significant at 1%. This relationship shows that 1 unit increase in GDPPC causes 0.02 units decrease in gender equality. It is generally viewed that increase in GDPPC will increase gender equality but it is not necessary that high level of GDPPC increases gender equality. This is basically the concept of growth without development. It is also highlighted that for gender equality only economic variables are not sufficient but it also requires best performance of social and political variable (Easterly, 2001)

Conclusion and Policy Recommendations

Gender equality means both male and female have equal opportunities to education and all other needs of life. According to MDG's the third most important goal is to achieve gender equality. In literature a very important dimension of gender equality is missing. So, the objective of this paper is to empirically investigate the relationship among culture and gender equality.

For this purpose six South Asian countries have been selected. Why study select this region because the performance of this region is very low in the whole world. In the selected sample of six countries four out of these six are not even in top 100 countries. That's why this region is selected for analysis.

Independent variables are urban population growth, mobile subscription per 100, GDPPC and LFPR is proxy for culture. Dependent variable is gender equality to measure this variable study uses seats held by women in national parliament. Data period is from 1990-2010 and data is collected from WDI. Fixed effect model is used for estimation and this model is selected on the basis of Hausman specification test.

Results show that GDPPC and UOPGA have negative and significant relationship with gender equality. While MSBCH and culture has positive and statistically significant relationship with culture. Study also concludes that culture is most contributing variable in gender equality. Secondly, this study also confirms the concept of growth without development for this whole region. On the basis of estimation study recommends that there is need to focus on social variables along with economic variables. There must be some policies regarding cultural integration. There should also be the policies that enhances the FLPR and also provide some incentives to females to increase the participation rate for sustainable development of the region.

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Assessment of Mentoring as a Tool for Socialization of Teachers at University Level

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Abstract

The research was primarily designed to study the impact of mentoring services (IV) on the socialization of the teachers (DV) in the universities of Punjab, Pakistan. Further the research was aimed at the comparison of mentoring services and socialization of the teachers on the basis of sector, gender, age, experience and professional qualification. Population of the study was based on the all the teacher serving in the universities of Punjab. The data available in Higher Education Commission shows that there were 38 universities located in Punjab. Among which 21 were from public sector and 17 were from private sector. 6829 faculty members were serving in public and 2568 faculty members were serving in the private sector. Proportionate stratified sampling technique was used to draw the sample. 479 faculty members contributed in the process of data collection. The data was collected with the help of two sets of questionnaires to address the independent (Mentoring) and dependant variable (Socialization). The demographic section was also added as an additional part of the questionnaire. The data collected was analyzed with the help of Statistical Package for Social Sciences (SPSS). The data revealed that mentoring programmes were not having any significant impact on the socialization of the teachers. However there was no statistically significant difference found in mentoring services for teachers on the basis of sector, gender, age, experience and professional qualification. Similar was the case with socialization level and there was also no statistical difference on the basis of sector, gender, age, experience. However on the basis of professional qualification a significant difference was found in the socialization level of the teachers. The data shows that the teacher having in-service teacher trainings were having better socialization in comparison to the other faculty members. Thus it was recommended that there may be a plan of action for the development of such an environment in which the employee may interact in an informal way to develop a friendly atmosphere to regulate socialization process.

Keywords: Mentoring and Socialization

Introduction

The concept of socialization is becoming a key component of the study of human development. With the passage of time as the world has become a global village,

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individuals are required to be more socialized with the environment, the work place and with the society where they are living. In past, the concept of socialization was not debatable. According to modern concept of human resource development, a great concern is given to socialization of employees. Organizations are managed and developed to socialize their employees. To make the organizations more productive a well motivated and groomed workforce is required. It has been proved from the researches that when employees are satisfied from the work environment their efficiency towards the work is increased (Anderson, 2006). Organizations need to develop a proper strategy in order to develop a regular system of socialization of the employees. In this regard researchers and available literature on the field provides different methods of socialization such as orientations, mentoring, social activities, peer group support, supervisor and training programmes. Now it depends on the resources available within an organization that to what extent these strategies can be applied. Mentoring is one of these strategies that can provide a welcoming environment for the new employees in which they can feel safe and protected under the guidance of the trained coworker. It helps the new employee to learn the culture of the new work place and adjust easily. Thus to make more productive, efficient output in any organization, mentoring of the employees is necessarily required.

Mentoring is a process in which a mentor guides and instructs the mentee in a planned manner. In mentoring the new employee, seeks, observes, and perceives the things about the new organization, to which he is going to join. It is a systematic process and has great positive effects on the mentee's personality. It is a process of social relationship with new inductees. Mentoring requires the guidance for the mentee. It gives the protégée a depth, support wisdom and knowledge about his field. A mentor should possess some abilities and qualities like leadership, reflect his own eloquent skills. Mentor can better view the policies, rules and regulations, functions, procedures, values and norms of the organizations (Beck & Kosnick, 2000).

Although mentoring is not a new thing in Human Resource Development however the process of mentoring is a new concept in the field of education. Unfortunately the field of education was ignored to be addressed from the point of view of Human Resource Development and Organizational Behavior. Specially in Pakistan the only a few researches has been conducted to observe mentoring process and its effects on the teachers as employees. Educational institutions are required to be more concerned about the mentoring and socializing of the teachers as teachers are the individuals who are dealing with the character, values and attitudes of future generation. So it is very important to provide mentoring service to the teaching faculty to increase their output and socialization. In this way their work efficiency will increase and ultimately it will affect the future generation. Thus the research has been designed to assess the effects of mentoring services on the socialization of the teachers as employees.

Research Objectives

1. To assess the impact of mentoring services on socialization of teachers.
2. To find out the difference in provision of mentoring services on the basis of sector.
3. To find out the difference in socialization of the employees on the basis of sector.
4. To find out the difference in provision of mentoring services on the basis of gender.
5. To find out the difference in socialization of the employees on the basis of gender.

6. To find out the difference in provision of mentoring services on the basis of age.
7. To find out the difference in socialization of the employees on the basis of age.
8. To find out the difference in provision of mentoring services on the basis of experience.
9. To find out the difference in socialization of the employees on the basis of experience.
10. To find out the difference in provision of mentoring services on the basis of professional qualification.
11. To find out the difference in socialization of the employees on the professional qualification.
12. To identify the measures for improving mentoring services for the teachers serving at higher level in Punjab.

Research Hypothesis

- HO1 There is no statistically significant impact of mentoring services on socialization of teachers.
- HO2 There is no statistically significant difference in provision of mentoring services on the basis of sector.
- HO3 There is no statistically significant difference in socialization of the employees on the basis of sector.
- HO4 There is no statistically significant difference in provision of mentoring services on the basis of gender.
- HO5 There is no statistically significant difference in socialization of the employees on the basis of gender.
- HO6 There is no statistically significant difference in provision of mentoring services on the basis of age.
- HO7 There is no statistically significant difference in socialization of the employees on the basis of age.
- HO8 There is no statistically significant difference in provision of mentoring services on the basis of experience.
- HO9 There is no statistically significant difference in socialization of the employees on the basis of experience.
- HO 10 There is no statistically significant difference in provision of mentoring services on the basis of professional qualification.
- HO11 There is no statistically significant difference in socialization of the employees on the professional qualification.

Significance of the Study

The research in hand would be beneficial particularly for all educational institutions and generally for employees of other departments of Pakistan. Process of mentoring and socialization in Pakistan is not old. The concept of mentoring and orientation program is now common to private sector and is also in vogue in some public sectors organizations. Particularly in educational institutions, the process of mentoring and socialization of the teachers is a dire need of the time.

The finding of this study would guide the educational management and administration for further better mentoring programs of teachers. Moreover this study would also benefit the new employees (teachers) of the educational organizations.

The profession of teaching in Pakistan remained an unattractive due to some reasons. The issues of income and social status remained at top level. This is because of these reasons that attraction for this profession remained low. So this study would be hopefully beneficial for the teachers and the persons who like to join this profession. As the findings of the research will provide a guideline to help newly hired teachers to understand the importance and the system of teaching.

By using the findings of this research the educational organizations can attract the teachers towards their workplace. It will lead to the less rate of turn over as well.

Its findings will also help the organizations to develop a productive and well socialized environment. That would lead to the innovation and creativity in teacher's performance and students' output.

Literature Review

Mentoring is a process by which a novice individual gets assistance from a more experienced colleague. The senior teacher or individual is called as monitor coach or helping teacher. There is also a partnership by which there is no status different. (e.g two novices assisting each other). According to Ward and Tikunoff (1989) the mentoring process for the employees or the teachers some strategies are followed. These strategies may be grouped into three categories namely as assistance, monitoring and teacher building. In the strategy of assistance technical support is provided to the newly employed teachers for an early setting in the new environment. An orientation session and training is provided to the novice. The role of the principal in assisting beginning teacher is emphasized in a number of induction programs (Armstrong, 1983; Mickler, 1984). There are some other strategies for mentoring of teachers related to instruction or classroom management. The management of the student's behavior is among the most difficult of the new teacher's responsibilities (Rosenholz, 1989). Moreover, in addition to help with managing student behavior, newly employed teachers often require assistance in managing paper work (Rog, Donaldson, Queglia & Paige, 1990) and evaluating student progress (Mickler, 1984; Varah, Theune, & Packer 1986). In the area of instruction, administrator takes different steps e.g assigning novices the easier classes or school (Rosenhold, 1989). The newly employed teacher can be assigned the subject areas for which he is prepared well and with those student whose behavior is less difficult to manage. Novice teachers are given opportunities to observe the demonstration of effective teaching practices by more experienced teachers. Monitoring is another strategy to assess the novice proficiency in the classroom (Hulig-Austin, 1990; Moffett & Isken, 1987; Varah & Packer 1986). The purpose for this is to provide corrective feedback. Different researches have recommended that monitoring and confidential coaching should be made frequently but this must be separate from evaluation. Team-building is the strategy which is utilized to help the beginners "fit into" the new working environment. By this, the mentee will be able to adjust him more speedily and to overcome the feelings of isolation and insecurity. Moreover encouragement from educational administrators or peers and acknowledgment of their efforts are also used as to improve the self-confidence of novices (Moffett & Isken, 1987).

The potential benefits of mentoring must also be known for a researcher. These are some potential benefit of mentoring for mentees, mentors, schools and educational system. According to some researches mentoring is an important and effective form of supporting instrument for the professional development of beginning teachers (Carter & Francies, 2001). Mentoring is beneficial for newly employed teachers in reducing feeling of isolation, increasing confidence and self esteem professional growth and better problem solving capacities.

Mentoring has also impact on developing capabilities of beginning teachers, including their behavior and classroom management skills and ability to manage their workload and time (Lindgren, 2005; Moor et al., 2005). Importantly mentors have been experienced to play an important role in the socialization of novice teachers in adopting the norms, standards and expectations associated with teaching to specific schools (Bullough & Draper, 2004; Wang, 1994).

Different researches have reported that 70% of the mentors have claimed that they have been benefited professionally from mentoring. Mentoring experience have also an impact on leaving of mentors. The learning of mentors relates mainly through self-reflection or critical reflection on their own practice (Abell, Dillon, Hopkins, Melnery & O Brien 1995; Loper-Real & Kwan 2005; Simpsen, Hastings and Hill, 2007).

Some studies have reassured the feelings of mentor when their ideas are validated by university tutors (Lopez-Real & Kwan, 2005; Simpson et al., 2007) feels less isolated and enjoying the increased collaboration associated with mentoring (Hagger & McIntyre, 2006; Simpson et al; 2007). "Research has also shown that many mentors derive satisfaction and pride from undertaking the mentor role, especially through seeing their mentees succeed and progress and noticing evidence of their own impact on mentee's development and their teaching" (Beck & Kosnick, 2000, Hagger & McIntyre, 2006).

Besides the benefits of mentoring to mentors and mentee, there are other setups which are being benefitted like schools and educational system (Moor et al., 2005). There are also some potential limitations of mentoring for beginning teachers. Generally some authors have complained that most of the literature in education presents and 'overwhelmingly favorable' account and this could not address the potentially negative effects (Colley, 2002). Firstly according to (Lee & Feng, 2007; Simpson et al., 2007) have reported that mentors are being overloaded in their workloads, because they are involved in mentoring process in addition to their normal working teaching roles. This will automatically increase difficulties in accommodating all their mentee's needs (Maynard, 2000). Moreover other limitations include feeling of insecurity, nervousness and threats. Some studies have also suggested that in the process of mentoring mentors feel isolated in this role (Bullough, 2005).

There are some conditions by applying which the outcomes of the mentoring can be achieved. The conditions are, contextual support for mentoring, mentor selection & pairing, mentoring strategies and mentor preparation. There are some studies which suggest that for a successful mentoring, it depends upon the "willingness" of the mentee and his openness to get some from mentor. Regarding the contextual support of mentoring, the relationship of mentoring will be more effective where teacher-mentors are provided additional release and the timetable should be set in such a way that they must meet during school time (Bullough, 2005). Different researches have also proved that the results are more positive where mentor receive financial reward or some other incentive like recognition for their work (Abell et al., 1995; Simpson et al., 2007).

According to some studies, the effectiveness of mentoring depends upon mentor's selection and his mentee. The pairing of mentor and mentee should be wisely selected. Mentors must be an effective practitioner and who must be able for a good output (Foster, 1999). The pairing of mentor and mentee also depends upon mentee's strength and limitations and also where mentor and mentee are on same track personally and professionally (Abell et al., 1995).

There are some mentoring strategies that should be kept in mind for effective results. The process of mentoring will be more effective and it must be responsive to the needs of the mentee. Mentor should respect the mentee, he must focus on his individual learning style and take into account about the strategies employed that they are effective and responsive (Foster, 1999; Lindgren, 2005). Other strategies and tactics which are used are, mentor should provide emotional and psychological support, feel them to say welcome and accept him with open arms (Ferman, 2001; Hascher et al., 2004., Maynard, 2000; Rippon and Martin; 2006). Secondly mentor should meet the mentee regularly and he must be available for informal discussion. Thirdly mentors should give the power or authority to his mentee about the teaching style (Feiman Nemser, 2001; Foster, 1999; Harrison et al., 2006).

Effective mentoring can also be done by understanding an appropriate program of mentor preparation. To Bullough (2005), the effective mentoring can also be done by the effective participation of both in seminars. It must be kept in mind that the effective mentoring of beginning teachers or mentees, besides having other influential factors has an effective role on the socialization of teachers. Socialization is a process by which individuals acquire the necessary skills and knowledge to function within a group or society. In the socialization of teachers it is a process in which student teachers becomes a professional in his field. The process of socialization can be divided into three stages as is being adopted in Taiwan. According to Wang, 1994 the process of socialization can be named as, the student stage, the ignition stage and the teaching stage. The professional socialization of teachers is the name of a process which undergoes by adopting the internal professional abilities, professional attitudes and a sense of professionalism.

There are different theories that interpret the process and content of professional socialization. The most adopted are Functionalism, conflict Theory and the theory of symbolic interaction (Cherubini, 2009; Wang, 1994; Zeichner & Gore, 2010). According to Functionalism thought society existed before the individual and people do their activities according to the local traditions and social system. Every individual of the society has firm beliefs and values under a hierarchal structure. The theory of conflict discusses about the conflicts in a society. To them the society is undergoing a process of change. This theory is not exactly an unhealthy scenario. This theory advocates that a person doesn't need to abide by the roles assigned by the society to him or even he doesn't accept social regulations (Berliner, 2001; Holadely, and Ensor, 2009; Killeavy, and Moloney, 2010).

In the process of socialization there is a concept of organizational socialization which defines as process by which employees get knowledge about the organization, their job portfolio, their role, work group and nature of organization. In this way they may actively participate in the organization.

The socialization of a new comer is really a bit difficult and considerable task, but researchers have proved that if an individual joins the organization after passing through mentoring process then he will be socialized much early as compared to other one. In the process of socialization, there are four levels or domains (i.e. job/task, work group,

organization and roles) that contain certain features which are necessary for the socialization process. The process of socialization is a lifelong process like children learn from their surroundings. It is like training for new comers. Socialization has been defined as the process by which individuals require the necessary skills and knowledge to function within a group or society.

Methodology

The research was based on the survey based descriptive design. The research furtherers was a combination of co-relational and comparative type of research. The research involved the assessment of the impact of mentoring services on the socialization of employees. So in this way the research was based on co-relational design. While at the same time the researcher tend to draw differences in mentoring services and socialization level on the basis of gender, age and experience. That provides a base for the comparative research design.

The population of the research was based on the all the teacher serving in the universities of Punjab. The data available in Higher Education Commission shows that there were 38 universities in Punjab. Among which 21 were from public sector and 17 were from private sector. There 6829 faculty members were serving in public and 2568 faculty members were serving in the private sector.

The sample was selected with the proportionate stratified sampling technique. The public and private were considered as the major strata of the research population. Keeping in view these two strata the stratified sampling strategy was adopted for the research. Keeping in view the limitation of the time and resources 5 % of the total population was selected as the sample of the study. In this regard 479 faculty members contributed in the process of data collection.

Two sets of Questionnaire were used as the data collection tool. One was to address the availability of the mentoring services (IV). The "Mentoring Services Assessment Scale" was based on 7 items and its reliability was 0.88. The second research tool was designed to assess the socialization level (DV) of the employees. "Socialization Assessment Scale" was further based on six sub variables (Work Roles, Goals, People, Language, Politics and History). In total it was based on 30 items and its reliability was 0.84. Additionally a section for demographic variables was also developed.

The data was collected with the use of multiple methods. In this regard personal visits, email and postal service was used. The collected data was analyzed with the help of statistical Package for Social Sciences (SPSS). For the purpose of analysis regression, t test and ANOVA tests were applied to the data collected.

Tables

Table No. 1

Scale	Items	Cronbach's Alpha Reliability
Mentoring	07	.88
Socialization Level	30	.84

The Table No.1 is related to the reliability analysis of the both tools used in the research. The table shows that the Cronbach Alpha reliability of the Mentoring Services Assessment Scale was 0.88 while the reliability of the Socialization Level Assessment Scale was 0.84. The both values were statistically good enough to select the tool for the purpose of data collection.

Table No. 2 Correlation

	Work Roles	Goals	People	Language	Politics	History	Socialization
Work Roles	1						
Goals	.336**	1					
People	.091*	.452**	1				
Language	.103*	.305**	.405**	1			
Politics	.080	.173**	.268**	.450**	1		
History	-.088	.002	.052	.026	.263**	1	
Socialization	.359**	.593**	.674**	.684**	.710**	.395**	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The Table No. 2 shows that all the six sub scales of the socialization level assessment scale were statistically significantly related to each other at 0.01 levels. The highest correlation was found between the variable related to the people and organizational goals.

Table No. 3 Impact of Mentoring on Socialization

Independent Variable	Dependant Variable	B (Coefficients)	T	Sig.	R Square
Mentoring	Socialization	-0.172	-1.64	.10	.006

Dependent Variable: Mentoring

Independent Variable: Socialization

The Table indicates that the R^2 value is 0.006. It explains that the independent variable (Mentoring) describes only 0.6 percent variation in Socialization of teachers and the rest is due to some other factors. While the coefficient ($B = -0.172$) is negative and not statistically significant. It indicates that mentoring services and socialization are inverse and not significantly related with each other.

Thus the HO1 "There is no statistically significant impact of mentoring services on socialization of teachers" is approved.

Table No. 4 Sector Wise Comparison (t Test)

Variable		N	Mean	t value	df	Sig
Mentoring	Public	344	24.20	-1.51	477	0.13
	Private	135	25.10			
Socialization Level	Public	344	104.27	0.78	477	0.43
	Private	135	103.19			

* $p < 0.05$, ** $p < 0.01$

The Table No 4 shows that the t value (-1.51) is not statistically significant as the p-value (.000) is greater than 0.01. Hence the hypothesis HO2 "There is no statistically significant difference in provision of mentoring services on the basis of sector" is accepted. Thus there was no significant difference found between the public and the private sector universities of Punjab related to the provision of mentoring services.

The Table No. 4 also shows that the t value (0.78) is also not statistically significant as the p-value (.000) is greater than 0.05. Hence the hypothesis HO3 There is no statistically significant difference in socialization of the employees on the basis of sector is accepted. Thus there was no significant difference found between the public and the private sector universities of Punjab related to the Socialization level of the teachers.

Table No. 5 Gender Wise Comparison (t Test)

Variable		N	Mean	t value	df	Sig
Mentoring	Male	242	24.66	0.75	477	0.44
	Female	237	24.25			
Socialization Level	Male	242	103.26	-1.14	477	0.25
	Female	237	104.69			

* $p < 0.05$, ** $p < 0.01$

The Table No. 5 shows that the t value (0.75) is not statistically significant as the p-value (0.44) is greater than 0.05. Hence the hypothesis HO2 “There is no statistically significant difference in provision of mentoring services on the basis of gender” is accepted. Thus there was no significant difference found between the male and female respondents serving at the universities of Punjab related to the provision of mentoring services.

The Table No. 5 also shows that the t value (-1.14) is also not statistically significant as the p-value (0.25) is greater than 0.05. Hence the hypothesis HO3 “There is no statistically significant difference in socialization of the employees on the basis of gender” is accepted. Thus there was no significant difference found between the public and the private sector universities of Punjab related to the Socialization level of the teachers.

