Demographic Factors of Domestic Violence: An Analysis of PDHS 2012-13

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Abstract

The aim of this study was to investigate the relationship between demographic variables (age, educational level, occupation, residential area and region) and domestic violence in Pakistan. In this study, data of Pakistan Demographic Health Survey (PDHS) 2012 was used. According to the PDHS data, domestic violence depends on physical and emotional violence. The separate questionnaire was used to collect the data on domestic violence. The sample size was based on 14,000 urban and rural households. All married women in reproductive age (15-49) were included as a sample. All demographic characteristics were used as variables and measured the relationship with violence. Analysis of variance ANOVA and independent sample t-test used to find out the relationship between demographic factors and domestic violence. According to the results, demographic characteristics have a significant relationship with domestic violence. The results also show that higher educational level, urban area, good occupation can decrease the level of violence.

Keywords: Physical Violence, Emotional Violence, Pakistan Demographic Health Survey (PDHS)

Introduction

"Gender-based violence (GBV) is defined as any act of violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivations of liberty, where occurring in public or private life" (UN, 1993 &1995). According to the United Nations Declaration (1993), violence against women is a manifestation of historically unequal power relations between men and women, which has led to domination over and discrimination against women by men and to the prevention of the full advancement of women. Violence has different types and domestic violence is one of them. It has different forms such as physical violence, sexual abuse, intimidation, emotional abuse and assaults (biting, slapping, hitting, shoving, pushing, throwing, etc.). Moreover, economic deprivation is also included in its forms (Bosede & Alokan, 2013).

Domestic violence is not only local or national problem, but it is also a global issue with both types of countries (industrial and developing). It resists basic rights of women, which should be provided as a human being. According to World Health Organization (WHO), domestic violence is considered as a violation of human rights as well as it denies women's equality, security and freedom (Mamdouh et al., 2012). Domestic violence induces grave effects on emotional, physical and psychological wellbeing of women, but it has short term and long term consequences (SIR, 2011; UN Women, 2012; Panda, 2005).

Mostly, this issue arises because of the patriarchal structure and practices of socialization. In patriarchal structure, male are being socialized as aggressive, unemotional, powerful and controlling. On the contrary, women are considered like passive, nurturing, submissive, emotional, powerless, and dependent upon men (Zimmerman, 1994; González-Brenes, 2004; Fact Sheet, 2003). Availability of

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unequal economic opportunities, unequal institutional resources and imbalance of powers become the cause of gender violence. These issues occur where males are dominant and women belong to oppressing or exploiting class. (Buss et al., 2002; SIR, 2011; UNIFEM, 2010; NIJ, 2008).

It assumes that education is the protection tool for the women to avoid domestic and gender based violence. Spousal's education and age difference also contribute to the incidence of violence. There are fewer chances for domestic violence if both partners have equal educational level (Owuamanam, 2013). On the other hand, difference between husband and wife's education create misunderstandings and raises domestic violence. Women's education has effects on communication gap of spousal relationship which leads to physical violence (Rapp et al., 2012; Marium, 2014; Koeing et al., 2005; Naved & Persson, 2005).

According to PDHS, women of young age have greater chances to face violence than middle or old age. According to patriarchal norms, women start their married life in their husband's home. In that new family young woman has lower status and therefore are at high risk of domestic violence. Domestic violence is reduced with the older age (Buss et al., 2002; Owuamanam & Akintoke, 2013). However, higher economic status is related to lower level of domestic violence and conversely high in the low income households. Severity and duration of violence are based on employment, education, income and age at marriage. Women's income or employment may reduce the domestic violence (IIPS, 2009; Marium, 2014). Moreover, place of residence (urban & rural) also plays vital role in increasing or decreasing the domestic violence. Living arrangements, such as low income residential area have effects on abusive relationship (Panda & Agarwal, 2009; Mamdouh et al., 2012; Jensen, 2003). Patriarchal system and rigid cultural norms are also playing a crucial role to increase the domestic violence against women. It is considered a culture in that women are subordinate to men in their families. That's why these conditions have greater chances of domestic violence (Asif et al., 2010; Mistiso et al., 2010; Rand & Rennison, 2004; Jenson et al., 2005; UNIFEM, 2010).

Above stated account reveals the importance of gender based violence in Pakistan. The present study aims to understand the impact of demographic variables (education, income, age, residential area, employment) on domestic violence.

Objectives

- To find out the impact of female and spousal's education on domestic violence
- To study the relationship between age and domestic violence
- To identify the relationship between residential area and domestic violence
- To study the relationship between income and domestic violence
- To investigate the impact of female and spousal's employment on domestic violence

Hypothesis

- Higher the level of female and spousal's education, lower will be the domestic violence
- There are less chances of domestic violence among aged couples
- People from urban areas are less interested in domestic violence
- Higher the socio-economic status, lower will be the domestic violence
- Higher the female and spousal's employment, lower will be the domestic violence

Significance of the Study

In recent years, there has been increasing concern about gender based violence in both developed and developing countries. Gender-based violence is therefore violence targeted to women or girls on the basis of their subordinate status in society. It is also found that gender-based violence occurs across all socioeconomic and cultural backgrounds (MDHS, 2010). The present study investigates the relationship between demographic variables (education, age, income, residential area and working status) and domestic violence. The findings of the present study can help to enhance awareness among women and men about factors of domestic violence. It will also help to provide valuable contribution to the academia and international organizations and provide an insight to the phenomena of domestic violence. The findings can also help Government, planners and policy makers to make strategies to reduce or control the domestic violence.

Literature Review

Brenes (2004) conducted a study on "Domestic violence and household decision making: evidence from East Africa". Economic and social dynamics of violence were examined through nationally representative survey. The 4, 588 married couples were included in this sample. The findings of the study explained that household wealth, female's education and earning are correlated with women's attitude towards violence. Results suggested that economic opportunities will lead to decrease in domestic violence.

Owuamanam & Akintoke (2013) investigated a study "Influence of educational level and family type on domestic violence". The sample size was selected through stratified random sampling, which was depended on 519 married couples. Analysis of variance explained that couple's educational level significantly influenced on violence. The wider educational gap has greater risk behavior towards violence. The rate of domestic violence is higher in polygamous homes rather monogamous homes.

Peters et al (2002) measured a brief report on "understanding domestic violence against women: using evolutionary psychology to extend the feminist functional analysis". Male-perpetrated domestic violence is control over female sexuality was the main hypothesis of this study. The 3, 969 cases were selected to test the hypothesis. These cases conducted by the police department. Domestic violence rates were calculated according to relevant population estimates for married and cohabiting individuals provided by the US census. According to the results, 15 to 30 years old women have to face a greater risk of domestic violence and it decreases with the age of women.

Tejashri et al (2013) investigated a study to assess determinants of domestic violence among women in urban slum of Mumbai. Data was carried out by Urban Health Center from February to March 2008. The sample size was based on 105 married women who included in 15-45 age groups. These women had to face violence in history. All variables like age, socioeconomic structure, education and family type were measured with violence. The violence faced by them was mostly Verbal (71.42%) and Physical violence (48.57%), with the perpetrators being mostly their husbands' and Mother-in-law. These women did not have any power in decision making in the family. They perceive risk factors were mostly Poverty. They were not allowed to keep any money to themselves and were also forced to leave jobs, or were prevented from taking jobs.

Mamdouh et al (2012) studied Prevalence and risk factors for spousal violence among women in Egypt. It was based on a cross sectional survey design from 2009 to 2010. The sample consisted of 3271 ever-married women attending publicly funded family health centers. The detailed information was collected on socio-demographic background, women's and husbands' Characteristics, the prevalence of all forms of violence. The information related to violence based on physical violence, sexual, emotional

and emotional abuse. Logistic regression analysis was used to identify variables that were significantly related to spousal violence. More than three-quarters of participants (2519 women) had experienced spousal abuse of any type during their marital life. Spousal violence was most prevalent among women aged 25−< 35 years ($P < 0.05$). Spousal violence varied significantly among women who had different levels of education and different types of occupation.

Panda & Agarwal (2009) conducted a study on marital violence, human development and women's property status in India. This household survey covered the 502 women sample that included in 15-45 age groups. The 302 women were from rural and remaining from urban. The individual level variables were measured like household consumption expenditure, education, job status of the respondent and her spouse, social support, ownership of land and houses. Results show that respondents of rural areas have a greater risk towards violence rather urban. Spousal age difference and educational level are associated with violence.

Yo-Mi (2007) studied on women's working status and physical spousal violence in India. The four data sets were included in this study. According to the regression results, women's working status has a significant negative effect on the incidence of physical spousal violence. Women's labour force participation will decrease the probability of physical spousal violence. The findings suggest that the positive relationship between women's working status and the physical spousal violence is likely to be a result of indignity rather than the male backlash.

Methodology

The PDHS (2012) data source was used in this study, which was conducted by NIPS (National Institute of Population Sciences). The sample size was based on 14,000 households and it divided into rural (7,056) and urban (6,944). Four types of questionnaire were used in this survey; men and women's questionnaire were also separated. Domestic violence was the main variable in this study, which was first time used in PDHS. Ever married women and men were selected to collect data that have 15-49 age groups. Background characteristics (age, education, residential area, region, occupation etc) were asked to women and men. The information regarding domestic violence was obtained from those women who have faced violence by their current and former spouses and by others as well. Especially it focused on spousal violence which was measured in detail form. In this present study, background variables were considered as main variables and tested with domestic violence. The conflict tactics scale was used in modified version; it measured the physical and emotional violence. Specifically, spousal violence was measured using the following set of questions for women:

(Does/did) your (last) husband/partner ever do any of the following things to you?

a) Slap you?
b) Twist your arm or pull your hair?
c) Push you, shake you, or throw something at you?
d) Punch you with his fist or hit you with something that could hurt you?
e) Kick you, drag you or beat you up?
f) Try to choke you or burn you on purpose?
g) Threaten or attack you with a knife, gun, or any other weapon?
h) Physically force you to have sexual intercourse with him even when you did not want to?
i) Force you to perform any sexual acts you did not want to?

Emotional violence among ever-married women was measured in a similar way, using the following set of questions:

(Does/did) your (last) husband ever?
a) Say or do something to humiliate you in front of others?
b) Threaten to hurt or harm you or someone close to you?
c) Insult you or make you feel bad about yourself?

Results and Findings

In this section, respondent's educational level, spousal's education, age of respondent, residential area, wealth index, and women's occupation or employment were measured with domestic violence through using of independent sample t-test and ANOVA.

Table # 1: Respondent's Education and Domestic Violence

Test of Homogeneity of Variances				
	Levene Statistic	**df1**	**df2**	**Sig.**
Emotional Violence	62.578	3	3679	.000
Physical Violence	96.467	3	3680	.000
ANOVA				
		Sum of Squares	**Df**	**Mean Square**	**F**	**Sig.**
Emotional Violence	Between Groups	199.152	3	66.384	23.128	.000
	Within Groups	10559.802	3679	2.870		
	Total	10758.954	3682			
Physical Violence	Between Groups	727.864	3	242.621	34.866	.000
	Within Groups	25607.605	3680	6.959		
	Total	26335.469	3683			

The respondents' educational level is divided into four categories (No Education, Primary, Secondary and Higher). ANOVA is showing that Educational level has significant difference between the illiterate and educated women to enhance the physical violence as well as emotional violence. Graphical description (Fig 1) is also explained that higher education level decreases the both types of violence. On the other hand, illiterate women have to face a greater risk towards violence. Literature regarding this hypothesis is helpful and explains the same description which ANOVA has been performed. Education plays a vital role to increase the awareness level among people and recognize about their rights.

Table # 2: Spousal's Education Level and Domestic violence

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Emotional Violence	51.357	4	3675	.000
Physical Violence	71.356	4	3676	.000
ANOVA				
		Sum of Squares	Df	Mean Square	F	Sig.
Emotional Violence	Between Groups	258.927	4	64.732	22.660	.000
	Within Groups	10498.012	3675	2.857		
	Total	10756.939	3679			
Physical Violence	Between Groups	792.551	4	198.138	28.533	.000
	Within Groups	25526.329	3676	6.944		
	Total	26318.880	3680			

The above table is showing the relationship between husband's education level and violence. Graphical description (Fig 2) explains that there is not a greater difference between violence and husband's education level. But ANOVA has been proved that educational level has significant difference to prevalence the physical and emotional violence. Literature tells us that husband's education level and difference between husband and spouse's educational level affect the violence rate.

Table # 3: Age and Domestic Violence

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Emotional Violence	5.740	6	3676	.000
Physical Violence	12.502	6	3677	.000
ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Emotional Violence	Between Groups	40.771	6	6.795	2.331	.030
	Within Groups	10718.183	3676	2.916		
	Total	10758.954	3682			
Physical Violence	Between Groups	132.698	6	22.116	3.104	.005
	Within Groups	26202.771	3677	7.126		
	Total	26335.469	3683			

Woman's age is categorized into seven age groups (15 to 49). Analysis of variance has been performed that violence varies according to age categories. Literature is also depicted that women's age can increase or decrease the violence rate. The 30-35 age group women have greater experience of domestic violence (physical and emotional). (Fig 3)

Table # 4: Respondent's Residential Area and Domestic Violence

Group Statistics					
	Type of place of residence	N	Mean	Std. Deviation	Std. Error Mean
Emotional Violence	Urban	1731	.8070	1.57097	.03776
	Rural	1952	1.1778	1.80598	.04088
Physical Violence	Urban	1731	1.0612	2.37807	.05716
	Rural	1953	1.5883	2.88944	.06538

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Emotional Violence	85.056	.000	-6.607	3681	.000	-.37072	.05611	-.48073	-.26071
			-6.662	3.680E3	.000	-.37072	.05565	-.47982	-.26162
Physical Violence	81.175	.000	-5.999	3682	.000	-.52709	.08786	-.69934	-.35484
			-6.069	3.662E3	.000	-.52709	.08684	-.69736	-.35682

Results show that violence rate varies according to residential area (rural & Urban). Statistics are explaining the difference of means, which indicate that rural area has greater mean 1.1778/ 1.5883 rather than urban area 8070/1.0612. The values of mean depict that violence rate is greater in rural areas. Physical violence in both areas has not greater difference, but independent sample t-test has been proved that rural areas influenced to prevalence physical and emotional violence. The P-values (. 000) are less than Alpha which indicates that residential area and violence have a significant relationship. It might be due to different attributes like educational differences, access to media or awareness and agricultural occupation.

Table # 5: Wealth Index and Domestic violence

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Emotional Violence	47.958	4	3678	.000
Physical Violence	65.878	4	3679	.000

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Emotional Violence	Between Groups	204.017	4	51.004	17.773	.000
	Within Groups	10554.938	3678	2.870		
	Total	10758.954	3682			
Physical Violence	Between Groups	706.937	4	176.734	25.370	.000
	Within Groups	25628.532	3679	6.966		
	Total	26335.469	3683			

In PDHS, wealth index based on five categories such as poorest, poorer, middle, richer and richest and all categories measures the wealth index. Literature depicts that socioeconomic status relates to violence rate. There is a significant difference among these groups to increase the physical and emotional violence. The poorest and poorer have greater chances to commit violent behavior. Analysis of variance justify that when the wealth index leads towards the poorest to richest then violence level is decreased. Physical violence is high rather emotional violence. Better socioeconomic status can decrease the violence rate because poverty may be a factor of violence.

Table # 6: Respondent's Occupation and Domestic Violence

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Emotional Violence	11.051	7	3673	.000
Physical Violence	12.410	7	3674	.000
ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Emotional Violence	Between Groups	170.890	9	18.988	6.587	.000
	Within Groups	10588.064	3673	2.883		
	Total	10758.954	3682			
Physical Violence	Between Groups	380.897	9	42.322	5.991	.000
	Within Groups	25954.572	3674	7.064		
	Total	26335.469	3683			

Literature showed that violence rate is affected by women's occupation or employment. The respondent's occupation has significant difference among occupation categories to enhance the violence. Here Analysis of variance explains almost same results like husband's occupation. This analysis has depicted that agricultural and self-employed women have greater risk towards violence. Women related to clerical work have less experience of violent behavior. As well as domestic wok and skilled manual work are explained less violence rather agricultural occupation. (Fig 5).

Table # 7: Spousal's Occupation and Domestic Violence

Test of Homogeneity of Variances				
	Levene Statistic	df1	df2	Sig.
Emotional Violence	14.784	9	3672	.000
Physical Violence	14.418	9	3673	.000
ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
Emotional Violence	Between Groups	140.708	9	15.634	5.407	.000
	Within Groups	10617.239	3672	2.891		
	Total	10757.947	3681			
Physical Violence	Between Groups	351.300	9	39.033	5.518	.000
	Within Groups	25982.371	3673	7.074		
	Total	26333.671	3682			

Violence rate and level are influenced by husband's occupation and analysis of variance is also explained this relationship. The P-value is showing that Husband's occupation has significant difference

to enhance the violence rate. Violence vary among occupational categories (clerical, agricultural/self-employed, household/domestic and skilled manual). Agricultural or self-employed has greater risk to commit violent behavior as well as skilled manual has the same results. But on the contrary, clerical occupation decreases the physical and emotional violence. It can relate to education because any occupation depends on education level. We live in agricultural country so; we have to face this critical social problem. (Fig 6)

Discussion and Recommendations

The present study investigated the relationship between demographic factors and domestic violence. Analysis of variance ANOVA and independent sample t-test were used to determine the variables. The findings showed that there were significant results between the level of domestic violence and demographic characteristics. Likewise, Hove & Gawazane (2011) measured the background variables with domestic violence and found similar results. In this study, the total sample of women was 13558, the majority of the women (28%) were belonging to the Punjab region and others were Sindh (21.7%), KPK (19.9 %,), Baluchistan (14.4%) (PDHS, 2012). Most of the respondents (53.2%) were living in rural areas and others in urban areas. Literature and inferential analysis are also showing that violence rate is higher in rural areas. Table # 4 describes the significant results between both variables. Low income and rural areas have a greater risk of domestic violence (Mistiso et al., 2010; Asif et al., 2010). Education plays an important role to avoid the domestic violence, data also depict that higher education leads towards the low level of violence. But most of the women were illiterate (56.2%) and just 12.4% women had higher education (PDHS, 2012). Table no 1 & 2 showed the significance p-value (0.000) which describes that education affects the domestic violence. Husband/partner's education can increase or decrease the violence rate. Ibrahim et al (2010) & Rapp et al (2012) found similar results that level of women's education and spousal's education may contribute the important role to promote and prevent the domestic violence.

Table no 5 showed that wealth index or income is very helpful to measure the domestic violence. ANOVA explained that the richest socioeconomic status has a lower level of violence. The most of the respondents (23.9) in this data were falling in richest category and 18.3% were in poor. The respondents and husband's occupation influenced by violence rate, skilled manual and clerical work decreased the violence rate. Table no 6 and 7 explained that agricultural workers and self-employed occupation have a significant relationship with violence rate. Naved & Persson (2005); Koinig et al (2005) studied on income and occupation with domestic violence and found a positive relationship among these variables. This study can play a vital role to develop policies and eradicate this crucial problem. These findings are telling us about the factors which can contribute to prevail and avoid the domestic violence.

After the findings of the present study, researcher suggests some policy implications which may be important for society. There is a need for recognition at the national level of the issue. Government programs to enhance education of women are already in place. Educational institutions should be participated to enhance the awareness level through seminars and educational activities. There should be enough educational programs in all societies and cultures, both for women and men at the same levels. Efforts should be put to increase awareness about this in women and girls. As well as we should take steps to create awareness among male members. The efficient screening program should be put in place at all health care, providing facilities to detect cases of domestic violence. Health education and public awareness about the problem of domestic violence should be done through involvement of mass media and non-governmental organizations. The economic growth of women through schemes of self-

employment and income generated should be boosted so as to ensure social & health empowerment. More funds should be allocated to women's development in the country.

References

- Asif, F., Zafar, M.I., Maann, A.A., & Ahmad, M. (2010). Domestic violence rural-urban current age and age at marriage differential impact on women physical health in Punjab, Pakistan. *Pak. J. Agri. Sci., Vol.* 47(2), 178-182; ISSN (Print) 0552-9034, ISSN (Online) 2076-0906.
- Brenes, M.Z. (2004).Domestic violence and household decision-making: evidence from East Africa. University of California, Berkeley.
- Bosede, A., & Alokan. (2013).Domestic violence against women: a family menace. 1st Annual International Interdisciplinary Conference, *AIIC 2013*, 24-26 April, Azores, Portugal Proceedings.
- Chin, Y. (2007). Women' working status and physical spousal violence in India. Applied Microeconomics seminar at Michigan State University, and Cornell/Michigan International Labor Conference.
- Empowering victims of domestic violence (2011). Social Issue Report Health And Well-Being.
- European Commission. Domestic Violence against Women. Special Eurobarometer, 344.
- González-Brenes, M (2004). Domestic violence and household decision-making: evidence from East Africa. University of California, Berkeley.
- General Assembly, 20 December (1993). Original: English/RES/48/104.
- Handbook for national action plans on violence against women UN Women New York, 2012.
- Hove, K., & Gwazane, M. (2011). A study to determine factors associated with domestic violence among concordant and discordant couples in Zimbabwe *Vol. 1 No.7. The Special Issue on Behavioral and Social Science © Centre for Promoting Ideas, USA www.ijhssnet.com*
- Ibrahim F., Kharboush., FarzanehRoudi-Fahimi., Hanaa, M., Ismail., Mamdouh, H.M., Yasmine, Y.M., Tawfik, M.M., Sharkawy, O.G., & Sallam, H.N. (2010). Spousal violence in Egypt. www.prb.org
- International institute of population sciences and macro international (2009). National family health survey 3, India-06: Goa. Mumbai: IIPS
- Jansen, C.H., Ellsberg, M., Heise, L., & Watts, C. (2005). WHO multi-country Study on women's health and domestic violence against women: Initial results on prevalence, health outcomes and women's responses. World Health Organization, Geneva, Switzerland.
- Jensen, R., & Thornton, R. (2003). Early female marriage in the Developing World. *Gender and Development*, Vol. 11, No. 2, Marriage, pp. 9-19 Published by: Taylor & Francis, Ltd. on behalf of Oxfam GB Stable URL: http://www.jstor.org/stable/4030636
- Kambli1, T.J., Kazi, Y.K., Chavan, Y.B., Velhal, G.D., & Aras, R.Y. (2013). Study to assess determinants of domestic violence among women in urban slum of Mumbai. *IOSR Journal of Dental and Medical Sciences*, Volume 8, Issue 4, PP 18-22.
- Kamat, U., Ferreira, A.M.A., Motghare, D.D., Kamat, N., & Pinto, N.R. (2010). A cross-sectional study of physical spousal violence against women in Goa. ISSN 2229-337X Volume 1 Issue 1; Pages│ 34-40.
- Koenig, M.A., Ahmed, S., Hossain, M.B., Alam, K., & Mozumder, A.B. (2003). Women's status and domestic violence in rural Bangladesh: individual- and community-level effects. Demography2003; 40:269–88.

- Malawi Government (2010). Malawi Demographic and Health Survey 2010, National Statistical office and Macro International Inc., 2011
- Marium, S. (2014). Women's Level of education and its effect on domestic violence in rural Bangladesh. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* Volume 19, Issue 5, Ver. III, PP 40-45 e-ISSN: 2279-0837, p-ISSN: 2279-0845.
- Mamdouh, H.M., Ismail, H.M., Kharboush, I.F., Tawfik, M.M., Sharkawy, O.G. Abdel-Baky, M., & Sallam, H.M. (2012). Prevalence and risk factors for spousal violence among women attending health care centres in Alexandria, Egypt. *EMHJ* • Vol. 18 No. 11.
- Moses, M.,Mutiso., Samuel, R.,Chessa., Michael, A.,Chesire., & Kemboi, L. (2010). Factors leading to domestic violence in low-income residential areas in Kenya: A case study of low-income residential areas in Kisumu City. *Journal of Emerging Trends in Educational Research and Policy Studies* (JETERAPS) 1 (2): 65-75
- National Institute of Justice (2000). Full report of the prevalence, incidence, and consequences of violence against women. U.S. Department of Justice, Office of Justice Programs.
- NCJ, (2004). Violence against women and family violence: Developments in research, practice, and policy.
- Owuamanam, T.O., &., Akintoke, V.A. (2013). Influence of educational level and family type on domestic violence in Ekiti State, Nigeria. The Clute Institute International Academic Conference Breckenridge, Colorado USA.
- Oxfam Guid, (2012). Ending violence against women.
- Panda, P., & Agarwal, B. (2005). Marital violence, human development and women's property status in India. World Development. Volume 33, No 5, pp 823-850.
- Pakistan Demographic Health Survey (2012)
- Postmus, J.L. (2010). Economic empowerment of domestic violence survivors. National Online Resource Centre on Violence against Women.
- Peters, J., Shackelford, T.K., & Buss, D.M. (2002). Understanding domestic violence against women: using evolutionary psychology to extend the feminist functional analysis. *Violence and Victims*, Volume 17, Number 2.
- Prevention of domestic violence against women (2000). European Survey, Good Practice Models Wave Training Programme.
- Naved, R. T., & Persson, L. Å. (2005). Factors associated with spousal physical violence against women in Bangladesh. Studies in Family Planning, 36(4), 289-300.
- Rapp, D., Zoch, B., Mobarak., Pollmann, T., & Krämer, A. (2012). Association between gap in spousal education and domestic violence in India and Bangladesh. BMC Public Health, 12:46.
- UNWOMEN (2012). Handbook for National Action Plans on Violence against Women. New York.
- UNIFEM, (2010). Investing in gender equality: Ending violence against Women and Girls.
- UNICEF (2000). Domestic violence against women and girls, Innocent Digest no. 6.
- UN Women Watch, (2009). The UN Internet Gateway on Gender Equality and Empowerment of Women *Fact Sheet.* Women, Gender Equality and Climate Change.. UN women watch:www.un.org/womenwatch
- World Health Organization, (2012).Understanding and addressing violence against women. WHO/RHR/12.35
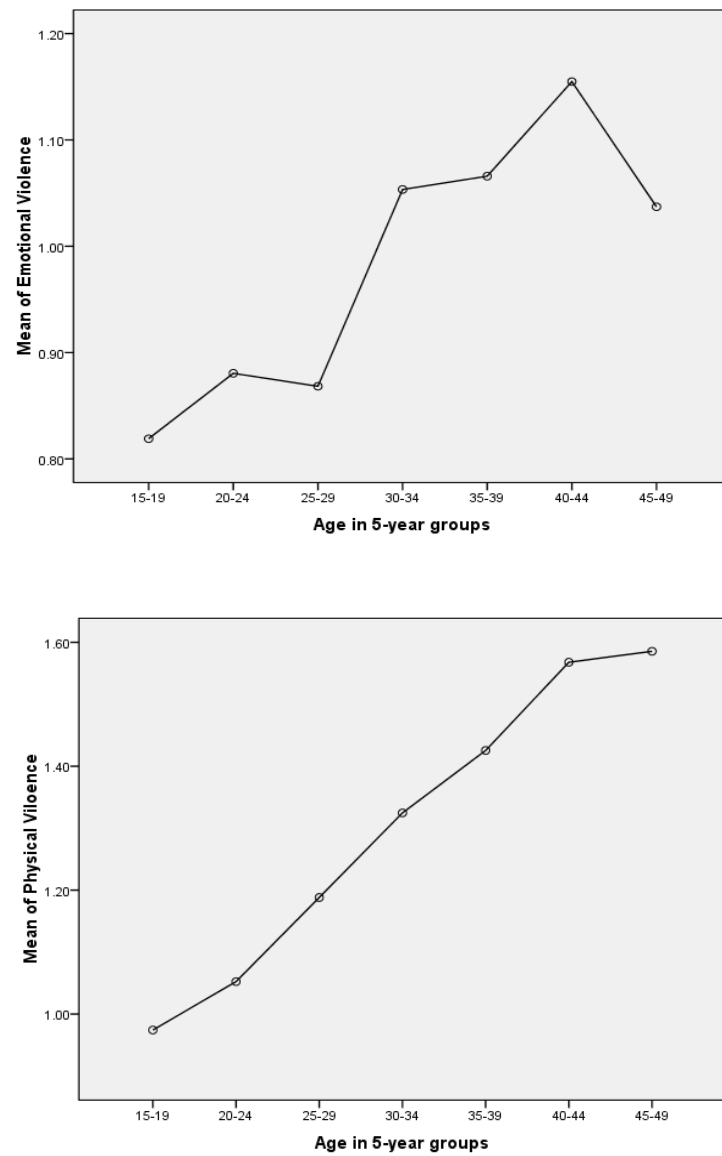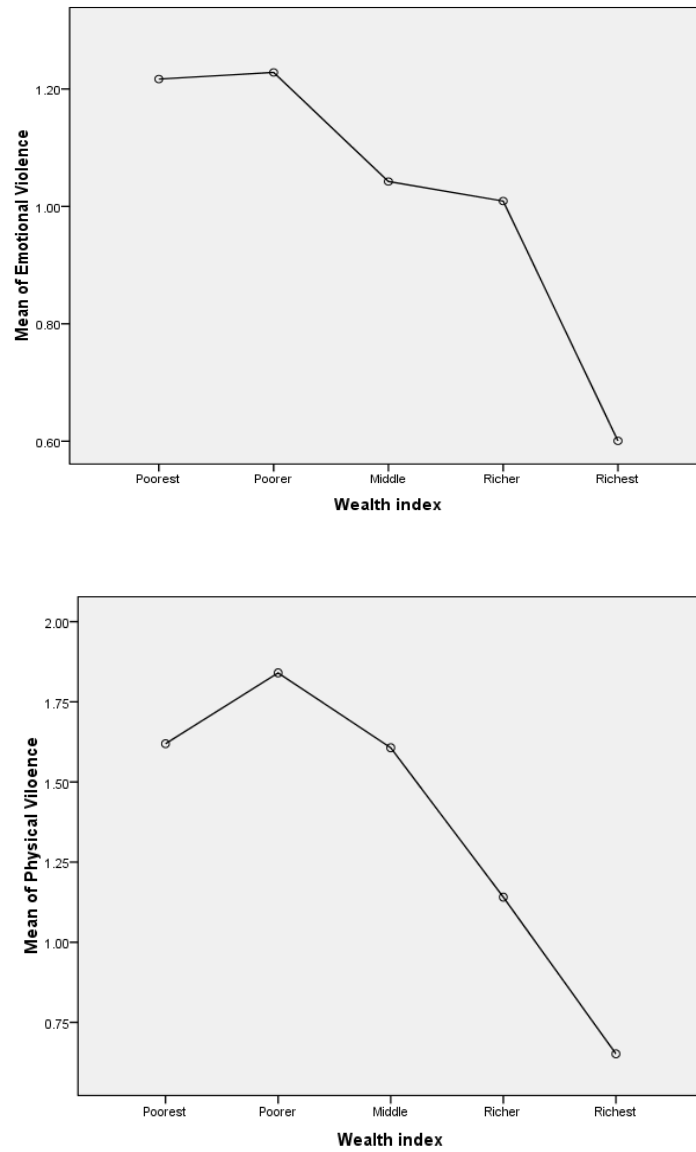
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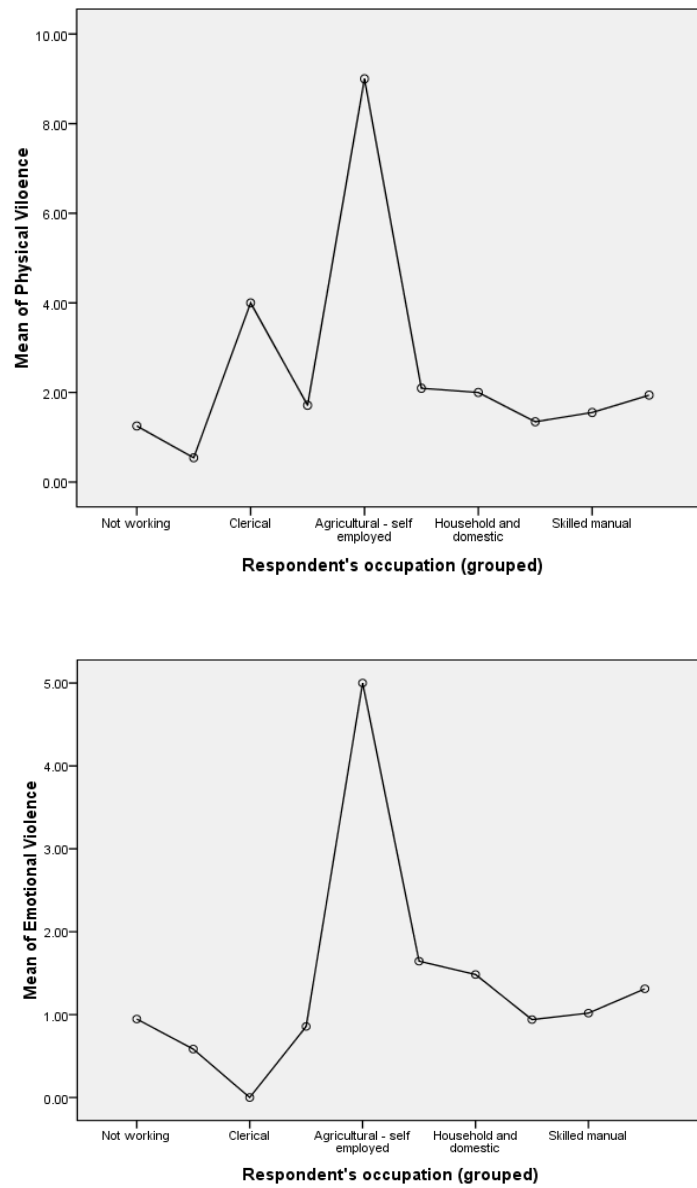**Figure # 1**
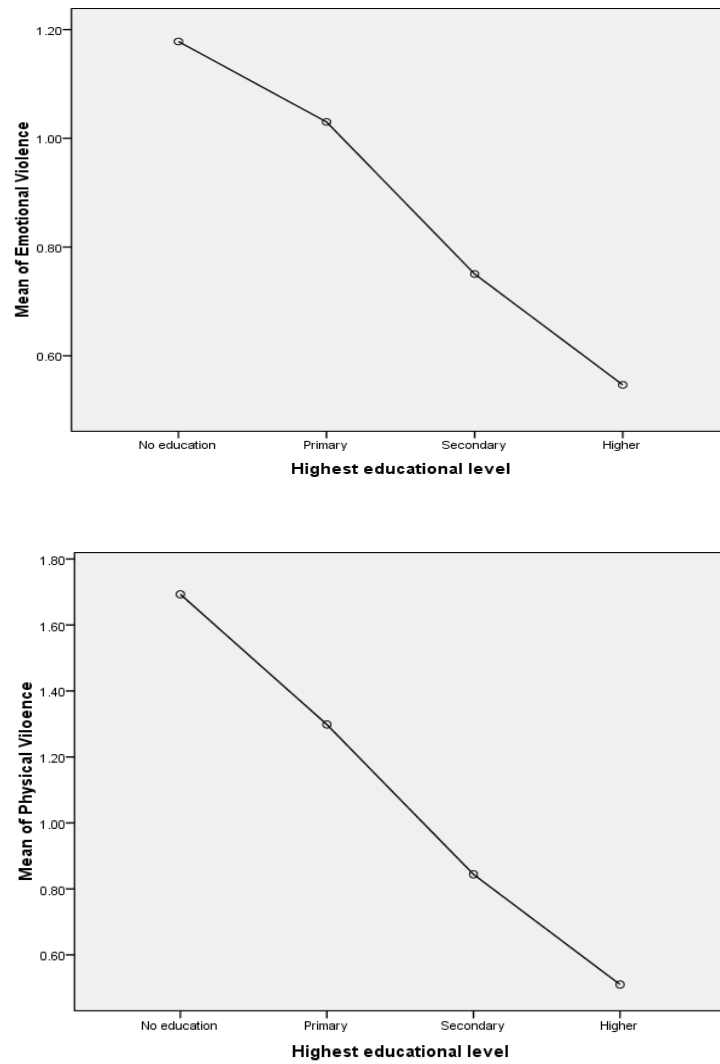
Figure # 2
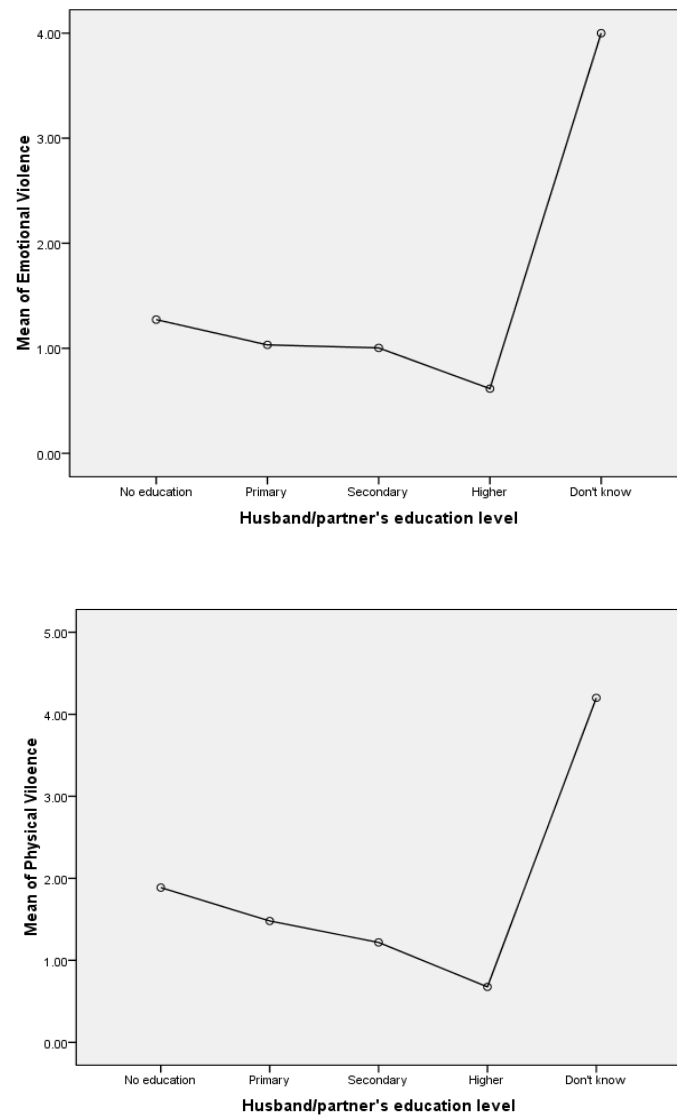
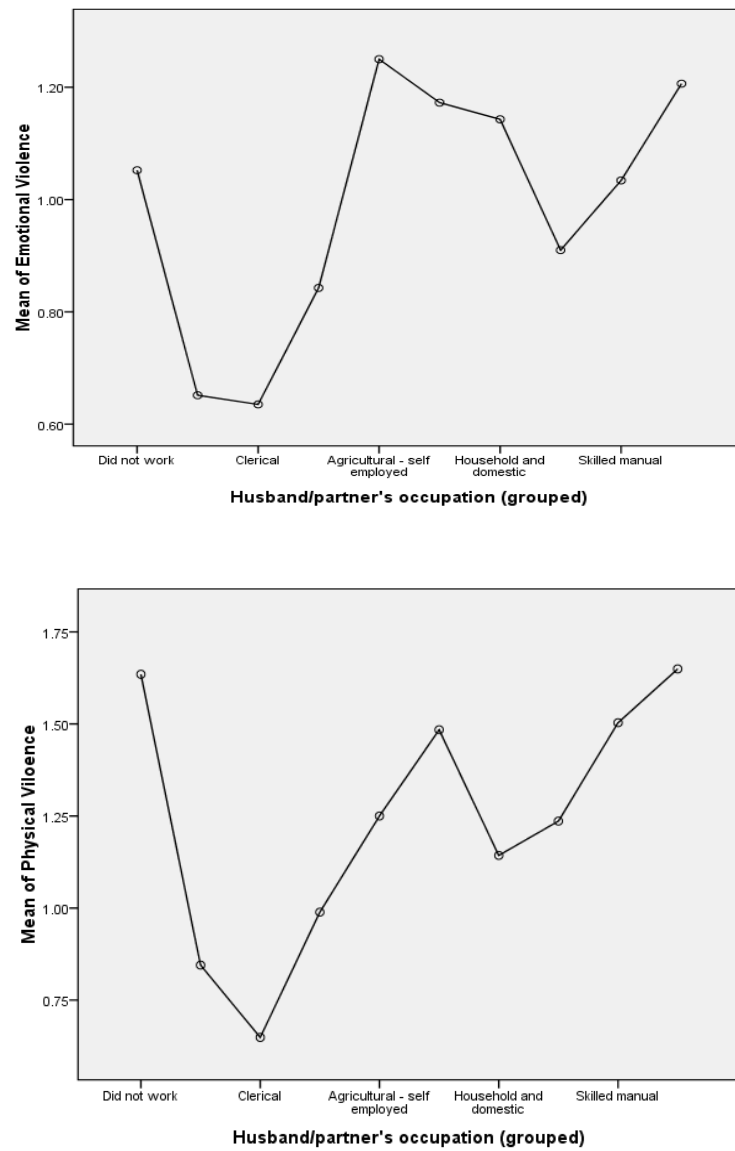**Figure # 3**

Figure # 4

Figure # 5

Figure # 6

Long Run Sectoral Determinants of Electricity Demand in Pakistan: A Panel Data Assessment

Faisal Mehmood Mirza [1] & Muhammad Mudassar Khan

Abstract

The prime objective of this study is to estimate the underlying determinants of electricity demand and provide sectoral income and price elasticities for Pakistan using panel data from 1973 to 2012. These estimates are important for calculating welfare and environmental implications of present and upcoming energy policies. The panel Cointegration technique has been applied for testing long run relationship between variables. Long run panel and sector specific parameters have been estimated using fully modified OLS (FMOLS) method. Results suggest that income and price elasticities are significant in both panel and sector specific models. Income elasticities demonstrate that electricity acts as a necessity in overall and as a luxury in different economic sectors. Price elasticities are less than unity, which means that electricity demand is less responsive to price changes in the economy and the sectoral level.