Table No. 6 Age Wise Comparison (ANOVA)

Variable	Age	N	Mean	F	f	Sig
Mentoring	20-35	360	24.24	1.18	476	0.30
	36-50	103	24.99			
	51-60	16	25.94			
	Total	479	24.46			
Socialization Level	20-35	360	104.44	1.09	476	0.33
	36-50	103	102.21			
	51-60	16	104.56			
	Total	479	103.97			

*p < 0.05, **p < 0.01

Table No. 6 shows that the F value (1.18) is statistically not significant. Thus there is no significant difference on the basis of age with reference to the provision of mentoring services for the employees. Thus the HO6 “There is no statistically significant difference in provision of mentoring services on the basis of age” is approved.

Table No. 6 shows that the F value (1.09) is statistically not significant. Thus there is no significant difference on the basis of age with reference to the socialization of the employees. Thus the HO7 “There is no statistically significant difference in socialization of the employees on the basis of age” is approved.

Table No. 7 Experience Wise Comparison (ANOVA)

Variable	Experience	N	Mean	F	Df	Sig
Mentoring	0-6	401	24.60	0.88	476	0.41
	7-12	76	23.66			
	13+	2	26.00			
	Total	479	24.46			
Socialization Level	0-6	401	104.29	0.69	476	0.50
	7-12	76	102.29			
	13+	2	104.00			
	Total	479	103.97			

*p <0.05, **p <0.01

Table No. 7 shows that the F value (0.88) is statistically not significant. Thus there is no significant difference on the basis of age with reference to the provision of mentoring services for the employees. Thus the HO8 "There is no statistically significant difference in provision of mentoring services on the basis of experience" is approved.

Table No. 7 shows that the F value (0.69) is statistically not significant. Thus there is no significant difference on the basis of age with reference to the socialization of the employees. Thus the HO9 "There is no statistically significant difference in socialization of the employees on the basis of experience" is approved.

Table No. 8 Professional Qualification Wise Comparison (ANOVA)

Variable	Professional Qualification	N	Mean	F	Df	Sig
Mentoring	B.Ed	58	24.72	1.06	474	0.37
	M.Ed	66	25.45			
	FDP by HEC	6	26.17			
	Any Other	66	23.53			
	None	283	24.35			
	Total	479	24.46			
Socialization Level	B.Ed	58	103.98	3.53	474	0.00
	M.Ed	66	99.73			
	FDP by HEC	6	93.50			
	Any Other In-Service Training	66	107.08			
	None	283	104.45			
	Total	479	103.97			

*p <0.05, **p <0.01

Table No. 8 shows that the F value (1.06) is statistically not significant. Thus there is no significant difference on the basis of professional qualification with reference to the provision of mentoring services for the employees. Thus the HO8 "There is no statistically significant difference in provision of mentoring services on the basis of experience" is approved.

Table No. 8 shows that the F value (3.53) is statistically significant. Thus there is a significant difference on the basis of professional qualification with reference to the socialization of the employees. Thus the HO9 "There is no statistically significant difference in socialization of the employees on the basis of experience" is rejected.

Discussion

Dewey (1916) was the well renowned educationist who had about a century ago explained the importance of developing a positive learning environment by sharing the experiences and knowledge. Based on his concept of sharing and learning the concept of mentoring can be developed in a effective way. As the process of mentoring can never be successful without the development of such an environment where the employees can share their problems and view without any hesitation. Caffarella (1992) defined mentoring as an "intense caring relationship development in which persons with more experience work with less experienced persons to promote both Professional and personal development" (p. 38).

Thus the first major objective of the study was “to assess the impact of mentoring services on socialization of teachers”. Unfortunately in Pakistan we still need to develop such an open culture of sharing and learning at all levels and in all organizations. To develop such culture we need to train our young generation from the beginning of their life. The data revealed that the mentoring services being used in the universities of Punjab were not found effective for the development of socialization of the teachers.

Mentoring may be especially important to first-generation university students, first-generation professionals, and those entering fields dominated by persons of a different gender or race (Stalker, 1996; Ragins, 1997; Gordon and Whelan, 1998). In higher education, Lyons, Scroggins, and Rule (1990) found that mentors not only transmitted formal academic knowledge and provided socialization experiences into their chosen discipline, but also bolstered the students’ confidence and professional identity, giving them a vision of the identity they might one day achieve. Keeping in view the situation of Pakistani educational system the research was based on the comparison of mentoring services and the socialization on the basis of sector, gender, age, experience and professional qualification. The research revealed that there was no difference found in the provision of mentoring services on the basis of sector, gender, age, experience and professional qualification. Similarly there was no difference found in the socialization of the teachers on the basis of sector, gender, age and experience. However there was statistically significant difference found on the basis of professional qualification in the socialization of the teacher. Surprisingly it was found that the teacher involved in in-service trainings were found better in socialization. Thus on the basis of the findings important measures were suggested for improving mentoring services for the teachers serving at higher level in Punjab.

Recommendations

1. On the basis of the findings it is recommended that there may be a comprehensive plan of action for the development of such an environment in which the employee may interact in an informal way to develop a friendly atmosphere to regulate socialization process.
2. As mentoring programme were not found effective for the socialization process so It is further recommend that the university management need to organize and revise the mentoring programme and link the mentoring services with the interrelationship building.
3. There may be proper training programmes for the mentor to learn the skills of guiding and developing relationships.
4. Formally the mentors may be allotted to the new comers in the organization on regular basis.
5. It is further recommended that the mentoring service may be linked with any kind of service benefit. In this way the mentor may feel a sense of responsibility and will perform better.
6. There may be a continue check and balance process on the process of mentoring programme.
7. Mentoring programs needs to be linked with the daily workplace issues.

8. One mentor in each department of the university need to be appointed for the research related activities as the research is the backbone of the university activities and it is observed that many faculty members face difficulties in writing and publishing the research work.
9. To develop a proper system of mentoring in each department of the university the following model is suggested to be applied by the Heads of the respective department.
 - a. Identification of Mentee
 - b. Selection of Mentor
 - c. Need Assessment
 - d. Training Session for the Mentors
 - e. Time Allocation
 - f. Feedback
 - g. Revision of Process

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List of Population

Detailed List of Public Sector Universities of Punjab, Pakistan

Sr No	Name of the University	City	Male Faculty Members	Female Faculty Members	Total No of Faculty
1.	National School of Public Policy	Lahore	-	-	-
2.	University of Veterinary and Animal Sciences	Lahore	100	29	129
3.	University of Engineering and Technology, Taxila	Rawalpindi	137	33	170
4.	University of Sargodha	Sargodha	250	64	314
5.	University of the Punjab	Lahore	900	465	1365
6.	University of Health Sciences	Lahore	15	13	28
7.	University of Gujarat	Gujarat	250	208	458
8.	University of Engineering and Technology	Lahore	354	80	434
9.	University of Education	Lahore	89	48	137
10.	University of Arid Agriculture, Murree Road, Rawalpindi	Rawalpindi	177	43	220
11.	University of Agriculture	Faisalabad	354	49	403
12.	National Textile University, Faisalabad	Faisalabad	70	08	78
13.	National College of Arts	Lahore	29	25	54
14.	Lahore College for Women University	Lahore	29	352	381
15.	Kinnaird College for Women	Lahore	30	196	226
16.	King Edward medical college	Lahore	194	73	267
17.	Islamic University	Bahawalpur	387	188	575
18.	Government College University Lahore	Lahore	375	112	487
19.	Government College University Faisalabad	Faisalabad	348	168	516
20.	Fatima Jinnah Women University	Rawalpindi	100	147	247
21.	Bahauddin Zakariya University	Multan	244	96	340
Total			4432	2397	6829

Detailed List of Private Sector Universities of Punjab, Pakistan

Sr No	Name of the University	City	Male Faculty Members	Female Faculty Members	Total No of Faculty
1.	University of Wah	Wah	126	57	183
2.	University of Management and Technology	Lahore	184	39	223
3.	University of South Asia	Lahore			129
4.	University of Lahore	Lahore	123	39	162
5.	University of Faisalabad	Faisalabad	71	14	85
6.	University of Central Punjab	Lahore	218	43	261
7.	The Superior College	Lahore	162	33	195
8.	Minhaj University	Lahore	48	14	62
9.	Lahore University of Management Sciences	Lahore	130	34	164
10.	Lahore school of economics	Lahore	97	147	244
11.	Institute of Management Sciences	Lahore	44	5	49
12.	Imperial College of Business Studies	Lahore	38	16	54
13.	Hajvery University	Lahore	62	13	75
14.	GIFT University	Gujranwala	85	15	100
15.	Forman Christian College	Lahore	177	58	235
16.	National College of Business Administration and Economics	Lahore	81	28	109
17.	Beaconhouse National University	Lahore	132	106	238
Total			1878	690	2568

Strategic Gender Needs: A Precursor to Women Empowerment in Pakistan

Safdar Abbas*, Rabia Safdar**, Sidra Maqsood*** and Mumtaz Mughal****

Abstract

Patriarchal power relations between men and women pose serious challenges to the strategic interests of women. In Pakistan, the goal of women empowerment could not be yet achieved due to deeply embedded social, cultural, and institutional constraints to women. The present study intended to map the state of strategic gender needs, challenges, and prospects of these needs in Pakistan. A critical review of secondary data and information generated primarily by national, multilateral agencies and United Nations Organizations revealed that women face discrimination in all strategic priority areas including; 1) participation in decision making, 2) protection from domestic violence, 3) equal opportunities in employment, 4) equality for legal rights, and 5) increased reproductive choices. This study concludes that fulfillment of practical gender needs could not challenge unequal power relations between men and women. There is a need of affirmative actions at individual, community, and state level for achieving the goal of women empowerment. At the end, this study formulates an integrated conceptual model of Strategic Gender Needs in relation to women empowerment in Pakistan.

Keywords: Gender Equity, Pakistan, Strategic Gender Needs, Women Empowerment.

Introduction

Gender as a social construct avers that the expectations, responsibilities and capabilities of men and women are not always biologically determined (Ako-Nai, 2013). In a patriarchal society, differential gender roles predominately create and reinforce male dominance (Singh, 2015). During the process of socialization within the family, at educational institutions and other social spheres, women are inured to behave subservient and to play un-recognized roles in society (Njogu & Orchardson-Mazrui, 2013). By and large, Pakistani women are restricted to play their fulfilling role in society due to the deeply rooted socio-cultural constraints. Accordingly, the gender gap between men and women leads towards women's exploitation, discrimination, violence and harassment in Pakistan (Bhattacharya, 2014). The gender gaps in Pakistan are widespread. That is how, the Global Gender Gap Report 2012 Pakistan ranked 141 out of 142 countries with a score of 0.552. (World Economic Forum, 2014).

Fulfillment of the basic needs including food, health, shelter, education and other necessities of life, does not guarantee equal power relationships between men and women.

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Instead, ensuring women's access to power, decision making, and enabling them to challenge their subordinate position in a society is needed for women emancipation and power sharing. Moser (1989) termed these two processes as Practical Gender Needs (PGNs) and Strategic Gender Needs (SGNs) respectively.

Though the term SGNs was coined some more than two decades ago, but the researchers could not find any study which had explained all the themes of SGNs, current situation, challenges, and prospects in the context of Pakistan. Given the paucity of literature on this topic, the present study intended to map the current situation, challenges, and impact of SGNs on women empowerment in Pakistan. Furthermore, we have developed an integrated conceptual model of SGNs in-relation to women empowerment in Pakistan.

Gender Needs

Men and women, regardless of their situation, have different roles - thus varying needs ([McGraw-Hill Global Education Holdings, 2016](#)). Gender roles and gender attributes are mutable and vary across cultures, class, ethnicity, income, education, time and so forth. Nonetheless, Moser (1989) identified three different types of roles performed by women which included i) reproductive; childbearing and rearing responsibilities ii) productive; considered as paid and valuable work, and iii) community management; roles performed to manage community affairs. By the same token, practical and strategic gender needs represent a conceptual distinction.

Practical Gender Needs (PGNs)

Practical gender needs emerge from the physical conditions women experience. These needs stem from the women's engendered conditions and their practical interests for their survival as human beings (Moser, 1989). The PGNs do not challenge the existing power relations, legal inequalities, or any other discrimination due to cultural and social practices. These needs are often context specific, short term and specific to certain women (JICA, 2005). For instance, women in rural areas may have different PGNs as compared to the women in urban areas of Pakistan. As PGNs belong to basic necessities of life, these can be easily identified by women themselves. By virtue of physical and tangible nature, these needs can be satisfied accurately by different measure or elements which may include food, houses, schools, water pumps, clinics etc. These measures pertain to the 'condition' but not with the 'position' of women because provision of such necessities to women could help them improve their living conditions but does not change the traditional roles of women and power relations between men and women.

Strategic Gender Needs (SGNs)

Historically, the notion of 'Strategic Gender Needs' was introduced, for the first time by Maxine Molyneux in 1985 (UNESCO, 2003). This concept helped in development of gender policies, gender planning tools, and gender planning frameworks currently used across the world. Nonetheless, the term SGNs refers to those needs which are originated from analysis of women's unequal power relations and their subordination to men. These needs identify alternative for more equal and satisfactory organization of society in terms of structure as well as nature of relationships between men and women (Moser, 1989).

The SGNs are usually long term and common to all women. These needs originate from the

women's subordinate position. The strategic interest areas of women can be allocation of resources for education, women's poverty reduction, an extension of reproductive rights, and elimination of violence against women. The SGNs could not only challenge the male domination in all spheres of life but these can also be instrumental in bringing about change in policies and day to day business of the government.

Material and Methods

The present study deployed an extensive search of a series of databases from 22nd January, 2016 to 7th March, 2016 to identify studies that appeared to be relevant SGNs in context of Pakistani society. In the present study, printed as well as electronic sources of various national and international reports, documents, and studies were used. Printed material was taken from various non-governmental women activist organizations including, Aurat Foundation, Shirkat Gah, Action Aid Pakistan. Moreover, published reports and literature of government organizations including, Finance Division of Pakistan, and Planning Commission of Pakistan were also assessed. Additionally, an extensive online review of literature was also carried out. This search involved the usage of various online sources and search engines including Jstor, science direct, LYCOS, and Google Scholar.

The information on SGN was searched by using various combinations of key words/key terms such as 'strategic gender needs', 'strategic gender interest', 'domestic violence', 'women's decision making', 'political participation' 'women's inheritance' etc. Additionally, the abbreviations of different multilateral terminologies and interventions such as GRAP (Gender Reform Action Plan), GRBI (Gender Responsive Budgeting Initiative), PRSP (Poverty Reduction Strategy Paper), NPA (National Plan of Action), GBV (Gender Based Violence) etc. were also put in the search engine to find out information in the broader perspective of the present study. Variation of key words, terminologies, and various acronyms helped the researchers to get access to various sources including books, research articles, working papers, organizational reports, conference proceedings, policy papers, and other relevant material concerning SGNs. In this regard, along with the national public and private sector organizations, material and reports of various international agencies including United Nations Development Programme (UNDP), Japan International Cooperation Agency (JICA), United Nations Population Fund (UNFPA), International Labour Organization (ILO) and Oxfam provided an invaluable insight into the issues concerning the various thematic areas of SGNs.

All the collected secondary data and information was critically and systematically examined and reviewed to ascertain the current state, scope and challenges of SGNs in Pakistan. Since there is no scientific study available on SGNs in Pakistan, the concept of SGNs has been operationalised with the help of available literature and core thematic areas of the concept have been identified which are by and large common to all sources. (JICA, 2005; Moser, 1989; UNDP, 2006; UNESCO, 2003). In this regard, SGNs were operationalised as 1) achieving equality for legal rights, 2) protection from domestic violence, 3) increased participation in decision making, 4) acquiring equal opportunities in employment and 5) increased reproductive choices. We have discussed the identified thematic areas of SGNs in cohort of Pakistan society.

The present study had some limitations as well. First, since the present study did not involve collection of primary data, the researchers largely depended upon the collected

information, which could not be empirically tested. Second, during the course of present study, neither any explicit inclusion-exclusion criteria could be set nor any justification for inclusion or exclusion of could be given – most probably due to paucity of literature on SGNs within the context of Pakistan.

The State of Strategic Gender Needs in Pakistan

By virtue of their nature, these needs tend to make women an agent of change instead of making them only the passive recipient or beneficiaries of development initiatives (IFAD, 1978-2003). These needs/interests can be satisfied by the affirmative action at three tiers at individual, community and state level (Zuckerman, 2002). An extensive review of literature suggested that there are more or less similar core areas to delineate the concept of SGNs.

Increased participation in decision making. This thematic area is comprised of two notions including ‘power to’ and ‘power over’. The former concept pertains to individuals’ liberty to express themselves, make decisions, and to earn income for their economic independence. Whereas, the later concept refers to power possessed by some people to the detriment of others (Pickup, Williams, & Sweetman, 2001). Socio-cultural and structural forces reinforce men’s beliefs to exercise their power to control women’s bodies, behaviour, reproductive choices, division of labour and access to material resources ([United Nations, 2006](#)). whereas, the process of increased women decision making revolves around the both concepts of ‘power to’ and ‘power over’ which deal with the household decision making and political decision making respectively.

Decision making at household level. As much of South Asia, Women’s role in decision making in Pakistan has also been largely under the influence of socio-cultural patterns and patriarchal structures ([Hou, 2011](#)). Data from Pakistan Demographic and Health Survey 2012-13 indicated that only 11 percent of married women mainly make decision themselves regarding their health care, 7.8 percent themselves make decision about major household purchases, whereas 8.7 percent could make their own decisions about visiting their family or relatives. Furthermore, this data showed that 39 percent of women were not involved in the said household decisions, while 12 percent participated in only one of the three decisions (National Institute of Population Studies, 2013). These trends depict that women are not given an equal chance in household decision making.

Although different intervention both at national and international level have been introduced to improve women’s decision making at household and public sphere, but the progress is slow. In comparison with their male counterparts, women are still largely neglected in decision making towards economic, social, legal and political affairs (Shahnaz & Kizilbash, 2002).

Decision making at public sphere. Out of the 342 members in National Assembly, currently there are 70 women parliamentarians (20.47 percent). Among these, 60 elected on reserved seats and 09 elected through voting, while one woman is elected on non-Muslim seat (National Assembly of Pakistan, 2016). Whereas, In Senate, 19 of 104 (18.26 percent) are women. Overall, 89 women constitute 19.95 percent of the total membership in the two houses of the Parliament. In case of provincial assemblies, 18 percent of total membership is held by the women (The Nation, 2013). It is pertinent to mention that out of this percentage, women hold only three percent of directly elected seats in the national and

provincial assemblies, whereas the rest of the seats are held by women against their quota in parliament.

Presence of women in such a considerable proportion could help them to work for the betterment of common women in the society. With the said proportion of women in parliament of Pakistan, 17 of 34 bills were presented by women in year 2011. Moreover, 51% of all questions were raised by the women in parliament in 2012 (FAFEN, 2013). Critics of the women participation do not believe that women in parliament could make any substantial difference for the betterment and emancipation of common women but reportedly women played a key role in picking up women's issues concerning education, health, violence, environment and governance through all available means of legislative procedures (Mirza & Wagha, 2009).

It is well established fact that women's political participation and decision making in policy matters not only ensure developing meaningful gender mainstreaming strategies in all policy areas (Rai, 2005) but it also results in positive development outcomes ([Guenena, 2013](#); ICRW, 2012; [Miranda, 2005](#); [Panday, 2013](#)). In this backdrop, Pakistani women parliamentarians, even with less experience in assembly businesses as compared to their male colleagues, tried to contribute positively for the improvement of the status of women at both practical and strategic levels.

Protection from domestic violence. Domestic violence in Pakistan is an endemic social problem (Saigol, 2011). Although the nature, intensity and frequency of domestic violence can vary depending upon a number of socio-demographic factors (Ali & Gavino, 2008) but studies show that 80 percent of women in Pakistan experience domestic violence (Oxfam, 2015). In this regard, The Express Tribune (2011) cited a policy paper presented by the Government of Pakistan which stated that four in every five women in Pakistan face some form of domestic abuse. With such a high prevalence rate, domestic violence is neither reported nor even shared with the other family members. Reports of Aurat Foundation highlighted that only 610 cases of domestic violence were reported in year 2011, 989 in 2012, 498 in 2013 and 494 cases in 2014 (Aurat Foundation, 2015). This low figure shows that women do not report violence being perpetrated by husband or other family members because of any of the many personal and socio-cultural reasons. Concomitantly, a majority of the women, whether they belong to rural or urban society, or they are educated or uneducated, legitimise the domestic violence as the part of their socio-cultural practices and supremacy of men over women (Gracia & Herrero, 2006; Ovais, 2014).

Over the last couple of decades, certain institutional and legislative interventions to bring about women folk into the mainstream of society have been introduced in Pakistan. For instance, these include National Plan of Action, Domestic Violence (Prevention and Protection) Act 2012, Beijing Declaration 1995, Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and so forth. A thoroughgoing of these legislative measures reveals that all these measure tend to protect the women rights at all level from domestic affairs to public domain – but the implementation of these measures is questionable in Pakistan.

Acquiring equal opportunities in employment. Women in employment sector face discrimination on strategic concerns in multiple ways. For instance, first, magnitude of women engaged in paid work is very low (Pakistan Bureau of Statistics, 2014-15), second, they face discrimination in provision of managerial jobs (Saigol, 2011) and third, harassment at workplace is also one of the major issues which women have to face during

their employment ([Khan, 2007](#)).

Female participation in the workforce increased only 1.2% between 2008-09 and 2012-13 (Finance Division, 2013). Moreover, women occupied a very small proportion of the total higher positions (only 2%) which include managers, and senior officials. In Pakistan, during the year 2011, female employees to population ratio ages 15-24 was 17.2% whereas, for male of the same age bracket it was 63.7 percent (Pakistan Bureau of Statistics, 2014-15). It is also noticed that both in rural and urban areas, the rate of unemployment among women remained consistently higher than men – which results in very low ratio of female income (0.29) in 2011 to men (Finance Division, 2013).

Women unpaid work. Women household and reproductive work is considered as natural and no monetary value is attached with such a work. Moreover, women work in intergenerational occupations which bring them little or no income ([Mathur & McCloskey, 2014](#)). In such conditions, it is possible that women may have access to the resources but no control over those resources. A vast majority of women in Pakistan work in villages which diminishes their income chances. Domestic work done by women is not accorded any monetary value thus often reckoned devalued (Khan, 2007). This is true in cases whether they perform agricultural wage labour in the rural areas or piece-rate work in the cities. A majority of the women in rural areas works in agriculture, fishery and forestry sectors but it is a reality that there is no legal and institutional framework which could attach/ensure monetary value to women's work in these sectors (Aurat Foundation, 2011).

Achieving equality for legal rights. The Constitution of Pakistan, legislative framework and international commitments are the measures to safeguard women's rights and their entitlements. Despite these affirmative human rights agreements, women are still much more likely than men to be poor and illiterate (Saigol, 2011). Women usually have less access than men to medical care, property ownership, credit, training and employment (UNFPA, 2012). In this regard, the intermediary role of state is very controversial in translating the women rights, free will, and open choice to their lives. Women have been the victim of male status quo, political inertia and lack of social will in materializing their rights ([Gul, 2014](#); SACHET Pakistan, 2002).

Women remain at a double disadvantaged position because there are not only certain discriminatory laws but also they have to face social, cultural and institutional barriers in pursuit of justice (Saigol, 2011). Women themselves remain reluctant in demanding their inheritance because of fear of social censure and violence (Aurat [Foundation, 2011](#)). Furthermore, due to lack of understanding of legal procedures and abstract nature of laws, women rely on local traditional systems such as *Jirga*, *Panchyat*, family elders etc. which are often biased against women (Parveen, 2011).

Increased reproductive choices. Right to enjoy reproductive health for everyone is central to achieve better intimate relationships, happy families, and to have healthy children (UNFPA, 2013). Alongside any other development issue, achieving good Sexual and Reproductive Health (SRH) is the major responsibility of any state (World Population Foundation, Pakistan, 2010). Nonetheless, it has been noticed that amongst other factors, reproductive health problems remain the leading cause of ill health and death for women of childbearing age worldwide (UNFPA, 2012).

Reproductive health indicators in Pakistan do not show an encouraging picture of the situation. Data from Pakistan Demographic and Health Survey 2012-13 showed that one in four women had no antenatal care and one third of women did not have a postnatal

checkup within 41 days of delivery (National Institute of Population Studies, 2013). Furthermore, Finance Division (2014) indicates that maternal mortality was 260/100000 live births, and infant mortality is 67.5 deaths per 1000 live births during 2013. These statistics do not show an encouraging picture of reproductive health status of women (Malik & Kayan, 2014).

Discussion

Women's Participation in domestic decision making is recognized as a critical aspect of their autonomy with implications for household welfare (Mahmood, 2002; National Institute of Population Studies, 2013). Household decision making is predominantly male prerogative in Pakistan ([Shahnaz & Kizilbash, 2002](#)). By the same token, a vast majority of women in Pakistan could not make decisions about their household affairs. Studies regarding the determinants of level of decision making of women have shown that those women who are educated and married have higher level of decision making in household affairs and such women tend to spend more on women's preferred goods which include better food, education, and health of the children (Hou, 2011; Khan & Sajid 2011). These trends show that women are more interested in the welfare of household.

To increase women participation in household decision making, public and private sector organizations need to launch advocacy programs through community participation.

Women political participation garnered a considerable attention with the advent of President Pervaiz Mushraff's regime starting from 2000, yet, women parliamentarians could not be fully politically influential as compared to their male counterparts. Consistent with it, UNDP (2014) asserts that from their work in over 177 countries globally, gender quotas alone could not transform the status of women. There are institutional and cultural barriers confronted to women to take part in power politics (UN Women, 2013). Political parties only accept women as proxies or extensions of male politicians whereas the male dominated administrative structure of political parties becomes an obstacle for women (National Commission on the Status of Women, 2010).

In this regard, feminist theories of patriarchy view that men's dominance of political institutions is a major impediment to women's equality (Rai, 2005). They play a critical role in impeding or advancing women's participation in decision-making bodies (Afzal & Sameen, 2013). Moreover, these decisions are most of the time based on the vested interests of the political parties and less based on the party's pro-women manifesto (Aziz & Abdullah, 2012). In this backdrop, there is a dire need for the capacity building of women parliamentarians for their more effective contribution in assembly business and towards achieving the goal of women empowerment in the country.

In Pakistan, women's roles are considered appropriate for domestic affairs (Saigol, 2011). Patriarchal mindset asserts that politics is related to 'Public Sphere' and women by nature belong to the 'Private Sphere' thereby 'Politics' is something 'alien' to their nature (Ali & Akhtar, 2012). These assumptions inhibit women participation in political sphere. To translate Pakistan's commitment to gender equality into concrete reality is the dire need of time for achieving the goal of political participation for women.

Domestic violence is pervasive in Pakistan (Aurat Foundation, 2011; Oxfam, 2015). Although Pakistan has a series of frameworks including legal instruments, constitutional provisions and international commitments to combat domestic violence, but, the rate of

domestic violence could not be curtailed – because of patriarchal mind set (Saigol, 2011; Parveen, 2011) and inadequate implementation of the available legislative framework (Iqbal, 2011). In Pakistan gender discrimination is actually discrimination with women because of male dominating society.

Women are involved in triple roles including productive, reproductive and community managing activities but their work is usually unpaid or less paid ([Isran & Isran, 2012](#)). Gender discrimination is obvious in employment sector. Though government has taken some affirmative actions to encourage the women in paid work and public sector functioning, but their equal representation could not be achieved so far. Only 28.3 percent females were involved in formal sector, whereas, rest of 71.7 percent were involved in informal sector jobs in 2012-13 (Finance Division, 2013). High percentage of females in informal sector indicates that they are engaged in pink collar jobs where they are less paid. Harassment at workplace has been a major hindrance among others for female employment. Yet government took a strategic initiative of promulgation of 'Protection of Women against Harassment at Workplace Act 2010' but the implementation of the same is again hampered by the male dominated society in civil service and cultural attribute of male domination.

Women have to face differential treatment in legal system also. For instance, Hudood Ordinance, 1979 confuses rape with adultery and put the women at a disadvantaged end (Abubakr, 2011; The Dawn, 2011). Since this Ordinance was much controversial it faced a high level of criticism from human rights activists, and various other stakeholders. In this connection, parts of the law were extensively revised in 2006 by the Women's Protection Act, 2006. Yet again, these revisions (section 11, 28, and 29) were knocked out by the Federal Shariat Court (The Dawn, 2010).

There are many other legal instruments which treat women differently than men. For instance, The Law of Evidence, 1984, giving value of women's testimony only half of a man's even in criminal matters; The Pakistan Citizenship Act, 1951 guarantees citizenship by descent only through the father. There is a discrepancy in the minimum age of marriage for the girls at sixteen, and for the boys at eighteen in Child Marriage Restraint Act, 1929. Furthermore, incest has no special status in laws. The judges or legal decision makers including tribal or religious leaders also interpret all legal systems with the lens of their own cultural background, social bias, and gender perceptions (Iqbal, 2011). In this backdrop, there is a dire need to revisit gender biased laws to bring in the women folk into the mainstream of society.

Women have to face customary and traditional constraints in terms of their ownership. The situation is further exacerbated by dependence upon male relatives. A majority of women view the State's laws as abstract, unsociable entities, and not easily accessible to women (Saigol, 2011). Resultantly, they rely on local traditional systems which are often biased against women and their rights are violated (Aurat Foundation, 2011). It is therefore argued that lack of awareness about women's rights on the part of both men and women also results in discriminatory treatment with women in entitlement of their rights.

The present study highlights that Pakistani women have limited reproductive choices. The limited autonomy of women in developing countries including Pakistan is considered as a key barrier to improvements in their reproductive health ([Mumtaz & Salway, 2009](#)). Pakistan could not achieve any of the health related, specifically reproductive health indicators set in MDGs (Planning Commission, 2013). Reproductive health of women becomes a direct

strategic concern when it comes to choice of females about their reproductive life. In Pakistan, reproductive health choices for women regarding, child birth, use of contraceptives, antenatal and postnatal care, delivery by midwife or some medical professional, and other matters related to reproductive health care are predominately not decided by women themselves (Sattar, 2010). It is the husband or the family, particularly in-laws who decide about the reproductive matters of women in Pakistan. In addition to the limited reproductive choices, women reproductive health is further exacerbated by domestic violence. Research indicates that intimate partner violence results in poor prenatal and postnatal care and poor reproductive health outcomes (Sarkar, 2008; Zakar, Nasrullah, Zakar, & Ali, 2015). Arguably, public as well as private population welfare programs function with a narrow focus on family planning, instead of a comprehensive reproductive initiatives for individuals and families.

An Integrated conceptual model of SGNs in relation to women empowerment in Pakistan

Based on the prevailing situation of SGNs in Pakistan, an integrated conceptual model has been developed which is comprised of means, strategies, and goal. Means are the affirmative actions which challenge the unequal power relations between men and women. Each set of means leads towards achieving a particular strategic gender need. Consequently, the interplay of all SGNs leads towards women empowerment. The graphical presentation of this process can be seen in Figure 1.

Conclusions

This study concludes that women in Pakistan are strategically at a disadvantaged position. There are socio-cultural and structural barriers which pose challenge to the fulfillment of their strategic gender needs. Fulfillment of only practical gender needs does not guarantee equal power relations. Hence, affirmative actions are required at individual, community, and state level for satisfaction of women's strategic gender needs. Fulfillment of these needs could bring about women folk into the mainstream of society and achieve the goal of women empowerment. This study presents a model showing the interplay of different factors related to means, strategies, and goal of these strategic interventions. There is a dire need for a comprehensive plan which may take into account the SGNs. Such a plan might be executed with viable programmatic measures for achieving the goal of women empowerment in Pakistan.

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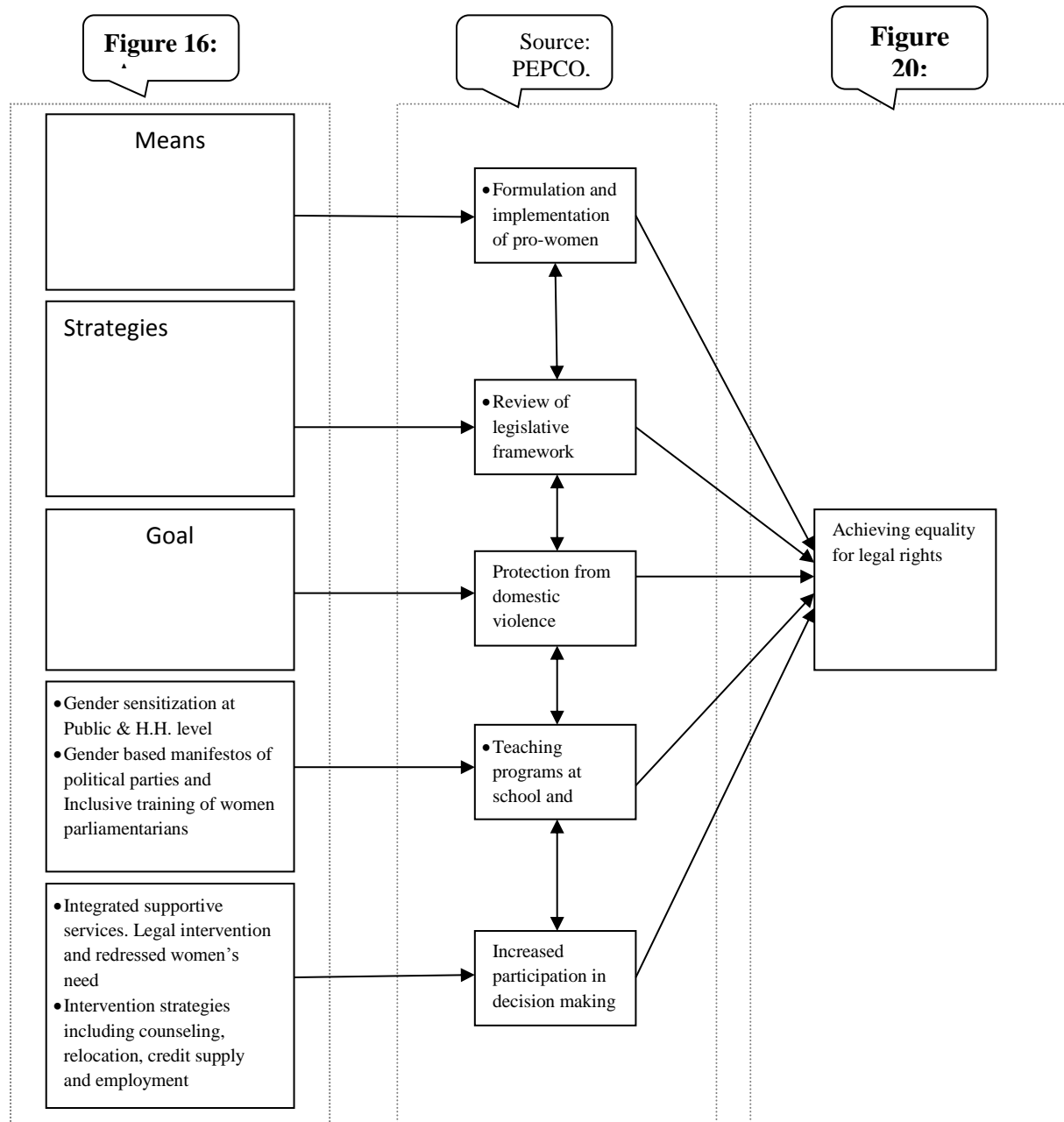
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Figure 1. Conceptual model of SGNs in relation to women empowerment in Pakistan



Composition, Direction and Determinants of Post-Migration Occupational Change: A Case of Migration to Greece

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Abstract

World financial crisis 2008 reshaped not only the theoretical and institutional settings but also generated a re-thinking process for new migration theories, skills, employment and occupational choices. The contraction in world economy depicted huge distortions in the labor market in the forms of increasing unemployment and vulnerable employment rates and widening social gaps in employment in the most of the countries. With a view to broaden the perspective of socio-economic analysis on occupational dynamics in Greece, this paper focuses on three objectives; first, to analyze pre-migration and post-migration occupational composition of Pakistani migrant workers in Greece, second, to investigate the determinants of post migration occupational change, and third, to examine the direction of occupational change of Pakistani migrants to Greece. For this purpose, through pre-structured questionnaire, the primary data is collected from 230 Pakistani migrants in Greece who belong to district Gujrat (Pakistan). Major pre-migration occupations of migrants to Greece were self-employment, studentship and agriculture. We have employed binary logistic regression analysis to investigate the determinants of occupational change. The estimates show that migrants who have tried to change their pre-migration occupations, and they have been successful, they claim that success remarkably depends on migrants' legal status, duration of stay, social ties, skills and education. The majority of the migrants with different pre-migration occupations has changed their occupations and adopts the labor profession in Greece.

Keywords: Occupational Change, Post-migration, Return migration

Introduction

The Occupational choice is a process of development that that expands over many years. In modern economies, occupational change is a very common trend and it is often used as a deliberate tool for planning of career (Weiss, 1968; Miller, 1984; Gill, 1989; Witte and Kalleberg, 1995). The human capital theory examines occupational choice as a prime variable associated with optimizing utility or lifetime earnings (Boskin, 1974; Kossoudji and Cobb-Clark (1996). While choosing among occupations a prospective worker weighs the costs and benefits; including financial and non-financial both. The occupational change occurs if expected returns exceeds than the returns of current occupation (Boskin, 1974;

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Shaw, 1984). Various other socio-economic factors may be responsible for occupational change. Wage rate and higher earnings expectations are more influential factors for occupational change rather work prestige and human capital risks (Kambourov and Manovskii, 2007). Sometimes, occupational change is voluntary for better earnings or for quality work. Rather some time, it is superimposed by exogenous factors like migration, structural change and professional demand of certain skills.

Generally, occupational changes happen at the beginning stages of career. Young workers may have lower opportunity costs of frictional unemployment, so they take risk in expectations of high wage rate. The decision of occupational change is mainly associated with wage differential. Occupational movers, mostly, find a better employment position and higher wages than whatever they were receiving earlier (Acemoglu and Pischke, 1998; Fitzenberger and Spitz, 2004).

Migrants move from one place to another place in order to find work or better living conditions. Mostly they belong to the poor families who have limited access to financial, physical and human capital. Moreover, they have low opportunities for improving living conditions because of their inferior economic, political and social status. Usually Migrants belong to disadvantaged communities so they are engaged in informal sector, insecure jobs and poorly paid. The difference of pre-migration and post-migration wage rate might be ultimate benefit of migration (Migration and Human Development in India, 2009).

According to World Bank Fact Sheet (2011) Pakistan is ranked at 7th number among the world largest emigrant supplier nations. Approximately, 7 million Pakistanis are living on permanent, temporary or illegal basis in different parts of the world (Hamdani, 2006). There are approximately 2.2 million Pakistanis in Europe. Around half live in the United Kingdom. Italy, Greece, France, Spain, Germany and Denmark also have large Pakistani communities (Abassi, 2010). These overseas Pakistanis send a huge amount in the form of remittances. According to State Bank of Pakistan, Pakistan has received the amount of US \$18.4 billion as remittances in 2014-15.

Greece is considered a gate way to Europe for illegal migrants. It has huge number of migrants from all over the world. Out of total, 2.4 percent migrants in Greece are from Pakistan (Edwards 2004). Moreover, 70 percent Pakistani migrants in Greece are from district Gujrat (Leghari, 2009). Most of Pakistani migrants in Greece are characterized as young, single, uneducated, and belong to rural areas (Edwards 2004). Unlike the neoclassical model, Stark (1990) and his followers consider that migration is well organized and materialized project where there is high propensity of migrants to put forth higher level of work efforts than that are exercised by native-born worker. Further there is high propensity to save more money, put more efforts to gain additional skills or on job trainings and socialization in host country as well as in country of origin than the native workers (Stark, 1990; Galor, 1991). But these empirics can be true for highly skilled migrant program but not for illegal migrants. So this paper is an attempt to recognize the composition, factors and direction of occupational change of Pakistani migrants to Greece.

This paper is an extension of my previous work on determinants of return migration from Greece which concludes that Pakistani migrants have migrated to Greece for permanent settlement, better employment and higher wages expectations. But they failed in calculating their abilities of social, cultural, and economic integration in Greece (host country). This failure in integration cause return migration of Pakistani migrants from Greece. Many research hypotheses can be investigated on the basis of these results. For future migration

and sustainable remittances, it is highly desired to investigate the composition, determinants and direction of post-migration occupational change of Pakistani migrants to Greece. This study is unique in nature because such has been conducted on this issue so far.

Literature Review

This part of paper is consisted upon theoretical and empirical short debate on occupational choice of migrants. Freedman & Hawley (1949) investigate the relationship between migration and occupational change. Their study gives a comparison of tendency of occupational change among migrants and non-migrants. Further, it shows that occupational mobility is 2.7 times greater among the migrants than non-migrants.

Hansen et al (2001) find level of human capital is important determinants of success or failure of migrants at host country. They have employed statistical analysis on longitudinal database to study the attainment of Swedish educational qualifications of migrants. Using this data set they have examined the post-migration attainment of education of migrants belongs to different eight countries, and it is compared to native people for the time period ten years. The main focus of the research was for variables; legal status of migrant and pre-migration educational attainment. Cobb-clark et al (2005) have used longitudinal data set for Australia to investigate the post-migration educational attainment and job search of migrant families. If migrant have higher level of education at the time of arrival than a higher probability of getting enrolled in school after migration. The investigations find that there is higher level of association between job search and school enrolment. Moreover, Lemos and Portes (2008) has investigated the impact of migrants' inflow on the labor market of United Kingdom. This study have employed new monthly micro level data of UK. The results of study found a weak relationship between migrants' inflow and fall in wages or a rise in claimant unemployment in the United Kingdom in analyzed time period.

Banerjee & Verma (2009) investigate the investment in education after migration among the new emigrants. This study further investigates the effect of this investment in education on new migrant's labor market integration in destination country. The integration in host country is measured by earnings occupational status. The results of study indicates that the new young emigrants with good education and fluency in English and in managerial profession most likely to enroll in Canadian education. More interestingly, financial capital of the emigrant is not found as significant determinant of post-migration education participation. Results further indicate that migrants who invested in education are enjoying higher earning and professional & managerial job. The effect of post-migration investment in and attainment of education is higher for migrants whose previous work experience was not accepted in Canada.