Introduction

The prime objective of this study is to estimate the underlying determinants of electricity demand and provide sectoral income and price elasticities for Pakistan. These estimates are important for calculating welfare and environmental implications of present and upcoming energy policies. These estimates can also be used to make essential energy predictions and CO_2 emission simulations for different sectors under different growth rate assumptions about the economy.

In recent years, Pakistan's energy sector has undergone two important developments. First, the electricity shortfall has increased substantially from 2007 onwards and reached a maximum of 6000 MWs in the summer of 2015. Determents of this shortfall include both supply and demand side factors. Average growth of electricity supply between 2007-08 and 2012-13 decreased from 6.8 to 1.5 percent[2]. Contrarily, electricity consumption increased at an average of 4.9 percent annually between 2001-10. This sharp rise in electricity demand can be attributed to high usage of home appliances and increase in the share of the manufacturing sector in GDP in recent years (Economic Survey, 2013-14). Electricity supply issues can be attributed to high fuel cost of thermal power generation, high line losses in transmission and distribution, inefficiencies in electricity generation, below cost tariffs and non-payment of electricity bills by public and private consumers (Annual Plan, 2014-15). Second, Government of Pakistan has substantially revised electricity tariffs by gradually withdrawing subsidies (World Bank,

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[2] Economics survey of Pakistan, 2013-14.

2014)[1]. Sharp increase in electricity prices is expected to have an impact on the electricity price elasticity.

These two developments have substantially changed the face of the electricity market in Pakistan. Due to increase in energy prices, the exact welfare and environmental implications are unknown because of the absence of reliable estimates of price and income elasticities. Due to recent increased electricity prices, energy demand decisions during energy crises, increase in real income and other substitutes of energy being available, there is a renewed interest in estimating price and income elasticities for electricity demand in the case of Pakistan.

The prevailing evidence on income and price elasticities at the sectoral level in Pakistan is solely based upon the aggregated annual time series data (Jamil & Ahmad, 2013; Alter & Sayed, 2011). Most of the studies, which estimate electricity demand using time series data, ignore the sectoral dependence between different sectors of the economy. Sectoral dependence implies the presence of common shocks and unobserved components, which become part of error term but not correlated with explanatory variables. It can be explained by the existence of similar technology available in different sectors of the economy or due to social norms, neighborhood effects and interdependence of preferences (Beckmann et al., 2012).

Electricity prices have significant importance in estimating energy price elasticites. Prices for major energy commodities, including electricity and gas are non-linear in nature and change across consumer groups. Similarly, these prices change various times in a year following government policy. Research studies built upon time series data are based upon a price series by averaging price across consumption groups and across time, rather than creating a price series by a weighted average of consumers in each of the price slabs for individual sectors in KESC and WAPDA system (Jamil & Ahmad, 2013). We plan to use a price series based upon the weighted average of consumers in each of the price slabs for individual sectors in KESC and WAPDA system to come up with a more representative price and income elasticity estimates.

The rest of the paper is organized as follows. Section 2 of the paper discusses a theoretical framework, whereas section 3 presents the econometric methodology. Empirical results have been presented in section 4 of the paper. Section 5 concludes the paper with suitable policy recommendations.

Theoretical Framework
Residential Sector
Current study adopts the Fillpini's (1999) model of final energy good for deriving residential demand for electricity. The production function with some modifications involves final energy commodity (x) dependent upon electricity consumed (e) and stock of home appliances (a).

$$x = f(e, a) \text{ And consumer utility } U = f(x, y, z)$$

Where (x) represents energy better, (e) shows electricity consumption and (a) stands for the stock of home appliances. According to Labandeira et al., (2012), optimization is completed in two stages. The first step involves the minimization of the cost of electricity consumption and second involves maximization of consumer utility. So study progresses by cost minimization followed by utility maximization. i.e.

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[1]During fiscal year 2012-13 total subsidies to the energy sector mounted to 1.75 percent of GDP.

$Min\ P_e.\,e\ +\ P_a.\,a$

s.t $x\ =\ f\ (e,a)$

Where (P_e) and (P_a) are prices of electricity and prices of household appliances respectively. The Lagrange function of the problem can be represented as;

(1) $L = P_e.\,e\ +\ P_a.\,a\ -\ \lambda\ (x - f\ (e,a\ )$
Where,

$\eth\,L\ /\ \eth\,a\ =\ Pa - \lambda x_a$ and $\eth\,L\ /\ \eth\,e\ =\ Pe - \lambda x_e$

According to first order conditions;

$$P_e - \lambda x_e\ =\ 0\ \rightarrow\ \lambda\ =\ P_e\ /\ x_e \qquad P_a - \lambda\,x_a\ =\ 0\ \rightarrow\ \lambda\ =\ P_a\ /\ x_a$$

By solving the FOCs, we get the demand for electricity good as;

(2) $x_e\ =\ x_a.\,P_e\ /\ P_a$
Putting (2) in objective function we get the cost function $C\ =\ f\ (P_e, P_a, x)$

Applying Shepherd's Lemma, we will get input demand function of electricity. i.e.,

$e\ =\ \eth\,C\ /\ \eth\,P$ Which implies that $e\ =\ \eth\,f(P_e, P_a, x)/\,\eth P_e$

(3) $e\ =\ f\ (P_e, P_a, x)$ is our desired input demand function of electricity.

Second Stage of Utility Maximization
In second step, household consumers maximize their utility with respect to budget constraint. i.e.,
$Max\ U\ (x,y,z)$
s.t. $f\ (P_e, P_a, x)\ +\ y\ =\ M$
Where M is the income of the consumer and x and y are commodities to be consumed. Setting up the Lagrange function as;
(4) $L\ =\ U\ (x,y,z) - \lambda\ (M - f\ (P_e, P_a, x)\ -\ y)$
After solving for first order conditions we get composite demand function
(5) $x* =\ f\ (P_e, P_a, M)$
Placing x* in $e\ =\ f\ (P_e, P_a, x)$ which is the derived input demand function of electricity in first stage we get,
(6) $e\ =\ f\ (P_e, P_a, M)$
In reaction to price changes, households can change their preference for the use of home appliances. But in the short term, their usage for appliances and their prices are taken constant. So prices of home appliances are excluded from the model and assumed as constant (Halvorsen, 1975).

Other Sectors than Residential Sector
In case of industrial, agriculture and commercial sectors, electricity is an important input for the production process. It is assumed that electricity prices and other factors are exogenous. Here electricity

demand is taken as the function of the prices of other factors and output level (Halvorsen, 1975). The cost minimization problem for these sectors can be presented as;

$$Min \; P_e.e \; + \; P_i.i \; + \; FC \; s.t. \; Q \; = \; f\;(e,i,K)$$

Where (Q) is production level of firm, (e) shows electricity consumption and FC stands for the fixed cost. i represents other inputs and K is the capital stock of the company. Lagrange function for this problem is;

(7) $\qquad L \; = \; P_e.e \; + \; P_i.i \; + \; FC \; – \; \lambda\;(Q – f\;(e,i,K))$

Solving for first order condition we get cost function.

(8) $\qquad C \; = \; f\;(P_e, P_i, Q, K)$

Applying Shepherd Lemma we get

(9) $\qquad e \; = \; f\;(P_e, P_i, Q, K)$

Eq (9) is our required electricity demand function.

Empirical Specification

Using the theoretical foundations of demand function derived in the previous section, we employ Eq (3) to estimate sectoral electricity demand function in Pakistan. Eq (3) has been estimated in double log form so that the estimated parameters can be interpreted in terms of elasticities.

(10) $\qquad Q = A p^{\beta 1} p^{*\beta 2} \pi^{\beta 3} y^{\beta 4} U^{\beta 5} e^{\beta 6 T} \mu$

Here Q denotes final electricity demand. A represents the scale parameter, p denotes domestic electricity prices, p* reflects the domestic prices of foreign goods and Π is general a consumer price index, y represents income, and U symbolizes urbanization. T represents the time trend with e being the base of the logarithm. βs are the unknown parameters to be estimated and ε represents the random error term. The selection of independent variables for Eq (3) is purely based upon theoretical foundations. More precisely, it can be stated that demand for electricity can be defined in terms of expenditures, which include mainly energy goods, non-energy domestic goods and non-energy imported goods with given income and price levels. Time trend represents the impacts of industrialization and technological advancements. The variables introduced in the model have been used in literature for electricity demand analysis. Jamil & Ahmad (2013) and Alter & Syed (2011) used electricity consumption, domestic electricity prices, and real income in their studies. El-Shazly (2013) and Pesaran et al., (1998) used consumer price index and domestic prices of foreign goods for econometric models. Karanfil & Li (2014) used urbanization as an independent variable in their model.

Data for electricity consumption, income and prices are available for each sector separately. So we compiled data set allows us to estimate electricity demand with panel data setting. Logarithm of the equation (3) gives the following linear model:

$$\text{Ln}\;(Q_{it}) = \alpha_i + \beta 1 \; \text{ln}(p_{it}) + \beta 2 \; \text{ln}(P*_{it}) + \beta 3 \; \text{ln}(\pi_{it}) + \beta 4 \; \text{ln}(y_{it}) + \beta 5 \text{ln}(U_{it}) + \beta 6 T + \varepsilon_{it}$$

(11)

$Where \; i = \; 1 … … … … N \; and \; t = 1 … … … … T$

In equation (11) (ln) denotes the natural logarithm; (α_i) stands for cross sectional effects; (t) represents time period and (ε) reflects the error term, which is assumed to be independently distributed. The long-run price homogeneity restriction from economic theory requires us to specify demand function in terms of relative prices. After making this normalization, a demand function can be represented as;

(12) $\qquad Ln(Q_{it}) = \; \alpha i + \beta_{pi} ln\left(\frac{pit}{\pi t}\right) + \beta_{pi} \ln\left(p^*_{it}\right) + \beta_{yi} \ln(y_{it}) + \beta_{\pi i} \ln(\pi_{it}) + \beta_{Ui} \ln(U_{it}) \; + \; \beta_{Ti} T \; + \; \varepsilon_{it}$

Consequently study uses equation (12) to estimate the sectoral electricity demand function for Pakistan.

Variables and Data

This study uses data for electricity consumption in Giga watt hours (GWH). Electricity Prices have been measured in Pakistan Rupee (PKR) per GWH. Consumer price index (CPI) has been taken as an indicator for prices of domestic substitutes for energy in Pakistan. On the other hand, the exchange rate (PKR/USD) has been used as an indicator of foreign goods in domestic prices (P*). The income level has been proxied by value added of each sector of the economy. Data for electricity consumption has been taken from various issues of the energy yearbook of Pakistan. Data on electricity prices has been obtained from National Transmission and Dispatch Company Limited. Data regarding urbanization, CPI, exchange rate and sectoral value added has been taken from World Development Indicators database.

Econometric Methodology

Panel Unit Root Tests

Different panel unit root tests have been applied to check unit root properties of data because if the tests confirm presence of unit root, we have to apply panel cointegration tests to proceed further. Levin et al., (1993) developed a test for identification of unit root in the series and are presented in eq (13). Null hypothesis of the presence of unit root $\rho^* = (\rho - 1) = 0$ is tested against the alternative that the series is stationary.

(13) $\qquad \Delta y_{i,t} = \rho^* y_{i,t} + \sum_{L=1}^{Pi} \theta \iota L \, \Delta y_{i,t-L} + Z'_{it}\gamma + \mu_{it}$

IPS et al, (1997) developed unit root test, which differs from Levin et al., (1993) as it relaxes the homogeneity assumption and takes the average of ADF individual unit root tests of each cross section. The representation of IPS et al. (1997) test is presented in eq (14).

(14) $\qquad \Delta y_{i,t} = \rho i^* y_{i,t} + \sum_{L=1}^{Pi} \theta \iota L \, \Delta y_{i,t-L} + Z'_{it}\gamma + \mu_{it}$

Pedroni's Residual Based Panel Cointegration Test

Once non-stationarity of the variables at level is confirmed, we can test for the presence of panel cointegraion among variables. In our model, we apply Pedroni's (1999, 2004) residual based cointegration test to test for the presence of long run association among our variables. This method estimates three non-parametric tests, which are non-parametric variance ratio statistic, PP rho-statistic and PP t-statistic. The cointegration method considers within-dimension and between-dimension ways to estimate the desired model for the removal of serial correlation. Between group estimators allow for heterogeneity across individual members of the panel while within group estimators are restricted in this respect. Due to being less restrictive, Pedroni found that between group estimators have small size distortions. Therefore, Pedroni (1995, 1999) developed three other statistics, which are based on between group estimators named as PP rho-statistic, PP t-statistic and ADF-type t-statistic. Pedroni (1994, 2004) tests can be represented using eq (15) and eq (16).

(15) $\qquad y_{it} = \alpha_i + \delta_t t + \beta_{1i} x_{1i,t} + \beta_{2i} x_{2i,t} + \cdots + \beta_{ki} x_{ki,t} + e_{it}$

(16) $\qquad \hat{e}it = \rho e_{i,t-1} + v_{it}$

The null hypothesis of having no cointegration is tested on the basis of the residuals in the equation (16). This method allows significant short as well long run heterogeneity because α_i and β_i can freely vary across i^{th} members of the panel data set.

Long Run Parameters Estimates with FMOLS

When it is confirmed that variables are cointegrated, the long run coefficients of electricity demand can be estimated using Fully Modified Ordinary Least Square method (FMOLS). Fully-Modified OLS (FMOLS) method was developed by Pedroni (2000) and it is the extension of Pillips & Hasen (1990). One of the benefits of applying FMOLS methods is that it permits for the country-specific fixed effects to be heterogeneous when computing long run estimates (Pedroni, 2000).

(17) $\qquad \widehat{\beta_{i,}}, FMOLS = N^{-1} \sum_{i=1}^{N} \quad [\sum_{t=1}^{T}(x_{it} - \bar{x}_i)^2]^{-1}[\sum_{t=1}^{T}(x_{it} - \bar{x}_i) y_{it}^* - T\widehat{\gamma_i}]$

Where

(18) $\qquad y_{it} = (x_{it} - \bar{x}_i) - \frac{\widehat{\omega}_{21i}}{\widehat{\omega}_{21i}}\Delta x_{it} \dots (12) \ \widehat{\gamma_i} = \widehat{\tau}_{21i} + \widehat{\omega}_{21i}^0 - \frac{\widehat{\omega}_{21i}}{\widehat{\omega}_{21i}}(\widehat{\tau}_{22i} - \widehat{\omega}_{22i}^0)$

Where $\widehat{\omega}$ and $\widehat{\tau}$ are covariance and the summation of the autocovariance computed from the long run covariance matrix of the required model. Independent variables are transformed for correction of the endogenetiy problem in the equation (17). Similarly $\widehat{\gamma_i}$ term in equation (18) is used for the correction of serial correlation effects due to diverse dynamics in short run procedure while computing x and y.

Empirical results

Results of Unit Root Tests

The stationarity diagnostics are imperative for any study that involves time series or penal data. The occurrence of unit roots in data series causes non-stationarity in series, which eventually leads to spurious statistical relationships among variables. Hence, this study also includes a stationarity diagnostic test to avoid potential spurious regression. Table 1 shows the results of unit root tests based on Levin et al., (1993) and IPS (1997).

Table # 1: Panel Unit Root Tests

Variables	Levin, Lin & Chu		IPS	
	Levels	First Difference	Levels	First Difference
Sectoral electricity consumption	-0.67 (0.25)	-13.06 (0.00)	-0.14 (0.44)	11.8 (0.00)
Consumer Price Index	2.48 (0.99)	4.62 (0.00)	5.12 (1.00)	-6.47 (0.00)
Exchange Rate	-0.77 (0.22)	7.92 (0.00)	-1.00 (0.15)	-5.05 (0.00)
Sectoral Share in GDP	-0.76 (0.22)	-9.91 (0.00)	-0.008 (0.49)	-9.93 (0.00)
Real electricity Prices	-1.11 (0.13)	-11.92 (0.00)	-1.27 (0.10)	-10.90 (0.00)
Urbanization	4.72 (1.00)	-6.18 (0.00)	7.07 (1.00)	-5.20 (0.00)

*P-values in the parenthesis

The tests confirm that all the variables are non-stationary at level [I(0)], however, all variables become stationary at the first difference at 1 percent level of significance. Therefore, we proceed with our econometric analysis, which aims to explore the long run relationship between variables using Panel Cointegration.

Results of Panel Cointegration Test

This study employs Panel Cointegration analysis to estimate the long run relationship among variable. We employ the method developed by (Pedroni, 1999; Pedroni, 2004) and it contains two types of panel

cointegration tests namely, within dimension approach and between dimensions approach. The former approach involves four tests named as panel v-statistic, panel ρ-statistic, panel PP-statistic, and panel ADF-statistic. The distinctive feature of these tests is that they observe common time trends and heterogeneity across different sectors. Within dimension approach also uses four weighted statistics. The later test is based on group approach that involves group statistics and contains group ρ-statistic, group PP-statistic, and group ADF-statistic. All aforementioned statistics are normally distributed, except panel v-statistic that is one-sided test in its nature. The results of these seven statistics are presented in Table 2. The estimates of panel cointegration test show that most of the statistics are significant at the 5 percent level of significance. Consequently, the null hypothesis of no cointegration among variables is rejected and it is confirmed that variables are cointegrated and there is a long run association among these variables.

Table # 2: Results of Cointegration Tests

Tests	Within dimension		Within dimension		Between Dimension	
	Statistics	P-Values	Weighted statistic	P-Values	Statistic	P-value
Variance ratio	-0.103472	0.5412	-0.811958	0.7916	-	-
Rho statistic	-0.565771	0.2858	0.342082	0.6339	0.992169	0.8394
PP statistic	-8.320509	0.0000	-3.036624	0.0012	-5.992170	0.0000
ADF statistic	-6.752193	0.0000	-3.410162	0.0003	-3.981876	0.0000

Results of the Long Run Equation

This study further explores the long run electricity demand equations by employing a FMOLS estimation technique for heterogenous cointegrated panels developed by Pedroni (2000). Table 3 expresses the parameters of the long run electricity demand equation. All the variables are statistically significant at the 1 percent level and carry correct theoretical signs as reported in existing literature (Jamil & Ahmed, 2011; El-Shazly, 2013; Karanfil & Li, 2014 & Pesaran et al., 1998).

The results show that there is a positive linkage between Sectoral GDP and electricity consumption in Pakistan. Estimates show that 1 percent increase in sectoral GDP results in an increase in electricity consumption by 0.12 percent. Our income elasticity results are in line with the estimates of Agostini et al., (2011) and Chaudhry (2010). On the contrary, there is a negative relationship between electricity consumption and real electricity prices. Increase in 1 percent real electricity prices decreases electricity consumption by 0.43 percent. Furthermore, the results also reveal that price elasticity is less than 1 and less responsive to electricity demand. Our results also demonstrate that electricity consumption goes up by 0.53 percent as a result of exchange rate depreciation by 1 percent. Similarly, a 1 percent increase in urbanization increases electricity consumption by 13.73 percent and 1 percent increase in CPI leads to decrease electricity consumption by 1.19 percent.

Moreover, this study separately applies FMOLS in each of the sectors to estimate sector specific parametric values of electricity consumption and these results are also reported in Table 3. In agriculture sector, estimates follow the same trend as in aforementioned penal FMOLS, except for exchange rate, which shows negative association between electricity consumption in agriculture sector and exchange rate. An appreciation in exchange rate leads to decrease in electricity consumption in agriculture sector. This decrease is mainly due to the increased prices of fuel used in agriculture due to exchange rate appreciation.

Table # 3: Panel and Sector Wise Estimates of the FMOLS in Long-Run Relationship of Parameters

Variables	Agriculture	Industry	Commercial	Domestic	Panel estimates
Electricity Price	-0.626208 (0.061452)	-0.589175 (0.184155)	-0.038762 (0.017324)	-0.847581 (0.249510)	-0.431323 (0.03854977)
Sectoral Share in GDP	2.591669 (0.275384)	2.652380 (0.336896)	1.863296 (0.058716)	3.222101 (0.670671)	0.120586 (0.022287)
CPI	-0.596120 (0.149397)	-1.024844 (0.302709)	-0.267279 (0.036093)	-1.288723 (0.427666)	-1.193627 (0.03840965)
Exchange Rate	-0.310125 (0.154765)	2.497953 (0.286324)	-0.603084 (0.034901)	1.178036 (0.460129)	0.525244 (0.0327588)
Urbanization	9.358968 (3.147321)	32.71074 (5.596790)	2.443849 (0.748500)	19.62703 (9.721322)	13.73149 (0.015617)
Constant	-38.33700 (5.984914)	-73.02603 (8.534748)	-22.00767 (1.050900)	-62.03025 (16.63393)	
TREND	-0.020461 (0.015253)	-0.201046 (0.029442)	0.002049 (0.003276)	-0.079041 (0.047760)	

Standard errors in the parenthesis

In industrial sector, all variables in the model are, significant having expected signs except exchange rate, which has a negative sign reflecting the importance of competitiveness in this sector. Positive sign might be indicating that despite the rise in prices of foreign industrial, instruments, there is excessive demand of these goods due to their unavailability at domestic level. One possible reason behind this relationship is more usage of imported capital intensive commodities in this sector, which is caused by more electricity consumption. Similarly, in commercial sector, all the variables are significant and have their expected signs. Exchange rate parameters show that increase in the foreign commodity prices has negative impact on the electricity demand. Finally, long run estimates of domestic sector are estimated, which have a significant share in electricity consumption since last few decades. Electricity prices, sectoral share of GDP, CPI and urbanization significantly increase in electricity consumption like other sectors. Exchange rate positively affects electricity consumption, which is probably due to greater usage of home appliances in domestic sector since last decade.

From above stated results at sectoral level, it can be concluded that price elasticites are less than unit, which shows that electricity demand is less responsive to its price. It means that electricity consumption is a necessity in the long run in all the sectors. On the other hand, income elasticities are greater than unity in all sectors. These elasticites demonstrate that according to income changes, electricity acts as a luxury good in residential, industrial and agricultural domestic demand models. These results are consistent with theoretical arguments and reported in the literature (Alter & Syed, 2011).

Conclusion

This paper estimates the long run electricity price and income elasticites for agriculture, household, manufacturing and industrial sectors of Pakistan economy. Following conclusions are drawn in this regard. First, long run sectoral income elasticites are positive, significant and greater than one, which

means that electricity consumption is highly responsive to economic growth. Electricity demand acts as a necessity in panel estimates and luxury in sectoral estimates. From policy formulation point of view, it is necessary to consider that growth led policies should be promoted. Second, price elascticity is less than unity for the overall economy and in all sectors as well, which shows its importance for policy formulation regarding electricity demand. The sectors are less responsive to increase in electricity price, as there are limited substitution possibilities available. In this background, if the regulatory bodies continuously recommend an increase in electricity prices, it would hurt real economic activity in the country. Third, rapid urbanization also increases electricity consumption. This suggests that growth should be spread out from major cities to restrain the urbanization process by limiting rural-urban migration. Policies should be re-considered to halt the urbanization process otherwise more energy production projects will be required in future. Fourth, a general rise in price level has negative implications for electricity consumption because of reduction in the real disposable income and shrinkage of the living standards. Price stability in the country is required to maintain a reasonable level of electricity consumption in the country.

References

- Agostini, A.C., Plottier, C.M., & Saavedra, H.E. (2012). Elasticities of residential electricity demand in chile. *Unoublished manuscript.*
- Alter, N., & Syed, H.S. (2011). 'An empirical analysis of electricity demand in Pakistan', *International Journal of Energy Economics and Policy, 1(4), 116-139.*
- Beckmann, J., Belke, A., & Dobnik, F. (2012). 'Cross-Section dependence and the monetary exchange rate model – A Panel Analysis', *North American Journal of Economics and Finance, 23, 38-53.*
- Chaudhry, A.A. (2010). 'A panel data analysis of electricity demand in Pakistan', *The Lahore Journal of Economics 15, 75-106.*
- El-Shazly.,& Alaa. (2013). 'Electricity demand analysis and forecasting: A panel cointegration approach', *Journal of Energy Economics, 40, 251–258.*
- Filippini, M. (1999). 'Swiss residential demand for electricity', *Applied Economics Letters 6, 533–538.*
- Halvorsen, R. (1975). 'Residential demand for electric energy', *The Review of Economics and Statistics 57, 12–18.*
- Im, K.S., Pesaran, M.H., & Shin, Y. (1997). 'Testing for unit roots in heterogeneous panels', Mimeo.
- Jamil, J., & Ahmad, F. (2011). 'Income and price elasticities of electricity demand: aggregate and sector- Wise Analyses', *Energy Policy 39, 5519–5527.*
- Karanfil, F., & Li, Y. (2014). 'Electricity consumption and economic exploring panel-specific', *IPAG Business School, 337.*
- Khan, M., Arshad.,& Qayyum, A. (2008). 'The demand for electricity in Pakistan', *OPEC Energy Review, 70-96.*
- Labandeira, X., Labeaga, M.J., & López-Otero, X. (2012). 'Estimation of elasticity price of electricity with incomplete information', *Energy Economics 34, 627-633.*
- Levin, A., Lin, C.F., & Chu, C.S. (1997). 'Unit root tests in panel data: asymptotic and finite sample properties', Mimeo, *and University of California: San Dieg.*

- Ministry of Planning Development and Reforms. (2014). 'Annual Plan', 2014-15, Planning Commission of Pakistan.
- Ministry of Finance Pakistan. (2014). '*Economic survey', 2013-14.*
- Pesaran, M., Smith, R., & Akiyama, T. (1998). 'Energy demand in Asian Developing Economies', *Oxford University Press: Oxford*.
- Pedroni, P. (1995). 'Panel cointegration; asymptotic and finite sample properties of pooled time series tests, with an application to the PPP hypotheses, *working paper, Department of Economics, No. 95–013, Indiana University.*
- Pedroni, P. (1999). 'Critical values for cointegration tests in heterogeneous panels with multiple regressors', *Oxford Bulletin of Economics and Statistics, 61, 653–670.*
- Pedroni, P. (2000). 'Fully modified OLS for heterogeneous cointegrated panels', *Advances in*
- *Econometrics, 15, 93-130.*
- Pedroni, P. (2004). 'Panel cointegration: asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis', *Econometric Theory, 20 (3), 597–625.*
- World Bank. (2014). 'International development association program document for a proposed credit'*, The World Bank.*

Relationship between Components of Self-consciousness and Various Decision Making Styles among University Students

Ghulam Ishaq & Adnan Adil[1]

Abstract

The present study was intended to find out the relationship between different components of self-consciousness and different styles of decision making among university students. The sample of this study comprised of ($N= 300$) university students whose age ranged from 18 years to 26 years. English versions of General Decision Making Style Questionnaire (Scott & Bruce, 1995) and Self-Consciousness Questionnaire (Fenigstein, Scheier & Buss, 1975) were used to collect data concerning decision making style and component self-consciousness, respectively. Multiple regression analysis revealed that private self-consciousness and public self-consciousness predicted rational decision making and intuitive decision making in a positive direction, whereas dependent decision making, avoidant decision making, and spontaneous decision making had a negative relationship with these predictors. Social anxiety negatively predicted rational decision making and intuitive decision making and it had been a positive predictor of dependent decision making, avoidant decision making, and spontaneous decision making styles. Our findings highlight the significance of self-consciousness and its variants as important determinants of various decision-making styles. Limitations of this study along with the recommendations for future research have also been discussed.

Keywords: Self-Consciousness, Decision Making Styles, Social Anxiety

Introduction

According to the individual conflict theory (Janis & Mann, 1977), decision makers are more likely to be psychologically strained because of the inherently stressful nature of decision-making process. Decision-making can be facilitated by feelings that are involved in choosing and prioritizing choices according to situational requirements (Damasio, 1994; Ketelaar & Clore, 1997).

Research has generated numerous typologies of decision-making styles and the present research espouses the one proposed by Scott and Bruce (1995). This typology involves five different decision making styles. In intuitive decision-making style, decisions are based on feelings and emotions, whereas rationale decision making involves logic and it takes a preview of all accessible possibilities to make it and rational decisions are based on logics. In evident decision making style, peoples avoids making decisions and independent decision making styles peoples depend on others for direction and

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suggestions to make decisions. Finally, spontaneous decision making is very rapid type of decisions in which individuals make decisions spontaneously, which may lead to errors (Scott & Bruce, 1995).

Self-consciousness is defined as a tendency to direct attention inward and has both a private and a public dimension (Fenigstein, Scheier., & Buss, 1975). According to Fenigstein et al., (1975), self-consciousness involves three distinct dimensions which include private self (emotional states, cognitions, intents, and desires about one's own self), public self (self as a social object and the appreciation of its impact on others) and social anxiety (characterized by awkwardness, shyness, and anxiety in social circle or group). An individual who is high on public self perceives his self as a social object and may better understand its impact on others. Therefore, it is quite likely that such a person would be logical in his decision-making by carefully analyzing all the alternatives with balanced processing. This would rule out the possibility of spontaneous decision-making styles whereby decisions are made at the spur of the moment. Owing to the appreciation of their impact on others and their ability of rational handling the decision-making situations, such individuals may try to avoid depending on others in their decisions. Furthermore, they may try to smooth the process for others who are the stake of their decisions by avoiding unnecessarily delays in their decisions. Similarly, an individual with higher levels of private self-consciousness are likely to be more thoughtful about them (Turner, Scheier, Carver., & Ickes, 1978). Their insight into their own selves may lead them to believe in their gut feelings or intuitions because of which they are likely to have intuitive decision-making styles. Contrarily, such individuals are less likely to depend on others for decisions and they may not avoid decisions once they have got the 'right gut feeling'. Thus, the present study proposes:

Hypothesis 1:   Public self- consciousness will predict rational decision-making style positively.
Hypothesis 2:   Private self-consciousness will predict intuitive decision-making style positively.
Hypothesis 3:   public and private self-consciousness will be negative predictors of spontaneous, avoidant, and dependent decision-making styles.

Individuals who are characterized by social anxiety may feel uneasy or may feel frightened when they undergo any social situation that includes a concern of being mediated or assessed by others (Antony & Swinson, 2008). Socially anxious people may not make rational or intuitive decisions because they may not fully utilize their experiences and are unable to make logical decisions owing to their limited access to preview all accessible possibilities of decisions cease to anxiousness. Therefore, such individuals are more likely to opt dependent decision-making style so that they may not be held accountable for the decision's effectiveness or they may keep on postponing the decision. Finally, when the pressure mounts, they may spontaneously decide that may result in flawed decisions. Thus, we propose:

Hypothesis 4:   Social anxiety will be the negative predictor of rationale and intuitive decision-making styles.
Hypothesis 5:   Social anxiety will predict spontaneous, avoidant, and dependent decision-making styles positively.

Method
Sample
The convenient sample of the present study ($N = 300$) comprised of undergraduate students of different public sector universities of the Punjab and Khyber Pakhtoon Khaw provinces. The sample comprised

female students (N = 140) and male students (N = 160) with an age range of 18 to 26 years (M = 21.58, SD = 1.58).

Instruments

Data were collected through psychometrically sound self-report measures of the focal constructs of the present study. Demographic information such as age, gender, educational institution was obtained through the demographic sheet. A brief description of the instruments is as follows:

Self-consciousness scale

The self-consciousness scale was developed by Fenigstein et al. (1975). It is a self-report questionnaire with 5-point Likert rating scale (0 = extremely uncharacteristic, 4 = extremely characteristic) and consists of 23 items constituting three subscales. These subscales include private self-consciousness, public self-consciousness, and social anxiety. The score can range from 0 to 92. Items with steric represent the negative items. Test-retest reliabilities were .84 for the public self-consciousness subscale, .79 for the private self-consciousness subscale, .73 for the social anxiety subscale, and .80 for the total score (Fenigstein et al., 1975).

General decision making scale

The General decision making scale was developed by Scott and Bruce (1995). It espouses 5-point Likert rating scale (1 = strongly disagree, 5 = strongly agree) and score can range from 25 to 125. It consists of 25 items that are further divided into five sub scales, including rational style, intuitive style, dependent style, avoidant style, and spontaneous style. None of the items are reverse coded. Internal reliability for the rational subscale is reported to be between.77 and.85, the intuitive subscale, .78-. 84, the evident subscale, .93-.94, the dependent subscale, .68- .86, and the (Scott & Bruce, 1995).

Procedure

In order to collect the data, students were individually contacted and then they were briefed about the objectives of the study by taking informed consent. They were ensured that their privacy and confidentiality will be maintained after collection of data. Personal information was taken through the demographic sheet. Afterwards, scales were given to take the responses of students. They were appreciated for their participation after taking response and in the end research participants were thanked for their valuable cooperation. All participants were treated in accordance with the APA code of ethics.

Results

The obtained data were subjected to statistical analyses through SPSS version 21. Descriptive statistics and alpha coefficients of reliability were computed for each of the scales. Correlations and multiple linear regression analyses were undertaken for testing the proposed hypotheses of the present study. The results are depicted in Table 1 to 3.

Table 1 shows psychometric properties of study variables. The reliability analysis indicates that the reliability coefficient of all scales and their subscale were up to the marks, i.e., all of them were greater than the benchmark of.70. Values of kurtosis and skewness were also in the acceptable range indicating normal distribution of variables of the present study, which justify the choice of parametric tests for hypothesis testing.

Table # 1: Descriptive Statistics of Variables of the Preset Study (N = 300)

Variables	M	SD	α	Range Actual	Range Potential	Sk[a]	Ku[b]
Rational decision-making style	22.46	2.12	.81	7-25	5-25	-1.25	7.55
Intuitive decision-making style	22.35	2.19	.84	7-25	5-25	-1.13	6.37
Dependent decision-making style	7.51	1.87	.74	5-21	5-25	1.16	7.30
Avoidant decision-making style	7.47	1.88	.78	5-19	5-25	.71	2.96
Spontaneous decision-making style	7.65	1.98	.81	5-20	5-25	.57	1.91
Private self-consciousness	28.78	3.44	.83	16-34	0-40	-.26	-.74
Public self-consciousness	24.37	2.59	.78	5-28	0-28	-1.76	10.47
Social Anxiety	12.01	1.53	.72	2-19	0-24	.81	4.83

[a]Standard error of skewness = .141 [b]Standard error of kurtosis = .281

Table 2 shows Pearson correlations among study variables. The findings indicate that private and public self-conscious have significant negative co relation with dependent, avoidant, and spontaneous decision-making and significant positive co relation with rationale, and intuitive decision making. The results indicate that social anxiety has significant positive co relation with dependent, avoidant, and spontaneous decision-making and also a significant negative Co relation with rationale and intuitive decision making.

Table # 2: Zero Order Correlations among Variables of the Present Study (N=300)

Variables	1	2	3	4	5	6	7	8
Rational decision-making style	-	.73[*]	-.78[*]	-.84[*]	-.76[*]	.76[*]	.81[*]	-.63[*]
Intuitive decision-making style	-	-	-.80[*]	-.75[*]	-.80[*]	.78[*]	.79[*]	-.65[*]
Dependent decision-making style	-	-	-	.84[*]	.87[*]	-.78[*]	-.79[*]	.90[*]
Avoidant decision-making style	-	-	-	-	.85[*]	-.79[*]	-.77[*]	.78[*]
Spontaneous decision-making style	-	-	-	-	-	-.80[*]	-.78[*]	.74[*]
Private self-consciousness	-	-	-	-	-	-	.82[*]	-.63[*]
Public self-consciousness	-	-	-	-	-	-	-	-.65[*]
Social anxiety	-	-	-	-	-	-	-	-

$*p< .001$.

Table 3 presents summary of findings from hierarchical regression analyses, where different decision-making styles were regressed on demographics of gender and age in the first step and various components of self-consciousness in the second step. Findings suggested that control variables of gender and age could not explain any significant amount of variance in any decision-making styles and both of them remained non-significant in relation to all outcomes variables. Findings reported in step II suggest that social anxiety predicted rational and intuitive decisions making styles negatively whereas it was a positive predictor of avoidant, spontaneous, and dependent decision-making styles. The reverse pattern was true for private and public self-consciousness as both turned out to be positive predictors of rational and intuitive decision making styles and negative predictors of avoidant, spontaneous, and

dependent decision making styles. Overall, different dimensions of self-consciousness explained 69 to 89 % variance in various decision-making styles.

Table # 3: Multiple Regression Analysis for Components of Self-consciousness as Predictors of Decision Making Styles (N = 300)

Variables	Rational decision-making style		Intuitive decision-making style		Avoidant decision-making style		Spontaneous decision-making style		Dependent decision-making style	
	β	ΔR^2	β	ΔR^2	B	ΔR^2	β	ΔR^2	β	ΔR^2
Step I		.001		.001		.002		.002		.006
Gender	.03		-.03		-.01		-.01		-.02	
Age	.008		.001		-.04		-.05		-.08	
Step II		.69*		.68*		.77*		.76*		.90*
Private self-consciousness	.29*		.37*		-.37*		-.40*		-.23*	
Public self-consciousness	.48*		.36*		-.18*		-.23*		-.18*	
Social Anxiety	-.13*		-.18*		.43*		.34*		.65*	

Note: DM = decision making. SC = self- conscious.

*p< .001.

Discussion

The present study is among the pioneering work on the relationship between self-consciousness and various decision-making styles. It was quite surprising to find out that studies focusing on the relationship between these two variables were quite scarce albeit the theoretically plausible link between them. Our findings elucidated that various dimensions of self-consciousness are important predictors of different decision-making styles and all the proposed hypotheses of the present study were supported.

The first hypothesis suggesting a positive relationship between public self-consciousness and rational decision-making style was supported (see Table 2). People who are high on public self-conscious possess a wide-ranging awareness of their own selves and the possible impact their selves may have on others (Fenigstein, et al., 1975). This awareness of their self as an important agent in influencing others leads them to undertake decisions on rational and logical grounds by analyzing all the available information in a balanced perspective. Our second hypothesis, which stated that private self-consciousness would predict intuitive decision-making style positively, was also endorsed by date. Individuals who have high scores on private self-conscious may have greater insight into their own selves and they are more likely to be mindful about themselves (Turner et al., 1978). Thus, they are more likely to value their own hunches, ideas, gut feelings, and intuitions as their guiding principles in decision making.

The third hypothesis of the current study were also supported because our findings suggested that public and private self-conscious will be negative predictors of spontaneous, avoidant, and dependent decision making styles. Individuals with low levels of public and private self-consciousness may not appreciate their own selves as significant agents in influencing the others and owing to their lack of being thoughtful about themselves may not understand their true potentials. This may lead them to depend on others when situations require them to make decisions. Alternatively, they may also keep

on postponing their decisions. This may result in mounting time pressure because of which they may spontaneously take their decisions at the last moment.

Our third and fourth hypotheses suggested that social anxiety will be positively linked with avoidant, spontaneous, and dependent decision-making styles and it would be negatively related to rational and intuitive decision-making styles. The rationale behind these hypotheses is quite straightforward. Socially anxious individuals are very concerned about social situations where they may have been evaluated for their effectiveness (Buss, 1980). A decision-making situation typically involves a social situation where the success or failure is usually attributed to the decision maker. Moreover, owing to their anxiousness, such individuals may not fully utilize their potential and may not capitalize on their previous experiences because of which they may prefer to avoid decision-making situations, may become dependent on others for their decisions, or make a spontaneous decision when forced to undertake a decision. This line of reasoning has been recently confirmed by Pitting, Alpers, Niles, and Craske (2015) who demonstrated that individuals suffering from social anxiety disorder were more likely to adopt an avoidance decision-making style in a laboratory based experimental design with in vivo measurement of anxiety. Neurological evidence by Hartley and Phelps (2012) also suggests that neural circuitry supporting fear learning and regulation may mediate the influence of anxiety on decision-making increasing the likelihood of avoidant and dependent decision-making approaches.

Conclusion, Limitations, and Suggestions

The present study was aimed to examine the relationship between components of self-consciousness and styles of decision making among university students. In general, hypotheses of the present study were supported and the large amount of variance that various components of self-consciousness have explained in different types of decision-making styles suggested that self-consciousness was an important precursor of decision-making styles. This opens new avenues of research for the implications of the psychology of self in cognitive, social, and organizational psychology in terms of the dynamic processes involved in decision-making.

Despite its scientific rigor, the present study involves certain limitations. Firstly, while assessing components of self-consciousness and styles of decision-making, it was not possible to control all factors, which may influence one's consciousness or characteristic style of decision-making; therefore, the inferences of the current study are theoretically grounded. Task characteristics, situational demands, personal dispositions of the decision maker, culture, and characteristics of those for whom decisions are being undertaken may have a significant impact on the relationship between self-consciousness and decision making styles. Future studies should incorporate these variables for exploring their mediating or moderating role between the variables of the present study.

Moreover, the high magnitude of correlations among various constructs of the present study may partially be due to mono-operation and mono-method bias (Shadish, Cook, & Campbell, 2001) because data were collected through self-report measures. The participants of the current study were university students, who may not be a representative sample of the general population. Therefore, one should be cautious while generalizing the present findings. Finally, the variables of the present study should be investigated in population of executives in various occupational groups whose job description typically require them to make professional decisions quite frequently.