Ognjen (2011) analyzes process of occupational trajectories and cost of migration. This study is conducted to develop in-depth understanding regarding occupational composition and changes among the Senegal migrants in France, Spain and Italy. The research study has used Multivariate analysis that shows education acquired in Europe has significant role for more successful participation in labor market by immigrants of Senegal. Results show that emigrant's stay at abroad is positively associated with occupational score, men are occupational more mobile than women, and being in-proficient in language & having no work permit are negatively associated with occupational mobility and attainment.

Czaika & Varela (2012) analyze the relationship between return migration and labor market integration and occupational change among Indian emigrants returned from Gulf. The study is based on Kerala Migration Survey conducted in 2008 and 2009 focusing the return migration of Indian workers from Gulf. More broadly, this study is also an attempt to investigate that is the length of stay in Gulf depends upon the migrants before and after migration occupation and experience. The result of the study shows that there is significant effect of labor market activity transitions on length of stay abroad. Study finds that prospects of having socially better occupation be associated with the shorter stay in Gulf. Whereas, prospect of being dropped out from post-return labor market is significantly associated to longer stay in Gulf. A review of these studies suggests that empirical investigation of determinants of post-migration occupational change is valuable addition in the existing literature on occupational choice of migrants.

Data and Methodology

A compressive questionnaire is developed and primary data is collected through survey for finding the results of the study. Both quantitative and qualitative techniques have been applied for data collection and analysis purposes. Initially, two Focus Group Discussions (FDGs) are conducted to have an in-depth understanding of the issue, and to know the view point of Greek immigrants from Gujrat regarding employment, social life, economic opportunities, quality of life, integration process and, ethnic, economic and religious disparities. The results of FDGs are used for comprehensive questionnaire development. Questionnaire is divided into different modules like demographic information, pre-migration socio-economic conditions of household, migration experience, post-migration socio-economic household conditions, decision of return and post-return socio-economic household conditions.

The population of this survey is Pakistanis who belong to district Gujrat and migrated to Greece, and (a) Staying in Greece from last six months, or/and (b) Have returned back at least six months before the survey date. This survey is conducted in 2 Tehsils of district Gujrat. Majority of Pakistani emigrants in Greece belong to Gujrat, so high concentration of emigrants from these areas is the reason of selection of these Tehsils for this study.

District Gujrat is comprised of three renowned agricultural and industrial Tehsils. Majority of the people are attached with agriculture and services sectors. Their third major source of income is international remittances (Government of the Punjab, 2008). These three tehsils are comprised of 117 union councils, including 89 rural and 28 urban. Population is divided into rural and urban strata. Two stage cluster sampling is applied; at first stage population in rural and urban areas is divided into 108 clusters; known as union councils. By applying simple random sampling 12 union councils are selected, comprising upon 8 rural and 4 urban UCs. At second stage, selected clusters (union councils) are divided into 80 villages (for rural)/ mohalahs (for urban) and randomly 24 villages/mohalahs are selected consisting upon 16 from rural and 8 from urban areas. A list of migrants to Greece from each village is prepared and by applying systematic random sampling 8-10 respondents from each stratum have been selected (village/ mohalah). Therefore, total 230 respondents are approached to get the required information.

Model Specification

The objective of this paper is to analyze the pre-migration and post-migration occupational composition of emigrants to Greece. Descriptive or exploratory analysis is used to find the results. Second objective of the study is to investigate the factors of pre-migration and post-migration occupational change. Binary logistic regression model is applied to find the determinants of occupational change. Third objective of the study is to examine the direction of occupational change of Pakistani emigrants to Greece. Descriptive analysis and graphic presentations are used to find the results.

Logistic regression analysis is used where dependent variable is dichotomous. The motives of selection of logistic regression model are its easy interpretation of the estimated coefficients as “adjusted log odds ratios”, its ability to estimate the probability that explanatory variable develop for dichotomous dependent variable, and its wide availability of easily used reliable software to carry out estimation. The logistic regression model is powerful statistical tool and is being used with increasing frequency in all areas of social, business and health researches (Hosmer and Lemeshow, 1991).

Logistic regressions model is of the following forms:

$$P(Y = 1) = \frac{1}{1+e^{-z}} \quad \dots \quad (1)$$

Where,

$$Z = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k + e \quad \dots \quad (2)$$

This whole function is called logistic distribution function and maximum likelihood method is used for its estimation. Merit of this function is that it ensure probability ranges from 0 to 1 whereas, regression equation predicts values from negative infinity to positive infinity (Gujrati, 1995, Cameron and Trivedi, 2005)

$$\ln\left(\frac{P_i}{1-P_i}\right) = \beta X + U_i \quad \dots \quad (3)$$

Where P_i is the probability for OC (occupational change), β is the vector of response parameters. X is the matrix of explanatory variables as explained in above specific logistic equations.

Model: Determinants of Post Migration Occupation Change

$$\ln\left(\frac{P_i}{1-P_i}\right)_{OC} = \beta_0 + \beta_1 \text{Skills} + \beta_2 \text{PWE} + \beta_3 \text{AGE} + \beta_4 \text{PME} + \beta_5 \text{Legal Status} + \beta_6 \text{DPS} + e \quad (4)$$

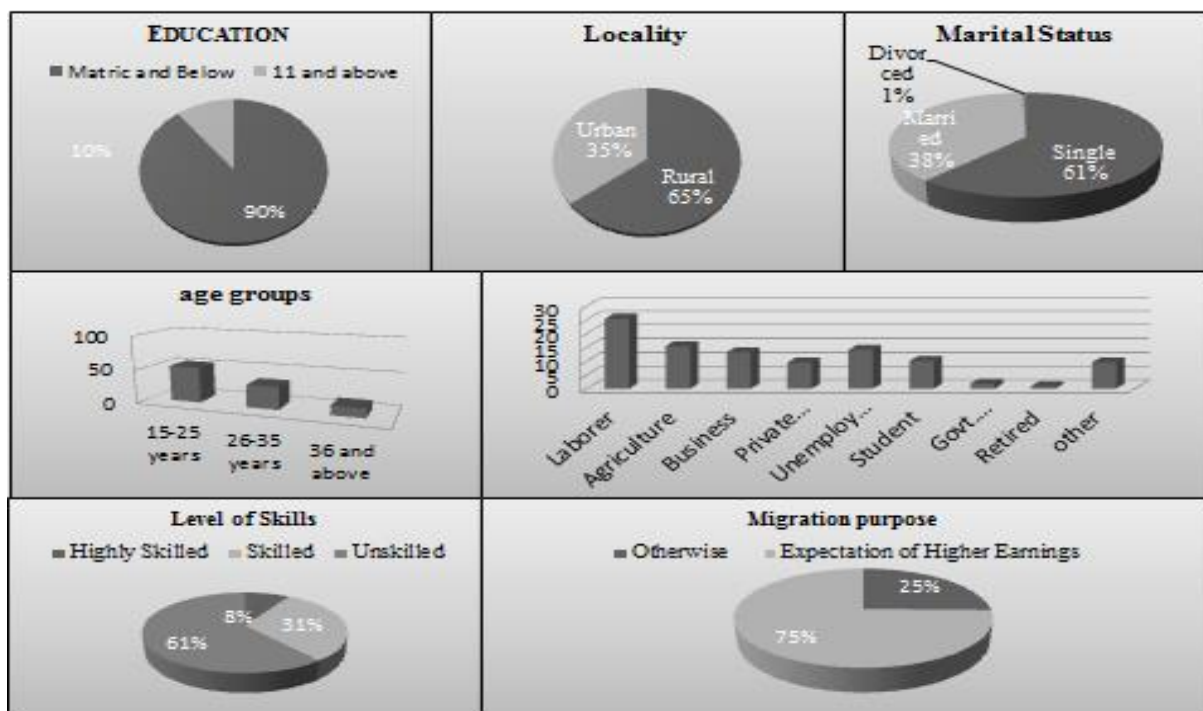
The dependent variable, OC, is binary in nature; it takes value one if the post-migration occupation of a migrant is different from his pre-migration occupation and zero otherwise. Theoretically speaking, the decision to change the pre-migration occupation depends upon pre-migration demographic and socio-economic characteristics of migrants. Moreover, it also largely depends upon the post-migration circumstances, and status of migration. In this model independent variables are categorized in pre-migration characteristics and post-

migration factors. Pre-migration socio-economic characteristics include (i) level of skills, (ii) age of migrant at the time of migration (years) (iii) pre-migration work experience (PWE), (iv) prior migration investment or business in home country (PME), (v) level of education, and (vi) location. Post-migration factors include; (1) legal status of migrant in host country (ii) length of stay abroad (in completed years) and (iii) experience of discrimination in public service (DPS) provision in host country.

Results and Discussion

This part of paper explains demographic analysis, pre-post migration occupational composition, factors of occupational change of migrants, and finally direction of occupational change. The demographic information of respondents depicts that the majority of migrants are Matric or below in education level (90%), belong to rural areas (about 65%), young and lie in the age group of 15-25 years (about 53%), single (61%), mainly laborer or agrarian by profession (40%), unskilled (61%) and migrated in high earning expectations (75%).

FIGURE 1: DEMOGRAPHIC INFORMATION OF EMIGRANTS (GRAPHIC PRESENTATION)



Many leading factors can be considered important while discussing young age migration to Greece. But more importantly, the illegal human smuggling through Zahidan and Istanbul is very disturbing and painful. The migrants are cruelly exploited by the agents (smugglers), and several of them get die in the attempt to get to Europe (Spiegel, 2012). That's why mature, educated and well-settled people do not prefer to migrate through illegal ways. Thus, young and less educated people can take risk of this difficult, hilly and inhuman travel.

Occupational composition of Pakistani Migrants to Greece

This section analyzes pre-migration and post-migration occupational composition of Pakistani emigrants in Greece. Pre-migration occupations of the migrants are cross tabbed with the pre-migration demographic characteristics of the migrant. And post-migration occupations of the migrants are cross tabbed with their post-migration social and legal characteristics. Table 6.3 represents proportionate distribution of migrants by pre-migration occupations. While Table 6.4 details post migration occupations of Pakistan emigrants serving in Greece.

TABLE 1: PERCENTAGE DISTRIBUTION OF MIGRANTS BY PRE-MIGRATION OCCUPATION, BY RESIDENCE, MARITAL STATUS, EDUCATION LEVEL AND AGE IN GREECE

Pre-migration Demographics		Agriculture	Business	Labor	Govt. Employee	Private services	Retired	Student	Unemployed	Other	Total
Occupation											
Marital Status	Single	14.8	11.1	20.0	0.7	10.4	0.0	14.1	20.0	8.9	100.0
	Married	16.5	16.5	34.1	3.5	8.2	2.4	3.5	4.7	10.6	100.0
	Total	15.5	13.2	25.5	1.8	9.5	0.9	10.0	14.1	9.5	100.0
Education Level	Metrics and Below	16.8	14.7	28.4	1.0	8.1	1.0	7.1	14.2	8.6	100.0
	Intermediate and above	4.3	0.0	0.0	8.7	21.7	0.0	34.8	13.0	17.4	100.0
	Total	15.5	13.2	25.5	1.8	9.5	0.9	10.0	14.1	9.5	100.0
Residence	Urban	15.4	15.4	21.8	2.6	7.7	0.0	9.0	14.1	14.1	100.0
	Rural	15.5	12.0	27.5	1.4	10.6	1.4	10.6	14.1	7.0	100.0
	Total	15.5	13.2	25.5	1.8	9.5	0.9	10.0	14.1	9.5	100.0
Age	15-25 years	16.4	10.3	19.8	0.9	8.6	0.0	16.4	18.1	9.5	100.0
	26-35 years	12.2	14.9	35.1	2.7	10.8	0.0	2.7	13.5	8.1	100.0
	36 and above	20.0	20.0	23.3	3.3	10.0	6.7	3.3	0.0	13.3	100.0
	Total	15.5	13.2	25.5	1.8	9.5	0.9	10.0	14.1	9.5	100.0

Table 1 shows, although, a significant amount of people from each occupation has migrated to Greece but a dominance of migrants with labor and agriculture occupation is observed. Overall, one fourth of total numbers of emigrants to Greece are laborer. While, 15.5 percent, 13.2 percent and 9.5 percent of total are from agriculture, business and private services occupations respectively. Notably, on average, 14 percent of total migrants

are unemployed at the time of migration. Interestingly, about 10 percent migrants claim that they are in student profession.

With reference to marital status, majority of married emigrants are laborer before migration while mainstream of unmarried/single are unemployed at the time of migration. Comparatively, more single migrants are in student and private services occupation at the time of migration. While more married migrants are in labor, agriculture and business professions. The business workers, agriculturists and laborers with Matric and below level of education are the in majority among the emigrants to Greece but with intermediate and high level of education are the students, and private services providers in majority in pre-migration professions. Whereas, comparing to rural business workers urban business are higher in Greek migration and rural laborer are in majority. Among the age group 15-25 years the majority are unemployed, among the age group of 26-35 years are in labor occupation and among the age group of above 36 years are in agriculture and business in pre-migration occupations.

TABLE 2: PERCENTAGE DISTRIBUTION OF MIGRANTS BY POST-MIGRATION OCCUPATION, BY DURATION OF STAY, RURAL-URBAN RESIDENCE, MARITAL STATUS, AND LEGAL STATUS OF EMIGRANTS IN GREECE

Post-Migration Demographics		Agriculture	Business	Labor	Private services	Unemployed	Others	Total
Duration of stay	Occupations							
	five years or less	7.2	2.1	69.1	8.2	10.3	3.1	100.0
	More than five years	4.3	5.1	77.8	1.7	1.7	9.4	100.0
	Total	5.6	3.7	73.8	4.7	5.6	6.5	100.0
	Rural	12.5	3.4	68.2	3.4	8.0	4.5	100.0
	Urban	0.8	4.1	78.0	5.7	4.1	7.3	100.0
	Total	5.7	3.8	73.9	4.7	5.7	6.2	100.0
	Single	5.7	0.7	79.3	5.0	5.7	3.6	100.0
	Married	5.6	9.9	63.4	4.2	4.2	12.7	100.0
	Total	5.6	3.8	74.2	4.7	5.2	6.6	100.0
Legal status	Legal	1.9	6.5	72.9	6.5	3.7	8.4	100.0
	Illegal	10.2	0.0	73.5	3.1	8.2	5.1	100.0
	Total	5.9	3.4	73.2	4.9	5.9	6.8	100.0

Post-migration occupation of migrants is concentrated to labor profession. Majority, about 74 percent migrants are working as laborer after migration to Greece. Least proportion of migrants join business as a profession. People with more than five years stay are mostly in the labor profession (78 %). Contrary to five years duration of stay, migrants with less than five years of stay are either unemployed or in agriculture occupation. We note that the migrants who moved to Greece after world financial crisis starts in 2007-08 have lesser employment opportunities that's why higher number of migrants remain unemployed or engaged in agriculture sector. The Business 'as occupation' is adopted by the emigrants with longer stay abroad. To initiate business requires some legal, structural and professional capabilities. So people with longer stay are in a better position to start a new business. Migrants in urban locality in Greece have more opportunities to go for factory

work, pizza shops, and gas stations etc. for livelihood as compared to the migrants living in the rural areas who are mainly involved in agriculture sector or unemployed. It is important to note that here unemployed are those emigrants who have no job in Greece since their migration. Interestingly, married migrants are less concentrated in one occupation as compared to single migrants. Unmarried migrants are more likely in labor profession (79.3%), while married join business profession in majority. More interestingly, married migrants remain less unemployed as compared to single migrants. As far as legal status is concerned most of the illegal migrants are in the agriculture sector or unemployed while, legal migrants usually adopt business as a profession.

In short, majority of the migrants adopt labor occupation while living abroad with either duration of stay, location, marital status or legal status. However, duration of stay, location, marital status and legal status significantly contribute in choosing rest of the occupations. The emigrants with shorter term of stay, living in rural areas, unmarried and illegal in migration status are more likely to adopt agriculture as occupation or remain unemployed. On the other hand, migrants with longer stay, urban locality, married and having legal status are more likely to adopt variety of businesses.

TABLE 3: PERCENTAGE DISTRIBUTION OF POST-MIGRATION OCCUPATIONS OF MIGRANTS BY RESIDENTIAL LOCALITY

Occupations	Sub-occupation	Total
Agriculture	Agriculture	6
Business man	Retail-mobile shop	3
	Meat shop	0
	Travel agency	1
	Retail-weekly market	2
Laborer	Factory worker	52
	Rangsaz	12
	Gas Station work	3
	Poultry work	5
	Pizza shop work	4
Private service	Private service	5
Unemployed	Unemployed	6
Total		100

The above table elaborates the type of labor work and business activities that Pakistani emigrants are engaged in. Data presents that all the businesses developed in Greece are retail businesses, whereas the majority of the emigrants with labor occupation are factory workers and rangsaz. Moreover, a substantial amount of emigrants fall in different kinds of occupations in the category of labor.

Determinants of Occupation change of Migrants

Logistic regression model is applied to investigate the factors of post migration occupational change of the emigrants in Greece. Four variables of pre-migration socio-economic characteristics and two variables of post-migration structural factors are tested. Omnibus Test of Model Coefficients is applied to find the model Chi square. In this model

Chi-square statistic is derived from likelihood of observing the actual data with the assumption that model is accurately fitted. The test of the full model is statistically significant, which indicates that the predictors as a set reliably distinguish between migrants' pre-migration occupations and post-migration occupations (Chi square =40.552, $p < 0.000$ with $df = 8$). Nagelkerke's R^2 of 0.326 indicates a moderately strong relationship between prediction and grouping.

TABLE 4: LOGISTIC REGRESSION EFFECTS OF PREDICTORS ON POST-MIGRATION OCCUPATIONAL CHANGE

Variables in the Equation	B	S.E.	Wald	Sig.	Exp(B)
Pre-migration socio-economic Factors					
Skills			8.855	.012	
Skilled (1)	1.423**	.782	3.312	.069	4.148
Un-skilled (2)	1.385*	.495	7.826	.005	3.995
Pre-migration experience (≤ 6 years)			11.394	.003	
≥ 1 year	-2.027*	.617	10.811	.001	.132
2 to 5 Years	-2.064*	.721	8.203	.004	.127
Age (years)	-.043	.030	2.068	.150	.958
Entrepreneurship (1)	1.091*	.531	4.216	.040	2.978
Post-migration Factors					
Legal Status Abroad (1)	-1.161*	.424	7.490	.006	.313
Discr. in Public Services	.514**	.305	2.831	.092	1.672
Constant	2.271	1.165	3.796	.051	9.688

Table 4 shows that among the migrants' pre-migration socio-economic characteristics the skills, prior experiences and investment in host country are the significant variables. Likewise, the emigrants' legal status and experience of discrimination in public services provision contribute significantly among the variables of post-migration factors. In the model, dependent variable is binary in nature and takes value one if emigrant changes his occupation after the migration and zero if he adopts the same occupation abroad. Among the explanatory variables, the *skills* is categorical variable that takes on value 1 if the emigrant is highly skilled, 2 if skilled and 3 if unskilled. The value of Exp (B) is greater than one i.e. 4.148 that indicates comparing to reference category (highly skilled) skilled emigrants are more likely to change their profession. Further, comparing highly skilled migrants with unskilled, the unskilled are more likely to change their occupation after the migration. So the migrants with higher skills in occupation before migration intend to choose the occupation of prior migration abroad. The odd ratios present that one unit change in skills (highly skilled to skilled) increases odds of changing the occupation factor of 4.148. Moreover, unskilled are 3.995 times more likely to change their pre-migration occupation as highly skilled. The direction of relationship between explanatory and explained variables is consistent with the hypothesis of the study. That is the migrants with high skills in their pre-migration occupation are less likely to decide to change their post-migration occupations.

“Prior migration working experience” is significant at 1% level. Pre-migration experience takes on values 1 if experience is less than or equal to one year, 2 if it is two to five years and 3 if it is six or more years. Our results depict that the migrants with lower pre-migration work experience are more likely to change their profession. The workers with lower experiences have more potential to adopt new skills and profession. While, the emigrants with plenty of work experience want to earn higher wages on the basis of past experience so they keep on searching the jobs related to their previous profession; many of them become successful, while others adopt new professions. “The age” of migrants indicates the level of authority and responsibility so, in general, older migrants are the household heads and they prefer to search pre-migration occupation to avoid the possible risks associated with the new jobs (Arif and Irfan, 1997). Therefore, hypothetically, occupational mobility is higher among the younger worker than the older ones. In this model negative association is observed between the independent variable (migrants’ age at the time of migration) and the dependent variable (occupational change) but the p-values shows that the results are not significant. Exp (B) value is also closer to one that portrays that age does not play any significant role in occupational mobility in case of migrants in Greece.

The variable “having enterprise” is binary variable that takes on value one if the emigrants claim of having enterprise at the time of migration and zero otherwise. Positive association between the dependent and independent variables elucidates that the migrants with pre-migration enterprises in the country of origin are unsuccessful to initiate similar types of the business in host country. Thus, more likely they change their pre-migration occupation and move to other jobs.

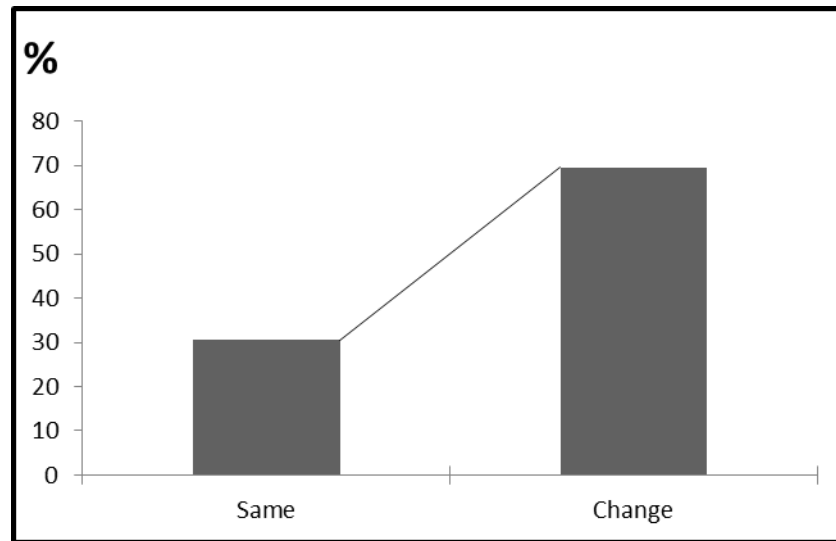
In post-migration factors two variables importantly contribute in the overall significance of the model. First is the “legal status” of the migrants in Greece. Hypothetically, migrants with legal status abroad have higher opportunities to switch among the number of occupations. Provided social security services, unemployment allowance and legal status, they can afford the risks associated with new jobs. Whereas, illegal migrants cannot enjoy this luxury. In this model ‘status’ takes the value one for illegal status and zero for legal status. Negative association between occupational change and status of migrants describes that the migrants in Greece with legal status more likely to change their occupation than the migrants with illegal status. Second variable is “experience of discrimination in public service provision” in host country. This variable contains seven different types discriminating experiences in education, health, legal, police, social security, media and job market situations. Discrimination experience of migrants regarding these different types is measured on likert scale. It takes the value one, two, three, four and five for very low, low, medium, high and very high level of discrimination, respectively. All these variables are indexed and this index contains continues values. Positive association between dependent variable “occupational change” and “experience of discrimination in public services provision” shows that the emigrants experiencing higher level of discrimination are more likely to change their pre-migration occupation as compared to those who experience lower level of discrimination during their stay in Greece.

Direction of Occupational Change

The last section of this chapter contains discussion on the direction of occupational mobility of Pakistani emigrants in Greece. As discussed in the beginning of the chapter, majority of

Pakistani migrants in Greece are characterized by young, less educated, and unskilled laborer by profession at the time of migration.

FIGURE 2: OCCUPATIONAL COMPOSITION



It can be inferred from the above demographic and social characteristics that majority of these migrants join labor occupation and do odd jobs, that native people may not like to do. Figure below depicts that seventy percent of the migrants opt a different post-migration occupation than the pre-migration one.

FIGURE 3: PRE-MIGRATION AND POST-MIGRATION OCCUPATION OF THE MIGRANTS

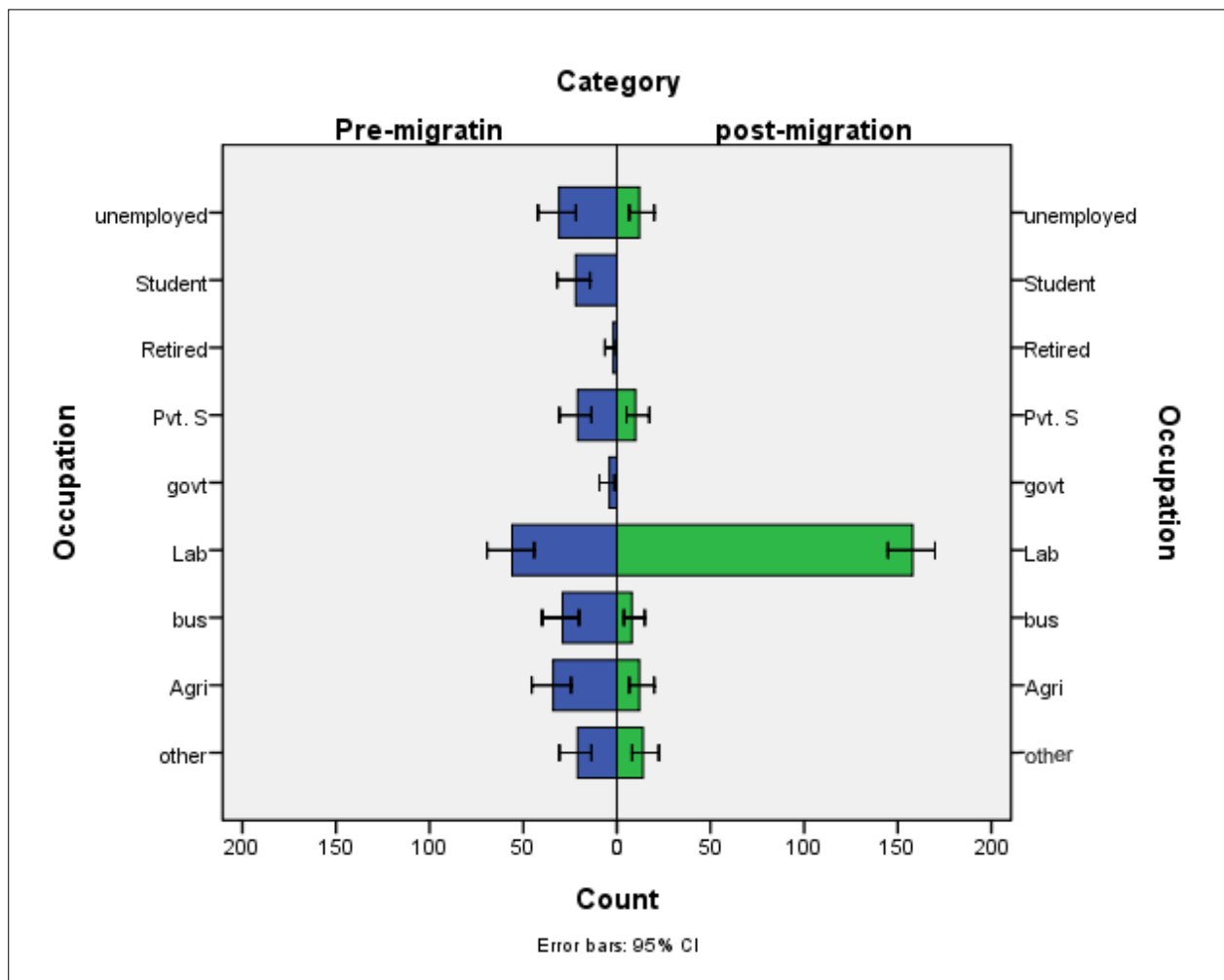
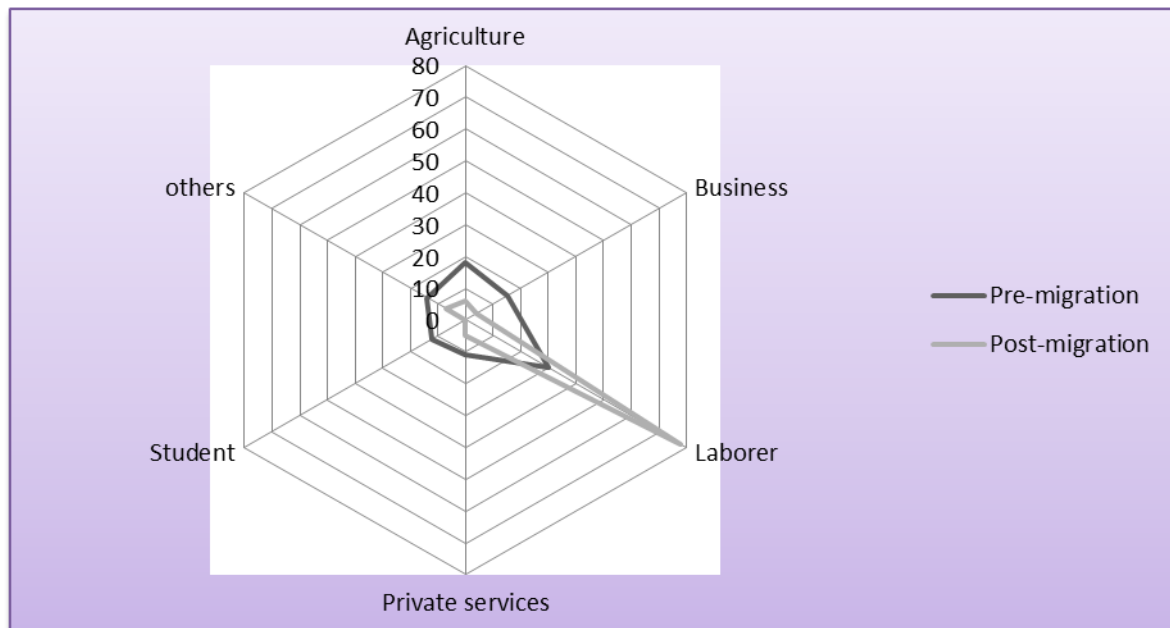


Figure 3 gives a comparative analysis of pre-migration and post-migration occupational composition of migrants. The left part shows the significant representation of each occupation of the migrants moved to Greece. Interestingly, most of the labor force adopts the labor profession. Further, people of (prior to migration) different professions join the labor occupation. This figure clearly shows that few people remain in agriculture, business and private services; whereas, majority reinforces and joins the labor profession. However, this figure is unable to explain who joins to whom. That's mean, do the migrants with pre-migration business profession have joined the same occupation in the country of destination. How many of the agrarian have joined again agriculture sector? And the rest of workers engaged in agriculture sector before migration has joined to which occupation in host country? To answer these questions next two figures are sketched.

FIGURE 4: COMPARISON OF PRE-MIGRATION AND POST-MIGRATION OCCUPATIONS OF MIGRANTS (PERCENTAGES)



This radar or cobweb diagram does the proportionate comparative analysis of pre-migration and post-migration occupations of Pakistani emigrants in Greece. Figure 4 is just a different version of figure 3. To sanitize the affect of pre-migration and post-migration unemployed labor force of sampled population, unemployed respondents are dropped from the analysis. At the time of migration about 30 percent of the people confirm labor as their occupation. Moreover, 20 percent, 15 percent and 12 percent are from agriculture, business and student occupations, respectively. In post migration case, 80 percent are laborer, while other professions contain no more than 10 percent of the emigrants. Student as a profession is near to zero among the post-migration occupations of Pakistani migrants in Greece.

FIGURE 5: DIRECTION OF PRE TO POST MIGRATION OCCUPATIONAL MOBILITY

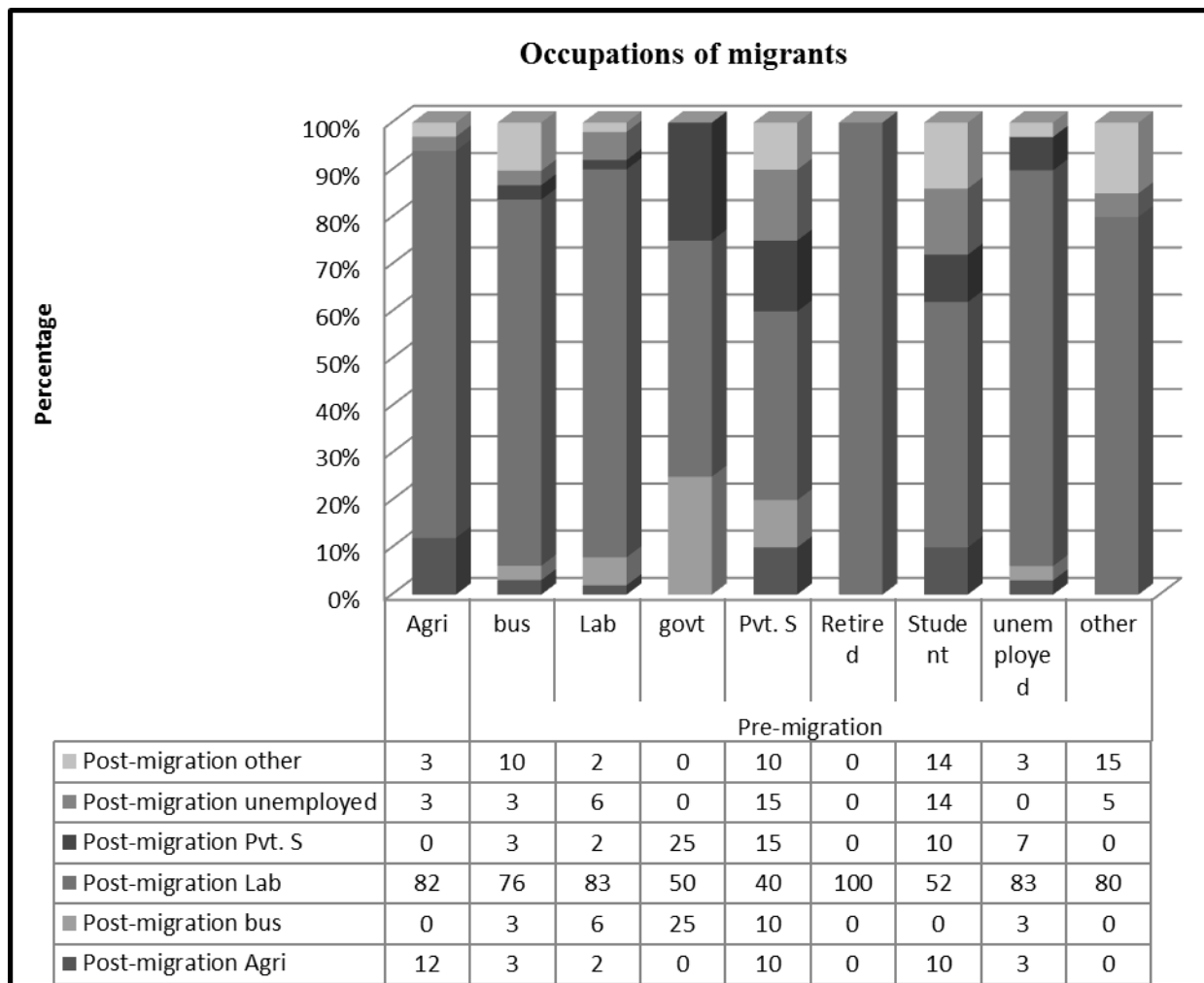


Figure 5 shows the direction of pre-migration to post-migration occupational mobility. In this figure nine pre-migration occupations are compared to six post-migration occupations of migrants. *First*, the migrants with pre-migration agriculture profession, about 12 percent do not change their profession in the country of destination and join agriculture sector again. However, 82 percent opt laborer as post-migration source of livelihood, while rest 3 percent remain unemployed. Importantly, none of the migrants with pre-migration agriculture occupation opt business or private services as their occupation in Greece. *Second*, only 3 percent opt business as occupation out of total migrants who have been from business occupation at the time of migration to Greece. Seventy six percent go to laborer profession and three percent remained unemployed.

Conclusion and future research areas

The occupational changes happen at the beginning stages of career. The decision of occupational change is mainly associated with wage differential. Occupational movers, mostly, find a better employment position and higher wages than whatever they were receiving earlier. The migrants move from one place to another place in order to find work or better living conditions. Mostly they belong to the poor families who have limited access to financial, physical and human capital. Moreover, they have low opportunities for

improving living conditions because of their inferior economic, political and social status. The difference of pre-migration and post-migration wage rate might be ultimate benefit of migration. The world financial crisis 2008 reshaped not only the theoretical and institutional settings but also generated a re-thinking process for new migration theories, skills, employment and occupational choices. The contraction in world economy depicted huge distortions in the labor market in the forms of increasing unemployment and vulnerable employment rates and widening social gaps in employment in the most of the countries. With a view to broaden the perspective of socio-economic analysis on occupational dynamics in Greece, this paper focuses on three objectives; first, to analyze pre-migration and post-migration occupational composition of Pakistani migrant workers in Greece, second, to investigate the determinants of post migration occupational change, and third, to examine the direction of occupational change of Pakistani migrants to Greece. For this purpose, through pre-structured questionnaire, the primary data is collected from 230 Pakistani migrants in Greece who belong to district Gujrat (Pakistan). Major pre-migration occupations of migrants to Greece were self-employment, studentship and agriculture. We have employed binary logistic regression analysis to investigate the determinants of occupational change. The estimates shows that migrants who have tried to change their pre-migration occupations and they have been successful, they claim that success remarkably depends on migrants' legal status, duration of stay, social ties, skills and education. The majority of the migrants with different pre-migration occupations has changed their occupations and adopts the labor profession in Greece. The future research can be conducted on occupational mobility of highly skilled migrants. Either they prefer to continue their pre-migration professions or change it. What are motivating factors for occupational change of highly skilled migrants in Europe? It is also important to investigate post-return occupational composition of migrants.

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Democratic Attitude and Respect of Humanity in Pakistan: The Role of Mass Media Attitude and Family Values

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Abstract

The main aim of the present research is to examine the effects of family values and media attitudes through democratic attitudes on humanity's respect attitudes. Pakistani society is experiencing social changes with changing family structure and values through media. Modernization has changed the human thinking and motivates people to think analytically. Democratic attitude among family members including mutual consensus on family issues, right of personal opinion expression and choice at the time of mate selection enhance the respect of humanity attitude among them. A survey was conducted on 520 respondents from Punjab province through proportionate random technique and an interview schedule was used to collect information by face to face interview. The result depicts that family values and media effecting progressive views regarding respect of humanity positively. These findings are interpreted in the context of rapid social and family changes in Pakistan and similar developing settings.

Keywords: Democratic Attitude, Humanity, Mass Media, Family, Values, Pakistan

Introduction

The eighteenth century revolution had the roots of modernization process and modernity and started in Europe based on industrial revolution in 1750s. It was the start of the era of modernization (Nordas, 2005). French Revolution (1789) also had its symptoms and was linked with the revolution of Europe. It was emerged as an important and interdependent transformation in socio-political, socio-cultural, socio-economic and demographic transition including technological use (Ester et al., 1993). It provides the structure to understand and observe the shift of religious norms and values. Secularization transformed religious values and norms in different societies of the world in the end of eighteenth century (Cavalli-Sforza et al., 1981-82). It is a continuous process and experienced different forces and is also linked to development of sociological aspects of life. Transformation of religious values and norms as well as practices causes a discussion within different kind of researches (Bryjak and Soroka, 1994).

There was a great shift of values and traditions with reference to modernization and secularization of the societies (Kammeyer et al., 1994). It was improving the human existence in the direction of the new world. The target of the modernity and modernization was to create well being through different dimensions of improvement in mass media,

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modern technology, inventions and new pattern of life (Inglehart, 1997). Religious values also promoted these concepts of secularization, modernization, transformation and adoption of new patterns. While on the other hand it also resisted some values and new trends (Berger, 1999) regarding abortion and some other concepts which were against the socio-cultural values, norms, traditions, and societal customs as well (McGrath, 2004).

Human society has certain values and norms that are very important for the life of individual. These values and norms provide a picture of guidelines for the order and societal control related to behavior and attitude of individual. All individuals depend on the social, economic, cultural as well as religious context of the society; they are a part of living in but related to worldwide perspectives. These values vary from area to area, community to community and finally society to society (Mikael, 2004). The importance of these values also changes with importance, intensity and sometime totally lose importance and meaning among society members. Multiple factors are involved such as time, environment, migration and movement of the individuals as well as the transmission of the cultural traits with the help of mass media (Paluck, 2007). Existing values are replaced and sometime lost their meaning for society members. Factors working behind this phenomenon are the development and transformation of societies into different new dimensions in the field of science, inventions, discoveries, use of technology, migration, urbanization, industrialization, economic growth and mass media as well. These factors have a strong influence on the existing family values, modern democratic values and in the process of their change (Maton and Wells, 1995).

It depends on the important gap between the customary societies and societal formations. It is very difficult to summarize the difference and uniqueness of the current societies and the customary changes occurred in the process of social formations of new societies. The process of individualization, migration, urbanization, industrialization, democratization and empirical analysis of the events is related to the changes in the existing body of knowledge and social process (Bauman, 1990). This process takes time and depends on the situation of the area or the society. Sometime new commodities, manufacturing goods, revolutions and democratic ways related to social phenomena or social incidents in different societies constitute modernity in those areas (Ross, 1991).

Based on the conceptual model, we formulate the following hypothesis with respect to democratic attitude:

Hypothesis 1. Favorable attitude towards mass media will have a positive effect on democratic attitude.

Hypothesis 2. Family values are supportive to democratic attitude among family members.

With respect to attitude towards respect of humanity, our hypotheses are as follows:

Hypothesis 3. Favorable attitudes toward mass media attitude will be associated with increased awareness of respect of humanity attitude.

Hypothesis 4. Stronger family values will be positively associated with respect of humanity attitude.

Data and Method

To test our conceptual model, we use data from a representative survey conducted in two urban areas: Lahore and Faisalabad, located in Punjab province, Pakistan. Five towns in Lahore and two towns in Faisalabad were selected using multi-stage random sampling.

Complete list of households were obtained from concerned union councils and randomly selected from these lists. One adult from each household between ages 20 to 60 years was interviewed. The interview questionnaire, administered face-to-face, included sections on: a) socio-demographic characteristics; b) mass media attitude; c) family values; d) democratic attitude; and e) respect of humanity. On the questions measuring values and attitudes, respondents were asked to express their (dis)agreement with certain relevant statements on a 5-level Likert scale. The instrument was pre-tested on 30 randomly selected respondents to check the workability and reliability before the actual data collection.