References

- Antony, M., & Swinson, R. (2008). Shyness and social anxiety workbook: Proven, step-by-step techniques for overcoming your fear. Oakland CA: New Harbinger Publications.
- Buss, A. H. (1980). *Self-consciousness and social anxiety.* San Francisco: Freeman.
- Damasio, A.R. (1994). *Descartes' error: Emotion, reason, and the human brain.* New York: Avon Books.
- Fenigstein, A., Scheier, M.F., & Buss, A.H. (1975). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology, 43*(4), 522-527.
- Hartley, C.A., & Phelps, E.A. (2012). Anxiety and decision-making. *Biological Psychiatry, 72* (2), 113-118.
- Janis, I.L. & Mann, L. (1977). *Decision-making: A psychological analysis of conflict, choice, and commitment.* New York: Free Press.
- Ketelaar, T., & Clore G.L. (1997). Emotion and reason: The proximate effects and ultimate functions of emotion. In G. Matthews (Ed.), *Cognitive science perspectives on personality and emotion*(pp. 355–395). New York: Elsevier.
- Pittig, A., Alpers, G.W., Niles, A.N., & Craske, M. G. (2015). Avoidant decision-making in social anxiety disorder: A laboratory task linked to in vivo anxiety and treatment outcome. *Behavior Research and Therapy*, 73, 96-103.
- Scott, S.G., & Bruce, R.A. (1995). Decision-making style: The development and assessment of a new measure. *Educational and Psychological Measurement, 55*, 818-831.
- Shadish, W.R., Cook, T.D., & Campbell, D.T. (2001). *Experimental and quasi- experimental designs for generalized causal inference.* Boston: Houghton- Mifflin.
- Turner, R.G., Scheier, M.F., Carver, C.S., & Ickes, W. (1978). Correlates of self-consciousness. *Journal of Personality Assessment, 42*(3), 285-289.

What Fuels the Engine of Career Success?

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Abstract

We explored how employees' participation in competency development initiatives (CDI) and their help seeking behavior pattern along with mentoring was related to both employability and career success in the form of career related goals, remuneration, promotion and professional ability development. Using a sample of 424 managers collected in Pakistan we concluded that CDI was directly related to employability and led towards success in their career. In our next hierarchal linear regression model (HLM) we found that use of mentoring is positively related to employability and career success only when employees are more likely to seek help from their mentors in their career paths. A partial mediation effect of employability was found in the relationships of both CDI and mentoring with career success. Contribution to theory and practical implications of the present study are discussed.

Keywords: Career Success, Mentor, Employability, Managers, Protégé

Introduction

Organizational research scholars have started to explore and present progressively comprehensive theoretical models on career success using numerous demographic, social and human capitals, economical, organizational, and theoretical variables (Dreher & Ash, 1990, Judge & Bretz, 1994). Mentors' advice for progressing in an employee's career seldom fails to explain the significant role of social capital in accomplishing career oriented goals (Kanter, 1977; Bolles, 1992). The literature of the 1990s had added in social capital theory (Coleman, 1990) explaining the effects of social networks on the careers in organizations (Ibarra, 1995; Sparrowe & Popielarz, 1995; Podolny & Baron, 1997).

There is a heavy and continuously increasing market stress in the present working environment. To be remaining competitive has become a complex challenge for the organizations with the trend of shorter chain of command and greater flexibility (Lazarova & Taylor, 2009). Such changing and challenging environment brought significant implications for the organizations as well as for the employees specifically. Employability is the only way leading to job security (Fugate & Kinicki, 2008; Hallier, 2009; Inkson & King, 2010). This can be achieved through acquiring skills and competencies as well as other career related potentials (competency development activities) required and valued by the

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market and employers (Fugate & Kinicki, 2008; Fugate, Kinicki, & Ashforth, 2004; Van der Heijde et al., 2006). From this perspective, we target the role of competency development activities in determining career success. This relationship has been studied De Vos et al., (2011).

In this study, we exploited the research limitations of using data from a single organization. One of our aims in this study is to confirm the relationship determined by De Vos et al., (2011) by using data from various organizations in the banking sector. There has been a very little research addressing this issue. We found if this relationship varies from organization to organization affected by organizational factors or it behaves same in all types of environment. The results of our study may add significant contribution by generalizing the relationship of competency development activities and employability.

At present in a dynamic and global business environment an individual's occupation is no longer attached to a single organization, as career modification and job mobility have taken as the common occurrence (Rousseau, 2004). To be lucrative in the career, employees now have to adopt a balanced approach, the relationship between their aspiration for career progression and their attitudes toward their existing organizations. Modern research has depicted career growth opportunities to be a crucial determinant of employee–organizational associations. Organizations that provide a system for employee career growth create a mutual investment type of relationship with their employees (Tsui et al., 1997), a relationship that fastens career growth to imperative outcomes such as professional commitment (Weng et al., 2010). However, one would expect that any relationship between employability and career growth would depend on whether the employee is keen to seek career related help and uses mentorship to pursue a career, rather than simply holding a job, in the first place.

Career success is a general utility of an employs' current job for future career progression and outcome in term of higher status than before (Bedeian, Kemery & Pizzolatto, 1991). Weng (2010) describes career success using multidimensional model, suggesting that career success comprises of four factors: meeting career goals, developing one's professional abilities, and receiving promotions, and compensation commensurate with those abilities. He suggests that career progression is a unit of the degree to which an employee recognizes that his existing organization provides an environment in which he is free to meet his perceived and desired career-related targets (Weng et al., 2010). Weng (2010) targeted 176 organizations and many managers and clerks to investigate his model. However, I focus particularly on managers as they are more likely than other workers eager to career growth opportunities, particularly in Pakistan.

Theory of social cognitive of career success throws light on the learning and employability relationship in enriching career success (Lent, Brown & Hackett, 1994). Mentoring advices and guidance for mentee in the organizations present the idea of skill development and learning relationship (Higgins & Kram, 2001). In the past literature many theories; theory of social support (McManus & Russell, 1997), personal learning (Lankau & Scandura, 2002) and social capital theory (Coleman, 1990) have been presented to investigate and explain the contribution of mentor–protégé relationship to the protégé career success. These theories explain that this mentor–protégé relationship is based on dyadic relationship arises from mutual learning and helpful for both parties especially for protégé's career. In our present study our focus is limited to the mental or protégé career related outcomes affected by this relationship. Along with this relation we also explored the extent to which the protégé seeks help from his mentor to enhance his competencies required for his career success. Our focus this issue as to date; this has not been explicitly investigated in the empirical studies on employee's career success.

The prevailing economic environment, characterized by growing market pressures, vibrant organizations and dramatic changes has moved to work organizations to be more flexible in order to remain competitive (Lazarova & Taylor, 2009), and this adaptability of the organizations has set forth

implications for employee's present-day career development. A focused tenet in present career theories is that in so-called 'new careers' the faith of job and career security is said to be replaced by employability (Fugate & Kinicki, 2008; Hallier, 2009; Inkson & King, 2010). Individuals' employability is acquired through the acquisition of knowledge, abilities, skills, and other attributes that are considered by present and prospective organizations and so encompasses an employee's career potential (Fugate, Kinicki, & Ashforth, 2004; Van der Heijde et al., 2006; Fugate & Kinicki, 2008). Therefore, it can be regarded as a significant factor in evaluating contemporary career success (Hall, 2002).

The purpose of this research is to explore the role of mentorship and career success an employee experiences in his organization while checking the moderating impact of employees help seeking behavior mediating through employability. Of particular interest is how the various aspects of individual's employability relate to career success. In spite of a growing volume of research on employability (Gobeski & Beehr, 2009), researchers are stepping forward to call for research that made us able to get the understanding of this concept and its consequences for career success (Jones & McIntosh, 2010). Recently, career success has been studied to have positive effects on behavioral predictors such as organizational commitment (Weng et al., 2010), but no one has examined the relationship between mentoring and career success. Our second aim is to focus this gap in the literature. Finally, to find out the role of employee's vigorous help seeking behavior to utilize the opportunities available in the working environment in the form of mentorship.

In testing such certain issues we leveraged by theoretical prospects as well. Employability is taken as a human capital factor and human capital theory predicts that attaining the work related competencies lead to greater success (Becker, 1964) success in career; learning theory supports in examining employability. Mentoring is backed by social capital theory (Coleman, 1990). Literature has found that mentoring is the origin of social capital that helped the employees in developing their careers (Noe, 1988, Chao, Walz, & Gardner, 1992; Turban & Dougherty, 1994). Contacts at higher level positively related to acquiring the employability needed for career success (Sparrowe et al., 2001). Our aim of the study is also to add to the implication of these theories by testing the role of these variables in career success.

Conceptual Framework and Hypotheses
Competency Development and Career Success
The employee's participation in competency development initiatives helps him to develop his career path by equipping himself with the necessary skills. Literature also supports this as Burke and McKeen (1994) established the results that employees' contribution in competency development activities was positively associated with the future prospects of their careers. Participation in such activities includes the initiatives; employees develop his skills by engaging himself in such developmental activities. This relationship has also been established and found in the study of De Vos et al., (2011) based on a single organizational circumstance. These activities include formal and informal learning and training offered by the organizations. The literature suggested that theses both types of learning activities reinforce each other and played an important role in the competency development of the employees leading to their career success (Van der Heijden et al., 2009; Van der Heijden, de Lange, Demerouti, & Van der Heijde, 2009). Taking support from the literature we propose the following hypothesis.

Hypothesis 1: Employee's participation in competency development initiatives is positively associated with his career success.

Competency Development and Employability

Employability strengthens with continuous learning, being adaptable and proactive to new job demands or change in skills, expertise, and the capability to acquire new skills through lateral as compared to upward career ladder moves in various organizational contexts (Scholarios et al., 2008). Although scholars emphasize the employability the important for competency development (Forrier & Sels, 2003) as most of the present studies of employability have focused on the individual difference framework (Nauta et al., 2009). Competency developer explains those actions taken by the organization and the employee himself to maintain or improve the employee's practicing, learning and his career skills as well as career competencies (Fourier& Sels, 2003). It covers an integrative methodology of developmental activities, which involves equally the organization and the employee (Sandberg, 2000; Van der Heijde et al., 2006). Keeping in mind this framework and conceptualization, we propose that both individuals' involvement in competency development inventiveness is positively related to employability perceptions.

First, employee's partaking in competency development activities refers to the approach how employees develop their skills and competencies by actively participating in various developmental activities provided by their respective organization, i.e., more traditional and formal learning opportunities, such as training, and informal learning, such as on-the-job skill development, and wider range of learning opportunities leading to career development. Modern studies on competency development have addressed the significance of acquiring formal and informal learning activities for an employee's employability (Van der Heijde et al., 2006). It was found in the related literature that both formal and informal kinds of learning activities armored each other, proving the significant importance of such types of learning activities in the organizations when focusing competency development (Van der Heijden et al., 2009). Undoubtedly career development opportunities have also received importance for employee's employability (De Vos, Dewettinck & Buyens, 2009), there is no considerable literature found in empirical studies that has focused these competency development activities. We propose that employee participation in competency development activities is positively related to employee's employability.

Hypothesis 2: Employee participation in competency development activities is positively related with employee's employability

Mentoring and Career Success

Research on career success has well documented that the employees who have experienced desired career success resulted from their best and successful mentoring relationship (Noe, 1988; Ragins, 1997; Ragins, Cotton, & Miller, 2000; Tharenou, 2001). Torino (2001) stated that mentor's support for the career development opportunities was directly associated with employee's career promotions. Ragins et al., (2000) stated that employee satisfaction with his mentoring association was directly related to his career promotion. Theory of goal setting (Locke & Latham, 1990) and social learning theory (Bandura, 1986) also suggested that such support and instruction have positive impact perceived by an individual may enhance his speculations for desired career success and goal achievement. Social learning theory states that teachers (i.e. mentors) enhance the prospects of students (i.e., employees) by accepting a challenge seeking opportunities and determination. These struggles may also raise employee's career growth and successful outcomes through reviewing his set assumptions, looking for different prospects, fostering new opportunities for accomplishing jobs, and seeking for what has never been locked before (Torrance, 1983). Past research has defined that employees who have experienced positive career achievements as an outcome of their good relationship with their mentors, we propose that higher levels

career aspirations and career success is a result of mentoring received. Career success is measured as professional ability development, career goal progress, promotion speed, and remuneration growth.

Based on these above empirical supports, we propose that mentoring functions promoted as well as high levels of mentor and employee's career orientations can enhance employee's prospects for career success in the future. Such supportive arguments may help the employees to deteriorate the level of vulnerability associated with career-goal-orientation. This may help the employees who have ''staggered'' in an effort to get new skills in the organization (Button, Mathieu & Zajac, 1996). Role modeling by their mentors who have gained organizational support and career success by surmounting their personal predicaments can help raise employee's career success (Bandura, 1986). These evidences suggest the stated below hypothesis.

Hypothesis 3: The greater degree of mentoring experience is positively associated to the career success.

Mentoring and Employability

Mentors provide mentees with career-progression functions, such as advice, counseling, facilitating their exposure and vision in their organization, and assigning them challenging work, these all help the manatees (employees) to acquire knowledge, skills and competencies (employability) needed for their career development in the organization. Mentoring helps the employees to gain knowledge of the ropes, and prepare for career advancement. This support prepares the employees for employability. The more they get help from their mentors the more they learn and build their employability in the organization. Mentoring helps the employees to build up a sagacity of professional identity and proficiency (Kram & Isabella, 1985).

Literature suggests that there is a long and rich history behind any development (Sullivan, 1953; Storr, 1963; Neugarten, 1975). An employee cannot acquire the employability skills and competencies without any kind of nexus around him. This comes from their peers, seniors or mentors (Ziller, 1963). On the bases of these literature arguments we formulate the hypothesis that mentoring is very helpful in enhancing the employability.

Hypothesis 4: Mentoring relationship is positively related with the employability of the mentee.

Moderating Role of Help Seeking Behavior

The importance of help seeking behavior has been defined as a significant subset of dealing with the behaviors that comprises of seeking help and assistance from the social and professional circle around an individual such as relatives, friends and professional mentors (Gourash, 1978). This help seeking behavior has been highlighted as an important moderator in the relationship of getting advice from mentors in order to increase his employability. The literature suggests that the more an employee is reluctant to get help the less he is able to acquire employability. The main reason behind is the barrier of confidentiality. Donald et al., (2000) stated that people reported "the most common barrier to formal service utilization (help seeking) was concerned about confidentiality" (Donald et al., 2000, p. 44).

Wilson and Deane (2000) suggested in his study in which he targeted the students as help seekers, that the importance of fear, adolescent autonomy, anxiety, and shame are the barriers that make an individual reluctant to seek help so they are unable to acquire knowledge and skills relevant to their careers. They extended by saying that students also hesitate to seek professional help from their mentors due to the beliefs that their professional mentors' help had been less useful, restricted

knowledge regarding the help that professional mentors could provide, and their concerns about not having strong ties with their professional help-providing mentors. This behavior weakens the relationship of mentoring and employability. Whereas social capital theory, also contributes to this moderated relationship. This theory explores that by using our social capital one can exchange information and advice from others (mentors) facilitate oneself. Employees' employability can be attained through the acquisition of skills, knowledge, skills, abilities, competencies and other distinctiveness that is treasured by modern and potential employers and consequently encompasses an employee's career potential (Fugate et al., 2004; Van der Heijde et al., 2006; Fugate & Kinicki, 2008). Based on such empirical evidences from the past literature we propose that the more an employee seeks help from his mentor the more he is equipped with his career related employability necessary for his potential career goal achievements and career success.

Hypothesis 5: The association between mentoring and employability is moderated by employee's help seeking behavior. Such as that the positive relationship is stronger when an employee is ready to utilize the profession an advices of his mentor in his career.

Mediating Relationship of Employability between Mentoring and Career Success

In this study, we propose and hypothesize that employability mediate the relationship between employee's participation in competency development activities, mentorship and career success. The developed model for this study describe that the effect of mentoring and competency development on career success is directly mediated by the factor employability. This mediation is a possible targeted outcome, research on career management of employees and training and development of employees in an organization explain the direct relationship with career success. De Vos et al., (2011) studied this relationship in a single organization. By using the data from various organizations and different sector, we confirmed and explored this relationship and checked that there are other organizational factors affecting it.

Figure # 1: Theoretical Framework of a Moderated Mediated Model of Career Success
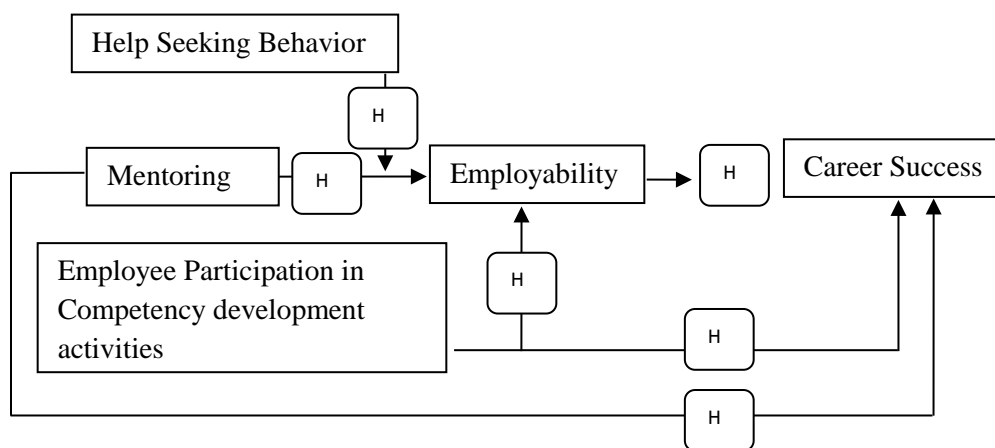
The literature supports this, Burke and McKeen (1994) explored that individuals' participation in competency development initiatives was positively associated to their insight of future career projection (Burke & McKeen, 1994), whereas De Vos et al., (2009) defined a direct relationship between mentoring for career progression and career success. Keeping in view this support from literature, we also empirically hypothesize this mediation and formulate the subsequent hypotheses:

Hypothesis 6a: Employability mediates the interactive effect of mentoring and help seeking behavior on career success.

Hypothesis 6b: Employability mediates the relationship between employee involvement in competency development initiatives and career success.

By combining these evidences of reasoning, we formulate a moderated mediated model framework of the above stated relationships among mentoring, help seeking behavior, employability and career success; this is well described by figure 1.

Data and Methods

Respondents and Procedures

We portrayed our sample from the affluence multinational and national firms located in Pakistan, which serve in a wide range of banking industry services characterized by significant variation in competitive, vibrant, profitable, and stages of the industry lifecycle. We collected data as part of this study on mentoring, help seeking behavior, employability and career success dynamics in the banking sector firms. The sample of this study comprised of 424 managers from six banking firms employing more than five hundred employees. We focused these managers because they were at the career stage having great potentials to career success. This study measured using the experience sampling method (ESM) to assess the mentoring experience and their consequences on their career success. Six month present job tenure was taken as criteria for the respondents to collect data. This period was used to assess their usage of mentorship and help seeking behavior on their career growth (Kram & Isabella, 1985).

Data for this study were collected from managers who had experience of mentoring relationship in their careers. Six month present job tenure was taken as criteria for the respondents to collect data. This period was used to assess their usage of mentorship and help seeking behavior on their career growth (Kram & Isabella, 1985). New managers were avoided in order to get any biased data based on their assumption about their future career plans. The second criterion was career stage. Middle career stage was felt suitable for this study. Managers with this career stage expected to have greater possibilities to experience, mentorship and past career success using their help seeking behavior for their career development. All the organizations were with limited liabilities (private and public limited companies).

Questionnaires were distributed to the 700 managers. All the respondents were personally contacted and made assured that completing the required questionnaire would be with the intent and that their responses would be kept confidential. Five hundred and thirty nine (77%) managers completed and returned the questionnaires. From these 74 questionnaires were dropped due to missing data; forty one was found with less than six month job tenure in the current organizations so excluded from the study. Our final sample was comprised of 424 managers fulfilling the suitable criterion for this study with an overall response rate of 60.5%. The average whole working experience of the managers was 5 years and experience with the current organization was 4.1 years, meaning that most of the managers were unemployed before their current job.

Measures

The survey of this study was comprised of those measures were designed to detain the various aspects of the concepts being investigated in this study, mentorship, help seeking behavior, employability and career growth. All of the items in the questionnaire used a five-point Likert scale given under every measure described below.

Mentoring

Participants were asked about their present and past experiences of having mentors. We explained a mentor as an individual having an influential personality in the work environment with higher experience and knowledge and the one who is dedicated to providing growing mobility and supporting advices to the careers of the manatees.

To assess the experience of mentoring received by the members of the organizations we used 15 items scales developed and authenticated by Scandura and Ragins (1993). This was further used and validated by Raabe and Beehr (2003) in their study to measure the mentoring relationship in the form of career development, psychological support and role modeling. Some of the exemplary items were (1) 'my mentor gives me special coaching on the job'. (2) 'my mentor advised me about promotional opportunities'. Respondents were asked to point to their extent of concurrence with each item of the scale using a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). Reliability tests resulted with Cronbach's alpha .79 and SD= .27.

Help Seeking Behavior

Help-seeking behavior or intentions to seek help was another measure that was used in this study. Respondents were asked to show how they were intended to seek professional help from their mentors in order to increase employability. This behavior was measured by 11 item scale developed by General Help-Seeking Questionnaire (GHSQ; Deane, Wilson, & Ciarrochi, 2001). This scale was further used and validated by Wilson, Rickwood, Ciarrochi & Deane (2002) with the reliability alpha .83. The reliability of this variable in this study showed Cronbach's alpha.75 with standard deviation of.59. Evaluations were measured on a 5 point Likert scale (1 = strongly disagree to 5 = strongly agree). The items in this scale were reversely scored so higher mean scores reflected less or few intentions to seek professional help. Some of the exemplary items were (1) 'a counselor might make me do what I don't want to' and (2) 'I'd be too embarrassed to talk to a counselor'.

Employee Participation in Competency Development Initiatives

Respondents were instructed to indicate their response to show how often they had used the following opportunities or initiatives provided by their organization with a 5-point Likert scale (1=never to 5=always). This participation of employees in competency development activities was measured by 12 items scaled develop by De Vos et al., (2011) with alpha.82. These items assessed the extent the respondents took initiatives offered by their organizations. Some of the exemplary items were (1) 'training sessions held in class that focus on acquiring knowledge' and (2) 'a coach from within the organization who guides you in your personal development'. Average Cronbach's alpha for this variable was .70 and standard deviation was .25.

Employability

Employability was targeted as mediating variables between mentoring, competency development initiatives by the employee and career success. In order to measure employability we used six item scales developed by Van Dam, (2004). The respondents were guided to rate their responses at five point Likert scale (1=strongly disagree, to 5= strongly agree). Some of the exemplary items were (1) 'I am actively trying to develop my knowledge and work experiences'. (2) 'I do a lot to manage my career'. Average Cronbach's alpha and standard deviation were .69 and .50 respective.

Career Success

Career success was assessed by four dimensions of career success: professional ability development, career goal progress, promotion speed and remuneration growth, scales developed by Weng and Hu (2009) was used. First, Career goal progress was measured by four questions. Some exemplary items are: (1) 'my present job moves me closer to my career goals'; (2) 'my present job is relevant to my career goals and vocational growth'. Professional ability development, the next dimension was measured by four items. Some exemplary items were: (1) 'my present job encourages me to continuously gain new and job-related skills'; (2) 'my present job encourages me to continually gain new job-related knowledge'. To measure Promotion speed four items were used. Some exemplary items are: (1) 'my promotion speed in the present organization is fast'; (2) the probability of being promoted in my present organization is high. Finally, remuneration growth was measured by three items. Some exemplary items are: (1) 'my salary is growing quickly in my present organization'; (2) 'In this organization, the possibility of my current salary being increased is very large'. The respondents were asked to rate their responses at five point Likert scale (1=strongly disagree to 5= strongly agree). All of the scales were tested to get significant values of reliability with Cronbach's alphas.90 and standard deviation.83 for career goal progress, professional ability development, promotion speed, and remuneration growth.

Control Variables

Past literature on career success and organizational culture studies confirmed theoretical models of career success affected by a range of variables. Some relevant results suggested that demographic factors (gender, marital status, and previous employment status), and organizational attributes (size and location), have significant effects on salary packages, career promotions, and career contentment (Judge & Bretz, 1994; Judge et al., 1995; Seibert, Crant, & Kraimer, 1999; Wayne et al., 1999). In addition to this career progression and remuneration vary by profession. Specific and precise theoretical relationship between each category of these variables and the career success are away from the scope of this study. So these antecedents were included as control variables in this study.

Control variables were measured in the questionnaires, these variables were taken as gender (0 = female, 1= male); previous employment status (0 = not employed, 1 = employed); marital status (0 = not married, 1 = married). The size of the firm was measured against the number of employees working in that organization (0= less than 1000 employees. 1= 1000 or more than 1000 employees). In order to check the significant impact of our exploratory variables we did not include these variables in the analysis.

Results and Findings

Analyses

Descriptive statistics, reliability analysis of the variables and correlation among study variables are presented in Table 1. The means, standard deviations, correlations, and internal consistency reliabilities for all study variables was analyzed to check the consistency and association among the variables. All the variables are significantly correlated with one another p<.01.

Analytic Approach

Our theoretical model for this study (see Figure1) implies a moderated mediation model in which mentoring and employability relationship is moderated by help seeking behavior of employees and employability mediates mentoring and competency development initiatives with career success our final and targeted outcome (i.e., model 7 in Preacher; Preacher, Rucker, & Hayes, 2007): the first stage; mentoring × help seeking behavior and at second stage employability as mediator showing indirect relationship of both mentoring and competency development initiatives.

Preliminary Analysis

Confirmatory Factor Analysis: We conducted a confirmatory factor analysis of career success to further evaluate and confirm its validity to single dimension factor suggested by Weng and Hu (2009). The results suggested that a single factor model yielded better results (CFI=. 83, p. 001 than four factor model (CFI=. 57, p.05). The change in chi-square was 823.13 (DF 6, p.001). The normality of data was checked by the Chi Square test (p. 001) that confirmed the assumption of normally distributed data.

Table # 1: Descriptive Statistics, Reliabilities and Correlations[a]

		Mean	Std. Deviation	Cronbach's Alpha	1	2	3	4	5
1	**Mentoring**	4.17	.27	.79	-				
2	**Help Seeking Behavior**	3.12	.60	.83	.53[**]	-			
3	**Employability**	4.14	.50	.69	.57[**]	.54[**]	-		
4	**CDI***	4.01	.26	.70	.44[**]	.61[**]	.54[**]	-	
5	**Career Success**	3.61	.83	.90	.62[**]	.66[**]	.75[**]	.57[**]	-

[a]n = 424 observations from six organizations in banking sector

*Competency Development Initiatives

**P< 0.01 level

Hypotheses/Model Testing and Discussion of Results

Employees in the different organizations were independent, which confirmed the independent assumption of traditional ordinary least squares regression and avoided biased estimators. Therefore, we tested the moderated mediation hypothesis using hierarchical linear regression (HLM) analyses with SPSS 20.0. In order to test our hypotheses we followed the steps suggested by Muller, Judd, and Yzerbyt (2005). We tested our hypothesis, I and 2 by using multivariate two-level model 4 with the exploratory variable competency development initiatives (X), mediator employability (M) and criterion career success (Y) (see Table 2).

In table 2 the results for hypotheses 1 and 2 are presented. The effect of competency development initiatives was shown on career success through employability. Our first hypothesis is supported as we can see from table 2 the direct effect (PYX) is significant (PYX= .77, p<.01) stated that there is a significant impact of competency development initiatives on our regressed variable (career success) and confirmed our first hypothesis. The indirect effect of effect of competency development initiatives (PMY* PMX) was significant for prediction of career success (1.09, p. 01) it was greater than direct effect and explaining the significant role of mediating variable (employability). After including the indirect effect through employability R2 was changed since.54 too.78 describing the additional variation explained by employability by.29. The total effect of competency development initiatives was significant (PYX + PYM*PMX=1. 86, p. 01) and this furnished the support for our second hypothesis. Thus, these results provided significant support for hypotheses 1 and 2. Furthermore, the results of table 2 also provide significant support of hypothesis 6b (β= 1.06, p. 01) and explain that employability partially mediates the relationship of competency development initiatives and career success.

Table # 2: Path Analytic Results—Direct, Indirect, and Total Effects of Competency Development Initiatives on Career Success (via Employability)

	PMX	PYM	Direct Effect PXY	Indirect Effect PMX*PYM	Total Effects (PYX + PYM*PMX)	ΔR²
Competency Development Initiatives	1.06**	1.03**	.77**	1.09**	1.86**	.29

Notes. n =424. (Effects of control variables are not included in this table)

PMX = path from X (Competency Development Initiatives) to M (Employability).

PYM = path from M to Y (Career Success).

PYX =path from X to Y.

**$p < .01$

The equation predicting M included further the interaction term mentoring and help seeking behavior on M (X×W) in order to test the hypotheses 3,4 5 and 6. For this analysis we again followed the steps suggested by Muller et al. (2005). We conducted a hierarchal regression analysis to test our remaining hypotheses. In our first step we regressed all the control variables and direct effects. As shown in Table 3 (Model 3), mentoring was positively related to career success (β=.88, p<.05) thus furnishing our second requirement of the conceptual model and provided a significant support for our hypothesis 3. The results also confirmed that there is a significant indirect effect of mentoring on career success and revealed that employability partially mediates the interactive relationship of help seeking behavior and mentoring for career success.

The results of table 2 also indicated that mentoring (model 2) had a positive relationship with employability (β=2. 40, p.001) and provided evidence for our hypothesis 4. In addition to this we found that the results showed (Table 4, Model 2) statistically significant interaction of mentoring and help seeking behavior for employability (β=. 49, p. 001, ΔR2=. 20) supported the hypothesis, 5. In support of hypothesis 5, we investigated that mentoring was more positively related to employability when employees interpreted the strong intention to seek the help of their mentors (simple slope test: β= 4.6, p. 01). Whereas this relationship is rather weak when employees showed hesitation or reluctance to help seeking from their mentor (simple slope test: β= 3.6, p. 01). Figure 2 depicts these findings graphically.

In our next mode 3 of the same table 3 the equation included Y in addition to it to indicate the direct and indirect effects of X and M on the targeted variable Y (career success). Table 3 describes the support for hypothesis 6a ($\beta =. 98$, p.001) with a significantly higher change in the variance explained by the interaction term ($\Delta R2=. 32$) in the criterion variable. This meets the third requirement of the moderated mediation model.

Table # 3: Results of Regression Analysis for the Mediated Moderation Model[a]

|	Model 1: Career Success	Model 2: Employability	Model 3: Career Success
Control Variables	β	B	β
Gender	-.13	-.01	.02
Marital Status	.04	.05	.02
Employment Status Before This Job	.02	.01	-.01
Size Of Organization	.12	.02	.02
Independent			
Mentoring		2.40**	.88*
Moderator			
Help Seeking Behavior		2.31**	2.30
Interactive Effects			
Mentoring X Help Seeking Behavior		.49**	.50**
Mediation			
Employability			.98**
ΔR²		.20	.32

a Coefficients of all control variables are excluded from the table. *n_* 424.

 * $p <.05$

** $p <.01$

Figure # 2: Moderating Effect of Help Seeking Behavior of Employee's Mentoring
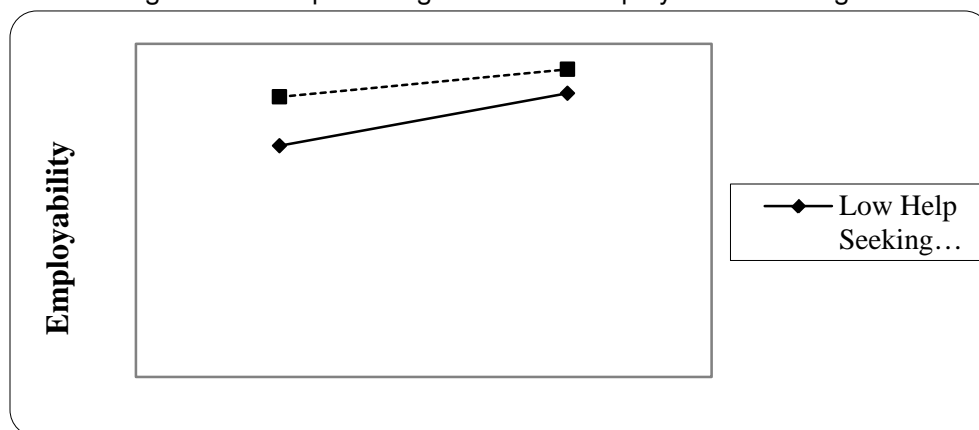
Figure # 3: Moderating Effects of Help Seeking Behavior of Employees on Career Success
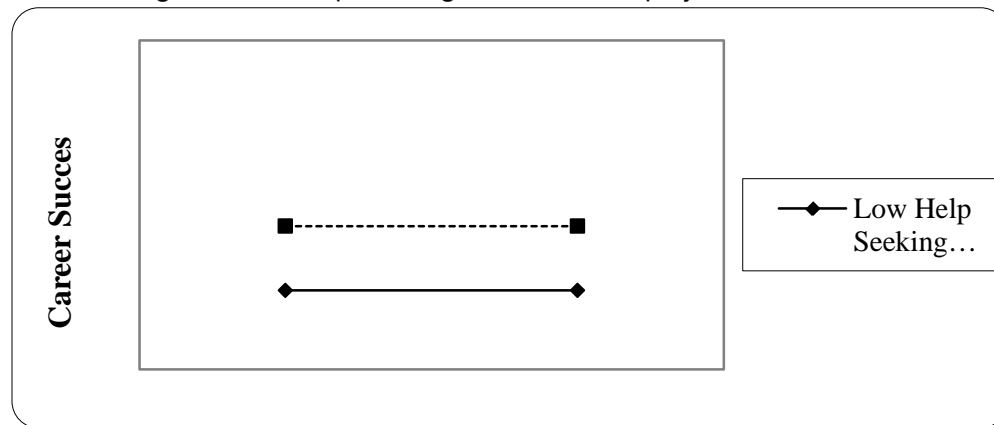
In addition to this direct effect of interactive term is significantly stronger when employees experience high help from their mentor and move towards success in their career. This relationship is weak when there is less inclination towards help seeking behavior. Figure 3 explains it graphically.

Conclusion

We found that if employees are more intended to participate in competency development initiatives they are more likely lead towards employability. This employability ultimately helps them in their career by increasing their work related skills and abilities. These findings suggest that employees should seek for these initiatives to climb up the ladder of their career. Mentors also play a very crucial role in this regard. They are the source of guiding to make decisions about careers and chose profession. However, this is only possible with guidance seeking intentions to get the benefits of the potentials of these advices. It shows that with the high intentions of seeking help from the mentors can minimize the chances of career failure. Employability is the bridge to cover the distances of advices to the destination of career success in the form of promotion, remuneration, skill development and career related goal accomplishment.

Theoretical Implications

First, we extended the literature on mentoring and competency development initiatives by investigating how such advices and initiatives to enhance the abilities related to employability. The results provide a lucid and vivid understating of the positive outcome of these guidance and participation in competency development initiatives. In past literature the effects of mentoring are not consistent, for example, Berg, et al (2005) found the mentoring results unclear to evaluate the effectiveness of mentoring programs. In our study, we put forth the clear impact of mentoring on career success.

Second, our results for competency development initiatives are consistent with De Vos et al., (2011) who concluded the crucial role of such activities in building the skills of employees. The results of our research also provided an empirical support for the claim that when employees participate in such activities he is sure to enhance his employability (Scholarios et al., 2008; Van der Heijde et al., 2006).

Thus, our study added valuable findings to the scarce body of literature on these issues, organizational researchers is concerning for and our research also provided implications for them to consider in order to study the ways that can improve the relationship with employees (Van der Heijden et al., 2009). In addition to this, our study added the value to the social capital and social learning theories. Our findings show that availability of social capital (mentoring and networking) is not enough to have a

successful career path. In order to utilize the potential of social capital employees' own cognitive behavior matters a lot. If employees' cognition is intended to get advantage of this social capital only then they can have a positive help seeking behavior towards their mentors and apply their guidance in their practical work environment. Moreover, our study also generalized the results of De Vos et al., (2011). By using the data from different organizations we proved that employability behaves same even in different cultures to improve career path.

Managerial Implications

A practical implication of our research is that mentoring alone cannot be very helpful in increasing employability or achieving career goals. Employees should be having positive help seeking behavior and trust in their mentors to get advantage from their training and advices. Our results show that the interactive effect of help seeking behavior of employees is positively related to employability only when employees' positive intentions to seek help from their mentors and they are intended to achieve their career goals. Moreover, it is crucially significant that employees needed to be volunteers to take the initiatives in order to polish their skills and enhance their competencies to make themselves prepared and capable of higher promotions.

Finally, our study also presented implications for the organizations to recruit such eager employees. This approach is very helpful because organizations can have a potential human capital essential for their competitive edge. Organizations, by offering and focusing competency development of their employees, can influence the career success of their employees.

Limitations and Future Research

Like any empirical study, this research is not exempted from the limitations and has a scope for future research. First, we did not study the mentor-protégé relationship by involving mentors in the analysis. It is possible that personalities and style of leadership of mentors may affect help seeking behavior of protégés. High quality leadership styles and supportive mentors are more likely to encourage their protégés to have trust in them and seek help without hesitations (Vancouver & Morrison, 1995; Williams, et al 1999). Furthermore, there are many other factors like respect for protégés, confidential support, respect of feelings and integrity can also be related to help seeking behavior of employees and mentoring. Longitudinal research is needed to evaluate this causation and explore such impacts. Our second study was conducted in Pakistan. To generalize our findings and theory, data from other cultures can be studied. This is necessary because Morrison, Chen, and Salgado (2004) concluded that employees in high power distance and low individualism are less likely to seek help and feedback from their mentors (supervisors). Therefore, possibility lies that different culture may produce different results. Third, we studied only two antecedents responsible for career success. There may be other factors such as type of job and different sectors may influence the speed of career success. Future studies may explore these factors to determine the career success.

Our study model can be further extended by future researchers. They can use longitudinal study design to hit the issues of causation, but also to develop new relationships instead of studying the developed ones. Our research findings put forth a new insight into the interactive relationship of help seeking and mentoring with employability. This relationship was never studied before in past literature. Thus, our study added a valuable contribution to literature along with its practical implications those cannot be neglected.

References

- Bandura, A. (1986). Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
- Becker, G. (1964). Human capital: A theoretical and empirical analysis with special reference to education. New York: Columbia University Press.
- Bedeian, A., Kemery, E., & Pizzolatto, A. (1991). Career commitment and expected utility of present job as predictors of turnover intentions and turnover behavior. *Journal of Vocational Behavior*, 39, 331–343.
- Berk, R.A., Berg, J., Mortimer, R., Walton-Moss, B., & Yeo, T. P. (2005). Measuring the effectiveness of faculty mentoring relationships. *Acad Med Jan*; 80:66–71.
- Bolles, R. N. (1992). What color is your parachute? *Berkeley,* CA: Ten Speed Press.
- Burke, R. J., & McKeen, C. A. (1994). Training and development activities and career success of managerial and professional women. *Journal of Management Development*, 13(5), 53.
- Button, S. B., Mathieu, J. E., & Zajac, D. M. (1996). Goal orientation in organizational research: A conceptual and empirical foundation. *Organizational Behavior and Human Decision Processes*, 67, 26–48.
- Chao, G. T., Walz, P. M., & Gardner, P. D. (1992). Formal and informal mentorships: A comparison on mentoring functions and contrast with non mentored counterparts. *Personnel Psychology*, 45, 619–636.
- Coleman, J. S. (1990). Foundations of social theory. Cambridge, MA: Harvard University Press.
- De Vos, A., Sara, De. Beatrice, I. J .M.,&Van der Heijden. (2011). Competency development and career success: *The mediating role of employability Journal of Vocational Behavior* 79 (2011) 438–447.
- De Vos, A., Dewettinck, K., & Buyens, D. (2009). The professional career on the right track. A study on the interaction between career self-management and organizational career management in explaining employee outcomes. *European Journal of Work and Organizational Psychology*, 18(1), 55–80.
- Deane, F.P., Wilson, C.J., & Ciarrochi, J. (2001). Suicidal ideation and help-negation: Not just hopelessness or prior help. *Journal of Clinical Psychology*, 57(7), 1-14.
- Donald, M., Dower, J., Lucke, J., &Raphael, B. (2000). The Queensland young peoples' mental health survey report. Centre for Primary Health Care, School of Populations Health and Department of Psychiatry, University of Queensland. Brisbane, Australia.
- Dreher, G. F., & Ash. R. A. (1990). A comparative study of mentoring among men and women in managerial, professional, and technical positions. *Journal of Applied Psychology,* 75: 539-546.
- Forrier, A., & Sels, L. (2003). The concept employability: A complex mosaic. *International Journal of Human Resources Development and Management*, 3, 102–124.
- Fugate, M., & Kinicki, A. J. (2008). A dispositional approach to employability: Development of a measure and test of implications for employee reactions to organizational change. *Journal of Occupational & Organizational Psychology*, 81(3), 503–527.
- Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior*, 65, 14–38.
- Gobeski, K. T., & Beehr, T. A. (2009). How retirees work: Predictors of different types of bridge employment. *Journal of Organizational Behavior*, 30(3), 401–425.