To address and test our hypotheses, we apply multiple regression analysis. In the first, the outcome is what we define as democratic attitudes. This predictor is an ordinal scale that was constructed using the following items from the survey: whether or not family issues are solved through mutual consensus; whether or not family members have the right to express their opinion; whether or not democratic method is used in family for mate selection. The other predictors are two ordinal scales – mass media attitude and family values. The scale of attitudes towards mass media is constructed from the following items of the survey: whether or not mass media influence norms and values; whether or not mass media plays important role in highlighting social issues in society; whether or not use of internet is good for knowledge sharing. The scale of family values is constructed using the following survey items: whether or not family manages good health care for sick family members; whether or not visiting relatives at free time is good to provide social cohesion among relatives; whether or not love and care is important part of family life.

Secondly, the outcome is an ordinal scale that measure respondent's attitude towards respect of humanity. The scale is based on the following items: rebellious ideas are changed with the passage of time, decent persons do not think of hurting a close friend or relative and every religion gives lesson to respect humanity. Here, the predictors are the same as in the first. Finally, in the third level, we add the scale of democratic attitude to test whether these attitudes mediate the effects of the two predictors – mass media attitude and family values.

Results and Discussions

The sample size for the present study was comprised on male and female respondents, and between nuclear and extended households on the basis of population census report (2008) of concerned districts. Gender is an assortment of appearance to make classification between male and female, men and women and boy and girl. It is socially and culturally constructed characteristics of men and women. It depends on the roles and duties of the individuals which classify them. Males and females are found in families of every class level in every society (Macionis, 2009). Overall, the sample was well educated and representing middle class communities of two urban areas (Lahore and Faisalabad). More than half of the respondent's monthly income per month was above 40,000 rupees and living in a nuclear family having more than three children. The age of the respondents was 20 to years. Table number 1 depicts the descriptive statistics includes minimum, maximum, mean and standard error (SE) of variables i) respect of humanity attitudes, ii) family values, iii) mass media attitudes, iv) democratic attitudes, and v) age of the respondents.

Table 1 : Descriptive Statistics

Variables	N	Minimum	Maximum	Mean \pm SE
Respect of Humanity attitude (RESP)	520	15	35	27.30 \pm 3.740
Family values (FAVA)	520	16	40	31.49 \pm 3.696
Media attitude (MASS)	520	08	25	19.80 \pm 3.090
Democratic attitude (DEMO)	520	14	40	32.92 \pm 4.460
Age of the respondents (AGEY)	520	20	60	36.73 \pm 10.88

Table number 2 describes Pearson correlation statistical test of variables. Respect of humanity attitudes has positive significant correlation with family value, mass media attitudes and democratic attitudes as well but with age of the respondents have not as such strong relationship. Here, family values also have positive significant relationship mass media attitudes and democratic attitudes. While, mass media attitudes have same positive significant effects on democratic attitudes of the respondents. Here, age of the respondents does not have significant correlation with the variables depicted in table number 2.

Table 2*Pearson Correlation Statistical Test*

Variables	RESP	AGEY	FAVA	MASS	DEMO
RESP	1	.057	.341**	.337**	.375**
		.191	.000	.000	.000
AGEY		1	.008	-.004	-.041
			.855	.928	.348
FAVA			1	.228**	.364**
				.000	.000
MASS				1	.297**
					.000
DEMO					1
**. Correlation is significant at the 0.01 level (2-tailed).					

Hypothesis 1 and 2 is supported by the results that media is significantly associated with democratic attitudes and family values have same results also. Moreover, on the basis of these Pearson correlation significant results, researchers move to apply multiple regression analysis.

Here, proposed multiple linear regressions Model is;

$$\text{RESP} = \beta_1(\text{MASS}) + \beta_2(\text{FAVA}) + \beta_3(\text{DEMO}) + \beta_4(\text{AGEY}) + \varepsilon \quad (1)$$

Table 3

Multiple linear regression model predicting progressive respect of humanity attitude (parameter estimates, standard errors and t-test values)

Predictors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	Beta	Std. Error	Beta		
Family values	.206	.042	.204	4.891	.000
Media attitude	.267	.049	.221	5.419	.000
Democratic attitude	.199	.036	.238	5.581	.000
Age of the respondents	.023	.013	.067	1.726	.045
Number of observations			520		

Here again, for Hypothesis 3. Likewise the effect of family values is positive and statistically significant, which support Hypothesis 4. The goodness of fitted proposed model (1) shows highly significant result in the analysis of variance (ANOVA) table 4.

Table 4

Analysis of variance (ANOVA) table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	1719.565	4	429.891	39.963	.000 ^b
Residual	5540.033	515	10.757		
Total	7259.598	519			
a. Dependent Variable: Respect of Humanity Attitude					
b. Predictors: (Constant), Age of the respondents, Media attitude, Family values, Democratic attitude					

The influence of family values has also high significant positive effects on respect of humanity attitudes. The Standardized residual errors are also following the normal distribution as shown in Figure 1 which is the evidence of the best fitted model (1).

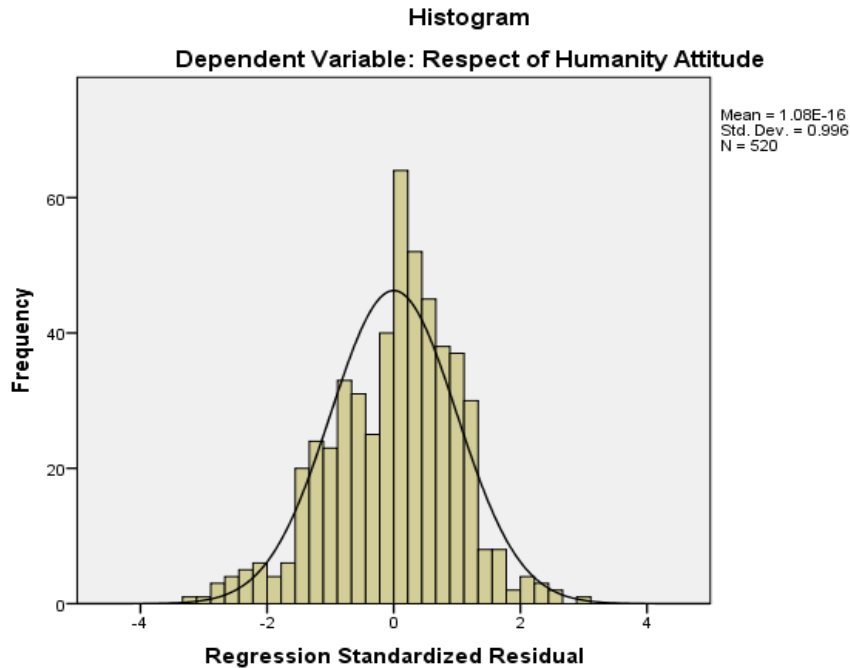


Figure 1: Standardized residual errors are normally distributed

The concept of modern lifestyle was changing upwardly. People were getting more awareness about different aspects of life. At one side religious values were declining and on the other side it was also improving different aspects of life (Tamney, 1980). All the evils and crimes were minimizing with the concept of rationality and democratic attitude. Mass media was emerging as a new institution in the world. People were using modern technology and getting recreational activities. They were promoting their family democratic values. All their modern lifestyle was changing and transforming till now (Ryerson, 1994).

Mass media has grown to be an essential part of individual's life which cannot be separated or ignored (Kluser and Cheong, 2007). Particularly for the urban people, the demand for information is more significant. Values, norms, routine life and way of life in the society in this age of information technology is strongly prejudiced by the mass media includes newspapers, magazines, journals, articles, novels, books, signboards, TV, cable, radio, video, mobile and the internet (Singhal and Rogers, 2004). Mass media influences people's life deeper than many kinds of state instruction (Mutz, 1998). Full variety of unfiltered media is now accessible to most of the individuals by using a parabola and satellite broadcast. Individuals buy many kinds of videos freely (Holbert and Armfield, 2003). Access to the internet is trouble-free and reasonably priced almost all over the world, to have different kind of knowledge (Olson and Hergenbahn, 2009).

Media is offering a number of theories regarding influence and in communication field (Hovland et al., 1949) but practitioners of mass media try to attempt and arouse to influence prejudice and conflict that generally fall into two categories like attempt to arouse and attempt to reduce conflict and prejudgment (Frohardt & Temin, 2007). Every year government, organizations and corporations is trying to allocate resources to minimize prejudice through print, internet, TV and other programs (European Centre for Conflict Prevention, 2003).

Values, norms, and some traditions of a society are linked to religious norms and values which have strong influence on human lives and remain sacred for longer periods of time especially in different societies (Saroglou et al., 2004). However, modernization has either modified such values or even completely changed their meaning but retain religious belief system in one way or other (Lang and Gladys, 2009).. Worship places like masjid, shrines, and all other sacred places are very important and are symbol of a power of religiosity in Islamic religion. These values influence differently on various aspects of individual's life. Sometime these values resist promotion of abortions, eloping, crime and some other concepts (Paluck, 2007). These concepts are changing in a broad way and shifting from sacral mystic view to more profane view (Schechter and Salomon, 2005). The world is changing with the passage of time becoming more secular, relying on technology, science, industry and new trends of life. Traditional and religious values are re-shaping with the help of different factors. At world level influencing power of religion is changing worldwide due to some social movements like reformative and revolutionary social movements and some historical events (Shuriye, 2011).

Conclusion

Mass media is the most prominent feature to extend relations with family members and with other local community members in modernizing world. Some leaders are the central place for all people to communicate with each other but now the influence of mass media has changed the notion of family values and developing the awareness regarding modern democratic attitude and respect of humanity. Sociological concept of mass media provides the clear picture of its importance about the temporary union of choices by geographically dispersed people from different communities. It expanded the range of general experience among different participants in the groups or mass they attract. Individuals are becoming more responsible to distant events. It needs to focus equally on the levels of individual, group and community. Mostly mass media provides vital information and sometime internet is considered as a substitute of it for the purpose of news. It serves as the primary source for a major story and effecting family values by developing the concept of modern democratic values and respect of humanity among family members in Pakistani society and other developing societies as well.

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How Bad Can Voice Aversion Be? An Empirical Investigation of the Joint Influences of Own and Coworkers' Experience of Voice Aversion: A Moderation Mediation Model

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Abstract

Ensuring employees voice is fundamental to organizational performance and therefore, many researchers have attempted to spot those managerial practices that can improve voice mechanisms in an organization. Existing literature elaborates why and how, managers may display an aversion to employee voice but the fact that this aversion takes place in a social context and how employee's coworkers are being treated by the manager, may also affect an employee's responses, is yet to be explored. Thus, this study based on social exchange theory, examines the interrelated effects of voice aversion targeted towards employees (employee voice aversion by managers) and towards their coworkers (coworker voice aversion by managers) on an employee's perception of job insecurity and relational identity mediated by employee manager relationship and affect based trust in coworkers. The model was tested using a sample of 340 part-time MBA students through hierarchical regression analysis and the results revealed that voice aversion either experienced personally or experienced by coworkers, can have a detrimental impact on employees' relational dynamics.

Keywords: Employee Voice Aversion, Coworker Voice Aversion, Employee Manager Relationship, Affect based Trust in Coworkers, Job Insecurity, Relational Identity

Introduction

A company is people...employees want to know...am I being listened to or am I a cog in the wheel? People really need to feel wanted. -Richard Branson, Founder at Virgin Group Business organizations are now fully aware that they can gain a better competitive advantage by expanding their knowledge base rather than by depending merely on economies of scale and scope (Grant & Ashford, 2008).

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Research elucidates that numerous advantages accrue at all hierarchies of the organization, when managers are more encouraging and receptive to the thoughts, propositions and feedback of their subordinates (Mowbray, Wilkinson, & Tse, 2014). As by speaking up to those who occupy positions that are hierarchically higher than their own, employees can help eliminate unethical business practices, address ill-treatment or injustice, and bring problems and opportunities for improvement to the attention of those who can empower action (Ng & Feldman, 2012). The workers on the frontlines, such as those in direct contact with equipment, clients, or vendors are uniquely positioned to identify very early signs of opportunities and problems, and thus are more able to provide crucial inputs to the organizational strategies (Ryan & Oestreich, 1998). Besides, employee voice also stimulates performance and efficacy of an organization (Rees, Alfes, & Gatenby, 2013). The positive reception of voice is directly associated with enhanced working environment (Walumbwa & Schaubroeck, 2009), overall employee satisfaction (Holland, Pyman, Cooper, & Teicher, 2011), decreased turnover intention (Burris, 2011) and superior effectiveness of employees (Wood & Wall, 2007).

Nevertheless, despite of having said all that, a close assessment of managers' activities in workplaces illustrate that a huge number of managers, on the contrary engage in measures that show an aversion to seeking, gratifying, and implementing employee voice (Milliken, Morrison, & Hewlin, 2003). A substantial number of workers usually feel unsafe to reveal their ideas and give suggestions simply because they believe that by speaking up their minds for change they may become symbols of conflict (Detert & Burris, 2007; Van Dyne & LePine, 1998). Taking note of this occurrence, organizational researchers have sought to spot the managerial behaviors and practices that support or discourage voice, and to elaborate how these actions affect employee self-esteem, motivation and performance (Burris, 2011; Holland et al., 2011; Ng & Feldman, 2012; Wood & Wall, 2007).

Even though existing literature elaborates the fact that how managers may display an aversion to employee voice in organizations (McClean, Burris, & Detert, 2012), as well as why managers averse voice (Fast, Burris & Bartel, 2014) but the fact that this aversion of employee voice by the manager takes place in a social context and consequently, how others are being treated by the manager may also affect an employee's responses and performance, is yet to be explored. This social context can have a number of implications on the relational dynamics of the employees, which makes it crucial to study voice aversion of the employees in relation to the voice aversion of their coworkers by the same authority figures (Duffy, Scott, Shaw, Tepper, & Aquino, 2012).

This social context can be explained in terms of the social exchange theory (Blau, 1964) which derives its essence from interactions that generate emotions of mutual reliance and commitment. It implies that the strength of an association varies with the extent to which parties follow the rules of exchange. Among the numerous exchange regulations, researchers have devoted the highest attention to the rule of

reciprocity (Cropanzano & Mitchell, 2005; Gouldner, 1960). People who feel regarded reciprocate with the same extent of respect in turn and over time, the tradition of reciprocity leads the social exchange to be known by trust and emotional engagement (Burris, Detert, & Chiaburu, 2008; Choi, 2007; Raub, 2008). Similarly, reciprocity also persuades people to indulge in negative reactions to the negative conduct they receive. Studies on social exchange have mainly focused on direct reciprocity between the obligor and the obliged. Whereas an abundant research from evolutionary study of humans and social justice advocates that indirect reciprocity is also very common. It takes place when exchanges and relationships incorporate members other than the two parties involved (Cropanzano, Goldman, & Folger, 2003; Skarlicki & Rupp, 2010).

Studies reflect that employees are more eager to acknowledge decisions when they believe that those choices are a result of fair procedures and just mechanisms. People evaluate equity by means of the extent of the standardization of all organizational procedures. They analyze the extent of the fairness of their authorities by evaluating the degree to which their administrators are unbiased and just. Moreover, a few empirical studies have also indicated that employee's perception of how their coworkers' are being treated, influences their own opinions and actions about their managers as well as other aspects of the organization (Hannah et al., 2013; Schaubroeck et al., 2012).

Therefore, examining the potential impact of voice aversion by managers of organizational employees in relation to their coworkers' voice aversion and its influence on the interpersonal dynamics of those employees is vital. Likewise, the choice of moderator (i.e. coworker voice aversion by the managers) is therefore driven by the considerations provided above. Therefore, this research will expand the literature on voice aversion by investigating how coworker's voice aversion (i.e., the intensity to which coworkers' voice is discouraged, coworker voice aversion, hereafter) provides a social context that shapes and explains employees' own experiences of voice aversion (employee voice aversion, hereafter).

Literature Review

Employees at times may get concerned about being taken advantage of, if they concede complete power and control to their superiors (Lind, 2001; Van den Bos, 2001). To encounter this central social challenge, employees often depend on their observations of the fairness of the authorities as a heuristic mechanism to minimize their thoughts of self-doubt and evaluate the reliability of their supervisors (Colquitt, 2008). The research on organizational justice reveals that various aspects of such impressions of fairness are processed in a comprehensive way and that they interrelate with each other to affect employee work behaviors and attitudes (Lind & Van den Bos, 2002). Intrinsically, the overall impact of various impressions of fairness can predict employee perceptions, above and beyond the influence of any specific incident incorporating fairness (Brockner, Chen, Mannix, Leung, & Skarlicki,

2000; Van den Bos & Lind, 2002). In such circumstances an aversion to the employee voice, shown by their managers have serious implications as scholars have observed that voice aversion weakens the quality of social exchanges between the victims and their supervisors (Willman, Bryson, & Gomez, 2006).

A study of literature reveals that an encouraging behavior towards employee voice can result in more constructive employee attitudes towards their organizations (Lewicki, McAllister, & Bies, 1998). These voice opportunities improve the perceived eminence and worth of the social exchange relationships. On the contrary, when employees believe that their suggestions have little worth in the eyes of their leaders, it is likely to adversely affect their behaviors towards their managers. We consequently expect employee voice aversion to be less strongly associated with employee manager relationship when coworker voice aversion is high. Therefore, we can presume the following hypothesis:

H1: Employee voice aversion and coworker voice aversion interrelate in predicting the employees' perceptions of employee manager relationship such that employee voice aversion is more negatively related with employee manager relationship when coworker voice aversion is low, compared to when it is high.

A receptive process displays a supervisor's acknowledgment and recognition of the employees and is subsequently a crucial antecedent of a constructive behavior by the employees. For the respectful behavior in a group, by a significant person of the group shows whether other group members value the individual or not (Tyler & Blader, 2003). A reasonable and fair procedure by the supervisors of the team is analyzed by the workers to conclude that he or she is an appreciated and valued team member. On the contrary, when a superior responds in a way that neglects to meet procedural and relational equity procedures, this may display that those specific employees are less regarded and hence less esteemed members of their teams (Blader & Tyler, 2009).

The group engagement model implies that improved amounts of self-perceived status stimulated by just and respectful treatment enhances an individual's willingness to engage in voluntary team-serving behaviors (Tyler & Blader, 2003). These perspectives and the researchers, who have studied them, elucidate that individuals who believe that they are being treated unjustly by supervisors become certain that they are also not trusted by their coworkers (Schaubroeck, Peng, & Hannah, 2013). Such views, especially when employees are being discriminated and getting aversion to their voices, makes it intricate for them to form quality social exchange associations with their coworkers. Consequently, it intimidates their sense of ethical and adaptive competence, and they tend to develop an intolerant and obstructive approach towards their interactions (Cohen & Sherman, 2014). Hence, in reference to the relational fairness theory, which is fundamental to this proposition, we propose that supervisors' responses to employees' voice may

considerably influence employees' perceptions of just how much they are recognized and respected within the team.

In sum, integrating relational fairness theory with perceptiveness from theory and research on status, we suggest that an employee derives recognition from high supervisory responsiveness. On the contrary, reception of unfair treatment from the superiors may induce the feelings of insecurity, low identification with their organization as well as their team members. Due to the interpersonal dynamics related with mutual exchange in relationships, which is well elucidated in the practice of reciprocity (Gouldner, 1960), employees who are not sufferers of voice aversion may also be hesitant in building positive exchange relationships with their coworkers, who are suffering from voice aversion. Therefore, we can presume the following hypothesis:

H2: Employee voice aversion and coworker voice aversion interrelate in predicting the affect-based trust in coworkers, such that employee voice aversion is more negatively related with affect-based trust in coworkers when coworker voice aversion is low, compared to when it is high.

A reduced amount of uncertainty and imminent relation with supervisors as well as coworkers may increase an employee's recognition with the organizational endeavors (Olkonen & Lipponen, 2006) and their determination to exhibit a cooperative attitude at work (Lind & Tyler, 1988; Lind & Van den Bos, 2002; Tyler & Lind, 1992). As employee voice is most of the times regarded as a risky activity, despite of its being endorsed as a way of enhancing organizational efficiency, employees with better perceptions of interpersonal fair treatment are more likely to display voice behavior due to their lower feelings of uncertainty in their interactions with their employers. Moreover, employees having high employee manager relationship are more able to show efficient outcomes and effective performance. These employees have a better probability of obtaining access to more assets, other forms of positive gestures and favors from their managers which can be ultimately employed to accomplish higher goals and a sense of the security of their jobs (Sverke & Hellgren, 2001).

Corresponding to the literature of how voice influences organizational performance, a research study analyzed the influence of voice on unit-level turnover (McClean et al. 2012). The authors suggested that voice may augment consequent turnover if supervisors are not able or eager to be receptive to the problems raised. The outcomes lent support for this notion, revealing a positive relationship between voice and exit when the unit manager lacked accessibility to resources and the management team is not change oriented; a negative relationship between voice and exit existed when these settings were present.

A persistent feeling of job insecurity is likely to have extreme consequences for an employee's overall work behaviors and other valued facets of his/her life (Ashford, Lee & Bobko, 1989). In fact, research shows that perceived risks regarding the insecurity of a job may have as much negative effects as job loss itself (Dekker &

Schaufeli, 1995). This is consistent with the fundamental idea of stress research, that expectancy of an upsetting situation symbolizes an equally important, or probably even bigger source of stress than the actual event. It seems that job insecurity is related with physical health complaints, psychological stress and diminishing well-being (Barling & Kelloway, 1996). However, in contrast, employees with low employee manager relationship believe that they are more prone to job insecurity. They are less motivated, less satisfied and less engaged in the concerns of the organization than employees with high employee manager relationship. Such employees have difficulty persuading themselves to go beyond the least required levels of performance and job tasks (Burris, 2011). Therefore, we also propose that these interactions will be explained to some extent by the undermined potential for constructive social relationships, indicated by higher employee manager relationship and higher affect based trust in coworkers as predicted in Hypotheses 1 and 2.

H3: Employee voice aversion and coworker voice aversion interrelate in predicting subordinate job insecurity, such that employee voice aversion is more positively related with job insecurity when coworker voice aversion is low, compared to when it is high.

Exchange associations in organizations have a range of facets, and employees can very well differentiate between such associations with their senior management, with their immediate management and their coworkers (Dundon, Wilkinson, Marchington, & Ackers, 2004). Exchange associations of high imminence with one's coworkers also offer resources that can be vital for an employee to execute job tasks in an efficient manner (Chiaburu & Harrison, 2008). In this study, we are however concerned with the possible mediating outcomes of two such associations: the quality of the relation with immediate manager and the connection an individual has with his or her coworkers. These two represent the two imperative facets of the exchange affiliations.

Individuals with a positive reception of their own voice or their coworker's voice have a good relationship with their immediate supervisors (Platow, Filardo, Troselj, Grace, & Ryan, 2005). Enabling people to speak up and have a voice in issues pertinent to them is known within the social psychological literature as an interpersonal and group based strategy that produces elevated personal self-confidence (Koper, Knippenberg, Bouhuijs, Vermunt, & Wilke, 1993), emotions of value (Platow, Brewer, & Eggins, 2008), and social identification with the relevant group (Lipponen, Olkkonen, & Moilanen, 2004). Therefore, we can propose the following hypothesis:

H4: Employee manager relationship (H4a) and affect-based trust in coworkers (H4b) mediates the interrelated effect of employee voice aversion and coworker voice aversion on job insecurity. The positive indirect effect of Employee voice aversion on job insecurity through employee manager

relationship (H4a) and, separately, affect-based trust in coworkers (H4b) is stronger when coworker voice aversion is low, compared to when it is high.

Employees with high employee manager relationship may want to return the favors bestowed upon them by their managers, not merely by sustaining a positive relationship with their supervisors directly, but also by upholding their relational identities with their coworkers (Coyle-Shapiro & Conway, 2004; Settoon, Bennett & Liden, 1996). Retaining one's relational identity with their job tasks eventually helps in diminishing job insecurity, and thus contributes in fulfilling an individual's affirmative reciprocal commitments to the supervisor in a high employee manager relationship (Bauer, Bodner, Erdogan, Truxillo, & Tucker, 2007). This identification takes place when individuals define themselves as members of an organization or a team (Mael & Ashforth, 1992).

Effective managers stress the collective identity as well as the beliefs and perspectives of an entire group. They emphasize on higher order needs, behavior, and beliefs, subsequently making the organizational or team objectives important for the employees (Yukl, 1999). As a result, workers are likely to visualize themselves as active members of those organizations and to associate their self-concept with the team or organizational identity (Shamir, House & Arthur, 1993). On the contrary, sufferers of voice aversion may not only be less encouraged from within to help their managers, which is a sign of direct negative reciprocity, they may ultimately return for their underprivileged behavior by retreating the attempts to uphold their relational identity. Therefore, on the basis of the above literature, we propose the following hypothesis:

H5: Employee voice aversion and coworker voice aversion interrelate in predicting relational identity of coworkers, such that employee voice aversion is negatively associated with relational identity when coworker voice aversion is low, compared to when it is high.

Coworker voice aversion may commence a pattern of low collaboration and poor teamwork within coworkers as explained by the reciprocity model. These coworkers are subsequently less probable to help others. From this viewpoint, voice aversion, experienced by oneself or by one's coworkers, may cause dejection for employees. Just as employee manager relationship provides the foundation for constructive reciprocal interactions with one's manager, affect-based trust in coworkers persuades employees to be responsive to their coworkers' requirements and to be eager to assist them as required, convinced that they will give back in the future (Lau & Liden, 2008).

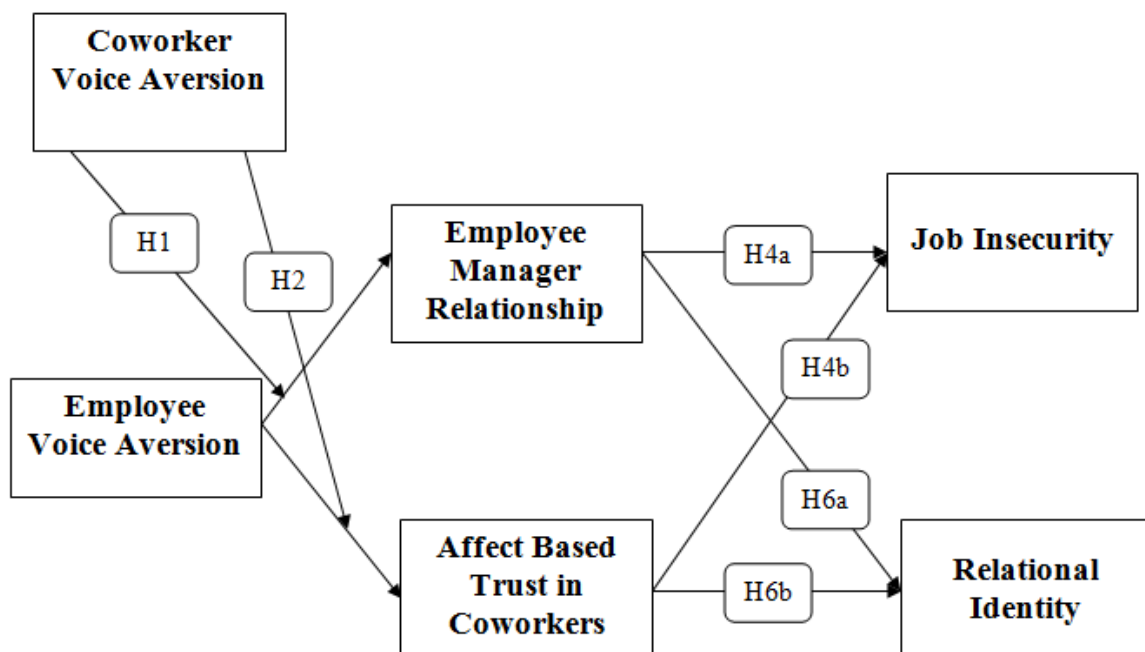
We proposed that voice aversion, either aimed at oneself or one's coworkers, or both, restricts employee manager relationship (Hypothesis 1) and affect based trust in coworkers (Hypothesis 2). The weakened eminence of social exchange associations that are a consequence of either own or coworker voice aversion reduces inspiration to sustain identity.

Thus, with our hypothesis about job insecurity, we suppose that high own voice aversion and high coworker voice aversion, each create the same obstruction to relational identity. Due to the exchange effect of these relationships, the experiential relationship between own voice aversion and relational identity will be stronger when coworker voice aversion is low.

H6: Employee manager relationship (H6a) and affect-based trust in coworkers (H6b) mediates the interrelated effect of Employee voice aversion and coworker voice aversion on relational identity. The indirect effect of Employee voice aversion on relational identity through employee manager relationship (H6a) and, separately, affect-based trust in coworkers (H6b) is stronger when coworker voice aversion is low, compared to when it is high.

According to the broader aspects and influences of voice aversion, employees and their coworkers' voice aversion collectively impacts the individuals' feelings of job insecurity as well as relational identity through the mediation of employee manager relationship and affect-based trust in coworkers. Consequently, this research aims to add to the literature by investigating a wider perspective on the indirect costs of voice aversion. The research model suggests that employee voice aversion and coworker voice aversion in conjunction influences procedures associated with direct and indirect reciprocity with coworkers and with the manager thus ultimately affecting individual's relational identity as well as individual's perceptions of job insecurity. Therefore, we propose the above mentioned hypotheses and the overall model is depicted in Figure 1.

Figure1: Conceptual Framework



Methodology

Participants and Procedure

The data were obtained from part-time MBA students who were also employees of various business organizations. A total of 400 Questionnaires were filled by the part time MBA students, out of which 340 completed questionnaires were usable. The students were informed about the research purposes and were assured that their responses would be kept confidential. Volunteers were asked to rate their perceptions of voice aversion for their coworkers as well as other variables for their own selves. The questionnaire was sent to English linguists to read the items in order to check whether the questions were clear and understandable or not, which lead to minor adjustments in the wordings of a few items. All items were measured on a likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Instruments

To measure employee voice aversion, a 12 item scale designed by Fast, Burris, & Bartel (2014) was adapted ($\alpha = 0.975$). Coworker voice aversion was also measured by the same 12 item scale designed by Fast, Burris, & Bartel (2014). The raters were asked to fill that section regarding their supervisors, in terms of how their supervisors treats their coworkers ($\alpha = 0.856$). To measure employee manager relationship, we adopted a four item scale developed by Cook and Wall (1980). The scale showed a good internal consistency ($\alpha = 0.914$). Affect-based trust in coworkers was measured with a four items scale ($\alpha = 0.928$) developed by McAllister (1995). To measure affect based job insecurity, the scale used by Huang & Ashford (2012) was adopted. The internal consistency of the measure was good ($\alpha = 0.979$) and relational identity was measured by the scale ($\alpha = 0.984$) developed by Gabriel and Gardner (1999).

Results

Table 1 represents the means, standard deviation and correlations of all the variables along with their internal consistencies in parenthesis on diagonals.

Table 1 Correlation Matrix and Descriptive Statistics

Variables:	Mean	St. Deviation	1	2	3	4	5	6
1) Employee Voice Aversion	3.46	1.096	(0.975)					
2) Coworker Voice Aversion	2.75	0.550	.310**	(0.856)				
3) Employee Manager Relationship	2.73	0.956	-.744**	-.204**	(0.914)			
4) Affect Based Trust in Coworkers	2.81	0.996	-.641**	-.117*	.674**	(0.928)		
5) Affect Based Job Insecurity	3.63	0.984	.763**	.351**	-.747**	-.662**	(0.979)	
6) Relational Identity	2.90	0.993	-.687**	-.236**	.671**	.597**	-.693**	(0.984)

**Correlation is significant at $p < .01$.

Tests of Hypotheses

We conducted hierarchical regression analyses to test our hypotheses. In Hypotheses 1 and 2, it was proposed that coworker voice aversion moderates the relationship between employee voice aversion and employee manager relationship (H1) and its association with affect based trust in coworkers (H2). As shown in Table 2, these interactive effects were significant in estimating employee manager relationship ($b = 0.487, p < .01$) and affect-based trust in coworkers ($b = 0.784, p < .01$). The trends of these two interactions are presented in Figure 2. Consistent with the proposed hypotheses, employee voice aversion had a stronger negative relationship with employee manager relationship and affect based trust in coworkers when coworker voice aversion was low. The trend of these interactions also signified that in the situation in which low coworker voice aversion was joint with low coworker voice aversion, respondents scored significantly higher on employee manager relationship and affect-based trust in coworkers in contrast to the respondents in the other three conditions.

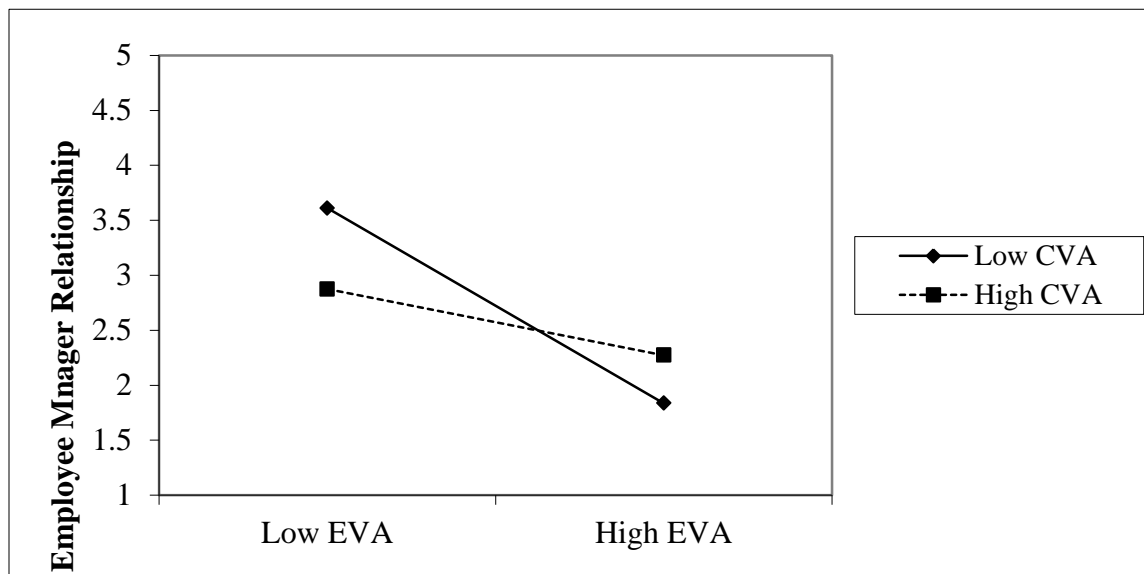
Table 2 Hierarchal Regression Results

Variables	Mediators				Dependent Variables			
	Employee manager relationship		Affect based trust in coworkers		Affect based job insecurity		Relational identity	
	M1	M2	M1	M2	M1	M2	M1	M2
Step 1								
Employee voice aversion	-0.657*	-1.883**	-0.608**	-2.582**	0.650**	2.184**	-0.615**	-2.325**
Coworker Voice Aversion	0.053	-1.824**	0.164*	-2.858**	0.227**	2.575**	0.046	-2.664*
Step 2								
Employee Voice Aversion x Coworker Voice Aversion		0.487**		.784**		-.609**		0.679**
Change in R ²		0.030		0.071		0.044		0.054

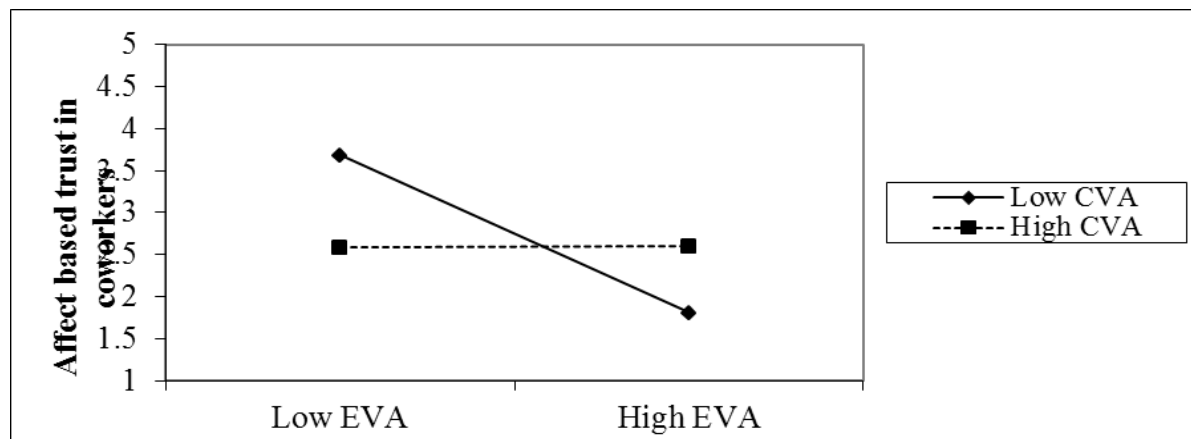
Table 3 Analysis of Simple Effects

Independent variable	Dependent variable	Mediator	Moderator	Indirect effects	Direct effect
Employee voice aversion	Affect based job insecurity	Employee manager relationship	Low	0.32**	0.41**
			High	0.11**	
		Affect based trust in coworkers	Low	0.23**	0.51**
			High	-0.002	
	Relational identity	Employee manager relationship	Low	-0.29**	-0.38**
			High	-0.10**	
		Affect based trust in coworkers	Low	-0.21**	-0.46**
			High	0.002	

Figure 2: Interaction of Employee Voice Aversion and Coworker Voice Aversion in Projecting Employee Manager Relationship (2a) and Affect based Trust in Coworkers (2b) (Hypotheses 1 and 2)

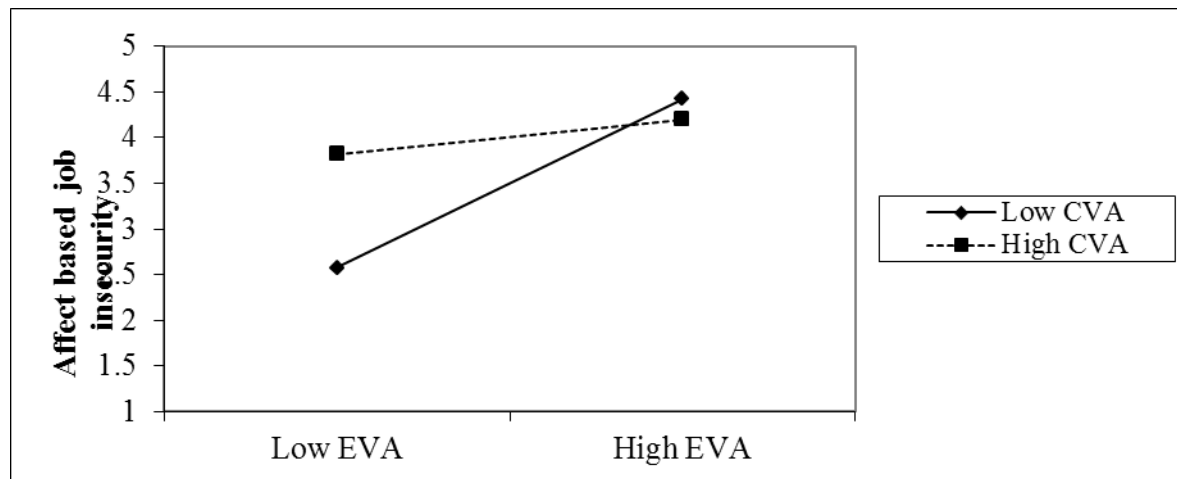


Hypothesis 3 proposed that coworker voice aversion moderates the relationship between employee voice aversion and affect based job insecurity. As reported in Table



2, the interactive effect of employee voice aversion and coworker voice aversion was significant in projecting affect based job insecurity ($b = -0.609, p < .01$). The interaction can be observed in Figure 3. Consistent with Hypothesis 3, there was an intense negative relationship between employee voice aversion and affect based job insecurity when coworker voice aversion was low, in contrast to when it was high. As anticipated, employees reported significantly lesser levels of affect based job insecurity when both employee voice aversion and coworker voice aversion were low in contrast to employees for whom either own or coworker voice aversion variable was strong. This trend elucidated Hypothesis 3.

Figure 3: Interaction of Employee Voice Aversion and Coworker Voice Aversion in projecting Affect based Job Insecurity (Hypothesis 3)

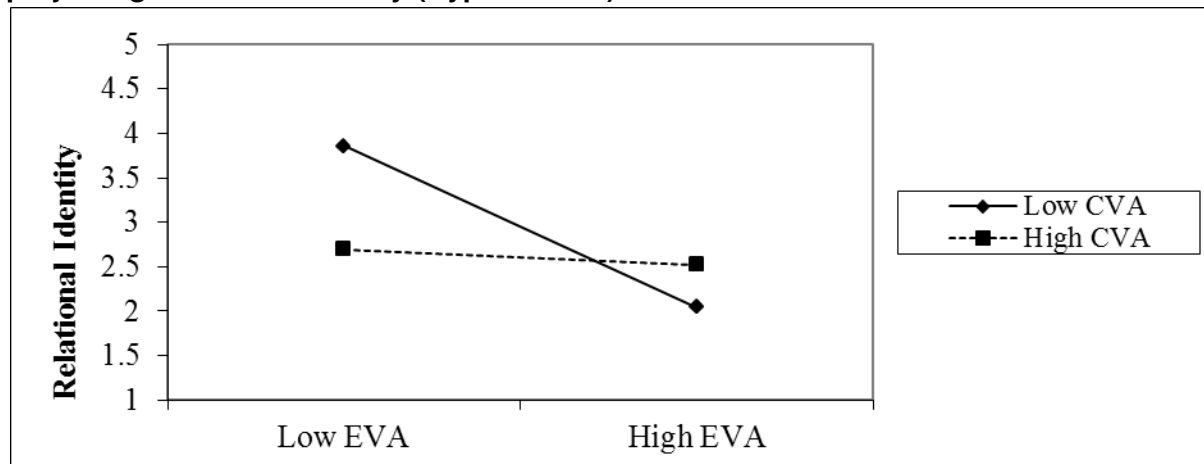


Hypothesis 5 predicted that coworker voice aversion moderates the relationship between employee voice aversion and relational identity. This interactive effect is significant ($b=0.679$, $p < .01$). Analogous to the interaction shown in projecting affect based job insecurity, employee voice aversion had a significant negative relationship with relational identity when coworker voice aversion was low, in contrast to when it was high (Figure 4).