- Gourash, N. (1978). Help-seeking: A review of the literature. *American Journal of Community Psychology*, 6, 413–423.
- Hall, D. T. (2002). Careers in and out of organizations. Thousand Oaks. *Sage Publications*.
- Hallier, J. (2009). Rhetoric but whose reality? The influence of employability messages on employee mobility tactics and work group identification. *International Journal of Human Resource Management*, 20(4), 846–868.
- Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review*, 26, 264–288.
- Ibarra, H. (1995). Race, opportunity, and diversity in social circles in managerial networks. *Academy of Management Journal*, 38: 673-703.
- Inkson, K., & King, Z. (2010). Contested terrain in careers: A psychological contract model. Human Relations, 64(1), 37–57.
- Jones, D. A., & McIntosh, B. R. (2010). Organizational and occupational commitment in relation to bridge employment and retirement intentions. *Journal of Vocational Behavior*, 77, 290–303.
- Judge, T. A., & Bretz, R. D. (1994). Political influence behavior and career success. *Journal of Management,* 20: 43-65.
- Judge. T. A., Gable. D. M., Boudreau, J. W. & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology,* 48: 485-519.
- Kanter, R. M. (1977). Men and women of the corporation. New York: Basic Books.
- Kathy, K.E., Lynn, I. A. (1985). Mentoring alternatives: the role of peer relationships in career development. *Academy of Management journal* 1985, Vol. 28. No. 1. 110-132.
- Lankau, M. J., & Scandura, T. A. (2002). An investigation of personal learning in mentoring relationships: Content, antecedents, and consequences. *Academy of Management Journal*, 45, 779–790.
- Lazarova, M., & Taylor, S. (2009). Boundary less careers, social capital, and knowledge management: Implications for organizational performance. *Journal of Organizational Behavior*, 30(1), 119–139.
- Lent, R. W., Brown, S. D., & Hackett, G. (1994). Toward a unifying social cognitive theory of career academic interest, choice, and performance. *Journal of Vocational Behavior*, 45, 79–122.
- Locke, E. A., & Latham, G. P. (1990). A theory of goal setting and task performance. Englewood Cliffs, NJ: Prentice-Hall.
- McManus, S. E., & Russell, J. E. A. (1997). New directions for mentoring research: An examination of related constructs. *Journal of Vocational Behavior*, 51, 145–161.
- Morrison, E. W., Chen, Y.-R., & Salgado, S. R. (2004). Cultural differences in newcomer feedback seeking: A comparison of the United States and Hong Kong. *Applied Psychology: An International Review,* 53:1–22.
- Muller, D., Judd, C. M., & Yzerbyt, V. Y. (2005). When moderation is mediated and mediation is moderated. *Journal of Personality and Social Psychology,* 89: 852–863.
- Nauta, A., Van Vianen, A. E. M., Van der Heijden, B. I. J. M., Van Dam, K., & Willemsen, M. (2009). Understanding the factors that promote employability orientation: the impact of employability culture, career satisfaction and role breadth self-efficacy. *Journal of Occupational and Organizational Psychology*, 82, 233–251.
- Neugarten, B. L. (1975). Adult personality: Toward the psychology of the lifecycle. InW. G. Sae (Ed.), Human life cycle: 379-394. New York: Jason Aronson.

- Noe, R. (1988). An investigation of the determinants of successful assigned mentoring relationships. *Personnel Psychology*, 41, 457–479.
- Podolny. J. M., &Baron, J. N. (1997). Resources and relationships: Social networks and mobility in the workplace. *American Sociological Review,* 62: 673-693.
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research,* 42: 185–227.
- Raabe B. & Beehr T. A. (2003). Formal mentoring versus supervisor and coworker relationships: differences in perceptions and impact. *Journal of Organizational Behavior*. 24, 271–293
- Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review*, 22, 482–521.
- Ragins, B. R., Cotton, J. L., & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal,* 43(6), 1177–1195.
- Rousseau, D. (2004). Psychological contracts in the workplace: Understanding the ties that motivate. *The Academy of Management Executive*, 18(1), 120–127.
- Sandberg, J. (2000). Understanding human competence at work: An interpretative approach. Academy of Management Journal, 43, 9–25.
- Scandura, T. A., & Ragins, B. R. (1993). The effects of sex and gender role orientation on mentorship in male dominated occupations. *Journal of Vocational Behavior*, 43, 251–265.
- Scholarios, D., Van der Heijden, B. I. J. M., Van der Schoot, E., Bozionelos, N., Epitropaki, O., & Jêdrzejowicz, P. (2008). Employability and the psychological contract in European ICT sector SMEs. International *Journal of Human Resource Management*, 19(6), 1035–1055.
- Seibert, S. E., Crant. J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology,* 84: 416-427.
- Sparrowe, R. T., & Popielarz, P. A. (1995). Weak ties and structural holes: The effects of network structure on careers. Paper presented at the *Academy of Management Annual* Meetings, Vancouver, BC.
- Sparrowe, R. T., Liden. R. C. Wayne, S. J., & Kraimer, M. L. (2001). Social exchange processes, social structure, and performance. *Academy of Management Journal,* 44: 316-325.
- Storr, A. (1963). *The integrity of the personality. Baltimore*, Md.: Penguin Books.
- Sullivan, H.S. (1953). The interpersonal theory of psychiatry*.* New York: Norton.
- Tharenou, P. (2001). Going up. Do traits and informal social processes predict advancing in management? *Academy of Management Journal*, 44, 1005–1017.
- Torrance, E. P. (1983). Role of mentors in creative achievement. *The Creative Child and Adult Quarterly*, 8, 8–18.
- Tsui, A., Pearce, J., Porter, L., & Tripoli, A. (1997). Alternative approaches to the employee organization relationship: Does investment in employees pay off? *Academy of Management Journal*, 40, 1089−1121.
- Turban, D. B., & Dougherty, T. W. (1994). Role of protégé personality in receipt of mentoring and career success. *Academy of Management Journal*, 37, 688–702.
- Vancouver, J. B., & Morrison, E. W. (1995). Feedback inquiry: The effect of source attributes and individual differences. *Organizational Behavior and Human Decision Processes,*62: 276 285.
- Van Dam, K. (2004). Antecedents and consequences of employability orientation. *European Journal of Work and Organizational Psychology*, 13(1), 29–51.

- Van der Heijde, C. M., & Van der Heijden, B. I. J. M. (2006). A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Management*, 45(3), 449–476.
- Van der Heijden, B. I. J. M., Boon, J., Van der Klink, M., & Meijs, E. (2009). Employability enhancement through formal and informal learning: An empirical study among Dutch non-academic university staff members. *International Journal of Training and Development*, 13(1), 19–37.
- Wayne, S., Liden. R. C, Kraimer, M. L., & Graf, I, K. (1999). The role of human capital, motivation, and supervisor sponsorship to career success. *Journal of Organizational Behavior,* 20: 577-595.
- Weng, Q. X. (2010). Career Growth Study: Scale development and validity test. *Management Review*, 22(10), 22–31.
- Weng, Q. X., & Hu, B. (2009). The structure of career growth and its impact on employees' turnover intention. *Industrial Engineering and Management*, 14(1), 14−21.
- Weng, Q. X., McElroy, J. C., Morrow, P. C., & Liu, R. (2010). The relationship between career growth and organizational commitment. *Journal of Vocational Behavior*, 77(3), 391–400.
- Williams, J. R., Miller, C. E., Steelman, L. A., & Levy, P. E. (1999). Increasing feedback seeking in public contexts: It takes two (or more) to tango. *Journal of Applied Psychology,* 84: 969–976.
- Wilson, C.J., & Deane, F.P. (2000). Exploring help-negation: Is it a manifestation of help-seeking barriers? Manuscript submitted for publication.
- Wilson, C. J., Rickwood, D., Ciarrochi, J., & Deane, F. P. (2002). Adolescent barriers to seeking professional psychological help for personal-emotional and suicidal problems. Conference Proceedings of the 9th Annual Conference for Suicide Prevention Australia, June2002, Sydney.
- Ziller, R. G. (1963). *The social self.* New York: Pergamon Press.

Entrepreneurial Characteristics and Firm Growth: A Case Study of Sports Industry in Sialkot

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Abstract

The prime objective of this study is to analyze the role of entrepreneurial characteristics, organizational factors and barriers on the firm growth of sports firms in Sialkot. This study will be a contribution to understanding the industrial growth of export driven sports goods sector in Sialkot. This study explores the factors causing the potential of this highly profitable and export oriented industry to remain untapped and will help the policy makers to address the underlying structural issues restricting the firm growth in this industry. Factor analysis had been used to extract 5 factors out of 26 characteristics. The extracted factor groups were then regressed on the indicators of firm growth; sales revenue, export revenue and full time employment generation. Results suggest that factors involving institutional and non-institutional limit firm growth of Sialkot Sports Industry and have a significant negative impact on the firm growth indicators, whereas entrepreneurial characteristics, firm specific characteristics and innovative ability of the manager have a significantly positive effect on the firm growth indicators.

Keywords: Entrepreneurial characteristics, Firm growth, Motivation, Sports industry

Introduction

Economists consider entrepreneurship as an important driver of innovation and keenness towards risk bearing which increases productivity by creating employment opportunities (Schumpeter, 1934). Nowadays, it is believed as a process rather than an event because of its critical role in enhancing firm's performance (Hult et al., 2003). The industrialized world experienced a fall in the average business growth rate after the global recessions of (1989-91, 2007-2008) turning economists' attention towards identifying the factors which caused firms' growth slowdown. Attempts to specify the determinants of firm's growth (Adegbite et al., 2006; Davidsson and Henreksson, 2002; Hult et al., 2003; Islam et al., 2011; Khan and Siddiqi, 2012; Kohli and Jaworski, 1990; Narver and Slater, 1990; Perren, 1999; Rao et al., 2013; Wiklund and Shepherd, 2005) have been carried out. Entrepreneurial motivation was found to be an important determinant of firm's growth (Khan and Siddiqi, 2012; Rao et al., 2013).

This study particularly focuses on exploring the impact of entrepreneurial characteristics on the firm's growth. Entrepreneurship is considered important for the growth performance because it creates job opportunities, makes a firm more competitive and broadens the endowment of goods and services (Zahra, 1999). The entrepreneur has been acknowledged as a major driver of economic growth due to its greater contribution in small and medium sized enterprises (SMEs) (Baumol, 1968; Henderson and Weiler, 2010).

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Irrespective of their size; firms need to create new opportunities in order to maintain their performance in today's hastily shifting business atmosphere, and entrepreneurial orientation is the best way of pursuing potential benefits (Wiklund and Shepherd, 2005). "Entrepreneurship is" defined as "an activity that involves discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously have not existed" (Shane and Venkantaraman, 2000).

SMEs as the main contributing factors of market economies create place for entrepreneurs to develop. Contrary to the large scale manufacturing, SMEs are more flexible and convenient to make shifts in the business environment. SMEs led economic growth is considered a symbol of economic development in developed and developing economies (GOP, 2014). Realizing its importance in stimulating economic growth, entrepreneurial led growth has also been included as an important policy reform in the Framework for Economic Growth, 2011 (GOP, 2011) and Vision 2025 of Pakistan.[1] Sialkot is the industrial hub of the country and is enriched with SMEs (Small Medium Enterprises) being spread in clusters complementing cottage industry culture.

Sports Industry covers different articles like Sportswear, Cricket Bats, Balls and Gears, Tennis Rackets, Hockey Sticks and the Soccer balls. This booming industry is well known for its monopoly for producing hand sewn balls and with the induction of latest technology, machine made and laminated balls. Sialkot is earning more than US$ 900 Million per annum contributing as 6% of total exports of Pakistan.[2] Sports sector is an imperative sector of Sialkot Industry. More than 200,000 people are directly linked to the 2400 sports companies which account for the export of US$ 450 million per annum.[3]Exports of sports goods had fallen to an average of $290 million from $450 million over the past four years (Pakistan Bureau of Statistics, 2011) in which the share of exports of soccer balls in particular has fallen in the sports industry of Sialkot. There is need to identify the factors, especially the characteristics of entrepreneurs which influence the growth of firms in the local sports industry of Sialkot. Therefore, we intended to investigate the impact of entrepreneurial characteristics on firms' growth of the sports industry in Sialkot.

The characteristics like education level of owner/manager of the firm, attitude like part time business, unemployment push, use of internal and external sources of financing, market orientation, sales to local market, number of markets an entrepreneur is dealing with, risk taking attitude, family business, desire of independence, previous ownership experience, working through networks, decision to innovate in terms of introduction of new product, new processes and major improvements in existing system, product diversification, price adaptability are considered important factors affecting firm's growth. To the best of author's knowledge, there is no similar study done on the sports firms of Sialkot, therefore, the author intends to fill the gap in the empirical literature.

Research Question

- What is the impact of entrepreneurial characteristics on firm's growth in sports industry of Sialkot?

Research Objectives

- To estimate the impact of entrepreneurial characteristics on firm's growth of sports industry in Sialkot
- To give policy recommendations to strengthen the performance of sports industry in Sialkot

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[1]Retrieved from: http://www.pc.gov.pk/ on June 28, 2014.

[2] Retrieved from: http://punjab.gov.pk/sialkot_key_industry on September 05, 2014 ;

[3] Retrieved from: http://punjab.gov.pk/sialkot_key_industry on September 05, 2014

Hypothesis

H_0: Entrepreneurial characteristics affect firms' growth of the sports industry in Sialkot.

H_1: Entrepreneurial characteristics do not affect firms' growth of sports industry in Sialkot.

Section 2 presents a review of literature. Section 3 explores the theoretical framework for carrying out the analysis, whereas section 4 elaborates methodological issues and data sources. Section 5 presents the estimated results and section 6 concludes the study.

Literature Review

The importance of entrepreneurial characteristics cannot be ignored while discussing firm growth in any industry. There, also exist some barriers which hinder firm growth, especially in developing economies like Pakistan. The literature supports this phenomenon of role of entrepreneurial characteristics along with barriers; institutional, non-institutional and financial, and firm characteristics leading to innovation in the firm production resulting in either improving or deteriorating the firm performance in an industry.

Kohli and Jaworski (1990) established that three organizational characteristics (senior management behavior, interdepartmental dynamics and organizational factors) appeared to have strong correlation with market orientation of firms and firms' growth. The risk aversion behavior of senior managers and interdepartmental conflicts slowed the possibilities of the firm to be market oriented. The organizational structure was positively linked to the firm's response implementation.

Narver and Slater (1990) examined the relationship between market orientation and business profitability and suggested that market orientation, were observed to have positive associations with the profitability of commodity and non-commodity businesses.

Growth of firms is extremely affected by the size of firms, small scale enterprises have enormous potential to grow as compared to large firms. McPherson (1996) found a negative relationship between firm's growth and age, the firm's size and growth. The new and smaller firms grow much more rapidly than older and larger ones. There exists a positive relationship between firm growth and experience. The growth was positively affected by the human capital variables (training and education). Glancey (1998) estimated the determinants of growth in small manufacturing firms in Scotland for 1988-90 and found that greater firm size positively and significantly contributed to growth rate, where, urban and younger firms showed higher growth rates. Becchetti and Trovato (2002) investigated for small and medium sized Italian firms that the smaller firms have higher growth potential and the rent-adjusted growth is not only because of chance. Some factors like poor financial condition, access to credit, capital equity and exterior debt were found as significant obstacles in growth performance of SMEs. Whereas, Almus and Nerlinger (2000) found that the growth of any firm is not dependent on the size of the firm; smaller firms had huge potential to grow than larger firms, therefore, boosting SMEs would be helpful in increasing employment opportunities and bringing new ideas in the business.

Bartlett and Bukvic (2001) found that small sized firms have more chances to grow as compared to large firms in which manufacturing and construction were more rapidly growing firms than other sectors. Various internal, external, financial and social barriers faced by firms were identified; among financial barriers; the high cost of credit and loans and lack of state support were reported as "very important" problems, respectively. The results found that labor, taxes significantly affect the growth of firms, while late payment of the bill had no significant effect on growth and bureaucracy, cost of capital and education had a negative effect on the firm's growth.

Perren (1999) suggested the most significant feature in owner's growth; motivation is a manager's desire to succeed in business. The study found a number of factors affecting owner's growth,

motivation that are "desire to be one's own boss", "active risk taker", "family and investing friends", and "competitive dynamics". Moreover, the owner manager's desire to succeed appeared to be the most significant factor influencing the owner's growth motivation.

Welter (2001) investigated the growth intentions of nascent entrepreneurs and existing entrepreneurs and found the difference between the growth profile of nascent and existing entrepreneurs on the basis of personal and business characteristics. Results suggested that education, business environment and gender affect the growth intentions significantly. Aged entrepreneurs were more efficacious in terms of growth intentions as compared to younger entrepreneurs. Davidsson and Henreksson (2002) measured the effect of business size on its growth and found that age, business size, independence of ownership; business sector and legal form were the most significant contributors to business growth.

Rauch et al. (2004) found a strong correlation between entrepreneurial orientation and business performance after reviewing the literature. Calvo (2006) confirmed that smaller firms grow much more rapidly than larger firms. Small and young firms encouraged the possibility of employment generation. Innovation, the technological development had a significant positive effect on firms' growth. Hult et al., (2003) analyzed the influence of cultural inconsistency on overall performance. Entrepreneurship had an indirect effect on the performance of large and old organizations. Results suggested that organizations could achieve higher performance only if they focus on certain cultural competitiveness.

Adegbite (2006) analyzed the upshot of personal characteristics on the business performance of manufacturing industry in Nigeria and revealed that business growth was not affected by human resource factors and sales revenue. The experience and length in business had appeared to be major factors, leaving positive effect on the growth performance of manufacturing firms. The personal characteristics except for the demand for efficiency, information and quality of product, systematic monitoring had negative implications for the business to grow.

Wiklund and Shepherd (2005) found that entrepreneurial orientation and current task environment were positively related to small business growth, whereas resources did not have a direct impact rather small business growth was indirectly and positively affected by resources through entrepreneurial orientation. The manager's attitude towards growth had both direct and indirect positive impact on small business growth. Islam (2011) showed that entrepreneurial characteristics like Gender, experience, education and age of entrepreneur, significantly contribute to the success of SMEs in Bangladesh. The firms' characteristics did not affect significantly, the growth of firms. Rao et al., (2013) estimated the effect of the entrepreneurial characteristics on the success of the woman entrepreneur in the fashion and apparel industry in India. Training, prior experience and education contribute to the growth of enterprise. The successful women entrepreneurs were encouraged to take more risks than less successful ones. Irrespective of the success level, women's desire stimulated them to start a new business.

Khan and Siddiqi (2012) assessed certain aspects affecting a firm's growth, including environment, resources, choices, trends and entrepreneurial characteristics and found that employment generation of the firm was significantly determined by the entrepreneurial factors like education level of manager. Market orientation, source of financing, part time business, market dealing, family business, entrepreneurial characteristics such as experiences, risk taking behavior, innovation, research and development, the quest for improvement, diversification, on the job training and utilization of knowledge were significant contributors to the growth of firms.

The available literature, therefore, supports that there is some association between the entrepreneurial characteristics and firms' growth. Some studies suggest a positive impact while some

are advocating negative impact. The behavior of the senior management, risk aversion behavior, manager's desire to succeed and independence of ownership are some of the factors, along with firm's size, firm's age, high cost of credit and higher taxes which affect firm's growth.

Theoretical Framework

Non institutional barriers that impact the performance of the firms are market demand and lack of skilled labor. Financial barriers are also considered significant factors which can affect the growth of a firm. Becchetti and Trovato (2002) advocated that the impact of financial barriers in form of less access to credit, capital equity and debt prove to be adversely affecting the SMEs growth. These factors can affect the business infrastructure directly and firms' growth indirectly. Firm size, firm age and firm share in the market are certain firm's characteristics which determine increased firm growth (Almus and Nerlinger, 2000; Bartlett and Bukvic, 2002; Calvo, 2006; Glancey, 1998; McPherson, 1996; Zhou and Dewit, 2009). Other institutional barriers involve regulations on foreign trade, political instability and inflation.

Non institutional barriers that impact the performance of the firms are market demand and lack of skilled labor. Financial barriers are also considered significant factors which can affect the growth of a firm. Becchetti and Trovato (2002) advocated that the impact of financial barriers in the form of less access to credit, capital equity and debt proves to be adversely affecting the SMEs growth. These factors can affect the business infrastructure directly and firms' growth indirectly. Firm size, firm age and firm share in the market are certainly firms' characteristics which determine increased firm growth (Almus and Nerlinger, 2000; Bartlett and Bukvic, 2002; Calvo, 2006; Glancey, 1998; McPherson, 1996; Zhou and Dewit, 2009).

Among entrepreneurial characteristics, one should have complete knowledge about the general background of the entrepreneur i.e. age, level of education and the abilities of the entrepreneur. Entrepreneurial characteristics and firms' characteristics affect firm growth in many ways (Islam et al., 2011; Zhou and Dewit, 2009); age and education of owner prove to be a pivotal factor affecting the improved performance of the business (Welter, 2001); growth, motivation of the entrepreneur in terms of risk taking behavior, desire of independence, and nature of the duration of business hours also determine the scale of business performance in an economy (Davidsson and Henreksson, 2002; Perren, 1999; Rao et al., 2013; Wiklund and Shepherd, 2005). Perren (1999) found that owner manager's desire to succeed appeared to be the most influential factor in owner's growth motivation.

Management Knowhow of the manager has a positive impact on business performance of the firm (Rauch et al., 2004; Wiklund and Shepherd, 2005) and it can be judged by information about family business, industry specific know how, previous ownership experience, working of the firm through networks and partnerships (Rao et al., 2013). Adegbite et al. (2006) found that personal characteristics like demand for efficiency, information and quality of product, systematic monitoring by the entrepreneur had a positive impact on business growth.

Organizational and business practices were measured by innovative qualities of the entrepreneur like the introduction of new product and new process and major improvement in existing products. Kohli and Jaworski (1990) found that business practices followed by senior management, interdepartmental dynamics and organizational factors affect the market orientation of the firm and then firm growth respectively. Technological capabilities will be determined by market diversification, number of markets dealing with, on the job training and presence of unique knowhow of the entrepreneur. According to Calvo (2006) innovative ability and technological development had a significantly positive impact on firm growth. Market structure has been quantified through questions on market orientation and price adaptability. Narver and Slater (1990) found market orientation as an important determinant of business

profitability. These entrepreneurial characteristics together with firms' characteristics will have an impact on the firm's growth.

Khan and Siddiqi (2012) assessed entrepreneurial characteristics as factors' affecting firm growth and found that employment generation of a firm depends on the entrepreneurial factors like education level of manager while growth of a firm is determined by the market orientation, source of financing, part time business, market dealing, having a family business, and entrepreneurial characteristics such as experiences, risk taking behavior, innovation, research and development, quest for improvement, diversification, on job training and utilization of knowledge were found to be significant contributors to the growth of firms.

Methodology
Data, Data Sources and Sampling Design
Primary Data has been collected from Sports Industry of Sialkot to assess the impact of entrepreneurial characteristics on firm growth. Total 3100 Sports firms are listed on Sialkot Chamber of Commerce and Industry (SCCI). Our survey instrument focuses on quantifying entrepreneurial characteristics using dichotomous responses pertaining to existence or non-existence of certain entrepreneurial qualities.

The stratified Sampling technique has been used in order to collect data from the targeted population of the sports' firms in Sialkot. The sampling design used in this study is shown in figure 1 where the sports firms in Sialkot Industry have been selected from three major zones (strata) based on their location around the city. Zone 1 (S.I.E zone), zone 2 (Defense Road Industrial Zone) and zone 3 (Daska Road Industrial Zone) are the main strata containing the majority of the sports firms in Sialkot. Simple random sampling has been used within each stratum in order to identify the total sample of 100 sports firms. The weighting of the sample size has been based on the total number of sports firms in each stratum. 27 % of the firms from zone 1, 27% of the sports firms from zone 2, and 28% of the sports firms from zone 3 have been randomly selected in order to generate the total sample of 100 sports firms in Sialkot.

Figure # 1: Sampling Design
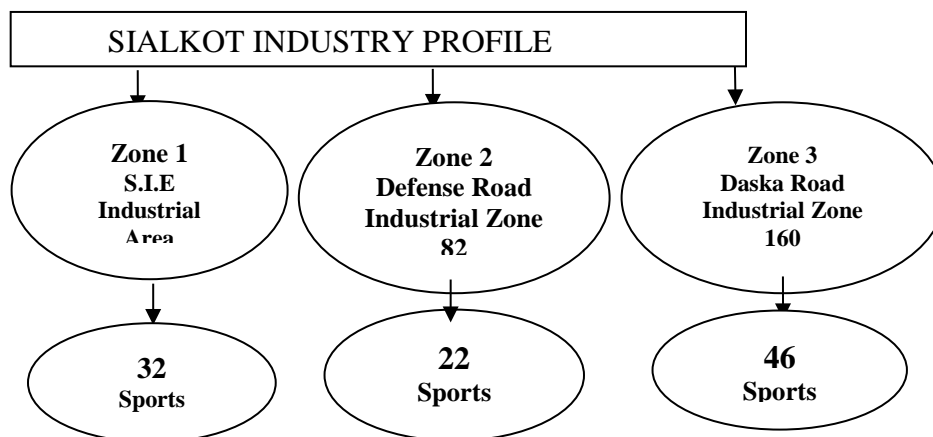
The respondent of the current study is the owner or manager or focal person of the sample firm who has complete or most of the authority to make decisions regarding new ventures, introduction and launching of new products etc.

Quantification of Entrepreneurial Characteristics

Entrepreneurial characteristics have been analyzed and measured by certain features like growth, motivation, management know how, innovation, technological capabilities and competition. A survey was conducted in June 2014 and the information on these variables represents the year end values of 2013. To measure the characteristics, questions mentioned in table 1 were asked from the entrepreneurs.

Table # 1: Identification of Entrepreneurial Characteristics

		Yes	No
Growth Motivation	1. Are you keen to take risk? 2. Are you currently employed elsewhere?		
Management Know How	1. Is the current business your family business? 2. Do you know the procedure of making your firm's product? 3. Before this business, did you have some other business?		
Innovation	1. During last 3years have you introduced new or significantly improved products or services? 2. Were any of the new or significantly improved products or services also new for firm's main market 3. During last 3 years, have you introduced any new or significantly improved methods of manufacturing products or offering services? 4. During last 3 years have you introduced new or significantly improved marketing methods? 5. During last 4 years, did you give some time to develop or try out a new approach or new idea about products or services?		
Technological Capabilities and competition	1. Have you diversified your product in last 3 years? 2. Do you have any unique know how regarding production process of your product?		
Market Structure	1. Do you easily adapt market prices?		

Indicators of Firm Growth

Firm's performance has been measured through variables like sales revenue, export revenue and the number of full time employees by the end of year 2013.

Estimation Technique: Factor Analysis and Regression

For the purpose of estimation and data analysis, factor analysis was used first to group individual entrepreneurial skills of the entrepreneurs into interpretable skill groups of various entrepreneurial characteristics and then to estimate the impact of entrepreneurial, institutional and non-institutional factors, innovative ability and firm related factors as independent variables on the firm performance indicators of sales, full time employment and exports revenue of the sports firms in Sialkot region OLS regression method is used.

Factor analysis is a data reduction technique which aggregates a given set of items to a smaller set of factors based on the bivariate correlation structure using principal components analysis. It involves

steps like preparation of relevant covariance matrix; extraction of initial factors; rotation to a terminal solution; Factor loadings generation; Checking the reliability of the instruments either by using KMO test of sampling adequacy and Bartlett's test of sphericity (Rummel, 1967). These factors should ideally correspond to the underlying theoretical constructs that we are trying to measure (Kim and Mueller, 1978). The general norm for factor extraction is that each extracted factor should have an eigenvalue greater than 1. The extracted factors can then be rotated using orthogonal or oblique rotation techniques, to generate factor weights that can be used to aggregate the individual items of each construct into a composite measure.

Steps in Application of Factor Analysis

Examination of Correlation Matrix is carried out to determine the possibility of the factorization of the variables based on the quality of the correlation matrices. Bartlett's test of sphericity and KMO (Kaiser-Meyer-Olkin) test for sampling adequacy has been used to determine the degree of linear association among all the items in the correlation matrix. KMO test statistic comparable magnitude of correlation coefficient to the partial coefficient for the testing of sampling adequacy. Barlett's test of Sphericity tests the null hypothesis that if the correlation matrix is an identity matrix or not. If the hypothesis is rejected, it shows that correlation among all variables in the study is not identity (Tobias and Carlson, 1969).

Method of Extraction and Selection of to be Retained Number of Factors

Principal Axis Factoring (PAF) method is used in this study as factor extraction method which is considered the basis of factor analysis and is commonly used (Thompson and Daniel, 1996). In PAF, the analysis of data structure focuses on shared variance and not on sources of error that are unique to individual measurements. The conceptual approach involved in PAF (i.e., trying to understand the shared variance in a set of X measurements through a small set of latent variables called factors) may be more convenient. Different criteria can be used to retain a certain number of factors after selection of the extraction method (Zwick and Velicer, 1986)

A factors' eigenvalue should be greater than 1.00 to retain a factor in the analysis (Blom and Saeki, 2011; Cadman, 2010; Kaiser, 1991)). Additional methods to validate the number of extracted latent factors (James et al., 2004) include Inspection of cumulative eigenvalues of variables which can also determine the number of factors to be retained in the analysis. Factors with a cumulative value from 75 percent to 80 percent are suggested to be retained in the analysis. Visualization of eigenvalues on a scree plot is another decision criterion for the selection of a number of factors to be retained. The graph is examined to determine the points at which the last significant drop or brake takes place, or where the line levels off (Cattell, 1966).

The rotation method is used to interpret the data in a meaningful way to make it more interpretable. It is unrealistic to assume that the generated factors are completely independent, therefore, in our analysis oblique method for factor rotation is selected which assumes that there exists some association between the retained factors (Kieffer, 1998). Factor loadings are very important for the purpose of interpretation. Factor loadings less than 0.4 can be ignored for interpretation of the factors. Reliability of the instruments has been tested by observing the value of Cronbach's alpha for each factor which should be greater than 0.8 to consider it reliable (Tavakol and Dennick, 2011).

Impact of Extracted Factors on Firm Growth Indicators

We have used OLS to estimate the impact of Extracted Entrepreneurial factors on firm growth indicators.

Model 1 $Sales13_i = \beta_0 + \beta_1 age + \beta_2 edu + \beta_3 NB + \beta_4 IB + \beta_5 EC + \beta_6 FC + \beta_7 IA + \varepsilon_i$ .. (1)

Model 2

$$Exports13_i = \beta_0 + \beta_1 age + \beta_2 edu + \beta_3 NB + \beta_4 IB + \beta_5 EC + \beta_6 FC + \beta_7 IA + \varepsilon_i \quad ..(2)$$

Model 3

$$FullEmp13_i = \beta_0 + \beta_1 age + \beta_2 edu + \beta_3 NB + \beta_4 IB + \beta_5 EC + \beta_6 FC + \beta_7 IA + \varepsilon_i \quad ..(3)$$

Where, Sales= sales revenue of the firm in 2013, Exports= export revenue of the firm in 2013; FullEmp= full time employment of the firm in 2013; Age=age of the owner/manager; Edu=education of the owner/manager; NB= Non-Institutional Barriers; IB= Institutional Barriers

EC= Entrepreneurial characteristics; FC= Firm specific characteristics; IA= Innovative ability

Results and Data Analysis

Principal Axis Factoring (PAF) method was used for extraction of initial factors. Factor analysis results show that up to 5 factors have an eigenvalue greater than 1. Cumulative eigenvalues criterion for factor retention in analysis implies that 5 factors have a cumulative value of 0.7894 (See Table A.1 in Appendix A) allowing us to retain 5 factors. A scree plot of eigenvalues also showed similar results (See Figure 2). Thus, all three methods of extraction support to retain 5 factors for further analysis.

To assess the sampling adequacy and sphericity; KMO and Bartlett's tests (Dziuban and Shirkey, 1974; Tobias and Carlson, 1969) were carried out. The KMO test statistic implied that the results of factor analysis are middling and the sample is adequate.

Oblique rotation of the un-rotated factors in order to make interpretations more meaningful was made and factor loadings less than 0.4 were disregarded for interpretation. As a result, five characteristic factors were named as; Non-Institutional Barriers, Institutional Barriers, Entrepreneurial characteristics, firm level characteristics and innovative skills.

Table # 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.6878
Bartlett's Test of Sphericity	Approx. Chi-square	1035.18
	p-value	0.000

Figure # 2: Scree Plot of the Eigenvalues
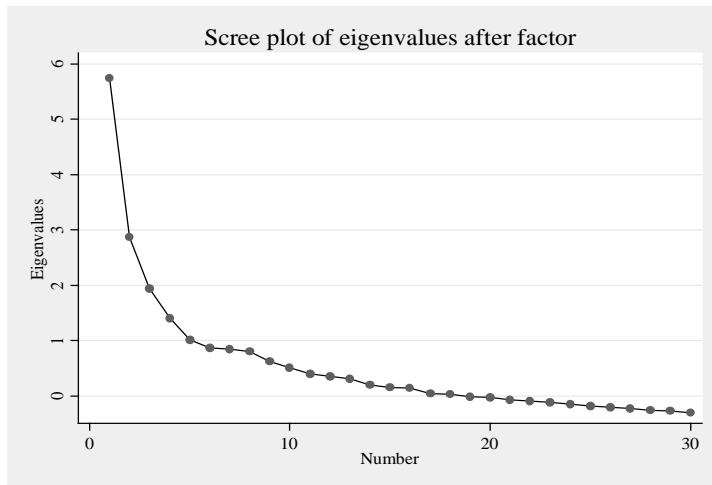
The factor analysis has cohesively separated 26 specific characteristics into these five characteristic groups to a large extent (See Table 3). Innovative ability includes characteristic (foreign trade regulations affecting business) and non-institutional barriers include characteristics (keenness to take the risk and visit of tax officials in last year) which could be considered a part of non-institutional barriers and entrepreneurial characteristics respectively.

As factor analysis works merely on a statistical basis, therefore, there is some chance of the prevalence of overlapping between different groups in some situations (Mirza et al., 2014). The factors were rotated and factor loadings less than 0.40 were disregarded for interpretation of five factors selected. Cronbach's Alpha test value for each factor tests the reliability of the instruments. The alpha values of all the factors were found to be almost equal to or greater than 0.80. The overall value of Cronbach's Alpha is 0.8059.

Table # 3: Factor Analysis Categories of Characteristics

Non-Institutional Barriers	Institutional Barriers	Entrepreneurial Characteristics	Firm Specific factors	Innovation ability
-Does your business get affected by change in market demand by imports? -Does your business get affected by Change in market demand due to business fluctuations? -Does your business get affected by Lack of required skills by workers? -Does your business get affected by financial constraints? –Were you visited by tax officials in last one year? -Are you keen to take risk? -Do you know the procedure of making your firm's product? -Do you have unique know how of the production process of your product?	-Does your business get affected by level of taxes? -Does your business get affected by Other regulations? -Does your business get affected by Political instability? -Does your business get affected by Price instability?	- Did you have some other Business before this? -Were any new and Improved products introduced in the market were different? - Have you introduced any new methods of manufacturing products during last three years? -Have you introduced any Advanced marketing strategies during last three years? - Do you easily adopt market prices? -Have you diversified your Product in last 3 years?	-Do you have more than 100 employees in your firm? -Has the market share of the firm increased during last 3 years? -Is this your family business? -Are you currently employed elsewhere?	-Did you give some time to develop or try new ideas/approaches during last 3 years? -Was the innovation market driven? -How many innovations did you introduced in last 3 years? -Does your business get affected by Foreign trade regulations?

Regression Results

After determining the factor groups, the latent variables of the factors were predicted. The predicted values of the factors identified were then regressed on key performance variables of firm growth to quantify their exact impact on the firm's growth. The value of the coefficient of determination; R2 of 40% are considered decent for cross sectional data. The signs of the regression of each factor conform to the theory. The institutional and non-institutional barriers have a negative impact on firm growth; whereas, entrepreneurial characteristics, firm level characteristics and innovation ability have a positive impact on firm growth in general.

Factor scores are unbounded; we cannot specify the values between zero and one rather it is an index only. The regression results will be interpreted as; for those sports firms experiencing the elements included in a factor, if there is a change in factor score of 1, it shows that the elements in that factor have changed and have some impact on the dependent variable (Eyduran et al., 2010; Sakar et al., 2011).

Model # 1: Regression results suggest that for those sports forums, as the factor score increases by 1 for those factors influencing the institutional barriers faced by some sports firms as compared to others, the sales volume decreases by a significant amount of Rs. 27.2 million annually. For those firms which carry entrepreneurial characteristics as compared to other firms, if there is a change in factors determining the entrepreneurial characteristics by a factor score of 1, a significant increase in sales of Rs. 14.68 million per annum will be observed. A change in those factors determining the firm specific characteristics of some sports firms as compared to others by the factor score of 1, will cause a significant annual increase in the sales of Rs. 24.79 million (Table 4). Those firms with factors involving innovative ability, if factor score increases by 1, then the sales significantly increase by Rs. 20.74 million in a year.

Table # 4: Regression Results

	(1)	(2)	(3)
	Sales	**Exports Revenue**	**Full Time Employment**
Age	1.584203 (3.05)	1.526 (2.89)	0.662 (1.74)
Education	5.91449 (2.70)	6.146 (2.95)	0.510 (0.26)
Non-Institutional Barriers	-1.636153 (0.29)	-0.288 (0.05)	-13.01 (1.37)
Institutional Barriers	-27.24006 (5.55)	-26.062 (5.26)	-19.100 (4.49)
Entrepreneurial Characteristics	14.6803 (2.63)	10.67 (1.79)	13.995 (2.22)
Firm Specific factors	24.79202 (3.28)	25.59 (3.30)	18.75 (3.37)
Innovation ability	20.7432 (3.04)	20.462 (3.01)	0.764 (0.10)
Constant	-27.8564 (-0.72)	-30.833 (-0.80)	37.26 (1.09)
R-square	0.4021	0.3907	0.3038

T-statistics in the parenthesis ( )
Source: Author's own estimations

Model 2 results suggest that for sports forums, as the factor score increases by 1 for those factors influencing the institutional barriers faced by some sports firms as compared to others who do not, there will be a significant decrease in the export revenues of the firm by Rs. 26.06 million per annum. A change in those factors determining the firm specific characteristics of sports firms by the factor score of 1, export revenues will significantly increase by Rs. 25.59 million. If there is a change in factors involving innovative ability in certain sports firms by a factor score increase of 1, then the export revenues of the sports' firms will significantly increase by Rs. 20.46 million.

Model # 3 estimated the impact on full time employment and suggested that as the factor score increases by 1 for those factors influencing the institutional barriers faced by some sports firms as compared to others, there will be a significant decrease of almost 19 full time employees. In case of those firms who experience, entrepreneurial characteristics as compared to other firms, if there is a change in those factors determining the entrepreneurial characteristics by a factor score of 1, there will be a significant increase of almost 14 full time employees of the sports firms. A change in those factors determining the firm specific characteristics of sports firms by the factor score of 1, full time employees of the firms increase significantly by almost 19 employees. The overall regression results show that the factors of non-institutional barriers and institutional barriers affect the firm growth indicators negatively, whereas, entrepreneurial characteristics, firm specific factors and innovation ability influence firm growth indicators positively. All the extracted factors exert some influence on the firm growth indicators and thus are important determinants of the firm growth performance of sports firms of the Sialkot.

Conclusion and Recommendations

The results of the regression analysis suggest that non-institutional barriers have a negative, but insignificant impact on sales revenue and export revenues of the sports firms in the Sialkot region, whereas, non-institutional barriers negatively affect the full time employment levels of the firms. Institutional barriers affect all the key performance indicators of the firm growth negatively and significantly with major impact on sales and export revenues of the sports' firms.

Entrepreneurial characteristics affect the sales revenues, export revenues and the full time employment levels of the firm positively at 5 % significance level. Firm specific factors found to have a positive but significant impact on the sales revenues, export revenues and the full time employment levels of the firm. This result is in accordance with what the literature suggests about the relationship of firm specific factors and the key performance indicators of the firms' growth. There is also overall positive and significant effect of innovation ability on the sales revenue and export revenue except the level of full time employment of the sports firms of Sialkot.

It is, therefore, recommended that there should be more efforts involved both at the level of industry and government to overcome and address the institutional barriers hindering the growth of the firms, particularly in Sialkot and generals in Pakistan. In addition, the steps and measure leading to increase in the entrepreneurial characteristics of the owners and managers should be carried out to reap the maximum benefits of the firm production and output and further strengthen our sports industry in Sialkot. The innovation ability and other firm specific characteristics should be patronized by government and the chamber of commerce by developing a link with the academia and researchers who can bring solutions to the existing issues faced by the firms regarding firm growth and establishing international recognition at a higher level.

References

- Adegbite, S.A., Ilori, M.O., Irefin, I.A., Abereijo, I.O., & Aderemi, H.O.S (2006). Evaluation of the impact of entrepreneurial characteristics on the performance of small scale manufacturing industries in Nigeria. *Journal of Asia Entrepreneurship and Sustainability, 3(1).*

- Almus, M., & Nerlinger, E. (2000). Testing 'Gibrat's law' for young firms-empirical results for West Germany. *Small Business Economics, 15,* 1-12.

- Bartlett, W., & Bukvic, V. (2001). Barriers to SME growth in Slovenia. *MOCT-MOST, Economic Policy in Transitional Economies, 11,* 177-195.

- Baumol, W. (1968). Entrepreneurship in economic theory. *American Economic Review Papers and Proceedings,* 64–71.

- Becchetti, L., & Trovato, G. (2002). The determinants of growth for small and medium sized firms. The role of the availability of external finance*. Small Business Economics, 19(4),* 291-306.

- Blom, A. & Saeki. H. (2011). Employability and skill set of newly graduated engineers in India. *Policy Research Working Papers.*

- Cadman, B.D., Klasa, S., & Matsunaga, S.R. (2010). Determinants of CEO Pay: A Comparison of ExecuComp and non-Execu Comp Firms. *The Accounting Review,* Vol. 85.

- Calvo, L.J. (2006). Testing Gibrat's Law for small, young and innovating firms. *Small Business Economics, 26,* 117–123

- Cattell R.B. (1966). The Scree test for the number of factors. *Multivariate Behavioral Research*. Volume 1: Issue 2.