Employees notifying low employee voice aversion and whose coworkers, on average, notified low voice aversion, had stronger relational identity than those with stronger employee voice aversion, stronger coworker voice aversion, or both. These outcomes were consistent with Hypothesis 5.

To test Hypotheses 4 and 6, we conducted first-stage moderation models by means of the practice established by Hayes (2013). This method verified the conditional indirect effects on affect based job insecurity (H4) and relational identity (H6) through employee manager relationship and affect-based trust in coworkers, across high (vs. low) levels of coworker voice aversion. The conditional effects predicted through Process Macro measured the bias-corrected confidence intervals (CI, hereafter) of these indirect effects by using a bootstrapping method; a 99% CI that excluded zero, reporting a statistical significance level of .01. The results are reported in Table 3.

Figure 4: Interaction of Employee Voice Aversion and Coworker Voice Aversion in projecting Relational Identity (Hypothesis 5)



The indirect effect of employee voice aversion through employee manager relationship on affect based job insecurity was higher when coworker voice aversion was low (0.32, $p < .01$) than when coworker voice aversion was high (0.11, $p < .01$). This was consistent with Hypothesis H4a. We discovered analogous outcomes for the mediating effect of affect-based trust in coworkers (H4b). The conditional indirect effect of employee voice aversion on affect based job insecurity was higher when coworker voice aversion was low (0.23, $p < .01$) in contrast to when coworker voice aversion was high (-0.002, not significant). Hypothesis 6 projected that employee manager relationship and affect-based trust in coworkers mediates the interactive influence of own and coworker voice aversion in depicting relational identity. As shown in Table 3, the conditional indirect effect of employee voice aversion on relational identity through employee manager relationship was significantly higher when coworker voice aversion was low (-0.29, $p < .01$) as compared to when it was high (-0.10, $p < .01$). Similarly, when affect-based trust in coworkers was the mediating variable, the indirect influence of employee voice aversion on relational identity was stronger when coworker voice aversion was low (-0.21, $p < .01$) in contrast to when it was high (0.002, not significant). These results were consistent with Hypotheses 6a and 6b.

Discussion

The interactive effect of own and coworker voice aversion on affect-based trust in coworkers specifies that employees who either suffered voice aversion themselves or had coworkers being mistreated by the managers were less probable to build superior interactions with their coworkers. Employees' lower affect-based trust in coworkers may symbolize a response to how they suppose their coworkers were behaving with them. Particularly, the group value model of justice, and following work by Tyler and colleagues, speculates that when employees experience injustice by someone with

power they will be inclined to assume that their coworkers treat them with less esteem (Tyler & Blader, 2003). Employees who are badly treated by their managers may hence be withdrawn from commencing the types of relationships required to initiate and retain effective interactions and associations.

Accordingly, voice aversion may initiate both affective and cognitive dilemma, both for the voice averted employees and their coworkers, which disheartens them from establishing eminent social associations. Our results reveal a broader academic insight of the outcomes of voice aversion. From this viewpoint, voice aversion may not only deteriorate those who are directly influenced but it may also precipitate a further adverse interactional environment at the workplace that might eventually reduce the adaptive competency of the work teams on average. Literature on third-party treatment has concluded that third parties who become conscious of another's unjust conduct frequently experience pessimistic and unconstructive feelings (Lind, Kray, & Thompson, 2001; Spencer & Rupp, 2009).

The degree of responsiveness and consequent action taken by administration to deal with problems raised by employees differ (Detert & Burris, 2007), making the possibility of voice directly affecting employee turnover contingent rather than certain. When supervisors are not able or inspired to manage prosocial, improvement-oriented concerns highlighted by some workers, other workers, in addition to the speaker(s), continues to experience the circumstances that triggered voice in the first place. This, in turn, leads more members of that unit to conclude that it is useless to speak up (Detert & Trevino, 2010), and they lose confidence that supervisors are able to make required changes (Milliken, Morrison, & Hewlin, 2003). Such results indicate that administrators have a substantial influence in fixing issues and concerns through the use of fair treatment.

Limitations and Future Research

Despite all the robust findings of our research, nonetheless, the paper has a number of limitations. Foremost, the data were collected from part time MBA students whereas future studies can extend the sample to a broader variety of organizations as well as bigger sample units. Moreover, we have used employees' own perceptions about all the variables involved. Although research indicates that common method variance does exist in organizational research, it does not typically significantly impact the results of the analysis (Crampton & Wagner, 1994; Doty & Glick, 1998). Still, further studies can take into account the data collected from multiple sources. Third, the data were collected only at one point in time accordingly precluding the causal order projected in the associations we have examined. Future research can analyze these

causal relationships in order to evaluate the influences of voice aversion on observations made at various points in time.

Theoretical Implications

Our study expands the previous research by introducing and explaining a model, in which effects of employee voice aversion on their actions transpire more briskly when their coworkers are not victims of voice aversion. Two separate mediation processes explicated this interactive effect of employee's and coworker's voice aversion through perceived quality of employee manager relationship and, separately, through affect-based trust in coworkers. Our results have broadened existing literature in signifying that voice aversion negatively influences not only the employee manager relationship but also relations among coworkers. These processes are novel to the literature on voice aversion and require more work for the influence of employee voice aversion had not been examined before, through the moderating impact of coworker's voice aversion.

Managerial Implications

The results advocate and assist managers in comprehending the fact that it is imperative to inform the supervisors about the adverse impact of mistreating their subordinates which eventually forms the nature of the associations among working individuals. This research will also facilitate business institutions in comprehending the requirement of an appropriate training that develops supervisor's responsiveness to, and understanding of, the effect of reciprocal practices that they catalyze by engaging in voice aversion.

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Relationship among Different Assessment Techniques with Outcome Assessment at Post Graduate Level

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Abstract

The prime purpose of the study was to investigate the use of assessment techniques as a summative assessment at university level as well as to explore the relationship between different assessment techniques with outcome assessment of students. Thirty MPhil education students studying the subject of application of statistics were the sample of the study. The assessment techniques employed were practical assessment, viva, mathematical ability, theoretical, and application. Pearson r was employed to investigate the relationship among the variables. The results revealed a strong significant and positive correlation among the variables except for viva voce examination that revealed non-significant correlation. It was inferred as communication barrier between the theoretical and reflective learning. It is suggested that the relationship may be improved between theoretical learning and viva exam by additional exercise.

Key words: Assessment, theoretical learning, reflective learning, achievement score, outcome assessment

Introduction

Analyzing various assessment techniques in the form of Outcome Assessment (OA) is the system of evaluation in academic institutes to judge whether the facilities, activities, or practices had projected effect on learners or not. There are three steps in outcome assessment. The first step is about predefined goals for learners to achieve academic proficiencies (outcomes). The second step is about the evaluation of how well learners actually attained the anticipated goals (assessment). At the third step, the learners use results for the perfection of learning experiences (Cartwright, Weiner, & Streamer-Veneruso, 2010). Assessment has positive effect on curriculum and learning. It carries what we worth as important and acts as the most forceful instigator of student's learning. Academic assessment is a purpose driven activity. During the assessment

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planning process, it is vital to identify the risks intricate in it. Because it is universally recognized that the more refined assessment approaches are more suitable for learning and feedback.

According to learners, outcomes assessment has prime importance in the clear prediction of course significance. Learners always desired to be evaluated in consistent and lustrous way. On the basis of judgment, students improve their leaning strategies and the authorities mend and improve their implemented programs. The award of positions is also based on confirmation about the performance of students towards learning outcomes (Cartwright, Weiner, & Streamer-Veneruso, 2010). The modern assessment techniques have made learning more arduous and scientific. According to Biggs (1999), what and how students learn depends on how they think, they will be assessed. The selection of an assessment instrument is necessary to know exactly what is measured. The reflection of different learning outcomes requires appropriate selection of instruments. It is necessary to use an instrument that is reliable, valid, and feasible. Correct use of instruments is a guarantee that the outcomes attained are exact reflection of the performance of students.

The assessment is an essential element of total learning activities. Assessment must be compatible with learning outcomes and must be purpose driven. Needs assessment is the preliminary point of good assessment that categorizes the present position of the scholars before the inculcation of the concrete learning activities. It determines the current knowledge, upcoming needs, and significant areas that must be addressed. The assessment of students is an inclusive decision making process that measures success of students. Student assessment is relevant with program evaluation. The data collected from assessment determine the effectiveness of program, improves teaching, and develop educational concepts. The quality of assessment gratifies the requirements of accreditation and subsidizes to students' learning. The methods of assessment must be matched with the proficiencies being erudite and the instructional designs being used. The most prevailing assessment techniques at post graduate level are as under.

Techniques used for evaluation of students

The problem of estimation entices have a lot of responsibilities as it obviously shows a linkage between students' activity and their professional innovation. Different evaluation systems have been used for decades all over the world. The main facts of these systems must be convenient for students and contestants. However, their perfectibility is still deliberated (Borland, 2002; Frye, McKinney, & Trimble, 2007; Dodge, 2009). The following techniques are being widely used by the educational authorities across the globe.

Viva Voce Exam

Viva voce evaluation technique is being widely used in all academic decisions. Regardless of its worth, academicians rarely encourage as substitute academic assessment technique at university level. Joughin (1998) define viva voce assessment as the process in which learners answer to the assessment task verbally, in spite of being

expressed by writing. The findings of Pearce and Lee (2009) revealed that viva is a complex, valid and innovative technique of the assessment of learning outcomes. It assists with theoretical and practical application of in depth learning. Viva voce is a two way communication between the assessor and assessee to provide and receive desired information. However, the reality is that the viva voce exams make the students nervous. After test reflection, the theorists and practitioners endorsed it as academic oriented (Pearce & Lee, 2009).

Amongst its diversity of applications, vivas are widely used to assess various programs like doctoral degrees (Moreley, Leonard, & David, 2002), clinical dentistry (Yip, Smales, Newsome, Chu, & Chow, 2001) and health studies, etc (Bashook, 2000). Many university degrees comprising engineering, natural sciences and social sciences are also being assessed by the same technique (Kehm, 2001). It provides chance to the students to prove their strong suit and afford the assessors with complete and clear depth abilities and knowledge (Kehm, 2001). The examination through viva permitted unrestricted conversation between assessor and assessed, allowed the student to validate powers and let superintendents differentiate between artificial and real information. Joughin, (1998) reported that there are two qualities that are measured in viva exams, student expertise of the verbal medium and their appreciation of content knowledge. In order to harness the most important determinant of learning i.e. assessment, changes in the viva format are carried out at institutional level and three scenarios are used around which the viva questions are designed for each semester examination.

Theoretical Assessment

It is also called essay type assessment. It has two types subjective and objective. Essay questions or subjective assessment of investigation were used through the seminar and lab activity as a continuous assessment of knowledge. It calculated up to twenty percent from the final exam. The learners were cognizant about it from the very opening and the results of this action showed their willing to actively participate in the activity (Acomi, 2014). Multiple-choice test provides a substitute answers for each statement. This focuses on thorough information and it is not very effective in measuring the considering and solicitation of knowledge (Acomi, 2014).

Application Assessment

The teachers must develop the forceful, rigorous, and ample assessment techniques while measuring the essential skills of students. The measurement of progress in core competencies and knowledge may difficult if the assessments are intended to measure compound abilities, such as factual knowledge, problem solving, synthesis and analysis of information. Practical assessments are a good way to assess students' ability to apply their theoretical knowledge. Therefore, practical tasks are designed to measure academic learning of students in specific areas (Acomi, 2014).

Portfolio assessment

Portfolio assessment refers to assemblage of one's personal and professional information, career goals and success to achieve those goals. Portfolios validate learners' practical aptitude. It is a valid source of information through collection of learners' achievements which indicates students' talent. Portfolio has two types, i. e. process portfolio and product portfolio. The process portfolio is the running document of students' progress while the product portfolio is the record of students' best achievement during the academic achievement. In short, portfolio is used to document different stages of students' learning and progress (Venn, 2000).

Instructional decisions

There are four types of instructional decisions that are supported by tests:

Placement decisions:

Deciding in which instructional sequence or at what level in the instructional sequence a student should begin in order to avoid unnecessary repetition of what is already known and to allow more rapid attainment of new goals. Placement or prior knowledge state tests are given before a student begins a unit of instruction. They may focus on the prerequisite knowledge and skills for proposed learning or on the outcome knowledge and skills to determine whether students have already attained the desired outcome of the instruction.

Monitoring decisions:

Deciding (a) whether students are learning appropriately, and (b) whether the assigned learning activity is working effectively, or a different activity should be assigned. So-called progress assessments or assessments of growth are the instruments for the assessment of a student's progress toward the final learning objectives.

Attainment decisions:

Deciding, at the end of a particular instructional segment, whether a student has attained the desired instructional goals or not, final tests are used for certifying student learning, and evaluating teacher effectiveness.

Diagnostic decisions:

Deciding which learning outcomes a student has not acquired and the probable cause(s) of the failure to acquire them, in order to remediate or correct incomplete or erroneous prior learning. Diagnostic assessments are designed to provide specific information on individual learning deficiencies and misunderstandings. When prior knowledge state assessments, progress assessments, and final assessments are designed and interpreted properly they can also provide information of a diagnostic nature since students and teachers can use this information in order to regulate learning processes (Hasan, Ismail, Yonsharlinawati, Jaafar, Ghazali, Budin, & Samad, 2012).

Statement of the Problem

The problem under investigation was to explore the relationship among different assessment techniques with outcome assessment at post graduate level

Objectives of the study

The subsequent objectives of the study were

1. To explore the correlation between different assessment techniques.
2. To identify the best assessment technique.

Hypotheses of the study

H₀₁: There exists no significant relationship among different assessment techniques at university level.

Research question of the study

What is best assessment technique applied at post graduate level?

Methodology

The present study was conducted to explore the relationship among different assessment techniques with outcome assessment at post graduate level. For this study, researchers had the following aims: to evaluate the assessment competence and capacity; to find any relationship between initial and final assessments. The population of the study comprised on M. Phil. (Education) Final-year students of Government College University Faisalabad. Census sampling technique was applied and there were thirty students in the class. Students were given a task of viva voce including written exam. The students' observations were also taken to determine their perceptions about the viva voce examination. The assessment techniques applied were, theoretical reasoning, numerical reasoning, application of knowledge, viva voce exam, mid-term and final term tests. The Cronbach Alpha reliability computed value was 0.843 it was calculated from two tests.

Analysis and Interpretation

H₀₁: There exists no significant relationship among different assessment techniques at university level.

Table 1

Correlation among different Assessment Techniques

Techniques	Essay type	Objective type	Portfolio	Application	Final Exam
Viva Voce "r"	0.741**	0.393*	0.559**	0.575**	0.619**
P	0.000	0.032	0.001	0.001	0.000
Essay type	1	0.546**	0.810**	0.725**	0.640**
		0.002	0.000	0.000	0.000
Objective type		1	0.627**	0.194	0.466**
			0.000	0.305	0.009
Portfolio "r"			1	0.381*	0.612**
P				0.038	0.000
Application r"				1	0.608**
P					0.000

P<0.05* and 0.01**

Correlation was run to investigate the relationship among different aspects of assessment. It is evident from table 1 that there is a significant and strong positive relationship among all the variables excluding relationship between application and objective type assessment which had no relationship. So the null hypothesis that, there exists no significant relationship among different assessment techniques at university level was rejected. The performance of students can be assessed with the help of different aspects of assessment techniques. But objective type test may not be a good predictor of students' ability to apply knowledge in new situations.

Results and Discussion

Table 1 depicted a significant and strong positive relationship among variables. So the null hypothesis was rejected. It was concluded that there was a significant and strong positive correlation among assessment techniques. The theoretical assessment (essay type), portfolio, practical, and final test had more significant and strong positive relationship. Objective type tests' scores and practical test score were not correlated. A previous study by Pears & Lee (2009) explored that the viva examination made the learners anxious. At the reflection of the test they accredited that the method was theory oriented. The reason may be the communication gap between oral assessment and written assessment tests. The students perceive the written tests easier than that of face to face interaction with teachers. Most of the students hesitate to communicate with teachers. The natural language barriers of Pakistani students hinder in the academic performance. It is recommended that the students should be trained in the viva voce examinations to balance between their academic and reflective achievement scores. The findings of Pears and Lee (2009) averred that viva is a complex, valid and innovative technique of the assessment of learning outcomes as compared with theoretical application of in-depth learning, practical application, and skills of problem-solving.

Future applications

The study has a number of implications for educators. It provides evidence of an alternative form of assessment against traditional written examinations. It shows a clear picture of relationship among different techniques of assessment. It elaborates use of Viva Voce exam as a new technique to check students' confidence of using their learned material in practical situation and enabling them for their career interview skills.

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PREPARATION CHECKLIST FOR THE *PJSI* MANUSCRIPTS

This checklist is intended to help you in preparing your manuscript for publication in *The Pakistan Journal of Social Issues (PJSI)*.

MANUSCRIPT FORMAT

• TITLE PAGE

- Include the full **title** of the article.
- List author(s)'s **name(s)**.
- Title footnote: A superscript asterisk (*) by corresponding author's **name** refers to the footnote at the bottom of the title page: includes **name**, **title**, **department**, **institution** and **e-mail** of the author.

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- Make it brief (one paragraph of about 150 words).
- Summarize the most important contributions in your paper.
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- Consider it a press release about your research.

Keywords

A list of four to five keywords is to be provided directly below the abstract. Keywords should express the precise content of the manuscript.

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Content

- For normal text, use Times New Roman font (10-point with 1.15 line spacing).
- All text should be left aligned with not space between paragraphs, but do indent a new paragraph by 0.5 inches.
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- Appendices appear at the end of your article (label “Appendix 1”, “Appendix 2”, etc.) *after* the references.
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- Use endnotes only when necessary and make them brief (less than 100 words). As an alternative, consider incorporating the same information within the text or adding a brief appendix.
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- Include tables only when they are critical to the reader's understanding.
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- Use asterisks to indicate significance as follows: * $p < .05$, ** $p < .01$ and *** $p < .001$ levels (avoid listing $p < .10$; only results significant at $p < .05$ level or better should be indicated as significant in tables or text). Indicate if tests are one-tailed or two-tailed.

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Reference Examples

Books:

Bernard, C. (1957). *An Introduction to the study of experimental medicine* (trans. H. C. Greene). New York: Dover.

Mason, K. O. (1974). *Women's labor force participation and fertility*. Research Triangle Park, NC: National Institute of Health.

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Goodman, L. A. (1947). The analysis of systems of qualitative variables when some of the variables are unobservable. *American Journal of Sociology*, 79, 1179–1259.

Szelényi, S., & Jacqueline, O. (Forthcoming). The declining significance of class: Does gender complicate the story? *Theory and Society*, 6(4), 49–66.

Dissertations:

Charles, M. (1990). *Occupational sex segregation: A log-linear analysis of patterns in 25 industrial countries* (PhD dissertation). Department of Sociology, Stanford University, Stanford.

Collections:

Clausen, J. A. (1972). The life course of individuals. In M. W. Riley, M. Johnson, & A. Foner (Eds.), *Aging and Society* (pp. 118–143). New York: Russell Sage.

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Centre for Population, Urban and Environment Studies University of Gujrat

Pakistan's population size, composition and its spatial distribution is destined to exert a powerful influence on the country's environment and socioeconomic development. For instance, changes in population size and age structure influence marketing strategies and consumption patterns of human and natural resources. Carefully gathered demographic data is invaluable for the government in planning public sector services. Policymakers use population data for its impact on demarcation of constituencies, allocation of resources, and on voting trends tied to factors such as age, gender, residence and ethnicity, among others.

Population Sciences is a multidisciplinary area concerned with changes in population size, distribution and structure due to births, deaths and migration. In recent decades, the scope of population sciences has greatly expanded to include such topics as reproductive health and family planning; household and family composition; labour market and labour force composition; economic development; social stratification; environment and urbanisation, etc.

Pakistan is going through a demographic transition and is confronted with a host of issues. The ageing population is increasing due to declining trends in fertility and mortality. The age structure is rapidly changing also because of urbanisation and other forms of migration as a consequence of industrialisation and replacement of traditional means of subsistence with modernisation and diffusion of technological skills and knowledge across the globe.

Moreover, demographic changes can be major forces of economic, cultural and environmental change. Population ageing, for example, will have an enormous impact on social security expenditure and the demand for health care. Understanding the issues leads to recognition of the interactions between population and government policies – an important part of planning for environmentally sustainable development.

As governments deal with a range of population-related issues, while making policies and initiating development program, there is an urgent need for research on the issues raised by demographic experience, and for providing a scientific basis for policy formulation. The aim of the Centre for Population, Urban and Environment Studies (CPUES) is to conduct research in multiple areas of population. The Centre provides a platform for the University's faculty to pursue research and teaching devoted to the understanding of population phenomenon. This Centre also helps formulate workable strategies and suggest recommendations, based on empirical findings, to policy-making institutions to address various issues confronting the Pakistani society.

Objectives

- Conduct empirical research in various disciplines such as Demography, Sociology, Economics, Business Demography, Environment and Industry;
- Develop capacity and skills of young faculty members by engaging them in research activities, and by enhancing their analytical capacities;
- Provide its database to national organisations and government departments to evolve public policy on the basis of findings of empirical studies; and
- Establish UOG's linkages with other national and international organisations.