- Coad, A. (2007). Testing the principle of 'growth of the fitter', the relationship between profits and firm growth. *Structural Change and Economic Dynamics, 18(3),* 370-386.

- Davidsson, P., & Henreksson, M. (2002). Institutional determinants of the prevalence of startups and high growth firms, evidence from Sweden. *Small Business Economics, 19(2),* 81-104.

- Dziuban, C.D., & Shirkey, E.C. (1974). When is a Corrleation Matrix appropriate for Factor Analysis? Some Decision Rules. *Psychological Bulletin. Vol 81(6), 358-36.*

- Eyduran, E., Topal, M., & Sonmez, A.Y. (2010). Use of factor scores in multiple regression analysis for estimation of body weight by several body measurements in brown trouts (Salmo trutta fario). *International Journal of Agriculture and Biology.* Vol 12; 611-615.

- Glancey, K. (1998). Determinants of growth and profitability in small entrepreneurial firms. *International Journal of entrepreneurship behavior and research, 4(1),* 18-27.

- Gorsuch, R.L. (1983). *Factor Analysis* (Second edition), Lawrence Earlbaum Associates, Inc. NewJersey, USA.

- Government of Pakistan (GOP). (2011). *New Growth Framework.* Ministry of Planning, Development & Reforms, Islamabad, Pakistan.

- Government of Pakistan (GOP) (2013-14). Economic Survey of Pakistan.

- Henderson, J., & Weiler, S. (2010). Entrepreneurs and Job Growth: Probing the Boundaries of Time and Space. *Economic Development Quarterly, 24(1),* 23–32.

- Hult, G.T.M., Snow, C.C., & Kandemir, D. (2003). The role of entrepreneurship in building cultural competitiveness in different organizational types. *Journal of Management, 29(3),* 401-426.

- Islam, M.A., Khan, M.A., Obaidullah, A.Z.M., & Alam, M.S. (2011). Effect of entrepreneur and firm Characteristics on the business success of small and medium enterprises (SMEs) in Bangladesh. *International Journal of Business and Management, 6(3), p 289.*

- James, H.C. (2004). 'Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis.' *Organizational Research Methods, Vol. 7 No. 2, April 2004 191-205*

- Kaiser, H.F. (1991). Coefficient alpha for a principal component and the Kaiser-Guttman Rule. *Psychological Reports, Vol. 68:3, 855-858.*

- Kieffer, K.M. (1998). Orthogonal versus oblique factor rotation: A review of the literature regarding the pros and cons. Presented at Annual Meeting of the Mid-South Educational Research Association, New Orleans, LA.

- Khan, K.S., & Siddiqi, W. (2012). Entrepreneurial factors contributing towards the firm's growth in terms of employment generation: A case study of electric fans producing firms in Gujarat District. *Proceedings of 2nd International Conference on Business Management.*

- Kim, Jae.-on., & Mueller, C.W. (1978). Factor analysis: Statistical methods and practical issues. Newbury Park: Sage Publications.

- Ledesma, R.D., Valero-Mora, P. (2007). Determining the number of factors to retain in EFA: An Easy-to-use computer program for carrying out parallel analysis practical assessment, *Research & Evaluation*, Vol. 12 (2).

- Kohli, A., & Jaworski, B. (1990). Market Orientation: The construct, research propositions, and managerial implications. *Journal of Marketing*, 54, 1-18

- McPherson, M.A. (1996). Growth of micro and small enterprise in Southern Africa. Journal of Development Economics, 48, 253-277.

- Mirza, F.M., Jaffri, A.A. & Hashmi, M. S. (2014). An Assessment of Industrial Employment Skill Gaps among University Graduates in the Gujrat-Sialkot-Gujranwala Industrial Cluster, Pakistan. *International Food Policy Research Institute.* Working Paper No. 017

- Narver, J. C., & Slater, S.F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing, 54,* 20-35.

- Pakistan Bureau of Statistics (2010-2011). *Government of Pakistan.*

- Papadaki. (2000). A Longitudinal Analysis of Young Entrepreneurs in Canada, CCSBE 21, Annual Conference.

- Pedhazur, E.J., & Schmelkin, L.P. (1991). *Measurement, Design, and Analysis: An Integrated Approach*. Lawrence Erlbaum.

- Perren, L. (1999). Factors in the growth of micro-enterprises (part1): developing a framework. *Journal of Small Business and Enterprise Development. 6(4), 366-38.*

- Rao, V., Venkatachalm, A., & Joshi, H.G. (2013). A Study on entrepreneurial characteristics and success of women entrepreneurs operating fashion and apparel business. *Asian Journal of Management Sciences and Education, 2(2). 136-147.*

- Rauch, A., Wiklund, J., Lumpkin, G.T., & Frese, M. (2004). Entrepreneurial orientation and business performance: An assessment of past research and suggestions for the future. *Entrepreneurship Theory and Practice, 33(3), 761-787.*

- Rummel, R.J. (1967). Understanding Factor Analysis. *The Journal of Conflict Resolution, Vol. 11,No. 4. 444-480*

- Sakar, E., Keskin, S., & Unver, H. (2011). Using of factor analysis scores in multiple linear regression model for prediction of kernel weight in Ankara Walnuts. *The Journal of Animal and Plant Sciences,* 212(2), 182-185.

- Schumpeter, J.A. (1934). The theory of Economic development: An inquiry into profits, capital, credit, interest and the business cycle (Vol. 55). Transaction Publishers.

- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25(1),* 217-226.
- Shane, S., Locke, E.A., & Collins, C.J. (2003). Entrepreneurial motivation. *Human Resource Management Review, 13(2),* 257-279.
- Sirec, K. & Mocnik, D. (2010). How entrepreneur's personal characteristics affect SME's growth. *Our Economy (Nase Gospodarstro), 56.*
- Sialkot Chamber of Commerce and Industries (SCCI).
- Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics (4th ed.)*. Needham Heights, MA: Allyn & Bacon.
- Tavakol, M. & Dennick, R. (2011) Making Sense of Cronbach's Alpha. *International Journal of Medical Education.*
- Thompson, B. & Daniel, L.G. (1996). 'Factor analytical evidence for the construct validity of scores: A Historical overview and some guidelines.' *Educational and Psychological Measurement*.
- Tobias, S. & Carlson, J.E. (1969). Brief Report: Bartlett's Test of Sphericity and chance findings in Factor Analysis. *Multivariate Behavioral Research.Vol 4, Issue 3.*
- Venkataraman, S. (1997). The distinctive domain of entrepreneurship research. *Foundations of Entrepreneurship, Scott Shane, ed.,* Edward Elgar Press.
- Welter, F. (2001). Nascent Entrepreneurship in Germany. *Rheinisch-Westfalisches Institut fur Wirtschaftsforschung. Essen.*
- Wiklund, J., & Shepherd, D. (2005). Entrepreneurial orientation and small business performance: a configurationally approach. *Journal of Business Venturing*, 20(1), 71–91.
- Zahra, S.A. (1999). The changing rules of global competitiveness in the 21st century. Academy of Management Executive, 13(1), 36–42.
- Zhou, H & De Wit, G. (2009). Determinants and dimensions of firm growth. *Scientific Analysis of Entrepreneurship and SMEs.*
- Zwick, W.R. & Velicer, W.F. (1986). 'Factors influencing five rules for determining the number of components to retain.' *Psychological Bulletin*, Vol.99*.*

Appendix A

Table # A.1: Factor Eigenvalues

Characteristics	Non-Institutional Barriers	Institutional Barriers	Entrepreneurial Characteristics	Firm Specific factors	Innovation ability	Uniquenes
Change in Import demand affecting business	0.4878					0.5378
Market demand changes due to business fluctuations affecting business	0.7973					0.3253
Lack of required skills by workers affecting business	0.6850					0.3156
Financial constraints affecting business	0.6367					0.4167
visit of tax official in last one year	0.3896					0.6728
Do you know the procedure of making your firm's product?	0.5904					0.5995
Do you have unique know how of the production process of your product?	0.4690					0.5591
Are you keen to take risk?	0.3789					0.6876
Level of taxes affecting business		0.7798				0.2494
Other regulations affecting business		0.7098				0.3517
Political instability affecting business		0.5247				0.6585
Price instability affecting business		0.7511				0.3920
Did you have some other			0.5300			0.5965

Business before this?						
Improved products introduced in the market were different			0.6660			0.5344
New production techniques employed			0.7124			0.4741
Advanced marketing strategies used			0.8128			0.2820
Easy adaptation of Market Prices			0.3724			0.7015
Product diversification in last 3 years			0.4152			0.7137
More than100 employees in the firm				0.5169		0.4606
Increased market share in last 3 years				0.5634		0.6027
Is this your family business?				0.6492		0.4863
Are you currently employed elsewhere?				0.6733		0.4999
Time dedicated to development of new ideas/approaches					0.4543	0.5294
Was the innovation market driven?					0.3866	0.6214
How many innovations did you introduce?					0.3806	0.6873
Does your business gets affected by Foreign trade regulations?					0.4478	0.6645

Criteria for the Promotion of College Faculty in Pakistan: Experience or Performance?

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Abstract

Performance appraisal is important for professional decision making in educational institutions. Government colleges (public sector colleges) in Pakistan follow criteria for promotion based on seniority in terms of the number of years a college teacher has served. This qualitative study was aimed at an evaluation of the criteria used for the promotion of the faculty in government colleges in Pakistan. Focus group discussions were used as the main data collection technique. Data were collected from faculty members and principals/heads of the institutions of government colleges. Findings from the study indicate that the current criteria are not adequate and more comprehensive criteria are in order. Such criteria shall not only take into account other sources of information, besides teaching experience in years, for faculty appraisal but shall also provide feedback on performance. This would go a long way in developing professionalism amongst the college faculty. The study is important as it provides guidelines for policy makers in Pakistan to devise more wide-ranging performance driven criteria for the promotion of college faculty. Such a step, the study suggests, would have a significant impact in terms of improving the quality of education in government colleges in Pakistan.

Keywords: College teaching, Pakistan, Performance versus experience, Professionalism

Introduction

In performance appraisal the standards by which professional performance is measured for making decisions are called criteria. If designed properly, these criteria can provide guidance not only to the decision makers but can also inform faculty members of what is expected of them. There are always elements of objectivity and subjectivity in such criteria. In criteria tending to be more objective, decisions are based on quantifiable evidence and needs a professional opinion for decision making. In subjective-oriented criteria, the evidence needs not be quantified and entail professional opinion for drawing conclusions (Dilts, Haber & Bilalik, 1994).

The criteria used for the promotion of college faculty in Pakistan are not comprehensive and teachers' classroom teaching is not included in performance evaluation. Secondly, in the whole process of performance evaluation in government colleges there is a lack of integration of professional development. Many public sector colleges are short of skilled teachers since there is no proper policy for training of teachers. Colleges arrange training programs for teachers, but faculty usually tends to avoid

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attending these as this has no bearing on their promotion. Further, there are rarely any comprehensive programs of in-service or pre-service trainings for the professional development of college teachers. The current promotion policy of college teachers is based on seniority IE on the length of service in a certain pay scale. Lecturers are appointed in BPS (Basic Pay Scale) -17 and five years service is necessary for their promotion to BPS-18 as Assistant Professors. For promotion from BPS-18 to BPS-19 as Associate Professors, the required length of service is twelve years: five years in BPS-17 and seven years in BPS-18. Similarly, seventeen years service is required for the promotion from BPS-19 to BPS-20 as Professors, i.e. five years in BPS-17, 10 years in BPS-18, and three years in BPS-19. The proposals for the promotion of faculty are not accepted until the condition of recommended length of service is fulfilled. Mandatory training has been linked with promotion to every next grade, but still there is no mechanism for giving weightage to these trainings in the Performance Evaluation Report (PER) or in the training of administrative staff involved in performance appraisal. For each vacancy of promotion to BPS-18 and BPS-19 a board of at least two high-ranking officials is placed before the PSB (Provincial Selection Board).Likewise for every position regarding promotion to BPS-20 and BPS-21 a board of three senior officials is positioned before the PSB. The maximum cumulative marks for promotion are 50, 60, 70, and 75 for BPS-18, 19, 20, and 21. With the approval of PSB, promotions in BPS-17 and above are made.

An important document used for the promotion of the faculty members is Performance Evaluation Report (PER) previously known as Annual Confidential Report (ACR). PER is an annual system of evaluation of the public servants on the prescribed forms. It is a frequently used document in the service career of a public servant for promotion, training and deputation purposes. PERs are initiated in the first week of January of the preceding year and finalized by 31st January each year. Forms are filled in duplicate. Part-I and Part-II of the PER are filled by the officer whose performance is being evaluated and are sent to the reporting officer (RO) before the 15th of January. After giving their opinion in part-III and IV, the reporting officer forwards the same report to the countersigning officer (CO) within two weeks. The countersigning officer (CO) finalizes their remarks in part v within two weeks of the reception of PERs.

A perusal of the document shows that PER lacks the very standards of performance that are being evaluated because the contents of this document are mostly related to personal bio-data, personality traits, and other things that are remotely related to the job description of the faculty. Secondly, in part III and IV of this report, the reporting officer is required to assess whether the officer being evaluated is intelligent, confident, responsible, reliable, social, helpful, knowledgeable or able to make decisions. In many cases the reporting officer is not competent enough to assess the officer under observation, because they are not trained in the skills of administration and personnel evaluation. Thirdly, much in these PERs is not directly related to the teaching performance of college faculty. Fourthly, part v and VI where the countersigning officer has to take certain decisions in the light of the remarks given by the reporting officer is the person who rarely comes across the officer under consideration.

Usually two types of PERs are in use. One type of PER is used for BPS-17 and 18 while the other type is used for BPS-19 and 20. But except the difference in colors, i.e. the first one having yellow color and the second one having pink, the contents of these reports are almost the same. Overall, in the college teaching profession in Pakistan, like most other professions, the experience of employees is recognized as an important element in policies and promotion decisions. The criteria seem to be based on the belief that experience develops the efficiency of teaching staff along with their knowledge, skills, and expertise. This leads to prioritizing seniority in terms of years of experience which becomes a

cornerstone of faculty promotions. The underlying assumption seems to be that experience improves teaching effectiveness. But is that really the case? This is an important question that this study aims to seek an answer to.

Literature Review

Teaching effectiveness is evaluated mainly in two ways: formative and summative (Braskamp & Ory, 1994; Centra, 1993; Marsh & Dunkin, 1997; Paulsen & Feldman, 1995a; Theall & Franklin, 1990). The formative evaluation is used to provide feedback to assist faculty in improving the effectiveness of their teaching while the objective of summative evaluation is to provide information to assist department chairs, faculty committees, and deans in making decisions related to hiring, renewing or removing faculty, awarding tenure, promotion, and merit pay increases (Paulsen, 2002).

Research shows that a comprehensive method of faculty evaluation in terms of their teaching performance is highly important for the provision of quality education (Centra; 1979 & 1993; Aleamoni, 1981; Arreola, 1986). For the assessment of any performance activity, a person, or a program no one method by itself is adequate. An overemphasis on one method might do more harm than good. For the examination of various facets of the program different and appropriate means of assessment are needed (Dressel, 1976). The primary purpose of colleges is teaching, therefore, there must be a standard way to evaluate colleges for the standard of teaching. Different types of information that can be used to appraise college teaching, both for personnel decisions and for promotions, have been based on a superficial understanding of teaching (Cashin, 1989). According to Cashin (1989), teaching in college includes the following seven areas: mastery of subjects, developing curricula, designing courses, delivery of instruction, assessment of teaching, availability to students, and managerial requirements. Cashin (1989) further argues that for evaluating teachers' performance several types of data sources are important: self, files, students, peers, colleagues, administrator, chairman/dean and consultant. Substantial research supports the reliability and validity of student ratings (Aleamoni, 1981; Braskamp & Ory, 1994; Cashin, 1995). Student rating is also an important source of data regarding teacher performance evaluation. Researchers such as central (1979), Miller (1987), and Seldin (1994) caution against using any single source of data.

An important criteria used for performance evaluation is the duration of the teaching experience that faculty members have. Previous research (Goldhaber & Brewer, 2000) focuses on teacher experience in general and the effect it may or may not have on student achievement. The number of years of teaching experience, however, does not automatically translate into better qualified and trained candidates for teaching positions. All teachers, irrespective of their teaching experience, can develop effective teaching skills affecting students' learning outcomes. Depending on the environment, teachers' attributes like instructional experience, affect student achievement to different degrees (Croninger et al., 2003; Heneman et al., 2006; Milanowski & Kimball, 2005; Rice, 2003). According to Odden & Kelley, (2002) experienced teachers are highly paid and often have less teaching work load as compared to junior teachers. This double privileged position of experienced teachers needs to be investigated. Overall, research on teaching experience indicates a number of contradictory findings. One important study was conducted by Hanushek (1997) who did a meta-analysis of several hundred studies. In these studies an association between educational inputs and educational outputs was explored. The findings were also surprising because it showed that teaching experience was not a significant gauge for the excellence of the teachers. Therefore, it has little to do with instructional output or to the achievement of students in any meaningful way.

Researchers like Ferguson and Ladd (1996) did find that teachers' experience and students' achievement are related. For example, they observed that the teaching experience of more than five years does not affect the achievement of students. Similar results were found in another study conducted by Grissmer et al., (2000) and a positive relationship was found between the results of students at the elementary level and the experience of teachers, but for the additional years of experience no relationship was found.

Yet another research carried out by Milanowski & Kimball (2005) showed a positive relationship between teacher experience and student achievement in elementary mathematics. This was, however, within the first 3 to 7 years of teaching experience. Beyond that there was no significant relationship between teaching experience and student achievement. These results from the old and new research equally show teaching experience could not be taken for granted as the basis for good teaching performance. Most of these studies revealed an agreement for the need of a more comprehensive performance evaluation of teachers. Teaching came out as a complex activity the success and effectiveness of which went beyond a teacher's experience in terms of the length of service.

This current study is in, many ways, in line with those studies previously conducted in other than Pakistani contexts. With little previous research is available on the issue in the Pakistani milieu. The aim, therefore, is to explore the issue in the Pakistani context and provide insights to policy makers, researchers and educationists in Pakistan regarding this very important issue.

Research Methodology

This qualitative study used focus group as a main data collection tool. The selection of participants for the focus groups was done using convenience and purposive sampling (Cohen, Manion & Morrison, 2007). Purposive sampling is subjective in nature and sample is selected based on the judgment of the researcher. It is a type of non-probability sampling technique. To gain the maximum perspectives on the topic under consideration a type of purposive sampling known as maximum variation sampling was used for looking at it from all angles. Participants were selected keeping in view their perceived level of understanding regarding experience, performance, promotion and the existing issues affecting college life in the perspective of higher education. The selection of participants in the focus groups was done because of the ease of accessibility of participants and also because they were having maximum information regarding the concepts of experience, performance, promotion, the existing issues affecting college life in the perspective of higher education. Along with these whys and wherefores, the group members were well acquainted with each other. Nevertheless, the selected participants expressed their perceptions regarding the criteria of promotion of college faculty.

A total of four focus group discussions were conducted for the study. The duration of all the focus group discussions varied but each of them lasted for more than 70 minutes. In addition to the main data collection through focus groups, the process was augmented by informal discussions/interviews with some of the participants for further clarification and elaboration of ideas coming out of the focus groups. This process was very helpful in the triangulation and strengthening of the data and its credibility.

Participants included in the first focus group:
- 1 Associate Professor and ex-Principal Govt. College
- 2 Assistant Professors (both of them very experienced teachers)
- 6 Lecturers

Participants included in the second focus group:
- 1 Associate Professor
- 3 Assistant Professors
- 6 Lecturers

Participants included in the third focus group:
- Two Associate Professors
- Three Assistant Professors
- Five Lecturers

Participants included in the fourth focus group:
- 1 Associate Professor
- 1 Assistant Professor
- 7 Lecturers

It was necessary to keep the size of the focus groups representative and manageable. Participants were contacted personally to take part in the focus groups. During the focus group discussion the participants were cooperative and motivated to share their views regarding the issue. The consent of these participants was sought in advance of the focus group discussion. Participants expressed their willingness to be audio and video-recorded. Sometimes it is important to videotape the discussions used for research because when the video is analyzed later on the postures, gestures, movements, and facial expressions of the participants provide additional useful clues. The time and place for these sessions were selected keeping in view the convenience of the participants. During each discussion the concept of experience was chosen as an ice breaker to trigger the discussion in ways that were impersonal and nonthreatening. The ice breaker motivated the participants to start the discussion about the connection between experience and promotion of college faculty. An information sheet was provided to the participants about the purpose of the focus groups. With the help of the participants a code of conduct was developed to ensure respect for difference of opinion. In all the focus groups the participants were stimulated to discuss the ice breaker with any faculty member. Questions were asked one by one and the discussion was audio-taped. Discussion was interrupted at times for seeking explanations using probe questions, before moving on to a new issue.

Focus Group Questions
Question 1

a)   Does experience augment professional skills?

b)   Is teaching experience different from the experience gained in other professions?

Question 2
a)   Does the teaching profession follow sequential stages of professional development or is it that ten years teaching experience means one year experience ten times?

Question 3
a)   Is teaching experience at one level of education useful for other levels of education?
b)   Does teaching experience of a few years, used as a criterion of promotion, prepare/develop the person for the new role in the higher grade?

Question 4
a) What is the role of PER (Performance Evaluation Report) in the professional development of faculty?
b) Does PER provide any feedback on your teaching performance?

Question 5
a) Is teaching experience a valid criterion for the promotion of the faculty to higher grades?

Question 6
a) How valid are the sources of evidence on your teaching performance in the criterion of seniority for the promotion of faculty?

Data Analysis

Thematic analysis was used for the analysis of the data. Thematic analysis is a qualitative analytic method for '… identifying, analyzing, and reporting patterns (themes) within the data. It minimally organizes and describes your data set in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic' (Braun & Clarke, 2006, p. 79). A theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the dataset (Braun & Clarke 2006, p. 82). Braun and Clarke's 'guild' to the 6 phases of conducting thematic analysis were followed for detailed analysis of the data generated through focus groups. Familiarization with the data was done by listening to tapes and reading transcriptions and notes. This led to the generation of initial ideas and themes which got refined as the process of analysis and review moved on. The leading themes that emerged as a result of the data analysis are presented in the following sections.

Results and Findings

Following are the main themes that came out as a result of data analysis.

Theme 1: Reservations against Performance Evaluation System

Participants came with diverse meanings of concepts and terms such as experience, profession, vocation, learning outcomes, students' achievement, teaching, quality, research, evaluation, student learning, and criterion. There was no consensus because each one of the participants had a different explanation about the meaning of these words and concepts. Most participants argued that the whole system of performance evaluation is defective. One reason put forward for this assertion was that those responsible for making the PER are not qualified to do so. As one participant argued, 'The person who evaluates the performance of his/her subordinates is not qualified/trained in the art of evaluation. PERs are written by people who sometimes cannot even read this document. Most of the times, these reports are filled by one of the confidantes'. Similarly, another participant said, 'Instead of motivating the staff, these performance evaluation reports become a source of exploitation and settling scores with the subordinates'. Further, it was reported that there were no standards for assessing performance of the faculty or for providing job description or specification portfolios to the newly inducted lecturers. Consequently, new lecturers remain unclear regarding the nature of their jobs. Criticizing seniority as a sole criterion for promotion, a participant argued, 'The system of seniority is least motivating as a criterion for promotion of faculty because people never update their knowledge and skills and with the passage of time they become ineligible for the posts they occupy till their retirement. Most of the faculty members get retired in grade 20 but their basic qualification remains the same at which they were inducted'.

Theme 2: Need for a New Promotion Strategy Linked with Excellence

Striving for excellence involves developing not only technically, but also in the areas of communications, interpersonal relationships and ethics. For achieving excellence an extrinsically motivating environment is very important. All participants argued that a new promotion strategy was needed linking it with the continuous professional development of the college teachers. '*In the absence of research activity, professional qualification and pre and in-service training, college faculty not only get rusted but also affects the students' learning negatively'* (a participant).   Another participant suggested, 'Criterion of seniority also kills the motivation of newly inducted and enthusiastic lecturers in the colleges and with the passage of time they become lethargic and indifferent towards their own profession'. There was unanimity among participants that the criteria of promotion must be based on excellence in teaching, research and other assignments. Another participant argued, 'Professional trainings and exams for promotion should be promoted like those in the armed forces that are linked to the results of the students. *Secondly the policy of getting four advanced increments for M.Phil scholars and five increments for PhD scholars must be revived*'. There was consensus among participants that a performance based appraisal system is highly motivating for faculty. *A merit-based program can provide motivation leading to better performance. Teachers who recognize that the best performers are the ones who get ahead may put forth the extra effort they believe it takes to receive promotions* (A participant).

There was a universal agreement that excellence in performance, skills and abilities be rewarded. This was associated with the provision of merit in the educational institutions. As one participant argued, '*People possess varying levels of skills and abilities, and a merit-based program rewards those who may have the most to offer in the long run. While senior employees offer the benefit of greater experience, this does not necessarily equate with more ability.* A less experienced teacher possessing a greater flair for innovation or creativity may be more likely to generate ideas that help move the institution forward in the future'. Interestingly, most of the participants who supported the 'excellence' criteria yearned for four-tier system of automatic promotions. Explaining this a participant argued that an average provincial or federal government employee inducted in BPS-17 can easily get four-step promotion in his/her 30-35 years of career and the promotion are mostly automatic. This, however, the participant replied, was not the case when it comes to a college teacher's promotion. Instead, '*A college teacher, who starts his/her career from grade 17, hardly goes one step up in his/her 30-35-year service. The reason is that teachers` promotion is not linked to the four-tier formula, which means four-step time bound promotion from grade 17 to 20. In the absence of a four-tier time scale formula for teachers` promotion, teachers recruited in grade 17 hardly reach grade 18 (assistant professor) after 21 years of service. Most of the teachers retire in grade 18 after spending 30 years in the education department'*, explained the participant.

Theme 3: The Teaching versus Research Role of College Teachers

Most participants argued that the role of research or other scholarly activities were nonexistent in the government colleges. A participant in one focus group stated, 'College staffs are teachers only. They are not scholars. But in universities the faculties are scholars as well as teachers. That is why, research gives them a professional identity, but teaching does not'. Some of the participants indicated a preference for teaching over research for college teachers and hence a desired blinking of one from the other. As one participant argued, 'There is no link between teaching and research, as time spent on doing both activities dilutes the other activity, so students get a worse deal in their teaching'. It was argued that it was good for teachers to become scholars, but that their primary job was to improve their teaching

skills.' The job of a teacher is not to remain at the cutting edge of knowledge. The job of a teacher is to translate ideas and concepts into layperson language so that they can understand what the idea is and how that fits into the business. In the early stages of a course, students have to learn the facts and if staff gets bogged down in doing research, then the students will not learn the facts as teacher-researchers will concentrate on the research and papers rather than on the students' (A participant).

Theme 4: Brain Drain

An interesting finding that came out was about the lack of professional development opportunities in government colleges that, it was argued, caused a brain drain, making this sector barren as competent and talented professionals left their jobs to get into other sectors of the job market. The root cause of this negative trend, it was suggested was the demotivating sole criterion of seniority for promotion. Discussions in all the focus groups revealed that there is a trend of departmental brain drain to the other institutions of higher education amongst the college teachers. 'Brain drain in the college faculty is on the rise because other institutions of higher education offer better incentives, pay packages and environment for professional development as compared to the college (A participant). Similarly, another participant argued, 'In our colleges, many of the PhD's are still working in grade 17 and most of them are ready to join universities within or without the country'. To contain this trend, it was suggested by a number of participants that better incentives need to be offered to the college teachers and that research scholars and those who promote and develop new teaching learning strategies and ideas should be given preference in their promotion to the higher grades.

Theme 5: Seniority versus Performance Criteria for Promotion

Should it be seniority in years or should it be job performance that should be a base for promotion to higher grades? There was a clear demarcation between the views of senior faculty and junior faculty on the issue with the latter (junior faculty) arguing for a performance-based promotion system whereas senior faculty believed that promotion should be more seniority based. Most of the senior participants supported their stance, arguing that in a seniority-based system, there is no favoritism, while performance-based criteria could be used to promote those who are 'favorite' of the high-ups not essentially on the basis of their performance. '*A seniority-based promotion structure can eliminate the chances of favoritism. Teachers don't have to worry about a newer worker coming in and quickly leapfrogging them to obtain a promotion simply because they are friends with an upper-level supervisor or because of the way they dress or that they are more effective at playing politics.*'(A senior participant). Senior participants also highlighted that seniority-based promotion practice results in developing workplace harmony which is very useful for a peaceful and productive working environment. A senior participant elaborated, '*Promotion based on seniority can also help maintain a more harmonious workplace. Teachers who know they need to put in the necessary time with the department before advancement opportunities present themselves are less likely to resent those who attained promotion because they served the department for longer duration. This can eliminate the backstabbing often associated with merit-based programs where teachers may attempt to present themselves in the most favorable terms possible, sometimes by attempting to make their colleagues look incompetent*'.

Junior staff on the other hand presented a very different view regarding the issue. '*The system of seniority is based on the belief that all individuals are equal in skills and education. For example, it does not reward higher education, but I feel that the extra degree gives the individual an advantage in performance. When an institution rewards seniority and not performance it often encounters inequity*

perceptions among junior staff who feel that they are working harder and performing better than their high paid senior colleagues.'(A junior participant)

Overall, the criterion of seniority was (perhaps understandably) the most favorite standard of promotion for senior faculty, but junior faculty members, with strong academic background, were in favour of any competitive system of promotion where they could overtake other people just on the basis of their performance. Overall, the criterion of seniority was (perhaps understandably) the most favorite standard of promotion for senior faculty, but junior faculty members, with strong academic background, were in favour of any competitive system of promotion where they could overtake other people just on the basis of their performance.

Discussion and Implications

This study found that performance appraisal must be related to the job description. The length of service and the publication of a certain number of research articles are not valid and relevant criteria used for the promotion of teaching faculty. As the existing criterion of promotion which is based on seniority is not very useful, this research shows that it may be made more valid, reliable, and multidimensional. The faculty working in government colleges was not satisfied the way their performance has been evaluated. The non-existence of a research culture in government colleges seem to be responsible for the departmental brain drain. It was also found that senior faculty favored the criteria of seniority while junior lecturers were of the view that appraisal system may be based on performance. Government colleges in Pakistan are primarily teaching institutions where there is no obligatory system of pre or in-service trainings for teachers, that is, for lecturers, assistant professors, associate professors, and professors. The way the performance of college teachers is evaluated is based on the traditional ACR (Annual Confidential Report) although its name has been changed into PER (Performance Evaluation Report). It is done confidentially and no feedback is provided to the teachers. This lack of formative feedback on their performance does not seem very helpful in terms of the continuous professional development of college teachers. The PER hardly reports on the job description of college teachers and the system is not evaluated by trained professionals. The current PER is, therefore, not in line with professional excellence as a base for promotion to higher grades. The PER, therefore, is in need of improvement to make it more driven by excellence in professional performance on formative basis. This will help develop the process on more meritorious grounds and will redeem it of being a mere formality at the end of the year.

In the professional excellence of the teachers, research activity can play an effective role, but in government colleges there is hardly any culture of research. The research activity has not been interwoven into the fabric of professional development. This can be done by making M.Phil, PhD or a certain number of research publications mandatory for promotion to higher grades. In the absence of a research culture in government colleges and the consequent lack of reward for higher education and research these institutions are becoming barren of human resource because teachers after completing their M.Phil or PhD on their own tend to leave these colleges to join universities where they feel better academic environment is available for their future development. The fact that a majority of the junior faculty supported a more performance and merit based promotion policy rather than the traditional seniority based, indicates that the seniority based policy is standing in the way of the young and aspiring college faculty who could perform to their optimum level otherwise. This study indicates that one important cause for non-professionalism in government colleges is the presence of a system of seniority where performance is not awarded if not discouraged. The concerns of the senior faculty regarding possibility of favoritism in the 'performance' rather than the traditional seniority based system also need

to be taken into consideration. The culture prevalent inside the Pakistani government colleges in many ways represents the social culture in general where favoritism in job allocations is a major issue. It is, therefore, important that this aspect of the issue is taken care of to reduce the chances of favoritism in government colleges. This calls for greater vigilance and meritocracy on the part of the administration inside colleges and on the higher government levels. The findings of this study also present a case for a more comprehensive and detailed performance evaluation system in government colleges for the promotions and up-gradation of college teachers.

On the basis of the findings, this study has some implications for policy makers regarding the promotion of college faculty in Pakistan. One implication is that the policy regarding the promotion of teaching faculty in government colleges in Pakistan is need of revision. A well-structured system of national criteria and accreditation is needed to be put in place for college teachers for recruitment, acquisition of competencies and eligibility for teaching and management. This exercise will result in standard-setting and a resultant profiling of faculty professional standing. Further, professional development and reward structures should be in place to encourage the on-going development of teachers' skills that will enable them to become professional teachers. In cases where more veteran teachers are unable to maintain performance levels with adequate support and professional development, mechanisms for alternative assignments or (in extreme cases) even removal from service might be considered. In case where experienced teachers are not most effective, policymakers should re-examine the common practice of determining teacher layoffs based on seniority. This is not to say seniority is not important, but that it should not be the main criteria for promotion to higher grades.

The environment should be competitive and motivating and should provide a clear road map to career development. Performance evaluation is still a confidential thing. It should be shared with the officer (college teacher in this case) under evaluation and a supportive feedback may be provided. Such a feedback would go a long way in identifying the weak areas and motivating the officer for developing professionally. Such feedback can be used by the faculty for the identification of weaknesses and strengths in their professional life. The feedback provided must be related to the explicit targets and behaviors expected of teachers. In the government colleges there is need of a complete performance management system in place of the traditional mechanism of performance evaluation. Performance management systems, which typically include performance appraisal and employee development, are the heart of human resources management. This paper, therefore, recommends the incorporation of such a system in government colleges to make them more dynamic and responsive to the needs of both the teachers and the students. The hope is that this will have a very useful impact on the quality of education being imparted in this vital sector of the Pakistan education system.

References

- Aleamoni, L.M. (1981). Student ratings of instruction. In J. Millman (Ed.), *Handbook of teacher evaluation*, 110-145. Beverly Hills, CA: Sage.
- Arreiola, R.A. (1986). Evaluating the dimension of teaching. Instructional Evaluation, 8, 4-12.
- Braskamp, L.A., & Ory, J.C. (1994). Assessing faculty work: enhancing individual and institutional performance. San Francisco: Jossey-Bass.
- Braun, V., & Clarke, V. (2006).Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3: 77-101.
- Cashin, W.E. (1989). Defining and evaluating college teaching, *IDEA Paper No. 21*, IDEA Center, Kansas State University.

- Cashin, W.E. (1995). Student ratings of teaching: the research revisited, *IDEA Paper No. 32*, IDEA Center, Kansas State University.
- Centra, J.A. (1979). Determining faculty y effectiveness: Assessing teaching, research and service for personnel decisions and improvement. San Francisco: Jossey-Bass.
- Centra, J.A. (1993). Reflective faculty evaluation: Enhancing teaching and determining faculty y effectiveness. San Francisco: Jossey-Bass.
- Cohen, L., Manion, L., & Morrison, K. (2007) *Research Methods in Education,* London: Taylor & Francis.
- Croninger, R.G., Rice, J. K., & Rathbun, A. (2003).Teacher qualifications and early learning: effects of certification status, degree, and experience. Paper presented at the annual meeting of the American education finance association, Orlando, FL.
- David, A.D., Lawrence, J., & Herbert. (1984) Assessing what professors do: an introduction to academic performance appraisal in higher education. Westport, C T: Greenwood press.
- Dressel, P.L. (1976) Faculty."In handbook of academic education 33.75. San Francisco. jossey Bass
- Ferguson, R.F., & Ladd, H.F. (1996). How and why money matters: An analysis of Alabama schools. In H. F. Ladd (Ed.), *Holding schools accountable: performance-based reform in education*. Washington, DC: The Brookings Institution.
- Goldhaber, D.D., & Brewer, D.J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis, 19*(2), 129–145.
- Grissmer, D.W., Flanagan, A., Kawata, J., & Williamson, S. (2000). *Improving student achievement: What state NAEP test scores tell us.* Santa Monica: RAND.
- Hanushek, E.A. (1997). Assessing the effects of school resources on student performance: An update. *Educational Evaluation and Policy Analysis*, *19*(2), 141–164.
- Heneman, H.G., Milanowski, A., Kimball, S.M., & Odden, A. (2006). Standards-based teacher evaluation as a foundation for knowledge- and skill-based pays (CPRE Policy Brief No. RB-45). Philadelphia: Consortium for Policy Research in Education. Retrieved February 19, 2009, from http://www.cpre.org/images/stories/cpre_pdfs/RB45.pdf
- Marsh, H.W., & Dunkin, M.J. (1997). Students' evaluations of University teaching: A multidimensional perspective."In R. Perry and J. Smart (eds.), *Effective Teaching in Higher Education: Research and Practice.* New York: Agathon Press.
- Odden, A., & Kelley, C. (2002). Paying teachers for what they know and do: New and smarter compensation strategies to improve schools. Thousand Oaks, CA: Corwin Press.
- Paulsen, M.B. (2002), Evaluating teaching performance. New Directions for Institutional Research, 2002: 5–18.
- Paulsen, M.B., & Feldman, K.A. (1995a). Taking teaching seriously: meeting the challenge of instructional improvement. ASHE-ERIC Higher Education Report, No. 6. Washington, D.C. Association for the Study of Higher Education, 1995a.
- Rice, J.K. (2003). Teacher quality: Understanding the effectiveness of teacher attributes. Washington, DC: Economic Policy Institute.
- Seldin, P. (1994). *Improving college teaching.* Paper presented at Hong Kong University, Hong Kong.

- Theall, M., & Franklin, J. (1990). Student Ratings in the Context of Complex Evaluation Systems. In M. Theall and J. Franklin (eds.), *Student Ratings of Instruction: Issues for Improving Practice.* New Directions for Teaching and Learning, no. 43. San Francisco: Jossey-Bass.

Factors Affecting Foreign Aid Dependence: A Case of South Asian Countries

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Abstract

This study used panel data approach to investigate comprehensive set of determinant of foreign aid and extent to which these determinants, domestic saving, capital formation, human capital, government expenditure, military expenditure and trade deficit, can affect foreign aid dependence in South Asian countries like Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri-Lanka. This study used error correction model to estimate the short run association between defined variables. The results indicate that capital formation, trade deficit, government budget deficit and military expenditure have positive and significant association with foreign aid in the long run while these determinants has positive but insignificant relationship with foreign aid in the short run except gross domestic capital formation (GDCF). However, domestic savings, human capital formation have a negative and significant relationship with foreign aid in the long run. The findings of the study help to foreign aid policy makers, analysts, researchers and official donor agencies.

Introduction

Background of Study

The donor's interest as well as recipients concerns play a vigorous role in the process of foreign aid allocation. Mostly literature describes the reasons of foreign aid allocation with donor's viewpoint while the recipient country perspective is under researched (Subhayu., & Katarina, 2013; Jean-Claude, 2006; Albert., & Mark, 2006). The empirical literature states that poor countries are interested in having aid to foster their growth process but due to bad governance and inappropriate policies, (Williamson, 2010), these high aid receiver countries are constantly reporting negative growth. It indicates that there are some other reasons other than economic growth that causes to increase the urge of foreign aid continuously in developing countries. In developing countries, lower saving growth rate, low human and physical capital, over motivated government expenditures and high military expenditure generate irresistible demand of foreign aid. Many countries like the republic of Korea, Indonesia, Bolivia, Ghana, Uganda, Tanzania, Mozambique and Vietnam practiced growth-aid experience along with negligible drawbacks, but there is also extended list of developing countries, Kenya, Haiti, Papua New Guinea, Somalia, Congo, Philippine, who are failing to overcome social and economic problems although they

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received a huge amount of aid during the last few decades. Empirical literature discussed broadly that why foreign aid fails to promote growth process of developing nations. However, the question that what are important factors that can influence the quantity of foreign aid is not properly addressed. This study attempts to investigate a set of economic and political factors that can affect the magnitude of foreign aid. In early studies, the recipient need versus donor interest model got popularity (Robert., & Richard, 1979). The recipient need model considered foreign aid as a remedial measure for the shortfall in domestic resources (Alfred., & Machiko, 1984), whereas, donor interest model emphasis that donor's political and economic interests determine the extent of aid. In the process of foreign aid both parties' donor as well as receivers tries to maximize their utility irrespective of exploitation of any one party. In fact foreign aid satisfies mutual benefit of two states that facilitate the flow of money, goods and services toward the recipient state. However, the flow of funds varies time to time because of international Geo political set-up and global economic trend. Similarly, the internal socioeconomic environment also affects the bargaining power of a recipient country. The states with better social and economic scenario possess a greater degree to influence the amount of assistances as compared to the country who is dealing with social and economic challenges (Alberto., & David, 2000). Generally, foreign aid is given for humanitarian, political and development purposes, but some time foreign aid is also provided for military assistance because in poor countries domestic resources are inadequate to satisfy growing military expenditures. Therefore, beside growth-aid objective, saving, investment gap, trade deficit, human capital and military needs, consider the primary causes of foreign assistance in recipient countries.

In the early seventies, developing countries demanded foreign aid for industrialization and realization of five year plans but lack of physical infrastructure, human capital and political environment restrict the targeted goals (Muhammad., & Ayaz, 2008). Recent studies suggest that aid can produce positive fruits if it is allocated for specific sector development (Kwabena., & Elizabeth, 2008). Therefore, developing countries start to allocate a certain amount of foreign aid to develop human capital on a priority basis (Anwar &Amman, 2010). Donor countries have special concerns in health and education sector, while allocating foreign aid to poor countries in order to achieve United Nations Millennium Development Goals (MDGs). The high priority rank of human resources on MDGs indicates their importance in the social economic growth of developing nations. Therefore, South Asian countries dignified external aid a source of human capital formation by improving the enrollment rate in the education sector and by reducing infant mortality rate in the health sector (Kwabena., & Elizabeth, 2008). However, sub-Sahara Africa observed that foreign aid lock the economy in low equilibrium trap through its negative impact on human capital formation along high population growth rate (Deborah., & Stephen, 2004).

Another strong reason for foreign aid is the gap between domestic saving and investment. The proponent of aid assumed that developing nations bridge saving- investment gap with the help of foreign aid and try to achieve "take off" growth stage by fostering investment (Irandoust & Ericsson, 2005). However, in some cases, foreign aid lower domestic saving and growth rate because developing countries failed to raise income, through taxes and savings and their expenditure become a horse without a hold. So, sound economic policies matter a lot while determining the quantity and quality of foreign aid (Alberto., & David, 2000; Rajan & Subramanian, 2008). Moreover, recent literature extends two-gap model into three gap model by including fiscal constraint along with traditional saving and foreign exchange gap (Iqbal, 1995). In case of a developing nation, excessive public expenditure destabilizes the economic environment and gives birth to revenue-expenditure gap. The government of South Asian countries faces usually large fiscal deficit and try to fill this gap with accumulated huge public debt through donor bailout packages (Rabia., & Yasmin, 2013). Generally limited amount of aid is

a free gift from developing countries to under developing countries because of corruption, political climate and unproductive consumption. Therefore, foreign aid is an important financial source for developing nations and this study are trying to determine the extent to which aid is influenced by different domestic factors.

Objectives of Study

The main objectives of this study are;

- To investigate the economic and political factors that can affect foreign aid dependence in South Asian countries
- To investigate the extent to which these factors influence the foreign aid

Literature Review

In developing countries, foreign aid is considered a vibrant source of economic, social and political development. Foreign aid is a transfer of resources or debt with a lower interest rate or longer repayment period from rich countries to poor countries. It can be a free gift from developing countries to under developing countries. In case of bilateral aid the mutual interests of donor and recipient's government affect aid allocation decision while international agencies like the World Bank, Asian Development Bank (ADB) and the international Monetary Fund (IMF) keep in view the economic growth, human capital and some other specific international objectives while making decision about aid allocation.

H1: There is relationship between foreign aid and domestic saving

The pioneer (Chenery & Strout, 1966), of the story of foreign aid pointed out that developing countries need foreign aid to bridge saving investment gap and to control trade deficit. Foreign aid accumulates financial resources by lowering the monetary constraints in the economy. Two different approaches, donor's interest and recipient need, has been utilized in literature to investigate the role of economic, political and military interests in aid allocation decisions (McGillivray, 1989). The trade policy in economic and political interests is the main determinant of foreign aid to India for the period of 1960-85 (Ira., & Ali, 1990). Moreover, in case of bilateral lending military interest become a greater stimulus while in case of multilateral donor agencies, standard of living, GNP growth rate, current account balance and population become major determinants of foreign aid (Alfred., & Machiko, 1984).

H2: There is relationship between foreign aid and government expenditure

In developing countries, high government expenditure is another important determinant of foreign aid. Financial constraint in poor nations restricts the availability of resources to finance current over ambitious development expenditures. Therefore, foreign aid serves to as safeguard and extends the resource at the government disposal (Mark, 2000). Moreover, unproductive use of foreign aid negatively affects domestic saving, so domestic funding became inadequate to finance government expenditure (Deborah., & Stephen, 2004). Therefore, government non developmental expenditure and inadequate domestic finance raise dependence on foreign aid. Similarly, in case of Pakistan, foreign assistance greatly affects general government expenditure while its impact on developmental expenditure is negligible (Zafar, 1997).

However, in developing nations economic growth, investment and import areas heavily dependent on foreign aid (Ghulam, 2005). Another study (James, 2003), found the extent of dependence on foreign aid by using utility model and reported that 1 percent change in the foreign aid lead 88 percent change

in government's general spending. It strongly advocates dependence of budgeting, expenditure on foreign aid. Moreover, some empirical studies (Batten, 2009; Osei, Morrissey, & Lloyd, 2003; Ouattara, 2006; Remmer, 2004), found that foreign aid is helpful in fiscal adjustments but irresponsible behavior in development expenditures causes to lower domestic tax collection. Overall literature admit the role of foreign aid but its effectiveness on fiscal behavior is still ambiguous (Franco-Rodriguez, 2000; Khan & Hoshino, 1992; McGillivray & Ahmed, 1999).

H3: There is relationship between human capital formation and foreign aid

Most literature discussed the impact of foreign aid on growth and found that effectiveness of foreign aid is bind with appropriate policies (Carl-Johan., & Henrik, 2001; Carl-Johan, Henrik., & Finn, 2004). Similarly, foreign aid possibly can affect different aspects of human development like education and health (Gyimah-Brempong & Aziedu, 2008). Therefore, human capital formation, improvement in the education and health of individuals, is another important determinant of foreign aid. Although some researchers (Dalgaard et al., 2004; Verschoor & Kalwij, 2006) advocate to study the impact of foreign aid at sectoral level rather than an economy to have some appropriate implications, but a little attention has been given in this respect (Gyimah-Brempong & Aziedu, 2008; Kwabena & Asiedu, 2008). A study (Dreher, Nunnenkamp, & Thiele, 2008), found primary school enrollment, a measure of education outcome, has positive and statistically significant relationship with foreign aid. It indicates that an increase in aid causes to increase in educational attainment. Moreover, foreign aid positively and significantly affects human capital along with appropriate policies and good institutions (Farooq, 2012; Gyimah-Brempong & Aziedu, 2008). Some empirical studies (Azarnert, 2008; Feyzioglu, Swaroop, & Zhu, 1998; Radelet, 2006) investigated the impacts of aid on human capital formation and found that total aid per capita significantly lower infant mortality rates but life expectancy does not have a statistically significant association with foreign assistance. The study found that additional spending on health in recipient countries increases significantly and improve health opportunities in aid recipient countries (Bourguignon & Sundberg, 2007). Moreover, (Gomanee, Girma.,& Morrissey, 2005), found a negative association between aggregate aid and infant mortality in LDCs and by applying quintile regression analysis, the study found significant improvement in human welfare in aid recipient countries along with reduction of infant mortality. Aid has a positive association with state's social spending and causes to improve state of poverty and reduce infant mortality in the recipient countries (Verschoor & Kalwij, 2006). Incontrast, some studies found that aggregate aid has no significant impact on human capital in LDCs (Boone, 1996).

H4: There is relationship between foreign aid and military expenditure

Previous studies found that arm races among the nations is a major determinant of military expenditure in developed countries (Hartley & Sandler, 1990; Richardson, 1960; Smith, 1995), while smaller literature focus the developing countries and found that military spending increases defense burden (Collier & Hoeffler, 2002) and causes to reduce the availability of funds for development purposes and ultimately generate the demand for foreign aid in poor nations. A lot of research work (Easterly, 2008; Tarp, 2006), indicate that more aid means more resources for development, but a little research has been conducted to identify that excess of military spending create the need for foreign aid. During the last few decades a rising trend in military expenditure has been observed in LDCs (Dunne, 1996). Therefore, increased military expenditure causes to lower the funds available for social, economic growth (Frederiksen & Looney, 1983). In some cases, government tries to meet excess military expenditure at the cost of lower growth in another sector of the economy. Higher military expenditure worsens budget deficit that leads

to higher government borrowing to cover this deficit and cause to increase real interest rates that ultimately lower private investment (Feridun, 2014; Looney, 1991). Thus, rapid increase in defense spending in south Asian countries causes to withdraw resources from productive investment and boost foreign aid dependence (Ali, 2011). Generally, existing empirical studies provide statistical evidence (Collier & Hoeffler, 2002; Feridun, 2014; Lebovic & Ishaq, 1987; Ram, 1995), that trade-off between productive investments and military expenditures exist strongly. However, the existing literature does not give conclusive verdict about this tradeoff such as Ali (2011) argue that the crowding-out of private spending depends on how much government is allocating its resources to military expenditures. Moreover, a notable, exceptional study (Dunne & Perlo-Freeman, 2003) found that in developing countries, neighbor's military expenditure also influenced the other countries for many reasons other than military threat. The government of these countries decides about resource allocation keeping in view the behavior of their neighbor. Although in some cases clear indication of military need is absent, but still rivalry arm activities cannot be overlooked.

H5: There is relationship between foreign aid and trade deficit

In poor nations foreign exchange earning restricts the process of capital formation and development. So to stimulate the process of prosperity, the literature suggests the role of foreign aid is to bridge the gap between import expenditure and export earnings. Foreign aid has long run positive and significant association with the development process of poor countries because poor performance in trade sector and huge foreign exchange deficit increases their dependence on foreign resources (Nowak-Lehmann, Martínez-Zarzoso, Herzer, Klasen, & Cardozo, 2013). In a dynamic dependent-economy model, untied aid has no impact on exchange rate in the long run. However, in the short run it may have temporarily and negligible appreciate in real exchange rate (Tekin, Turnovsky, & Cerra, 2008). Moreover, another study (Ouattara & Strobl, 2008), investigate "Dutch disease", inflows of foreign currency appreciate domestic currency that worsensthe trade deficit and found no support for this hypothesis neither in the long run nor in the short run. On the contrary, foreign aid cause to depreciation of the real exchange rate both in the short and long run. Another study (Bhattarai & Armah, 2005), found a stable; long run relationship between exports, imports and the real exchange rate. Furthermore, the study showed that in short run exchange rate is the significant factor that can affect the trade balance while in the long run real exchange rate significantly affects the trade balance.

Variable	Description	Definition	Sources
ODA	Official development assistance	ODA consists on concessional loans with a grant element of at least 25 percent given by developed nations.	WDI, Economic Cooperation and Development Creditor Reporting System database
GDS	Gross domestic saving	Gross domestic savings is equal to GDP minus final consumption expenditure. Data are in current U.S. dollars.	IMF, world bank
GCF	Gross capital formation	Gross capital formation includes fixed assets of the economy plus net changes in the level of inventories.	WDI/world bank
EDU	Primary completion rate, total (% of relevant age group)	Primary completion rate, is the number of new entrants (enrollments minus repeaters)	WDI/world bank
GEXP	Government revenue - Government expenditure	Tax revenue (% of GDP) - government final consumption expenditure (% of GDP)	IMF, world bank
MEXP	Military expenditure	Military expenditures includes all current and capital expenditures on the armed forces	WDI
TRADE	Export - Import	Export of goods and services (% of GDP) - Import of goods and services (% of GDP)	IMF, world bank

Methodology

The study used Error correction model developed by (Paul & Sakthivel, 2002) to estimate foreign aid determinant. The error correction model was for the first time used by (Sargan, 1964) to identify short run cue integration. If a shock to dependent variable creates disequilibrium, the error correction model provides information about the exactitude of instability from one period to the next period in an economic system. The general form of ECM is as:

$$\Delta y = \delta + \beta 0 \Delta x_t - \Pi u_{t-1} + b1 x_{t-1} + \epsilon_t$$

$\beta 0$ = short run impact or impact multiplier

Π = error correction term

b1= long run effect

Impact multiplier measures the extent of change in it due to changes in cost while the adjustment effect shows how much of disequilibrium is being corrected (Austria& Hall, 2007). An error correction term used to indicate divergence from long run equation equilibrium and its magnitude show the rate of adjustment from period to period Specific form:

$$\Delta ODA = \delta + \beta 1 \Delta GDS + \beta 2 \Delta GCF + \beta 3 \Delta EDU + \beta 4 \Delta GEXP + \beta 5 \Delta MEXP + \beta 6 \Delta TRADE - \Pi \mu t - 1 + \epsilon$$

All the data is in log form and covering time span of 1966-2014.

Oda= official development assistance

Gcf= gross capital formation

Gds= gross domestic saving

edu= primary enrollment rate
Gexp= government expenditure
Mexp= military expenditure
Trade= exports – imports

Empirical Results

Before the application of any econometric technique, it is necessary to check the stationary of data to avoid spurious relationship among variables. The property of stationary time series is that it's mean and the variance does not depend on time and not vary systematically with time. Therefore, mean, variance and the autocorrelation structure of stationary time series do not change over time. In empirical studies, mostly unit root test is used to check the stationary of time series data. If unit root is present it means the data is non- stationary while the absence of unit root, indicate that data is stationary and study can draw significant implication on the basis of this stationary time series data. In a panel study, most commonly used unit root test is Levin-Lin-Chu and Impesran to check stationary of data. If data are non-stationary at a level then it has to be differences in 1st and 2nd level. Results are reported in table 1 which shows that all the variables are non-stationary at level and the data has to be differences at once to make time series data stationary. The study used panel and group, PP t-tests by (Pedroni, 1999) and (Kao, 1999), to check Co integration among selected variables. Results are stated in table 2 and 3. All test accept H1, there is Co integration among said variables.

Table # 1: Unit Root Test

Variables	Levin, Lin & Chu t*		Im, Pesaran and Shin	
	At level	Statistic at 1st difference	At level	Statistics at 1stdiffrence
D(LNODA)	0.17743 (0.5586)	-3.44488*** (0.000)	-1.43597 (0.0855)	-11.9216*** (0.000)
D(LNGDS)	3.12821 (0.1256)	-8.51151*** (0.000)	2.10407 (0.1776)	-11.3039*** (0.000)
D(LNEDU)	-1.95728** (0.0252)	-3.04578*** (0.000)	-0.25367 (0.3999)	-1.30928*** (0.000)
D(LNGEXP)	-0.64125 (0.2607)	-5.78223*** (0.000)	-0.74772 (0.2273)	-6.20753*** (0.000)
D(LNMEXP)	-1.10481 (0.1346)	-5.05104*** (0.000)	-0.74944 (0.2268)	-3.84566*** (0.000)
D(LNGCF)	0.46336 (0.6784)	-6.47448*** (0.000)	1.63245 (0.9487)	-8.50166*** (0.000)
D(LNTRADE)	-0.94185 (0.1731)	-3.59124*** (0.000)	2.11882 (0.9829)	-8.57781*** (0.000)

(***) indicate the significance at 1% level and p value is given in parentheses

Table # 2: Pedroni Residual Co Integration Test

Pedroni (1999)	Statistic
Panel v-Statistic	-2.456477*** (0.0030)
Panel rho-Statistic	2.348294*** (0.0006)
Panel PP-Statistic	-3.321330*** (0.0004)
Panel ADF-Statistic	-3.048609*** (0.0011)
Group rho-Statistic	3.279716** (0.0015)
Group PP-Statistic	-8.656726*** (0.0000)
Group ADF-Statistic	-3.116036*** (0.0009)
Kao Residual Co-integration Test	
Automatic lag length selection based on SIC with a max lag of 2	
ADF	-2.776541*** (0.0027)

Three star (***) indicate the significance at 1% level while ** show significance at 5% and p value is given in parentheses

Table # 3: Correlation Matrix of the Foreign Aid Determinants Model

Variable	LNODA	LNGDS	LNGCF	LNGEXP	LNEDU	LNMEXP	LNTRADE
LNODA	1						
LNGDS	0.6279	1					
LNGCF	0.6247	0.9754	1				
LNGEXP	0.4983	0.9299	0.9565	1			
LNEDU	0.0812	-0.0610	-0.1395	-0.2199	1		
LNMEXP	0.5658	0.9412	0.9159	0.9335	0.0724	1	
LNTRADE	0.6525	0.4618	0.3296	0.1708	0.1690	0.3418	1

ODA is economic development assistance, GDS is gross domestic saving, GCF is gross capital formation, GEXP is government expenditure, EDU is government expenditure on education, MEXP is military expenditure and trade represent trade deficit. Results of the correlation matrix of the foreign aid model indicate that multi-colliniarity among variables is absent. The ECM uses to investigate both the short-run and long-run effects of different factors of the economy to foreign aid. The results are reported in table 4.

Table # 4: Dependent Variable D (LNODA)

Variable	Coefficient
C	7.555 [4.704] (0.000)
D(LNGCF)	0.879** [2.526] (0.013)
D(LNGDS)	-0.305 [-1.051] (0.296)
D(LNGEXP)	0.530 [1.187] (0.239)
D(LNEDU)	(0.314*) [2.246] (0.0805)
D(LNMEXP)	0.186 [0.468] (0.640)
D(LNTRADE)	0.083 [0.207] (0.836)
LNGCF(-1)	0.684*** [3.642] (0.000)
LNGDS(-1)	-0.366** [-2.682] (0.057)
LNGEXP(-1)	0.497** [2.323] (0.023)
LNEDU(-1)	-0.279** [-2.403] (0.019)
LNMEXP(-1)	0.393** [2.859] (0.005)
LNTRADE(-1)	0.107*** [2.702] (0.009)
ECM (-1)	(-0.699)*** [2.702] (0.0000)
F-statistic	2.746295
Prob(F-statistic)	0.003491
Durbin-Watson stat	1.65042
R-Squared	0.588300

Three stars (***) indicate the significance at the 1 % level, (**) shows significance at 5% and one (*) shows significance at 10%. The P value is given in parentheses and T values are given in brackets.

In table 4 results indicate that in the short run period, gross capital formation has positive and significant relationship with foreign aid (β=0. 879**p=0.013). Similarly, human capital formation is significantly associated with foreign aid at the 10 % level of significance (β=0. 314* and p= 0.0805). However, other determinants like gross domestic saving (β =0. 305and p= 0.296), government expenditure (β= 0.530, p=0. 239), military expenditure (β=0. 186, p=0. 640) and trade deficit (β=0. 083, p= 0.836) has an insignificant association with foreign aid. Moreover, in the long run period GCF (β=0. 684, p=0. 000) has a positive and significant relationship with foreign aid. It shows that 1% increase in GDC causes a 68 % increase in foreign aid. Moreover, GDS (β=-0.366, p=0. 057), human capital (β=-0.279 p=0. 019), significantly and negatively associated with foreign aid. However, government expenditure (β=0. 497, p=0. 023) military expenditure (β=0. 393 p=0. 005) and trade deficit (β=0. 107, p=0. 009) has a positive and significant relationship with foreign aid. ECM term shows the speed of adjustment in case any external shock deviates the model from equilibrium path. The coefficient value of ECM indicates the speed of adjustment to restore equilibrium in dynamic models. It is to correct theoretical negative sign -0.699 with highly significant t-statistics 2.702 at the 0 % level. Results indicate that if any shock to ODA diverge it from the equilibrium path, then it will converge with high speed because approximately 69% disequilibrium will be corrected in each period. Furthermore, the null hypothesis of no autocorrelation in the errors is accepted because the calculated Durbin–Watson statistic is higher than the upper critical values at the 5% level.

Discussion of Results

Results show positive and significant relationship between foreign aid and gross capital formation in the short run as well as in the long run. In developing countries resource constraint and Inefficient administrative and political policies enhance foreign aid dependence to realize developmental plan (Dutta, Mukherjee, & Roy, 2015). Results of short run and long run models confirm temporary and permanent impact of capital formation and foreign inflow. The coefficient value of LNGCF (0.879) indicates that a 87 % change in foreign aid is caused by gross capital formation in the short run while in the long run the coefficient value of LNGCF (0.684) depict 68% change in foreign aid are due to gross capital formation. The causal relationship between foreign aid, saving and investment abridge saving and investment gap and elevate the process of prosperity in poor nations. However, the results of this study indicate that in the long run LNGDS shows negative and significant relationship, while in the short run the relationship is negative, but insignificant (Doucouliagos & Paldam, 2006; Rajan & Subramanian, 2008). Empirical results indicate that a 1 unit increase in domestic saving causes 0.336 unit decrease in foreign aid. In developing countries with low domestic savings cause a low level of capital accumulation. Therefore, low level of investment implies a lower level of employment that further causes the low income level and a country trapped in a vicious circle of poverty. Thus, in poor countries inflow of foreign resources is considered a significant source to overcome the saving deficiency (Taslim & Weliwita, 2000), but at the same time high foreign aid causes low domestic saving and create disincentives to save (Radelet, 2006). However, Foreign aid raises gross domestic investment by removing limiting of domestic saving and this realized incremental investment uplift the domestic output by improving productive capacity in case of underutilized resources. The result implies some subjective inferences like a lack of effort, government carelessness about the tax system, and easy access to foreign saving causes to increase dependence on foreign aid and by taking care of these policies south Asian countries can reduce foreign aid dependence.

The study shows positive and significant effect of Govt. expenditure on foreign aid. A 1 % increase in GEXP causes a 49 % increase in foreign aid. This shows the intensity of the budgetary process on foreign aid in developing countries. In poor countries, foreign aid is conceivable source to finance budget deficits and supporters of this view argue that ODA is a potential source to extend domestic resources. Generally, when primary source, domestic revenue generated by taxes, of financing Government expenditure become inadequate, then foreign aid is used as an instrument to finance current government expenditure (Martins, 2011). In poor countries, inappropriate polices toward foreign aid, consider foreign aid as a substitute of domestic resources, to assist import of inappropriate technology, to support bigger inefficient and corrupt government (Irandoust & Ericsson, 2005), causes to increase dependence fiscal expenditure on foreign resources. In poor countries, powerful rulers have complete discretion over foreign aid decisions and they utilize it to fulfill their short term political interests and to influence the reputation of the opposition party. So, lack of commitment and accountability cause devastating use of resources that ultimately generate the need of more aid for development. The results suggest the implication that in South Asian countries better coordination between the management of aid inflows can reduce dependence on foreign aid.

Moreover, results on human capital formation indicate that there is a positive and significant relationship between human capital formation and foreign aid in the short run while in the long run relationship is negative and significant. During the last decades developing countries received a huge amount of foreign aid for education sector development. United Nations give 2nd priority to achieving primary education among eight Millennium Development Goals (MDGs). Indeed, over the past year the inflow of foreign aid towards developing nations has been substantially increased to achieve MDGs. Over the period of 1993-2006 the aid in the education sector has been increased from 1.1 % to 9.3% (OECD 2006) and it leaves a positive and significant effect on the primary completion rate (Gyimah-Brempong & Aziedu, 2008). This huge inflow of foreign resources certainly affects some aspect of human development. in some developing countries like Ghana, Mozambique and Rwanda, aid dependence have gone down dramatically during 2000 to 2009 because of human development (measured by the UNDP Human Development Index, which measures income per person and access to health and education) improvement during this period (Aid, 2011). Therefore, the results imply that initially in short run period if human capital formation increases ODA increases, but in the long run availability of educated policy maker chooses to lower the dependence on foreign resources. Similar results indicate that military expenditure has positive and significant association with foreign aid in case of south Asian countries and indicate that 1% increase in military expenditure causes 39% change in foreign aid. Therefore, industrialized countries are the biggest producer and exporter of weapons and their interests are linked to the sale of weapons. So these countries prefer to provide aid for militarization, for training forces for the purpose of profit maximization and least concerned about the reduction in military expenditure in third world countries. About half of the bilateral aid provided by the United States is allocated on the basis of military expenditure. Thus, military expenditure is a major cause of foreign aid in south Asian countries because these countries are making huge military expenditures for the purpose of defense. In developing countries aid is fungible because aid is granted for development purpose; but the government spends this aid for military purposes (Feyzioglu et al., 1998; Griffin, 2000; Griffin & Enos, 1970).

The impact of the trade deficit is positive and insignificant in the short run model, but positive and significant in long run mode. The coefficient value indicates that a 1 % change in trade deficit causes 10% change in foreign aid. Results show a limited role of trade deficit in foreign aid policy.

Summary of key Finding

This study proposed a set of factor which causes to increase the dependence of south Asian countries on foreign resources. The key findings suggest that government expenditure, military expenditure and trade deficit increase dependence on foreign resources in the long run. Gross domestic investment has positive and significant relationship with foreign aid in the short run as well as in the long run. However, human capital formation has negative and gross domestic saving reduces dependence on foreign aid. Further research is needed to explore the robustness of these results.

References

- Aaron, B. (2009). Foreign aid, government behaviour and fiscal policy outcomes in Papua New Guinea. *Made available in DSpace on 2010-12-20T06: 05: 20Z (GMT). No. of bitstreams: 1 Batten_Foreign aid, government2009. pdf: 623116 bytes, checksum: 08307255261ea3a9f40eeb4ccea74dd6 (MD5) Previous issue date: 2010-10-13T02: 05: 12Z.*

- Alberto, A., & David, D. (2000). Who gives foreign aid to whom and why? *Journal of Economic Growth, 5*(1), 33-63.

- Ali, K.H., & Eiichi, H. (1992). Impact of foreign aid on the fiscal behavior of LDC governments. *World Development, 20*(10), 1481-1488.

- Alberto, C., & Mark, G. (2006). Who's afraid of foreign aid? The donors' perspective.

- Alfred, M., & Machiko, N.K. (1984). Motivations for aid to developing countries. *World Development, 12*(9), 879-900.

- Batten, A. (2009). Foreign aid, government behaviour and fiscal policy outcomes in Papua New Guinea. *Made available in DSpace on 2010-12-20T06: 05: 20Z (GMT). No. of bitstreams: 1 Batten_Foreign aid, government2009. pdf: 623116 bytes, checksum: 08307255261ea3a9f40eeb4ccea74dd6 (MD5) Previous issue date: 2010-10-13T02: 05: 12Z.*

- Chenery, H.B., & Strout, A. M. (1966). Foreign assistance and economic development. *The American Economic Review*, 679-733.

- Franco-Rodriguez, S. (2000). Recent developments in fiscal response with an application to Costa Rica. *Journal of International Development, 12*(3), 429.

- Irandoust, M., & Ericsson, J. (2005). Foreign aid, domestic savings, and growth in LDCs: An application of likelihood-based panel cointegration. *Economic Modelling, 22*(4), 616-627.

- Khan, H.A., & Hoshino, E. (1992). Impact of foreign aid on the fiscal behavior of LDC governments. *World Development, 20*(10), 1481-1488.

- McGillivray, M. (1989). The allocation of aid among developing countries: A multi-donor analysis using a per capita aid index. *World Development, 17*(4), 561-568.

- McGillivray, M., & Ahmed, A. (1999). Aid, adjustment and public sector fiscal behaviour in the Philippines. *Journal of the Asia Pacific Economy, 4*(2), 381-391.

- Nowak-Lehmann, F., Martínez-Zarzoso, I., Herzer, D., Klasen, S., & Cardozo, A. (2013). Does foreign aid promote recipient exports to donor countries? *Review of World Economics, 149*(3), 505-535.

- Osei, R., Morrissey, O., & Lloyd, T. (2003). Modelling the fiscal effects of aid: an impulse response analysis for Ghana. *CREDIT Research Paper*(03/10).

- Ouattara, B. (2006). Foreign aid and government fiscal behaviour in developing countries: Panel data evidence. *Economic Modelling, 23*(3), 506-514.

- Remmer, K. L. (2004). Does foreign aid promote the expansion of government? *American Journal of Political Science, 48*(1), 77-92.
- Williamson, C. R. (2010). Exploring the failure of foreign aid: The role of incentives and information. *The review of Austrian economics, 23*(1), 17-33.

Relationship of School Climate with Teachers' Professional Commitment in Punjab Pakistan

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Abstract

The prime objective of the study was to investigate the relationship of school climate with teachers' professional commitment at secondary schools in Punjab, Pakistan. Multistage random sampling technique was used to conduct the study. The sample of the study was comprised of (N=221) secondary school teachers from 48 (24 male & 24 females) secondary schools. As the study was a survey type, thus two questionnaires namely, organizational climate questionnaire (OCQ) and Teachers' Organizational Commitment in Educational, Organizational Questionnaire (TOCEOQ) were used to collect the data. The data were tabulated and analyzed through SPSS version. T-test and pearson were used to analyze the data. The results of the study revealed that school climate has strong relationships with teachers' professional commitment. Moreover, the male teachers are more committed to their profession as compared to female teachers. The researchers recommended that conducive school climate should be provided to female secondary school to enhance their professional commitment.

Introduction

Throughout the world, it is commonly accepted that an organization is a group of personnel working together to achieve objectives. Organizations can have both formal and informal designs. The betterment of any society largely depends upon the performance of the organizations which is widely affected by climate. Stringer (2002) stated that climate is the collective approach of people performing their work in an organization about measurable aspects of the environment, based on their behavior and motivation. We as individuals play our part in organizations. Teachers themselves and their experiences are influenced by school climate.

Evolution of the Concept

The main idea of organizational climate arouses when scientists began to study social environment. Historically, Fleishman (1939) used term climate in his article leadership climate and its behavior measurement scale. A few years later, Halpin and Croft (1963) recognized that it has an image and personality of the school focusing on the mutual interactions of administrators and teachers. Owens (2004) considered organizational climate as the individuals' perception about various dimensions of an

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organization. MacNeil, Prater and Busch (2009) describes school climate as the consistent attribute of the school environment. Moreover, Mine, (2009) stated that school climate is the measurement of individuals' perception about the working environment of an organization or school. In the same way, Rosa (2010) defined school climate as the common perception of the way people think about their working environment. In the light of the above views, it may be concluded that school climate can enhance and reduce teachers' performance as they seek to acquire their necessities at work (Sergiovanni & Starrat, 2002). Children's behavior and teachers' personality needs are the most influential traits in organizational climate (Tighe, Picariello & Amabile, 2003). Oyetunji (2006) admitted that motivation and performance are linked with positive climate. Head should touch the heart and mind of staff and in doing so, strive to create a corporate soul and transform the school into a real learning organization (Moloi, 2002). It is empirically proven by Selamat, Samson and Kamalu (2013) that organizational climate is directly linked with teachers' commitment, disengagement and intimacy, etc. Results revealed that teacher commitment and school climate were correlated. Yusof (2012) pointed out that the relationship between the level of school climate openness and the overall commitment of primary schools is high.

It is a common perception that organizational climate and organizational culture are the two sides of the same coin. But these two terms have some differences. The organizational culture is the practice of beliefs, values and norms of the manner in which the persons act in an organization (Armstrong, 2009). Similarly, Charles, Drenth & Henk (2013) clarified the difference between culture and climate. They considered climate as common beliefs and understanding of workers about organization whereas culture was comprised of values, conduct and expectations of workers. School climate is the most crucial factors for an effective school and student's academic accomplishment (Van Horn, 2003). In short, culture is the real state of affairs and perception of it is climate. It is the interaction of physical variables with workers' variables of an organization (Peterson, & Deal, 2011). In the similar fashion, Hunter, Bedell & Mumford, (2007) climate is considered an area based on a physical process. On the other hand, Culture is a systematic plan of action, unofficially controlled rules of personal conduct.

Dimensions of School Climate

Organizational climate is a central variable in educational research (Van Houtte, 2005). It plays a fundamental role in organizational change and development (Tahir et al., 2010). In Pakistan public sector organizations are being operated through bureaucratic and passive style (Khilji, 2002). The freedom of choice and authority in decision making about juniors are two major factors of public sector institutions in Pakistan (Bouckenooghe, Debussche, & Warmoes, 2006). Two dimensions of school climate are considered most important, i. e. open climate and close climate. The detailed description of these types is as under.

Open Climate

An open climate is mainly associated with its expressive characteristics. An open climate can be easily realized by the space and authenticity of relationship of head teachers, teachers, students, and parents. Rapti (2013) presents the reason that open climate reflects the supportive, welcoming and positive role of the heads of schools toward the ideas of teachers. It is widely accepted fact that open climate favors the promotion of positive outcomes in students' academic performance imparting a good mental and physical health as well as job satisfaction in teachers and heads of institutions (Raza, 2010). In fact, open climate gives rise to morale of teachers resultantly improves student' achievement level. Open school climate cannot happen overnight, it should be the outcome of a well-developed, maintained and

established relationship between teachers and principals (Rapti, 2013). School's effectiveness will be realized only when more attention is given to the development of open climate (Hackett, 2005). Schools characterized by the virtues of unity, trust, and effective team that is result oriented (Ali & Hale, 2009).

Closed Climate

A closed school climate is characterized by teachers' relations that are disengaged, distant, suspicious and unprofessional. The head is directive, restrictions and unsupportive. The results obtained from different studies indicate that teacher's performance differs with reference to open and closed climate. The study conducted by Rosa (2010) also endorsed the above mentioned idea. Teachers perform better in a cooperative environment or climate. An educational institution with cooperative environment encourages competition among teachers. As a result, performance and effectiveness of teachers increases. Organizational climate of educational institutions significantly affects the psychological and social variables of teachers. (Kumaran, 2005; Garg & Rastogi, 2006).

Professional Commitment

The term commitment is an agreement to follow a definite route plan or loyalty towards a system of action and deliberations. Meyer and Allen (1991) stipulated that commitment is a blend of emotional orientation, and moral responsibility of an individual. Additionally, Zia and Tufail (2011) declared that commitment is associated with matters such as job involvement, organizational recognition and loyalty to the organization. Commitment is the course of action by which the organizational goals and individual turn into progressively more isolated (Bybee-Lovering, 1999). Tufail, et al (2005) further explained that commitment is the adherence of an individual's sustain of effectiveness and eagerness to the group. Mxenge, Dywili and Bazana (2014) stated that commitment is a course of action about organizational engagement.

Every profession has its own set of ethics and ideology that secure its effectiveness and integrity. When an individual enters into a new profession, he/she has to accept its norms and ethics. Professional commitment is putting its best effort and show integrity to his/her work. As Nazari and Emami, (2012) stated that professional commitment is a conscious effort of the employees to stay within the larger community of the profession with honor and dignity. The social scientists like Cohen (1999) discussed that professional commitment is a commitment and dedication to career and work. Moreover, Mat, and Zabidi (2010) propagated that professional commitment is an individual's recognition of the profession, trustworthiness and dedication to the profession. Earlier to this, Wang and Armstrong, (2004) said that professional commitment is correlated to the improvement factor of work performance, greater job satisfaction and reduced absenteeism.

Professional commitment of teachers has prime importance in the school performance and quality education. Teachers' professional commitment involves around the engagement of a teachers' thought in the success of his students. Proficient, dedicated and sincere teachers of all times take extra efforts for the development of their learners (Savas &Caracas, 2012). Elliot and Crosswell (2001) stated that a number of teachers perceive their commitment as an important part of their professional uniqueness. Profound love for teaching is a core characteristic of Committed teachers. Teachers' primary objective is to cultivate students' curiosity for efficiency in learning (Liston & Garrison, 2004). Mart (2013) inferred that effective communication of knowledge of content is a trademark of excellent teachers. The school is a place where learners not only learn, but also gain experience of real life.

Types of Professional Commitment

The writers Meyer et al., (2002) reported three types of professional commitment from their research, affective, normative, and continuance professional commitment. The short description of these is described below:

Affective Professional Commitment

It is the strong emotional affection with the profession as well as with organization. Bagraim (2003) stated that affective professional commitment narrates teachers' emotional association to recognition and involvement in the profession of teaching. Ware and Kitsantas (2007) highlighted its objectives regarding encouragement of the teacher to determine with and they intend not to depart the profession for self-regarding needs, realization to teach selflessly and devotedly to put up with demanding situations.

Continuance Professional Commitment

Continuance commitment reflects the costs and settlement that are interconnected to keep on the profession (Nazari & Emami, 2012). Ware and Kitsantas (2007) reflected that it is the level to which persons believe that they have to stay in this occupation because the non availability of alternatives. Similarly, Mahedwari et al., (2007) raised the statement that continuance professional commitment is the financial obsession that shape the professionals to continue in the career and its ethics. Teachers with continuance professional commitment hold themselves in the teaching profession because leaving the profession has a towering cost for them.

Normative Professional Commitment

Normative professional commitment relates to the moral dependability of the people to keep in line with their profession (Bagraim, 2003). It is emphasized on the sensitivity of responsibility of the professionals to uphold the values (Masheswari et al., 2007). Along with these types, there are some certain factors which are involved in the professional commitment of teachers. These factors are as under:

Commitment to School

Commitment to School indicates teachers' feelings, objectives, school standards and strong desires to be the member of the school (Mowday, Porter & Steers, 1979). This is the matter of heated discussion between stockholders because commitment at work place has prime importance in understanding the performance of employees and their attitude (Cohen, 2003). Similarly, in his latest study, Cohen, (2006) stated that professional commitment is evident due to the actual performance, turnover, and absenteeism of employees.

Commitment to Teaching Work

Teaching work, commitment can be observed by the teachers' psychological attachment to their profession (Mart, 2013). When there is no commitment to the teaching profession by the teachers, they would depart their profession early. Şentuna (2015) explained commitment to the teaching work as teachers' thoughts and practices. It may take great efforts to attain the most excellent in the school and to be proud of his/her school.

Commitment to Profession

The commitment of teachers towards their job may be observed through their passion and energy for work (Day, 2000). The responsibility of teachers has been extended to cope with professional

performance, benchmarks, departmental control enhancement, and pressure of society and especially the satisfaction of parents. Teachers' performance in classrooms is anticipated to be measured against different indicators (Tateo, 2012).

Commitment to Work Group
The most important element in recent times is teamwork in organizations. Teachers' commitment to school may be observed, their sense of collaboration and faithfulness (Raheem, 2009). Thus, it is obligatory that teachers should have cooperation in their schools. It is empirically evident that teamwork and interactive opportunities among colleagues at work place is the need of time (Robbins, 2003). Mutual relations are societal aspects of workplace which affect the attitudes of workers. Cooperation and better relations among workers plays a vital role to enhance professional commitment (Lee & Gao, 2005).

Statement of the Problem
It is a common perception that our schools have no conducive working climate. Due to lack of conducive working climate, teachers are not concentrating on their work. Thus, their professional commitment is under huge criticism. So it is the need of time to explore the relationship of school climate with teachers' professional commitment.

Objectives of the Study
The objectives of the study were to investigate the relationship of school climate with teachers' professional commitment.

Research Questions of the Study
1. What is relationship of school climate with teachers' professional commitment in Punjab Pakistan?
2. What is relationship of school climate with male and female secondary school teachers' professional commitment in Punjab Pakistan?
3. What is relationship of school climate with rural and urban secondary school teachers' professional commitment in Punjab Pakistan?
4. What is relationship of school climate with teachers' professional commitment on the base of their age in Punjab Pakistan?
5. What is relationship of school climate with teachers' professional commitment on the base of their teaching experiences in Punjab Pakistan?

Delimitations of the Study
Due to financial and time constraints, the study will be delimited to the secondary schools of Faisalabad division Punjab Pakistan.

Significance of the Study
The current study is helpful to investigate the school climate in Punjab Pakistan. It will be useful to determine the relationship of school climate with teachers' commitment to their profession. Moreover, the study will be an effective addition to the existing pool of knowledge.

Design and Procedure of the Study

The study at hand was planned to determine the relationship of secondary school climate with the professional commitment of their teachers. The province of the Punjab was the population of the study. The Punjab province was divided into 9 subunits called Divisions. Moreover, each subdivision was further subdivided into 3 or 4 districts. It was not convenient for the researchers to approach/investigate whole population. Thus, researchers used multistage random sampling technique to collect the data. For this purpose, at the first stage division Faisalabad was randomly selected. The Faisalabad division was comprised of 4 districts, namely, Faisalabad, Chiniot, Jhang and Toba Tek Sing. At the second stage researchers selected 12 (6 Male & 6 Females) schools from each district. At the third stage, the researchers randomly selected 6 secondary school Teachers from each school. The complete picture of selected sample and their response rate is being described in the following table.

Table # 1: Tabulated Picture of Selected Sample and its Response Rate

Sr. No.	Name of Districts	Approached Sample	Responded sample			Response rate
			Male	Female	Total	
1	**Faisalabad**	72	27	26	53	73.61%
2	**Chiniot**	72	33	28	61	84.72%
3	**Jhang**	72	30	26	56	77.77%
4	**Toba Tek Sing**	72	25	26	51	70.83%
5	**Total**	288	115	106	221	76.73%

Figure # 1: The District Wise Sharing of Collected Data is Presented in the Following Pictorial Diagram.

Fig. No. 1: District Wise Division of Collected Data
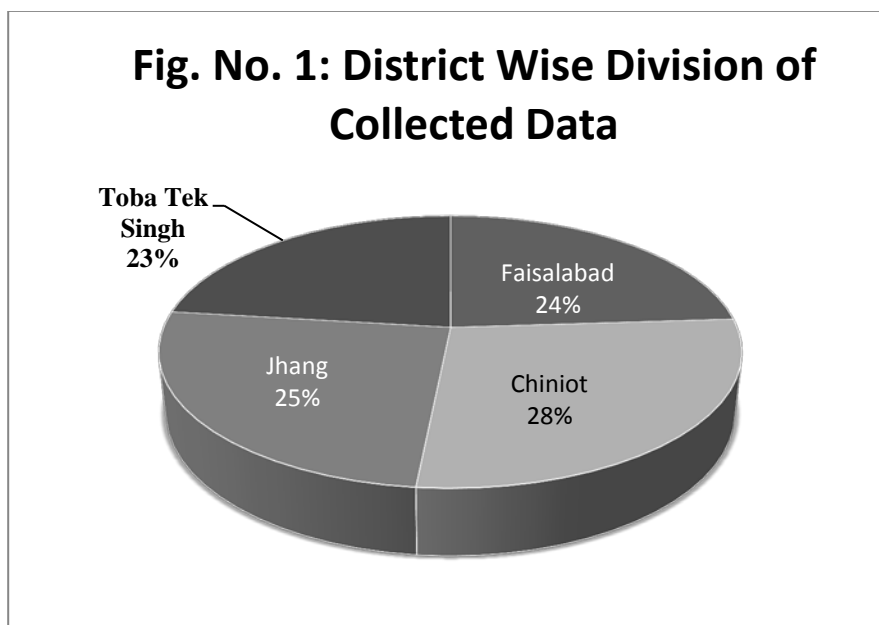
Instrumentation and Data Collection

To measure the school climate, researchers used an organizational climate questionnaire (OCQ). The said questionnaire was developed by Halpin and Craft (1966). The instrument has been used in different studies and piloted in the local setting prior to this. It was modified and translated in Pakistani context by Anees-Ul-Hasnain PhD scholar in his research dissertation (permission has been taken). This scale

comprises thirty four items. This tool measures two aspects of school climate, i.e., Open and Closed Climate. First 16 items represent the Open climate and 18 items measure closed climate. The item distribution of each climate type of school Climate Scale is given in the table below.

Table # 2: Item Distribution of School Climate Scale

Sr. No.	Climate Type	Item No
1	**Open Climate**	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16
2	**Closed Climate**	17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34

The dependent variable professional commitment was measured through Teachers' Organizational Commitment in Educational, Organizational Questionnaire (TOCEOQ). The said questionnaire was developed by (Celep, 2013). The reliability coefficient TOCEOQ was (Chronebach Alpha=0.81). The item break up of these instruments is as under.

Table # 3: Item Breakup of (TOCEOQ)

Sr. No.	Professional Commitment	Item No.
1	**Commitment to School**	1, 2, 6, 7, 13, 15, 22, 26, 27
2	**Commitment to Teaching Work**	3, 12, 16, 20, 21, 24, 25,
3	**Commitment with Profession**	4, 5, 10, 18, 19, 23
4	**Commitment to Work Group**	8, 9, 11, 14, 17

For the data collection process, researchers personally visited the selected sample. The instructions to the respondents were given beforehand. The response rate ratio was 76.73% and projected in table 1.

Data Analysis

The data were analyzed by using SPSS through statistical techniques mean score, standard deviation and Pearson r. The interpretation of the analysis is as under:

RQ. No. 1 What is relationship of school climate with teachers' professional commitment in Punjab Pakistan?

Table # 4: Relationship of School Climate with Teachers' Professional Commitment

Respondent	N	Mean	S.D	Correlation (r)	P-Value
School Climate	48	4.65	0.728	0.203	0.003**
Professional Commitment	221	4.72	0.510		

The table represents the number of respondent, mean score, standard deviation, correlation and corresponding p-value for school climate and professional commitment. The value of correlation (0.203) indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.003) indicates that the correlation is significant at both 1% and 5 % level of significance.

RQ. No. 2 What is relationship of school climate with male and female secondary school teachers' professional commitment in Punjab Pakistan?

Table # 5: Relationship of School Climate with Male and Female Secondary School Teachers' Professional Commitment

Category	Respondent	N	Mean	S.D	Correlation (r)	P-Value
Male	**School Climate**	24	4.62	0.736	0.220	0.000**
	Professional Commitment	115	4.69	0.545		
Female	**School Climate**	24	4.69	0.722	0.105	0.027*
	Professional Commitment	106	4.75	0.464		

The table 5 reveals number of male and female respondent, mean score, standard deviation, correlation and corresponding p-value of school climate with professional commitment. The value of correlation (0.220) for male indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.000) indicates that the correlation is significant at both 1% and 5 % level of significance for male. Similarly, the value of the correlation (0.105) for female indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.027) indicates that the correlation is significant at the 5 % level of significance for female. It also indicates that the correlation of male is high as compared to female. It means that the male is more committed to their profession as compared to female.

RQ. No. 3 What is relationship of school climate with rural and urban secondary school teachers' professional commitment in Punjab Pakistan?

Table # 6: Locality Based Relationship between School Climate and Professional Commitment

Category	Respondent	N	Mean	S.D	Correlation (r)	P-Value
Rural	**School Climate**	24	4.66	0.722	0.087	0.416
	Professional Commitment	114	4.78	0.494		
Urban	**School Climate**	24	4.64	0.738	0.123	0.247
	Professional Commitment	107	4.66	0.521		

The table 6 represents the number of rural and urban area respondent, mean score, standard deviation, correlation and corresponding p-value for both rural and urban respondent of school climate and professional commitment. The value of correlation (0.087) for rarely indicates that the correlation between school climate and professional commitment exist but not significant. Also, the corresponding p-value (0.416) indicates that the correlation is not significant for rural area respondent. Similarly, the value of the correlation (0.123) for urban indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.247) indicates that the correlation is not significant for urban area respondent. It also indicates that the correlation for urban is high as compared to rural. It means that the urban area respondent is more committed with their profession as compared to rural area respondent.

RQ. No. 4 What is relationship of school climate with teachers' professional commitment on the base of their age in Punjab Pakistan?

Table # 6: Age Wise Relationship between School Climate and Professional Commitment

Category	Respondent	N	Mean	S.D	Correlation (r)	P-Value
20-30	**School Climate**	18	4.74	0.639	0.180	0.013*
	Professional Commitment	41	4.67	0.543		
31-40	**School Climate**	13	4.65	0.770	0.162	0.255
	Professional Commitment	90	4.78	0.461		
41-50	**School Climate**	10	4.42	0.902	0.122	0.499
	Professional Commitment	69	4.73	0.517		
Above 50	**School Climate**	07	4.64	0.505	- 0.039	0.910
	Professional Commitment	21	4.73	0.467		

The above mentioned table represents the number of respondents of different age groups, mean score, standard deviation, correlation and corresponding p-value for different age group respondents of is calculated. The value of correlation (0.180) for 20-30 year age group respondents indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.013) indicates that the correlation is significant at the 5 % level of significance. Similarly, the value of the correlation (0.162) for 31-40 year age group respondent indicates that the correlation between school climate and professional commitment exist. The corresponding p-value (0.255) indicates that the correlation is not significant for 31-40 year age group respondents. The value of correlation (0.122) for 41-50 year age group respondent indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.499) indicates that the correlation is not significant. Similarly, the value of the correlation (-0.039) for above 50 year age group respondent indicates that the correlation between school climate and professional commitment is negative. The corresponding p-value (0.910) indicates that the correlation is not significant for above 50 year age group respondents. It also indicates that the correlation for younger respondent is high and significant. It means that the younger people are committed to their profession as compared to other age group. While for above 50 years age group correlation is negative.

RQ. No. 5 What is relationship of school climate with teachers' professional commitment on the base of their teaching experiences in Punjab Pakistan?

Table # 7: Teaching Experience Wise Relationship between School Climate and Professional Commitment

Category	Respondent	N	Mean	S.D	Correlation (r)	P-Value
01-05	**School Climate**	08	4.73	0.654	0.194	0.005**
	Professional Commitment	75	4.69	0.550		
06-10	**School Climate**	10	4.75	0.608	0.240	0.025*
	Professional Commitment	80	4.63	0.576		
11-15	**School Climate**	14	4.60	0.910	- 0.122	0.628
	Professional Commitment	35	4.93	0.258		
Above 15	**School Climate**	16	4.54	0.793	-0.026	0.830
	Professional Commitment	31	4.73	0.479		

The table represents the number of respondents of different teaching experience groups, mean score, standard deviation, correlation and corresponding p-value for different teaching experience group respondent of school climate and professional commitment is calculated. The value of correlation (0.194) for 01-05 year teaching experience group respondent indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.005) indicates that the correlation is significant at both 1 % and 5 % level of significance. Similarly, the value of the correlation (0.240) for 06-10 year teaching experience group respondent indicates that the correlation between school climate and professional commitment exist. The corresponding p-value (0.025) indicates that the correlation is significant at the 5 % level of significance. The value of correlation (- 0.122) for 11-15 year teaching experience group respondent indicates that the correlation between school climate and professional commitment is negative but not significant. The corresponding p-value (0.628) indicates that the correlation is not significant. Similarly, the value (- 0.028) for more than 15 years teaching experience group respondent indicates that the school climate and professional commitment are negatively correlated with each other. The corresponding p-value (0.830) indicates that the correlation is not significant for more than 15 years teaching experience group respondents. It also indicates that the correlation for younger, having less experience respondent is high and significant. It means that the younger people are committed to their profession as compared to other age group. While for above 50 years age group correlation is negative.

Results and Discussion

The study at hand was designed to measure the relationship of school climate with secondary school teachers' performance. The results of the study reveal that there exists a significant relationship between school climate and secondary school teachers' performance. The corresponding p-value (0.003) indicates that the correlation is significant at both 1% and 5 % level of significance. The results of the study are compatible with the results of the study of Selamat (2013) in which the researcher concluded that school climate has significant impact on the job performance of teachers. Moreover, the researchers also made gender based comparison in which the value of the correlation (0.220) for male indicates that the correlation between school climate and professional commitment exist. Similarly, the p-value (0.000) indicates that the correlation is significant at both 1% and 5 %. In the same way, the value of the correlation (0.105) for female indicates that there is a relationship between school climate and professional commitment. This is also indicated through p-value (0.027) which is significant at 5 %. It also indicates that the correlation of male is high as compared to female. It means that the male is more committed to their profession as compared to female. The results of the study are absolutely contrary to the study of Odunaike, Ijaduola and Epetimehin, (2013) in which the researchers' propagated that female teachers are more committed to their profession as compared to male teachers. The rational behind the study is this that school climate is more favorable male teachers as compared to female teachers. Male teachers are working freely and having respect from all around where as female teachers have lots of cultural and religious hindrances while on duty. Thus the commitment level of female is low as compared to male teachers.

The researchers also made the locale based comparison. The value of correlation (0.087) for rural indicates that the correlation between school climate and professional commitment exist but not significant. Also, the corresponding p-value (0.416) indicates that the correlation is not significant for rural area respondents. Similarly, the value of the correlation (0.123) for urban indicates that the correlation between school climate and professional commitment exist. Also, the corresponding p-value (0.247) indicates that the correlation is not significant for urban area respondents. It means that

relationship of school climate of rural and urban secondary schools is found with their professional commitment, but this relationship is not significant. Moreover, it also indicates that school climate in local setting is also same in rural and urban areas.

Teachers' Age wise relationship of school climate with their professional commitment was also inferred. The researchers dividing a wide sample of the study into four groups, viz, group 1 (20-30 years), group 2 (31-40 years), group 3 (41-50 years) and group 4 (51 and above). The correlation value of group one (0.180) reveals that their exist relationship between school climate and professional commitment of secondary school teachers. The corresponding p-value (0.013) also indicates that the correlation is significant at the 5 % level of significance. Similarly, the value of the correlation (0.162) for group 2 (31-40 years) tells that their exist correlation between school climate and professional commitment of secondary school teachers. The corresponding p-value (0.255) reveals that correlation exists, but not significant. In the same way, the correlation value (0.122) for group 3 (41-50 years) reveals that the correlation between school climate and professional commitment exist. But the corresponding p-value (0.499) reflects that the correlation is not significant. Similarly, the value of the correlation (- 0.039) for group 4 (50 years and above) indicates that school climate and professional commitment is negatively correlated. The corresponding p-value (0.910) indicates that the correlation is not significant for group 4. It also indicates that the correlation for younger respondent is high and significant. It means that the younger people are committed to their profession as compared to other age group. While for above 50 year age group correlation is negative, which indicates that teachers having 50 years and above age have not professionally committed as compared to younger teachers. The study at hand are compatible with the results of the study of Forth and Metcalf (2014) in which the researchers propagated that your mg workers are more committed to their job as compared to older workers.

In the last, the study was analyzed on the base of teaching experiences of teachers. The researchers divided age wise sample of the study into four groups, viz, group 1 (01-05 years), group 2 (06-10 years), group 3 (11-15 years) and group 4 (15 and above). The correlation value (0.194) for group 1 reveals that the correlation between school climate and professional commitment exist. The corresponding p-value (0.005) indicates that the correlation is significant at both 1 % and 5 % level of significance. Similarly, the value of the correlation (0.240) for group 2 reflects that the correlation between school climate and professional commitment exist. The corresponding p-value (0.025) indicates that the correlation is significant at the 5 % level of significance. In the same way, value of correlation (-0.122) for group 3 shows that the correlation between school climate and professional commitment is negative but not significant. The corresponding p-value (0.628) reveals that the correlation is not significant. Moreover, the value (- 0.028) for group 4 indicates that the school climate and professional commitment are negatively correlated with each other. The corresponding p-value (0.830) tells that the correlation is not significant for more than 15 years teaching experience group respondents. It also indicates that the correlation for younger, having less experience respondent is high and significant. It means that newly inducted teachers more are committed to their profession as compared to other age group. While for above 50 years age group correlation is negative, which shows that experienced teachers are committed to their profession as compared to less experienced teachers. The results of the study at hand are compatible with the results of Sujatha, Swathi and Seema (2013) in which the researchers found that employees who have 0-5 years experience are more committed as compared to other employees. Similarly, there is also an effective commitment of those employees who have 6-15 years experience. After 15 years there is a low level of commitment among the employees.

Recommendations of the Study

The researchers recommended that the governmental organization should take certain measures to enhance the professional commitment of experience and comparatively old age teachers. Moreover, female teachers should provide such conducive environment in which they may work freely.

References

- Ali, E., & Hale, E. (2009). Predicting organizational trust level of school managers and teachers at elementary schools. *Procedia-Social and Behavioral Sciences, 1*(1), 2180–2190.
- Armstrong, M. (2009).Armstrong's Handbook of Performance Management: An Evidence-Based Guide to Delivering High Performance, Kogan Page.
- Bagraim, J.J. (2003). The nature of measurement of multiple commitment foci amongst South Africa knowledge workers. *Management Dynamics. 12* (2), 13-23.
- Bouckenooghe, D., Debussche, F., & Warmoes, V. (2006). Perception and Diversity.*In;* M. Buelens, H.V. Broeck, K. Vanderheyden, R.Kreitner& A. Kinicki (Eds.), Organisational Behaviour (pp. 126-164). London: McGraw-Hill.
- Bybee-Lovering, S. (1999).Commitment in the workplace (Doctoral Dissertation, Texas Tech. University).
- Charles, D., Drenth, P.J.D., & Henk, T. (2013). A Handbook of Work and Organizational Psychology: Volume 4: *Organizational Psychology* (vol. 4). Psychology Press.
- Cohen, A. (1999). The relation between commitment forms and work outcomes in Jewish and Arab culture. *Journal of Vocational Behavior, 54*(3), 371-391.
- Cohen, A. (2003). Multiple commitments in the workplace. *In;* Mahwah, N.J. Lawrence Erlbaum Associates.
- Cohen, A. (2006). The relationship between multiple commitments and organizational citizenship behavior in Arab and Jewish culture. *Journal of Vocational Behavior, 69,* 105-118.
- Day, C. (2000). Stories of Change and Professional development: The costs of commitment. (Eds.), The life and work of teachers: International perspectives in changing times (pp. 109-129). London: Falmer Press.
- Elliott, B., & Crosswell, L. (2001). Commitment to teaching: Australian perspectives on the interplays of the professional and the personal in teachers' lives. Paper presented at the International Symposium on Teacher Commitment at the European Conference on Educational Research, Lille, France.
- Forth,J., & Metcalf, H. (2014). *Young People's Experiences in the Workplace,* Research Report 12/14, London: Acas.
- Garg, P., and R. Rastogi.(2006). Climate profile and OCBs of teachers in public and private schools of India. *International Journal of Educational Management, 20*: 529 − 541.
- Garrison, J., & Liston, D. (2004).Teaching, learning, and loving. New York: Teachers College Press.
- Hackett, R.S. (2005). Open-Climate Schools. The University of the West Indies.
- Halpin, A.W., & Croft, D.B.(1963). The Organizational climate of schools: Midwest Administration Center. University of Chicago, Chicago, USA. p. 89-110.
- Herscovitch, L., & Meyer, J.P. (2002). Commitment to organizational change: Extension of a Three-Component Model. *Journal of Applied Psychology*, 87, 474-487.

- Hunter, S.T., Bedell, K.E., & Mumford, M.D. (2007). Climate for creativity: A quantitative review. *Creativity Research Journal*, 19 (1), 69-90.
- Khilji, S.E. (2002). Modes of convergence and divergence: An integrative view of multinational practices in Pakistan. *International Journal of Human Resource Management*, 13(2), 232-253.
- Kumaran, D. (2005). Organizational health, Climate and academic performance.
- Lee, Keun S., & Tao, G. (2005). Studying organizational commitment with the OCQ in the Korean retail context: Its dimensionality and relationships with satisfaction and work outcomes. International Review of Retail, Distribution and Consumer Research, 15(4), 375–399.
- Liston, D., & Garrsion, J. (2004). Teaching, learning and loving: Reclaiming passion in educational practice. New York: Rutledge Falmer.
- MacNeil, A.J., Prater, D.L., & Busch, S. (2009).The effects of school culture and climate on student achievement. *International Journal of Leadership in Education*, 12(1), 73-84.
- Mart, C.T. (2013). A passionate teacher: Teacher commitment and dedication to student learning. *International Journal of Academic Research in Progressive Education and Development*, 2(1), 437-442.
- Mat, N.H.N., & Zabidi, Z.N. (2010). Professionalism in Practices: A preliminary study on Malaysian Public Universities. *International Journal of Business and Management*, 5(8), p138.
- Maheshwari, A., Stofberg, L., & Bhattacharya, S. (2007). Effect of overweight and obesity on assisted reproductive technology-a systematic review. Human Reproduction Update, 13(5), 433-444.
- Meyer, J.P. & Allen, N.J. (1991).A three-component conceptualization of organizational commitment. Paper Presented at the Annual Meeting of the Administrative Sciences Association of Canada, Whistler, British Columbia.
- Mine, S. (2009). Leadership behaviors of school principals in relation to teacher job satisfaction in north Cyperus. Procedia-Social and Behavioral Sciences, 1(1), 2855–2864.
- Moloi, K.C. (2002). The school as a learning organization: reconceptualising school practices in South Africa. Pretoria: Van Schaik Publishers.
- Mowday, R., Steers, R., & Porter, L. (1979). The measurement of organizational commitment. Journal of Vocational Behavior, 14, 224-247.
- Mxenge, S., Dywili, M., & Bazana, S. (2014). Job engagement and employees' intention to quit among administrative personnel at the University of Fort hare in South Africa. *International Journal*, 4(5), 2307-2270.
- Nazari, K., & Emami, M. (2012). Analysis of relation between organizational commitment and professional commitment. Elixir Human Res. Mgmt. 51 (2012) 10661-10664. Retrieved August 20, 2013 from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2298898.
- Odunaike K.O., Ijaduola K.O.,& Epetimehin, F.M. (2013*), Teachers' Gender and Professional Achievements in Secondary Schools, *International Journal of Humanities and Social Sciences, 3*(1), 125-129.
- Owens, R.G. (2004). Organizational behavior in education: Adaptive leadership and school reform (8[th]Ed.). Boston: Pearson Education, Inc.
- Oyetunji, C.O. (2006). The relationship between leadership style and school climate in Botswana secondary schools (Doctoral dissertation, University of South Africa).
- Peterson, K.D., & Deal, T.E. (2011). The shaping school culture fieldbook. John Wiley & Sons.

- Raheem, A.S.J.M.A. (2009). The level of commitment and its relation to Students' Achievement as perceived by English Language teachers in Public Schools in Tulkarm District (Doctoral Dissertation, An-Najah National University).
- Rapti, D. (2013). School Climate as an Important Component in School Effectiveness. *Academicus International Scientific Journal*, 08, 110-125.
- Raza, S.A. (2010). Relationship between organizational climate and performance of teachers in public and private colleges of Punjab. *Retrieved from: htttp://www. google. com/url*.
- Robbins, S.P. (2003). Organizational behavior concepts, controversies, application.(8th Ed.), Publisher: Prentice-hall International. New Jersey, USA.
- Savas, A.C., & Karakus, M. (2012).The relationships between school organizational health and teachers' in-role and extra-role behaviors. *International J. Soc. Sci. & Education*, 3(1): 67-74.
- Selamat, N., Samsu, N.Z., & Kamalu, N.S.M. (2013).The impact of organizational climate on teachers' job performance.
- Şentuna, M. (2015).Investigation of Job Satisfaction, Organizational Commitment and Self-Esteem of Physical Education Teachers According to the Gender.
- Sergiovanni, T.J., & Starratt, R.J. (2002).Supervision a redefinition (7th Ed.). New York: McGraw-Hill Book Company.
- Stringer, R.A. (2002).Leadership and organizational climate. Upper Saddle River: Prentice Hall.
- Sujatha, S., Swathi, M., & Seema, A. (2013).Impact of term of experience on organizational commitment among employees commitment among employees.
- Tahir, S., Basit, T., Haque, A., Mushtaq, A.H., & Anwar, C. (2010). Knowledge management practices: Role of organizational culture. Proceedings of ASBBS, Annual Conference: Las Vegas, 17(1), 1027- 1036.
- Tateo, L. (2012). What do you mean by" teacher"? Psychological research on teacher professional identity. *Psicologia & Sociedade,* 24(2), 344-353.
- Tighe, E., Picariello, M.L., & Amabile, T.M. (2003). Environmental influences on motivation and creativity in the classroom. *In;* J. C. Houtz (Ed.), *The educational psychology of creativity* (pp. 199–222). Cresskill, N.J.: Hampton Press.
- Tufail, M., Zia, M., Khan, S., & Irfan, M. (2005). A glance at organizational commitment, antecedents and consequences (1960-2005). *Journal of Managerial Sciences*,6(1): 74.
- Van Horn, M.L. (2003). Assessing the unit of measurement for school climate through psychometric and outcome analyses of the school climate survey. Education and Psychological Measurement, 63: 1002–1019.
- Van Houtte, M.V. (2005). Climate or culture? A plea for conceptual clarity in school effectiveness research. School Effectiveness and School Improvement, 16, 1,71-89.
- Wang, X,. & Armstrong, A. (2004). "An empirical study of PM professional's commitment to their profession and employing organization". *International Journal of Project Management*, 22: 377-386.
- Ware, H., & Kitsantas, A. (2007).Teacher and collective efficacy beliefs as predictors of professional commitment. *The Journal of Educational Research*, 100, 303–310.
- Yusof, N.M. (2012). School climate and teachers' commitment: A case study of Malaysia. *International Journal of Economics Business and Management Studies*, 1(2), 65-75.
- Zia, Y.A., & Tufail, M. (2011).Comparative analysis of organizational commitment among faculty members of public and private sector universities of KPK. *Journal of Managerial Sciences,* 5(1): 37-52.

Efficiency Analysis and Sustainability of Microfinance Institutions in Sri Lanka during Recession 2008

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Abstract

The study analyzes the efficiency and sustainability of Microfinance Institutions in Sri Lanka during financial crisis time period of 2008 and 2009. For this course firstly Data Envelopment Analysis is applied to measure efficiency and then sustainability check is tested. The results reveal that medium sized institutions are more efficient and low transaction cost is revealed in operating expense heads of efficient institutions. Sustainability focus is found to be limited because government provides grants to these institutions. The main barrier towards sustainability is the low quality of portfolio.

Introduction

The objective of Microfinance Institutions (MFIs) is to provide credit to poverty stricken people who do not have access to credit due to collateral. Basic financial services are provided by MFIs to those low income people who have limited access to credit markets (Robinson, 2001). MFIs claim to have a dual mission; financial sustainability (1st bottom line) and Social goals (2nd bottom line). Efficient MFI considers both objectives. Some successful MFIs make a profit, without receiving grants or subsidy and many MFIs heavily depend upon their donors for subsidies or grants. For long run sustainability, MFIs' efficient functioning is critical.

A global financial crisis affected financial institutions, which starting in the mid of 2007, prevailing through 2008 and ending in late 2009 and early 2010. Earlier it was thought that this sector cannot be affected by the financial crisis; but crisis horizon revealed its impact on this sector. In developing countries in some parts microfinance operations completely turned into losses, whereas in others less influence is seen.

The microfinance sector has fallen short on having widespread outreach and attaining sustainability. Microfinance sector, which is both profitable and sustainable, can impact positively the lives of the poor. The importance of studying the Sri Lankan MFIs can be justified by the verity that they play the role of key players in developing the capital markets by completing financial services provided by commercial banks. Moreover, it addresses the weaknesses in the performance of MFIs. The research objectives are to measure and analyze the efficiency and to determine the sustainable MFIs out of the

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efficient ones. The rest of the paper is structured as follows: next section (Section 2) provides an overview of the history and types of MFIs in Sri Lanka. Section 3 gives the relevance of literature. Further, below data collection and methodology to be applied is explained in Section 4. The next to it the results are discussed in Section 5 and lastly conclusion is drawn in the sixth section.

Microfinance in Sri Lanka

This section provides a brief insight towards the microfinance origin in Sri Lanka and a brief overview of the growth and sustainability.

History

With the start of thrift and credit co-operative societies (TCCS) under the ordinance of cooperative society, the microfinance movement initiated in Sri Lanka under British colonial administration in 1906. In the early decades of 20th century five credit co-operatives were established in Sri Lanka that performed the function of procurement of inputs and distribution of products etc. Multi-purpose co-operative society (MPCSs) (1950s) which was initially started during the 1940s as consumer co-operative societies took over the role. By the late 1970, however, TCCSs were in very limited numbers and that in existence was not performing well. Dr P.A. Kiriwandeniya is resuscitating the TCCSs movement under the name SANASA.

In 1985, 17 Regional Rural development banks (RRDBs) were established by the government, which operates in all districts of Sri Lanka other than north and east. To reach small and medium entrepreneurs that operates in rural area. In 1998-1999 remarkable restructuring and recapitalization took place and RRDBs were merging into six regional development Banks (RDBs) which were again unifying into one entity in 2010 as a regional development bank.

Several local and international NGOs made an entry in the microfinance business in the late 1980s and 1990s. Janasaviya which was a subsidiary program was acquainted by the government, which was considered as the main poverty alleviation mechanism. Later on, it was substituted by Samurdhi development programme in 1995 that consisted of a network with 1083 member owned Samurdhi bank societies (SBSs). Commercial banks and financial institutions made the entry in microfinance banks in late 80s, whereas the Hatton National Bank's (HNB) *Gami-Pubuduwa* ("Village Awakening") microfinance programmes are oldest microfinance programmes.

In 2004 Tsunami struck Sri Lanka, witness the inrush of foreign aid to the microfinance sector, which were in the shape of grants or subsidized loans. During this phase microfinance bank united with multi-sector livelihood programmes, proved indefensible and unsustainable in the long term, and had harmful effects in the short term through the mixture of subsidized loans and grants and have a worse impact on country credit culture. The emerging trend that has been noticed recently is the commercial bank and registered finance companies and other large corporate entity's entry into microfinance business, the most remarkable of them is Orix Microcredit Limited (LOMC).

Type of MFIs

Different legislations place a check on a Sri Lankan microfinance sector which comprises of a range of institutions. Microfinance institutions consist of following types: Regional Development Banks (RDBs) and other Licensed Specialized Banks (LSBs), Samurdhi Bank Societies (SBSs), Co-operative Rural Banks (CRBs) and other co-operatives, Thrift and Credit Co-operative Societies (TCCSs/ SANASA Societies), an NGO-MFIs and Other Financial Institutions.

Literature Review

In 1990s, frequent empirical studies on bank efficiency were conducted. Based on the documented studies by Berger and Humphrey (1997), only four studies were carried on the developing economies. Recently conducted studies are now placing more emphasis on developing economies. Due to variations in the methods and techniques in this regard, a literature review of both non-bank financial institutions and microfinance institutions' efficiency studies is filed under. The variation in technical efficiency scores is because of the different definitions of the variables used in the study.

Drake and Hall (2001), uses data envelopment analysis in the Japanese banking sector by using the cross section sample. Efficiency analysis is done across banks, banks size and banks types. Following Berger and Humphrey (1997) problem loans are controlled. Relationships of powerful size, efficiency are established. The results suggest that controlling the problem loans' impact is important for Japanese banks. Nieto et al. 2008, uses Data Envelopment Analysis to find that DEA efficiency has no comparison with ratio analysis. Efficiency of MFIs having banking side and social side has been assessed through the DEA model. Methodological approach is selected on the basis of multivariate analysis, in combination with principal component Analysis. This approach reveals that how NGO and non-NGOs are different. It explains the country effects in the data and gives the reasons for MFI efficiency or inefficiency.

Nghiem et al. (2006) analyzed the nature of NGOs in Vietnam and the perceptions of shareholders on its effectiveness. The findings reveal that microfinance providers contribute to poverty reduction but their future viability is not great due to donor requirements as they demand them to become financially self-sufficient. Meanwhile, various government policies are making it hard to achieve. Corsi et al. (2006) examined the social and economic impact on the lives of participants in microfinance programmes especially on women in Mediterranean countries. The analysis does not provide any absolute measure but it helps to indicate the changes that occurred due to empowerment index and qualitative indicators.

Qayum and Ahmad (2006) conducted a study to estimate the efficiency of South Asian MFIs. Countries specified for study are Pakistan, India and Bangladesh. Non parametric approach DEA has been used for efficient analysis. Results show that efficiency can be improved my enhancing managerial skills and improving the technology to be used. It can be done by imparting training. Model of the leading MFI of the world, Grameen Bank, can be adopted. Joseph (2007) studies the financial and social performance of microfinance institutions operating in Cameron. The study aims to measure the performance of MFIs. Efficiency scores have been obtained for each MFI through data envelopment analysis. The DEA approach leads in the study to identify efficient and inefficient MFIs.

Sufian (2008) investigates the performance of non-bank financial institutions of Malaysia during the period of 2000-2004. Various efficiency estimates are evaluated by using the non-parametric approach of DEA. Results suggest the sensitivity of the scale inefficiency of the risk factor's exclusion. It is implied when risk factors are excluded, economies of scale may get over-estimated. While explaining the financial institutions' efficiency importance of risk is demonstrated in the findings. The findings are helpful for policy makers for achieving more economies of scale and greater efficiency in order to consolidate the banking system. Jayamaha and Mula (2010), investigates the efficiency of Commercial, Rural Banks (CRBs) and financial practices and its impact on the efficiency of these institutions in Sri Lanka. After making efficiency a correlation analysis is done to explain variation in estimated efficiency. Results indicate that non-performing loans to total loans are correlated with efficiency in intermediation. Nonperforming loan level for most CRBs is below the benchmark. It can be concluded that results obtain in the study could assist to provide some new right areas and ways or developing financial sectors

efficiently in rural finance, to alleviate poverty.

Crombrugghe et al (2008) used regression analysis to investigate the determinants of self-sustainability out of an Indian micro finance institution's sample. These institutions report their operational and financial data to the well-known sharing organization "Sa Dhan". Results show that without increasing the loan size, sustainability can be ensured through financial performance. Cost efficiency of micro finance institutions across Asia, Africa and Latin America is examined by Haq et al (2009). For this, non-parametric data envelopment analysis is used. Results reveal that nongovernmental MFIs are most efficient under production approach. This result shows the success of dual objective fulfillment of MFIs: reducing poverty and attaining financial sustainability.

Hasssan and Benito (2009) estimate the technical and scale efficiencies of MFIs in three regions: Middle East and North Africa (MENA) countries, Latin America countries and South Asian countries. In different studies of bank productivity, DEA is used to figure out the sources of inefficiencies. The important finding is that for formal MFIs technical efficiency is higher. Nawaz et al (2011) studies, public policy issues in micro finance by incorporating financial and social efficiency as interest rate determinants. Results in general suggest that globally MFIs is financially more efficient than being socially efficient. Results in particular suggest that Banks have financial efficiency and NGOs have social efficiency.

Phillippe, et al (2013) investigated, the more the focus of microfinance institutions on financial self-sustainability that whether it is disadvantageous to the target audience or not. The results revealed a significant positive relation between financial performance and social efficiency of MFIs. Izah & Siti (2015) employs the Data Envelopment Approach to examine the efficiency and productivity of MFIs in Cambodia for the period of 2008 to 2011. It infers that MFIs have been working at a correct and proper scale of operations, but comparatively inefficient in handling their assets and operating costs.

Data and Methodology

This section describes in detail the data collection along with the applied methodology. Variables are specified and the model is designed.

Sample Data and Data Collection

For having a balanced panel data only those MFIs are considered in the study for which the data are available for both years i.e. 2008 and 2009. The data represent financial crisis time period formulating a sample of 14 MFIs. The data are collected out of the financial statements provided by these MFIs on MIX market and is converted to US dollars. In Sri Lanka, there is no proper synchronization of the MFIs' activities, thus data availability of microfinance is very limited. The scope of the study is thus limited to only registered MFIs.

Non-Parametric Approach

Data envelopment analysis is the most widely used non-parametric technique. Terminology of DEA was initially developed by chance et al (1978). DEA involves calculating the efficiency by comparison of aggregate input/output ratios of all firms having a piecewise frontier surface (showing fully efficient operation) developed from the data set of linear programming.

There are two frequently used models of DEA: CCR-model (Charnes et al., 1978) and BCC-model (Banker, et al 1984). CCR takes into account the "constant return to scale" for every decision making unit operation and BCC takes into account "variable return to scale" for every decision making unit operation.

CCR-Model

DEA is generalized through CCR approach. It allows for input orientation and constant return to scale (Charnes, Cooper, & Rhodes, 1978). For every DMU_j, the "ratio" form of DEA includes maximizing the report h_j in the presence of s outputs and r inputs as follows:

$$\max\left[h_j = \frac{\sum_{s=1}^{n} u_s Y_{sj}}{\sum_{r=1}^{m} v_r X_{rj}}\right] \text{ S/C } \left\{\frac{\sum_{s=1}^{n} u_s Y_{si}}{\sum_{r=1}^{m} v_r X_{ri}} \leq 1 \text{ } i=1,\ldots,p \text{ } u_s v_r \geq 0\right.$$

Where

j	represents the "Benchmark" (business for which efficiency is measured);
h_j	represents the "ratio" form of technical efficiency score for firm j;
Y_{sj}	represents the output quantity *s* for DMU_j;
u_s	represents the coefficient of weighting of output *s*;
X_{rj}	represents the input quantity *r* for DMU_j
v_r	represents the coefficient of weighting of input *r*;
i	represents the DMU

Report h_j can be rephrased as follows:

$$\max\left[E_j = \sum_{s=1}^{n} \mu_s Y_{sj}\right] \text{ S/C } \left\{\begin{array}{c} \sum_{r=1}^{m} v_r X_{rj} \\ \sum_{s=1}^{n} \mu_s Y_{si} - \sum_{r=1}^{m} v_r X_{ri} \leq 0 \\ \mu, \text{ } v \geq 0 \end{array}\right.$$

where μ_s denotes the coefficient of weighting of each $output_s$. So the dual form is written as follows:

$$Min_{(\theta,\lambda)}\theta$$

$$\left\{\begin{array}{c} -Y_o + \sum_i \lambda_i Y_i \geq 0 \\ \theta X_o - \sum_i \lambda_i X_i \geq 0 \\ \lambda \geq 0 \end{array}\right.$$

Where

θ	is for the technical efficiency score;
Y_θ	represents the observed output quantities of firm, of which efficiency is measured;
X_θ	represents the observed input quantities of firm, of which efficiency is measured;
Y_i	represents the observed output quantities for firm *i*;
X_i	represents the observed input quantities for firm *i*;

λ_i represents the coefficients of weighting

BCC-Model

BCC model is the extension of CCR model with the additional convexity constraint and it focuses on variable return to scale (Banker, et al 1984). It is as follows:

$$\begin{cases} -Y_o + \sum_i \lambda_i Y_i \geq 0 \\ \theta X_o - \sum_i \lambda_i X_i \geq 0 \\ \lambda \geq 0 \end{cases}$$

$$\sum_i \lambda = 1$$

Scale Efficiency

Scale Efficiency is defined as the ratio of CCR/BCC or TE/PTE (Wang & Huang, 2005). If scale efficiency equals 1 it shows that DMU is scale efficient. If scale efficiency is less than 1, it shows that DMU is inefficient.

Advantages of DEA

Many studies have applied DEA to evaluate the efficiency of financial institutions due to various reasons. Among the reasons are: Park and De (2004) showed that DEA is the most essential and important technique to measure efficiency. Moreover, according to Krivonoshko et al (2002), to the efficiency investigation of production units, the DEA is a powerful approach. Generic and Vujcic (2002) revealed that unlike the regression analysis, DEA has an important advantage that no prior assumption is required about the analytical form of the production function.

Variable Selection

Defining inputs and outputs for financial intermediaries particularly for MFIs has been a debatable issue among researchers. To determine the formation of inputs and outputs of an MFI, firstly one should determine the nature of the respective MFI's technology (Sealey and Lindley 1977). In the literature, across different studies the definition of inputs and outputs differs depending on the nature of financial institution and on the estimation approach used. For performing DEA analysis, inputs and outputs to be selected should be in conformity because their selection affects the efficiency results.

Pure production and pure financial intermediation approach cannot be used in this study as "deposits" is not taken as a variable. A mixture of both of these approaches is used in this study, like Nieto, Cinca and Molinero (2007). The study model considers MFI as financial institutions who keep in focus their dual mission of social and financial sustainability (Woller et al., 1999; Schreiner, 2002; Nieto et al., 2008). In this study outputs are formed in accordance with MFI's social and financial goals.

Depth can be calculated by considering gender and poverty level of clients (Christen, 2001). Depth of outreach is measured in terms of women borrowers and it denotes the social goals of an MFI. It is assumed that outreach will be deeper if greater number of women clients is served. Women clientele are considered in the study as an output under production approach. Women clientele are calculated as:

No. of women borrowers= No. of borrowers * percent of women borrowers

Gross loan portfolio and number of loans outstanding are taken as the output under production

approach. The ability of an MFI to generate revenue for its increasing loan portfolio denotes its financial goals (Otero, 2000; Robinson, 2001). A lot of financial institutions focus on return on assets which is in the form of interest mostly. ROA is taken as the output under production & intermediation approach. A variety of studies have used assets to measure the size of the firms in finding the banking efficiency (Casu and Molyneux, 1998; Jackson & Fethi, 2000; Chang & Chiu, 2006). Further studies suggest that for producing loans the primary required inputs are labour and expenditure (Norman & Stocker, 1991). The study uses personnel as a proxy of labor and operating expense is taken for representing expenditure. Three variables are taken as inputs, i.e. total assets, personnel and operating expenses. Assets and personnel are taken under production approach, whereas operating expense is taken under intimidation approach. Following table is a summary of inputs and outputs used with their corresponding definitions.

Table # 1: Definition of Inputs and Outputs

Variable name	Abbreviation	Formula Description
Inputs		
Assets	**TA**	Total assets, adjusted for inflation and standardized provisioning for loan impairment and write-offs.
Personnel	**PER**	Total number of staff members.
Operating expense	**OE**	Personnel expense + All administrative expense
Outputs		
No. of women borrowers	**NWB**	No. of borrowers * percent of women borrowers
Gross loan portfolio	**GLP**	Gross Loan Portfolio, adjusted for standardized write-offs
No. of loans outstanding	**NLO**	Number of Loans Outstanding, adjusted for standardized write-offs
Return on assets	**ROA**	(Adjusted Net Operating Income - Taxes) / Adjusted Average Total Assets

The study model thus becomes as follows:
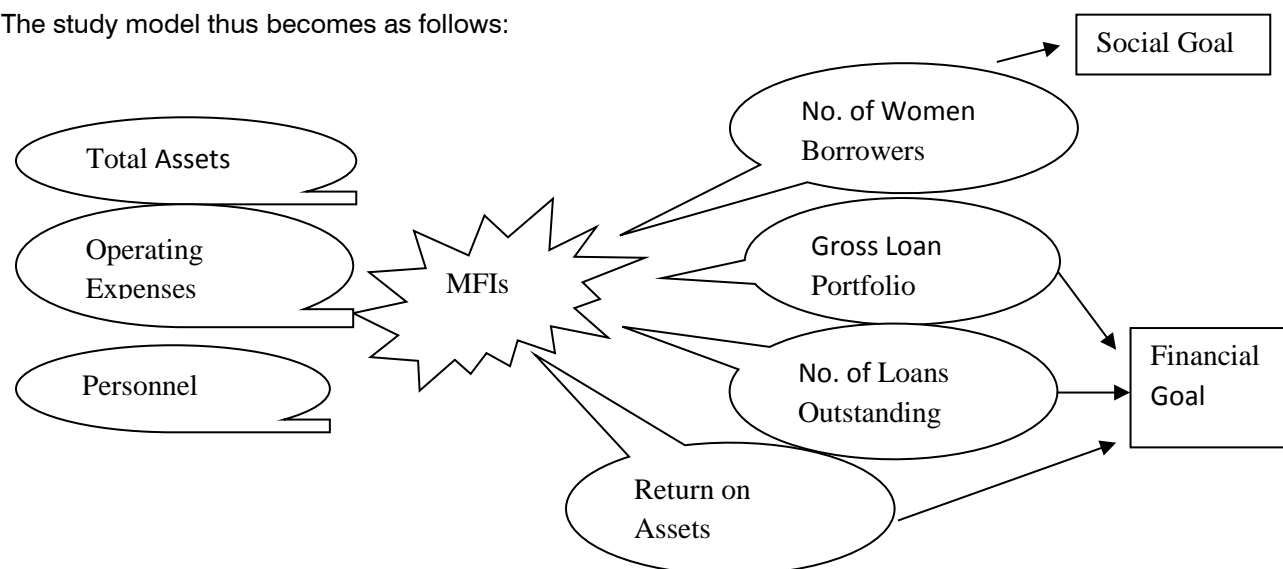
Discussion and Results

The section makes discussion in light of the results obtained. Descriptive for the studied variables are provided, then the efficiency results are discussed following the sustainability check.

Table # 2: Descriptive Statistics

Variable Name	Units	Obs	Mean	Min	Max	Std.dev
Assets	$	28	29,996,564	1,020,086	132,844,485	13,941,991
Personnel	No.	28	363	15	969	125
Operating Expense	$	28	1,968,157	0	7,505,713	922,164
No. of women	No.	28	35,293	0	143,853	14,607
Borrowers						
No. of loans	$	28	103,308	6,114	265,501	43,451
Outstanding						
Gross loan portfolio	---	28	44,207,022	788,888	93,209,523	10,012,305
Return on Assets	---	28	-0.007	-0.101	0.065	0.01

Total number of observations for each variable is 28 i.e. for both years under study. The main shows the average for each variable, whereas the standard deviation shows the deviation from the mean value. The minimum and maximum value depicts the range to which the value for the particular variable extends.

Efficiency Estimates

The DEA technical efficiency results for 14 MFIs of Sri Lanka have been calculated by assuming CRS, VRS and Scale efficiency. While measuring technical efficiency, output oriented methods have been utilized. The results are presented in the table below:

Table # 3: Technical Efficiency Estimates by DEA

		Year=1 (2008)				Year=2 (2009)			
SL no	Firm name	CRS	VRS	Scale	Desc	CRS	VRS	Scale	Desc
1	Arthacharya	1	1	1	-	1	1	1	-
2	BDCB	0.8	0.899	0.889	Drs	0.998	1	0.998	Drs
3	BM	1	1	1	-	1	1	1	-
4	BRAC – LKA	1	1	1	-	1	1	1	-
5	Lak Jaya	0.922	0.962	0.958	Drs	1	1	1	-
6	Ruhuna	1	1	1	-	1	1	1	-
7	Sabragamuwa	1	1	1	-	1	1	1	-
8	Sareeram	1	1	1	-	1	1	1	-
9	SDBL	1	1	1	-	0.982	1	0.982	Drs
10	SEEDS	0.714	1	0.714	Drs	0.826	0.94	0.878	Drs
11	SEWA	0.948	1	0.948	Irs	0.893	1	0.893	Irs
12	VFL	1	1	1	-	0.994	1	0.994	Drs
13	WDB	1	1	1	-	1	1	1	-
14	WDFH	1	1	1	-	1	1	1	-
Mean		0.956	0.99	0.965		0.978	0.996	0.981	
(DRS) decreasing return to scale and (IRS) increasing return to scale									

The results indicate that 8 MFIs out of 14 are on the fully efficient frontier border for both years 2008 and 2009. Out of these 8 MFIs 5 are working as for-profit institutions, namely Berendina Microfinance, Ruhuna, Sabaragamuwa, SDBL and WDB. SEEDS and SEWA Finance show technical efficiency when variable returns to scale is assumed for 2008 only. BDCB, SDBL, SEWA Finance and VFL show technical efficiency frontier while assuming variable returns to scale for 2009.

The average technical efficiency for CRS, VRS, and Scale for 2008 is 0.956, 0.99, and 0.965 respectively. Whereas average technical efficiency for CRS, VRS, and Scale for 2009 is 0.978, 0.996 and 0.981 respectively. It indicates that the MFI can increase its number of women borrowers, loan portfolio, and number of loans outstanding and return on assets by 1percent and 0.4percent with the existing level of inputs by efficiently utilizing the inputs that are assets, personnel and operating expenses. The results also show that 21.4percent (3 firms out of 14) depicts decreasing returns to scale while 7.14percent (1 out of 14) depicts increasing returns to scale for 2008. For 2009, 28.57percent show the decreasing returns to scale while 7.14percent (1 out of 14) attains the phase of increasing returns to scale.

Summary of the Results

There are fourteen firms in the taken sample to study representing Sri Lankan MFIs. The results of the CCR model show that during the period taken for study only nine for 2008 and eight for 2009 (on 14) microfinance institutions turned out to be efficient. The average efficiency was 0.956 for 2008 and 0.978 in 2009. This demonstrates that an average institution which is operating on the efficient border requires only 95.6 percent (2008) and 97.8 percent (2009) of the inputs utilized. In terms of average of inefficiency average, it will need 4.6 percent (on 2008) and 2.2 percent (on 2009) of inputs used to produce the same outputs as needed by an efficient institution.

Table # 4: Summary of Results of CCR-Model

	2008	2009
Number of DMU	14	14
Number of efficient DMU	9	8
Average of efficiency M	0.956	0.978
Average of inefficiency (1-M)/M	0.046	0.022
Percentage of the DMU in 1	64.29%	57.14%

The results of the BCC model show that during the study period only twelve for 2008 and thirteen 2009 (in 14) microfinance institutions got efficiency. The average efficiency was 0.99 for 2008 and 0.996 for 2009. This means that an average institution which is functioning on the efficient border needs only 99 percent (2008) and 99.6 percent (2009) of the inputs currently used. In terms of average of inefficiency average, it would have required 1percent (on 2008) and 0.4 percent (on 2009) of inputs supplementary to produce the same outputs as needed by an efficient institution.

Table # 5: Summary of Results of BCC-Model

	2008	2009
Number of DMU	14	14
Number of efficient DMU	12	13
Average of efficiency M	0.99	0.996
Average of inefficiency (1-M)/M	0.01	0.004
Percentage of the DMU in 1	85.71%	92.86%

If variable return to scale (that is, BCC model) is observed, not a variant change is observed for the same time period of study in conducting the analysis. The microfinance institutions have depicted a higher average efficiency under the variable return on scale because the DMUs which showed efficiency in the CCR model are also accompanied by other new efficient DMUs that can increase or decrease the return on the scale.

Technical Efficiency Distribution

DEA results are distributed over an efficiency range by segregating the data into profit oriented MFIs and non-profit MFIs for all three defined scales. Following table shows the result in percentage.

Table # 6: Technical Efficiency Distribution for 2008

Efficiency Class	π	$\emptyset$	π	$\emptyset$	π	$\emptyset$
	CCR %	CCR %	BCC %	BCC %	Scale %	Scale %
	2008		2008		2008	
≤ 0.60	12.5	0	0	0	0	0
0.61 – 0.80	0	16.67	0	0	0	16.67
0.81 – 1.00	87.5	83.33	100	100	100	83.33
Total	8	6	8	6	8	6
Minimum	0.8	0.714	0.899	1	0.889	0.714
Maximum	1	1	1	1	1	1

For 2008, CCR results are indicating that for profit oriented MFIs 12.5 percent and for non-profit MFIs 0 percent are operating below 0.6. Profits MFIs are 0 percent and non-profit are 16.67 percent functioning from 0.61 to 0.8. Similarly, 87.5 percent for profit firms and 83.33 percent non-profit firms range from 0.81 to 1. BCC results show that 100 percent profit and non-profit MFIs are operating in the range of 0.81 to 1. Results in Scale efficiency signifies that 100 percent profit MFIs are operating in between 0.81 to 1 whereas for non-profit 16.67 percent lie in 0.61 to 0.8 and 83.33 exist above 0.81. The minimum value for profit MFIs is 0.8 for CCR, 1 for BCC, 0.899 for Scale whereas for non-profit MFIs it is 0.714 for CCR, 0.889 for BCC and 0.714 for Scale. The maximum values for profit and non-profit MFIs is 1 for CCR, BCC and Scale.

Table # 7: Technical Efficiency Distribution for 2009

Efficiency Class	π	$\emptyset$	π	$\emptyset$	π	$\emptyset$
	CCR %	CCR %	BCC %	BCC %	Scale %	Scale %
	2009		2009		2009	
≤ 0.60	0	0	0	0	0	0
0.61 – 0.80	0	0	0	0	0	0
0.81 – 1.00	100	100	100	100	100	100
Total	8	6	8	6	8	6
Minimum	0.893	0.826	1	0.94	0.893	0.878
Maximum	1	1	1	1	1	1

DEA results for both profit and non-profit MFIs have shown the range in between 0.81 to 1 for 2009. For profit MFIs, the minimum value for CCR is 0.893, for BCC is 1 and for scale is 0.893. For non-profit MFIs the minimum value for CCR is 0.826, for BCC is 0.94 and for scale is 0.878. The maximum value for profit and non-profit MFIs for all CCR, BCC and scale is 1. For efficient MFIs size is found to be placing an impact on the efficiency. Medium sized MFIs were more efficient. Moreover, increased number of women borrowing clients has brought up an increased return on assets to MFIs. So the new trend of MFIs is to broaden their outreach by increasing number of women borrowers. In efficient MFIs, MFIs has shown low transaction cost as depicted by their cost per borrowers in the operating expenses head. In Sri Lankan MFIs low quality portfolios have been demonstrated by inefficient MFIs.

Sustainability of MFIs

The efficient MFIs according to the results of Scale Efficiency are checked for being sustainable or not for long term availability in the market. The sustainability check is applied as per Gow's parameter; if Operational Self Sustainability (OSS) is greater than 100 percent and the number of borrowers is more than 10,000, then that efficient MFI is regarded to be sustainable. The following table classifies the efficient MFIs to be sustainable as per defined scale.

Table # 4: Sustainability Check

Sr #	MFI	OSS (%)	Scale
1	Arthacharya	84.35	10,339
2	BM	97.98	15,350
3	BRAC-LKA	109.95	63,977
4	Ruhuna	106.58	0
5	Sabaragamuwa	117.09	252,374
6	Sareeram	115.67	6,114
7	WDB	117.32	144,460
8	WDFH	138.09	17,489

From the above sustainability check, it is clear that during the crisis time horizon BRAC-LKA Sabaragamuwa, WDB and WDFH are found to be having sustained operational activities indicating their long term availability in the market. In general, the MFI, with annual losses of about 5 percent tends to become unsustainable (Rosenberg et al, 2009). A very important aspect to consider when looking at the relatively low number of sustainable microfinance institutions is the size of these institutions. The sustainable MFIs are much larger than unsustainable and it is quite related to the study by Rosenberg, 2008. Sustainable MFIs do not depend upon grants and sustainability depicts their long term availability in the market. The practices of these efficient and sustainable MFIs can be followed up by considering them as a benchmark.

Conclusion

The study analyzes 14 MFIs by applying DEA for the financial crisis time period. Only 20 MFIs report their operations to MIX market till 2009, and yet the largest MFIs managed on a manual basis. When it comes to broadening of outreach, there is just an estimate available for a number of clients and outstanding loan balance (OLB) at the information for the entire sector is not readily available. Growth indicators for our sample indicate that the number of women borrowers is increasing. The growth trend in clients and members will continue with the extension of microfinance activities in North and East.

Sustainability focus is very limited because the sector is being provided with the large amount of funds from government and donor agencies. Many governments led subsidized programmes have high interest rates, high recurring cost and weak repayment rates, thus are away from sustainability. The hindrance in sustainability is the low quality portfolio. The lack of knowledge about the portfolio risk is the main barrier to the sector sustainability. Staff members are not able to estimate it with their manual system. Now there is a startling trend in Sri Lankan's MFIs towards transparency in order.

Policy Implications

The results show that even during the crisis time period, few MFIs in Sri Lanka were having sustainable operations. The operational models of BRAC-LKA, Sabaragamuwa, WDB, and WDFH should be taken into consideration by the managers of unsustainable MFIs. It will provide them with the insights how to be available in the market for the long run.

References

- Banker., Charnes, A., & Cooper, W.W. (1984). Some models for estimating technical and scale inefficiencies in DEA. *Journal of Management Science, 30*, 1078-1092.
- Berger, A.N., & Humphrey, D.B. (1997). Efficiency of financial institutions: international survey and directions for future research. *European Journal of Operational Research, 98*, 175-212.
- Casu, B., & Molyneux, P. (1998). A comparative study of Efficiency in European Banking. *Working paper, University of Wales, Bangor, UK*.
- Chang, T.C., & Chiu, Y.H. (2006). Effecting factors on risk-adjusted efficiency in Taiwan's banking industry. *Contemporary Economic Policy, 24* (4), 634-648.
- Charnes, A., Cooper, W.W., & Rhodes, W.E. (1978). Measuring the Efficiency of Decision Making Units. *Europeon Journal of Operational Research, 2*, 429-444.
- Christen, R. (2001). Commercialization and mission drift: The transformation of Microfinance in Latin America. *Consultative Group to Assist the Poorest.*
- Corsi, M., Botti, F., Tommaso, Rondinella.,& Zacchia, G. (2006). Women and microfinance in Mediterranean countries. *Societies for International Development, 49,* (2), 67-74.
- Crombrugghe, A.D., Tenikue, M., & Sureda, J. (2008). Performance analysis for a sample of microfinance institutions in India. *Annals of Public and Cooperative Economics*, 269-299.
- Drake, L., & Hall, J. M. (2001). Efficiency in Japanese Banking: An Empirical Analysis. *Journal of Banking and Finance, 27* (2003), 891-917.
- Gow, K.M. (2006). How to access microfinance and education through Technology.
- Guitierrez-Nieto, B., Serrano-Cinca, C., & Molinero, C.M. (2008). A DEA Approach to Microfinance Institutions Efficiency. *Paper presented at Centre for European Research in Microfinance Seminars, Brussels, Belgium*.
- Guitierrez-Nieto, B., Serrano-Cinca, C., & Molinero, C. M. (2006). Microfinance institutions and efficiency OMEGA. *International Journal of Management Science, 35* (2), 131-142.
- Haq, M., Skully, M.T., & Pathan, S. (2009). Efficiency of microfinance institutions. A data envelopment analysis. *Asia Pacific Financial Markets, 17*, 63-97.
- Hassan, K.M., & Sanchez, B. (2009). Efficiency analysis of microfinance institutions in developing countries. *Network Financial Institute Working Paper-12*.
- Izah, M.T., & Siti, N.C.T. (2015). Efficiency and productivity analysis of microfinance institutions in Cambodia: A DEA Approach. *International Review of Business Research Papers. Vol. 11,* (1), 25 – 42.
- Jackson, P.M., & Fethi, M.D. (2000). Evaluating the efficiency of Turkish Commercial Banks: An Application of DEA and Tobit Analysis. Presented at *International DEA Symposium, University of Queensland*, Bribane, Australia.
- Jayamaha, A., & Mula, J.M. (2010). Financial practices and efficiency of cooperative rural banks in Sri Lanka. *1st International Conference on Business and Information: Researching realities of Management Phenomenon (ICBI 2010).* Columbo.
- *Jemric, I., & Vujcic, B. (2002). Efficiency of Banks in Croatia: A DEA approach.* Comparative Economic Studies, 44*(2/3), 169-193.*
- Krivonoshko, V.E., Utkin, O.B., Volodin, A.V., & Sablin, I.A. (2002). Interpretation of Modeling Results in Data Envelopment Analysis. *Managerial Finance, 28* (9), 37-47.
- Nawaz, A., Hudon, M., & Basharat, B. (2011). Does efficiency lead to lower interest rates? A new perspective from microfinance.

- Nghiem, H., Coelli, T., & Rao, D.P. (2006). The efficiency of microfinance in Vietnam: Evidence from NGO Schemes in the North and Central Regions. *International Journal of Environmental, Cultural, Economic and Social Sustainability, 2* (5), 71-78.
- Norman, M., & Stocker, B. (1991). Data Envelopment Analysis: The Assessment of Performance. *John Wiley & Sons, New York*, 9-16.
- Nzongang, J. (2007). Financial viability and social utility of Microfinance institutions in Cameron: A multi criteria and DEA combined analysis.
- Otero, M. (2000). Bringing development back to micro finance. *Journal of Micro Finance, 1* (1), 8-19.
- Park, R.K., &De, P. (2004). An alternative approach to efficiency measurement of seaports. *Maritime Economics and Logistics, 6,* 53-69.
- Phillippe, L., Alex, S., & Bart, B. (2013). Financial efficiency and social impact of microfinance institutions using self organizing maps. *World Development, 46*, 197-210.
- Qayyum, A., & Ahmad, M. (2006). Efficiency and sustainability of micro finance institutions in South Asia. *University Library of Munich, Germany, MPRA Paper 11674*.
- Robinson, M.S. (2001). The microfinance revolution. *Washington DC, World Bank Publications*.
- Rosenberg, R. (2008). How sustainable is microfinance, Really? *CGAP, Microfinance blog.*
- Rosenberg, R., Gonzales, A., & Narain, S. (2009). The new moneylenders: the poor being exploited by high microcredit interest rates? *Occasional paper No.15, Washington DCCGAP*.
- Schreiner, M. (2002). Aspects of Oureach: A framework for discussion of the social benefits of microfinance. *Journal of International Development, 14* (5), 591-603.
- Sealey, C.W., & Lindley, J.T. (1977). Inputs, outputs and theory of production cost at depository financial institutions. *Journal of Finance, 32*, 1251-1266.
- Sufian, F. (2008). Risks and efficiency in Malaysian banking. *Savings and development, 32*, 7-29.
- Wang, W.K., & Huang, H.C. (2005). Measuring the relative efficiency of commercial banks: A Comparative Study on Different Ownership Modes in China. *Journal of American Academy of Business, Cambridge, 7* (2), 219-223.
- Woller, G.M., Christopher, D., & Warner, W. (1999). Where to microfinance. *International Journal of Economic Development.*

Appendix

Sr #	Name of MFI	Abbreviation
1	Arthacharya	Arthacharya
2	Colombo District Business Development Cooperative Society Ltd.	BDCB
3	Berendina Microfinance	BM
4	BRAC Sri Lanka	BRAC − LKA
5	Lak Jaya Micro Finance Ltd.	Lak Jaya
6	Ruhuna	Ruhuna
7	Sabaragamuwa	Sabaragamuwa
8	Sareeram	Sareeram
9	Sanasa Development Bank Ltd	SDBL
10	Sarvodaya Economic Enterprise Development Services	SEEDS
11	SEWA Finance	SEWA Finance
12	Vision Fund Lanka	VFL
13	Wayamba Development Bank	WDB
14	Women Development Federation Hambantota	WDFH

Moderation Role of Religious Beliefs between Product Awareness and Purchase Intentions- A Research in Takaful Industry

Zara Rafique[1], Javed Rabbani Khan & Gulshan Ara Majid

Abstract

The objective of this study was to find out the relationship between product awareness and purchase intentions of people. The moderating effect of religious belief was entered into the relationship to know its effect on intentions of people. Data was collected in Lahore region-Pakistan from 300 people through convenience sampling method. The 295 usable questionnaires were used. The only people aware with Takaful were asked to fill the questionnaires. Product awareness was measured in four different parts and analysis was run on each part separately. Findings showed different results in each part. Overall collective awareness showed a positive and significant relationship with Intentions. The moderating effect of beliefs showed people get to be more aware about Takaful products and their purchase intentions rapidly increase with the increase in religious beliefs. The research is limited to one city and should be expanded to other regions to get generalized results.

Keywords: Takaful Products, Religious Beliefs, Purchase Intentions, Product Awareness

Introduction

Takaful is becoming popular in the Global Islamic finance market. It is growing rapidly not only in Iran and Indonesia but in South East countries like China; Iran and Saudi Arabia. Middle East countries like Syria and Bahrain are also considering it for the last two decades. European countries and Western regions like UK, USA and Canada are also focusing on the new alternative of conventional insurance. Takaful is growing 10-20% p.a as compared to conventional insurance, which is growing 5% p.a. Over 60 countries are offering Takaful services including 23 countries which are offering Takaful windows (Ayub, 2009).

If we put a glance in international Islamic finance position, it can be seen that countries like Malaysia, Kuwait, Qatar, Turkey, Sudan, Bangladesh, Egypt, Switzerland, Jordan and Brunei are the fastest growing countries in the field of Islamic banking. As per report of World Bank database 2012, these countries are providing a total market share of US $ 1086.5 billion in the Global Islamic finance market in which contribution from Islamic banks, Takaful and other funds is included. In 2011, total share only from Takaful business by these countries was US $ 20.9 billion. In this share, huge participation was from Malaysia with US $ 9.9 billion, UAE with US $ 1.5 billion, Indonesia, Bangladesh and Qatar with

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US $.50 billion each, Iran with US $.40 billion and Saudi Arabia with US $.32 billion. Pakistan is still lacking behind the visible line of contributions in this industry.

Forecasting about Takaful Global share in 2015 by these countries is said to be as 42% share by Indonesia and Malaysia, 27% by GCC (Gulf Cooperation Council) countries like UAE, KSA, Egypt, Bahrain, Kuwait, Oman and Qatar. In Ernst & Young report (2008), it was shown that GCC countries had a share of US $ 2 billion in 2006 and it was estimated that it will grow in 2008 and will bring US $ 2.5 billion in the next coming years. This estimation became true when reports from UKIF, OIC outlook and WB Database came in 2012. According to these reports, Kuwait brought Takaful share of US $ 0.1 billion, Bahrain US $ 0.4 billion, Turkey, US $ 0.5 billion and UAE, US $ 1.5 billion which collectively makes US $ 2.5 billion till end 2011. Besides; Indonesia, Qatar and Iran are growing fast followed by Malaysia. Saudi Arabia is also making its way and its insurance industry claims 15-20 % global annual growth.

Despite of so much importance of the Takaful industry as an alternate of conventional insurance, studies are found on awareness about Takaful and its relationship with different demographic and socioeconomic variables as by Hamid et al., (2013) and Sherif &Shari (2013). According to Khan & Shahid (2010), a number of researches have shown the impact of customer awareness in Islamic Banking. In these studies, the impact of different variables and Takaful schemes are checked on awareness. Previous researches have shown clearly that awareness and the amount of information significantly affect the purchase intentions of people. In the selection of any specific product or service, religious people tend to get awareness about products specifications. Customer satisfaction is the result of selection of product, and intends to buy it so as to fulfill the demand level (Armstrong & Kotler, 1996; Bashir, 2012). Several Studies (Amin, 2007; Pikkarainen et al., 2004; Rahim & Amin, 2011; Smith et al, 1998) showed the clear effect of information and awareness on purchase intentions. Studies in the field of Insurance, especially Takaful, are very scarce and limited to finding the level of awareness of people in different regions. Some of these studies were by Ahmad (2011); Hamid et al., (2013); Sherif & Shaairi (2013); and Ustaoglu (2014). In most studies, impact of awareness on different variables is measured. In this regard, usually different theories are applied to measure the impact of awareness on different variables like Demand for Takaful, attitude, norms, buying behavior, etc. Most common theories applied are Theory of reasoned action and Theory of planned behavior. Scarce literature is found in the relationship of awareness and purchase intentions.

Introduction of the Field of Takaful
Takaful- an Alternative to Conventional Insurance
"Takaful (Arabic: التكافل) is a co-operative system of reimbursement in case of loss, paid to people and companies concerned about hazards, compensated out of a fund to which they agree to donate small regular contributions managed on behalf of a Takaful Operator" (Wikipedia). Malaysian Takaful Act, section 2 d (a) (1984) defined Takaful as, "A scheme based on brother-hood, solidarity and mutual assistance which provides for mutual financial aid and assistance to the participants in case of need whereby the participants mutually agree to contribute for that purpose". Takaful runs under two principles. These are *Ta'awun* means "Mutual Assistance" and *Tabarru* means "Gift, Give a way donations" (Ma'sum, 2001). Riaz (2009) stated Takaful as a "Mutual Guarantee or Protection" to the policy holders. The system of conventional insurance includes mainly four features which are clearly prohibited in Takaful. These are "*Al-Grarar*" (uncertainty), "*Al-Maisir*" (unearned income), "*Al-Qimar*" (Gambling) and "*Riba*" (Usury). In contradiction, Takaful offers insurance, which is based on mutual trust of the parties, their mutual sharing in case of loss or profit and common feeling of responsibility to the

shareholders (Ayub, 2009). In the field of Islamic banking & Finance, "Sudanese Islamic Insurance Co," appeared first in 1979 and introduced new systems in Takaful (Ansari, 2012).

Takaful works on the concept of mutual cooperation and help. The Takaful operator gets money from all policyholders and gathers it in a common pool out of which he gives claim to the policyholders who suffer any loss. If the amount of loss is more than the amount gathered, card-e-Hassan is given to the certain person. Hence policyholder is protected from overly payments which he could not pay. The Takaful operator gets his fees or commission from the amount collected for Insurance. On the other hand, operator can invest that money in any Shari'ah compliant business only. He cannot invest in those types of businesses which offer any interest in the name of "minimum return" on investments or are "Guarantee based" or give any interest on "haram practices". Anwar (2008), Saleh (1986) and Swartz & Coetzer (2010) stated that Islam stresses on such type of insurance which is totally free from reboot and Mysore. So Takaful is the best answer for such type of non-life Islamic conventional insurance system.

Takaful Industry in Pakistan
Pakistan, where the Muslim population is 98%, but still a percentage of insurance premiums is 0.1%-0.3%. In November, 2008 a convention on "The Emergence of Takaful in the Wake of Globalization" was held among D-8 countries. Unfortunately, Pakistan is the only country in D-8 countries which has not established Takaful business yet (Ayub, 2009). One major reason of Pakistan's low Takaful business is the infancy of this industry. Takaful was first introduced in 2006 and today five Takaful operators are operating in Pakistan. Two companies, Pak-Kuwait Takaful Co. Ltd. and Pak-Qatar Takaful Ltd. are serving General (non-life insurance) Takaful products, whereas three companies, Takaful Pakistan Ltd, Pak-Qatar a Family Takaful Ltd. and Dawood Family Takaful are offering Family (life insurance) Takaful products. Due to the low awareness level and poor Takaful operators' strategies, yet low population is persuaded to tend to this kind of Insurance. In the last two decades, many foreign Takaful operators have approached Pakistan and are doing an excellent business. These operators are from Qatar and Kuwait. They have introduced not only General Takaful but also Family Takaful products through which they are given coverage to individuals as well as the corporate sector.

Though Takaful is getting prosperous business from Malaysia and GCC countries but support from other Islamic countries is still needed so as to promote it as a successful Islamic insurance business, alternative to conventional insurance system. It will bring prosperity and the Shari'ah system in Islamic countries. Efforts were made in Pakistan by State Bank of Pakistan when provisions were added about Takaful in the revised Insurance act, and some years ago first Takaful business was launched in Pakistan with Kuwait Company under the name "First Takaful Insurance Company Ltd." with an authorized capital of Rs.100million.

The results of the Pakistan socioeconomic survey show that people are reluctant to purchase Takaful products_ might be due to religious factors or due to insufficient income or awareness about discrimination between conventional and Islamic insurance. According to Wahab, Lewis & Hassan (2007), the reason behind this also lies in the fact that in these countries with large families are financially supported by only on Jobber. Muslims are more conscious about life insurance and hesitate to spend on the products like medical, life insurance or motor insurance (Abdul Rahim, 2006). But for Takaful, Pakistani market projections are indicating a growth rate of 10-15% in the next 10 years. Personal lines, insurance companies like leasing, Medicare and health are growing faster than other conventional insurances in Pakistan.

Literature Review

Brief introduction of the selected variables and the literature on their relationship is being discussed here.

Product Awareness & Purchase Intentions

Previous researches have shown clearly that awareness and the amount of information significantly affect the purchase intentions of people. In the selection of any specific product or service, religious people tend to get awareness about products specifications. Customer satisfaction is the result of selection of product, and intends to buy it so as to fulfill the demand level (Bashir, 2012; Armstrong & Kotler, 1996). These products can be Halal food, cosmetics, job or Islamic insurance. Studies by Amin (2007); Pikkarainen et al (2004); Rahim & Amin (2011) and Smith, Winterman, & Abell (1998) showed the clear effect of information and awareness on purchase intentions. Studies in the field of Insurance, especially Takaful, are very scarce and limited to finding the level of awareness of people in different regions. Some of these studies were by Ahmad (2011); Hamid et al (2013); Sherif & Shaairi (2013) and Ustaoglu (2014). In the light of these studies, researchers determined to select the variables of awareness and purchase intentions in the field of Takaful and analyze the relationship and effect of awareness on purchase intentions, which is still a gap in the body of knowledge with reference to Pakistani Takaful market. It will serve as one step ahead by analyzing the effect on intentions of people. This relationship will help in estimating the future actual purchase behavior of people of Pakistan in Takaful industry. So we hypothesize this relationship as

Hypothesis 1: Product Awareness significantly affects purchase intentions of people about Takaful products.

Religious Beliefs & Purchase Intentions

Warsaw (1980) argued that purchase intentions outperform beliefs based upon consumer knowledge and his attitude towards that product. If the consumer is willing to buy that product, he will show his future purchase through his intentions. In this regard belief and other cognitive measure affect this intention. McDaniel & Burnett (1990) investigated the link between religious affiliation and purchase intentions of consumers and found it an effective variable in estimating the future actual buying. Several studies showed a link between religiosity and purchase intention. This variable of religiosity was measured through different dimensions which were best for measuring Christian religiosity. Many models in this regard were made by Glock (1962); Himmelfarb (1975); King (1967); Lenski (1961); O'Connell (1975); Stark & Glock (1968) and Verbit (1970). After continuous criticism and innovation in these measures by Anwar (2007) and Newaz (2014), many Islamic religiosity models were introduced which were afterwards used to measure the link between religiosity and purchase intentions. But still no model is considered as a perfect and a complete model. Many studies were also found in the relationship between religious commitment and purchase intentions. These studies viewed that religious commitment is normally taken as a compulsory part of religion by some rigid consumers. Their narrow mind set and rigidness stick them to use only those products which they think fit in their religious laws, and for Muslims, in the sharia laws (Delener, 1994; Stark & Glock, 1968). Religious beliefs show the level of commitment of a person towards his religion. So there are different categories of people who have different levels of religious commitment and beliefs. Most religious people will show more attitude and intention towards product purchase than those who are less religious, trendy and imaginative (Essoo & Dibb, 2004; Sood & Nasu, 1995). Most religious people have strong beliefs and they are more

conscious in buying products. These beliefs also fall in cultures therefore cultures of different regions and countries affect differently to purchase intentions. A study by Esau & Dibb (2004) stated that cultures based on religions significantly affect the human purchase intentions. They searched on three different religions of Muslims, Hindus and Catholics. They found clear differences in their buying behavior on the same goods. Many studies were found in the relationship of religious commitment, attitude and purchase intentions in different aspects such as genetically modified food (GMF), counterfeit products and foreign-made consumer goods. These all studies showed positive results and effects on purchase intentions (Haque, Rahman, & Yasmin, 2012; Ismail et al., 2012).

Previous studies found were marketed based or based on theories of consumer behavior and reasoned action. Very limited studies were found in insurance sector in relation to religious beliefs, attitude and intentions. In Takaful, these studies are scarce. A recent study in this regard was by the news (2014) in which she found the relationship of religiosity with intention and buying behavior. In her research, she took religious commitment as an independent variable and took religious belief as one dimension of it in the light of previous studies on religiosity. However; for the first time Ahmad (2011) introduced Islamic religious beliefs as a separate variable and investigated its effect on tendency to subscribe with Takaful in Martial Arts practitioners in the university of Utara Malaysia. This study aims to fill the gap in research by analyzing the effect of religious beliefs on purchase intentions of people in the field of insurance, especially in its part of Islamic insurance (Takaful). It is valuable to have a closer look at the effects of beliefs on purchase intentions of various Takaful products offered in Pakistan and to use it in predicting the future actual buying behavior of customers. So we hypothesize these variables and their relationship as:

Hypothesis 2: Religious beliefs significantly affect purchase intentions of people about Takaful products.

Hypothesis 3: Religious beliefs moderate the effect of awareness on purchase intentions of people about Takaful products.

Theoretical Framework

Proposed model

Islamic Religious Beliefs

IV   DV

Awareness   Purchase Intentions
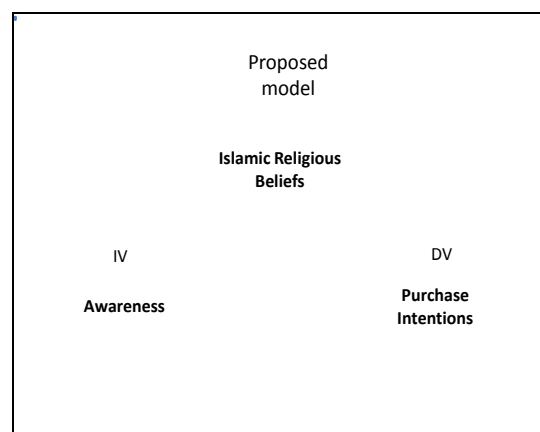
Objective of the Study

In the light of these studies, this paper selected the variety of awareness and purchase intentions in the field of Takaful and attempted to analyze the relationship and effect of awareness on purchase intentions, which is still a gap in the body of knowledge with reference to Pakistani Takaful market. Moreover, the moderator role of the variable, religious beliefs was also analyzed. It will serve as one step ahead by analyzing the effect on intentions of people. This relationship will help in estimating the future actual purchase behavior of people of Pakistan in Takaful Industry.

Research Methodology

This paper attempted to find out the relationship and effect of awareness and religious beliefs on purchase intentions of people about Takaful products offered in Pakistan. Moreover; the role of religious beliefs was also checked as a moderator between awareness and purchase intentions. The finding of the relationship is important as Takaful is an emerging field in Pakistan, especially in health, medical and motor insurance. This paper helps in widening the scope and filling the gap of studies in similar areas of Takaful research.

Sample

Data was collected from 300 people living in Lahore region through convenience sampling method, a non-probabilistic technique, out of which 295 questionnaires were determined usable for research. Demographic results showed a good response rate of 98.33% out of which 60% respondents were male and 40% were female. With respect to age 18.98% respondents were between 18-25 years, 34.57% were between 26-30 years, 28.13% were between 31-35 years, 11.52% were between the ages of 36-40 while 6.77% were more than 41 years. Most of the respondents had income levels between 40,001- 60,000 showing 48.81% and having graduate degrees, 47.79% and masters degrees 47.11% respectively. In terms of marital status, 56.94% were married, whereas 43.05% were single. Most of the respondents were serving in private sector showing 87.45% response rate.

Measures

A tool used in this paper was a combination of a set of published questionnaires. Questionnaires were modified to get the results of required research on five-point Likert scale representations (5 strongly Disagree, 4 Disagree, 3 Neutral, 2 Agree, 1 strongly agree). The questionnaire compiled for this research involved four major parts. First part included demographics, i.e. gender, age, income, education, marital status, occupation sector and any prior purchase of Takaful policy from any Takaful operator (company). Second part included items in the measurement of the variance of 'product awareness' which was further divided into two sections. Section 1 included measurement of product awareness based upon unaided recall and aided recall, based upon the questionnaire of Aaker (1991), whereas section 2 included six questions out of four questions which were taken from the questionnaire of Aaker (1996) and two items from the questionnaire of Yoo et al (2000).Third part included items in the measurement of 'religious beliefs' whereas fourth part comprised of measurement questions of 'purchase intentions' by Lofgren & Li (2010).

Table # 1: Demographic Information

Attributes	Demographic Information
	Percentage Results
Gender	
Male	60%
Female	40%
Age	
18-25	18.98%
26-30	34.57%
31-35	28.13%
36-40	11.52%
More than 41	6.77%
Income	
Below 20,000	2.71%
Rs.20,001- Rs.40,000	27.11%
Rs.40,001- Rs.60,000	48.81%
Rs.60,001- Rs.80,000	16.94%
Rs.80,001- Rs.100,000	2.03%
Above Rs.100,000	2.37%
Qualification	
Matriculation	0.67%
Intermediate /Technical school diploma	2.71%
Graduate degree	47.79%
Masters degree(M.phil)	47.11%
Doctorate	1.69%
Marital Status	
Single	43.05%
Married	56.94%
Occupation Sector	
Government	1.69%
Semi-government	10.84%
Private	87.45%

Moderation technique through 'Hierarchical regression', as stipulated by Cohen and Well (1985), was applied to test the three steps of regression. In the first step, the main effect of the independent variable on dependent variable was checked. In the second step, the main effect of moderating variable (as a second independent variable) on dependent variable was checked whereas in the third step, main effect for interaction term of independent variable and moderating variable on dependent variable was checked to know the moderating effect. The functional form of these models is as under;

$PI = \beta_0 + \beta_1 (AW)\dots\dots\dots$ (Model 1)

$PI = \beta_0 + \beta_1 (AW) + \beta_2 (RB)\dots\dots\dots$ (Model 2)

$PI = \beta_0 + \beta_1 (AW) + \beta_2 (RB) + \beta_3 (AW)*(RB)\dots\dots\dots$ (Model 3)

These models were applied in this study and more models were created due to four different sections of independent variable (PAw). Independent variable naming, product awareness was measured in four sections and for each section data collection method was different. In the first part, respondents were asked to name any Takaful products they were aware of (without giving them any hint

or recall). In the second part, they were asked the same question, but this time aided recall was given by showing them a list of different Takaful products available in the market. In the third section, respondents were asked to tell the names of the products they were aware of and had used before. In the fourth section, six questions of awareness from the published questionnaire of Aaker (1996) and Yoo et al (2000) were used to measure the product awareness among people. Each section was used to measure the awareness among people from different ways. So four models were generated and tested with every section of the independent variable. A fifth and final model was made and tested with the overall results of product awareness. Functional forms of these regression models in this study were mentioned as under:

For 'Y on X' where y denotes purchase intentions and x denotes product awareness, functional form of regression model is;

$$PI = \beta_0 + \beta_1 \text{ (AW)}$$

Awareness or X was further divided into four parts based upon data collection. Data was collected from people based upon 'unaided recall', 'aided recall', 'number of Takaful products used' and 'six items published questionnaire'. To measure their responses and to see the effect of these unaided and aided recalls on purchase intentions, X was further divided into four categories as UnAX (for responses based upon unaided recall), AX (for responses based upon aiding recall), Used X (for responses on asking the number of products used by each respondent) and X1 (comprising of six items used for measuring awareness). Hence the impact of awareness on purchase intentions was checked in four parts and finally the collective effect of all unaided recalls, aided recalls, used products and other six items was analyzed on purchase intentions, which was denoted with X. So, step by step simple regression function form is presented as;

Model # 1

Y on UnAX…………………….. (Model a)

Y on m and UnAX

*Y on m*UnAX*

Where Y= Purchase intentions

UnAX= awareness based upon unaided recall

m= Religious beliefs

$PI_1 = \beta_0 + \beta_1 Aw_1$………… (i)

$PI_1 = \beta_0 + \beta_1 Aw_1 + \beta_2 RB$………… (ii)

$PI_1 = \beta_0 + \beta_1 Aw_1 + \beta_2 RB + \beta_3 Aw_1 RB$ ……….. (iii)

Model # 2

Y on AX…………………….. (Model b)

Where Y= Purchase intentions and AX= awareness based upon aided recall

$$PI_2 = \beta_0 + \beta_1 Aw_2 \ldots\ldots\ldots (i)$$

$$PI_2 = \beta_0 + \beta_1 Aw_2 + \beta_2 RB \qquad \ldots\ldots\ldots (ii)$$

$$PI_2 = \beta_0 + \beta_1 Aw_2 + \beta_2 RB + \beta_3 Aw_2 RB \ldots\ldots\ldots (iii)$$

Model # 3

Y on UsedX ……………………….. (Model c)

Where Y= Purchase intentions and UsedX= awareness based upon actual use of Takaful products

$$PI_3 = \beta_0 + \beta_1 Aw_3 \qquad \ldots\ldots\ldots (i)$$

$$PI_3 = \beta_0 + \beta_1 Aw_3 + \beta_2 RB \ldots\ldots\ldots (ii)$$

$$PI_3 = \beta_0 + \beta_1 Aw_3 + \beta_2 RB + \beta_3 Aw_3 RB \ldots\ldots\ldots (iii)$$

Model # 4

Y on X₁……………………….. (Model d)

Where Y= Purchase intentions and X_1=measure comprising of six items to measure awareness about Takaful products

$$PI_4 = \beta_0 + \beta_1 Aw_4 \qquad \ldots\ldots\ldots (i)$$

$$PI_4 = \beta_0 + \beta_1 Aw_4 + \beta_2 RB \ldots\ldots\ldots (ii)$$

$$PI_4 = \beta_0 + \beta_1 Aw_4 + \beta_2 RB + \beta_3 Aw_4 RB \ldots\ldots\ldots (iii)$$

Model # 5

Y on X ……………………….. (Model e)

Where Y= Purchase intentions and X= collective awareness measure

$$PI_5 = \beta_0 + \beta_1 Aw_5 \qquad \ldots\ldots\ldots (i)$$

$$PI_5 = \beta_0 + \beta_1 Aw_5 + \beta_2 RB \ldots\ldots\ldots (ii)$$

$$PI_5 = \beta_0 + \beta_1 Aw_5 + \beta_2 RB + \beta_3 Aw_5 RB \ldots\ldots\ldots (iii)$$

Results and Discussion

I.   Measuring Product Awareness Based upon Unaided Recall for Takaful Products

Y= Purchase Intentions of people about Takaful products as dependent variable (DV)

X1=Awareness based upon Unaided recall as a first predictor (IV)

M1=Religious Belief of people, a moderator and a 2nd predictor (IV)

X1M1=Interaction term as a 3rd predictor (IV)

On the basis of R square= (0.001, 0.174 and 0.194) from model summary, we gain a table of coefficients as below;

Model # 1

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.129	.052		79.095	.000
	PAw1	-.203	.429	-.028	-.474	.636
2	(Constant)	3.103	.139		22.259	.000
	PAw1	-.208	.391	-.028	-.532	.595
	RB	.290	.037	.416	7.826	.000
3	(Constant)	3.091	.138		22.393	.000
	PAw1	-.269	.388	-.037	-.695	.488
	RB	.295	.037	.424	8.040	.000
	PAw1RB	-1.978	.740	-.141	-2.673	.008

a. Dependent Variable: PI

In the model summary, three steps of regression equation were presented. In the first step of regression analysis, effect of awareness (based upon unaided recall) on purchase intentions of people was entered. The beta (-. 028) was obtained through Pearson correlation and could be interpreted in that fashion. It showed a negative variance in the value of DV and interpreted that target audience in Lahore region, which uses Takaful insurance, reported negative effects of awareness (based upon unaided recall) on purchase intentions of people. Significance level must be p. 05 to show the relationship as significant. In model 1, significance level was.636. Hence model 1 showed an insignificant relationship between awareness and purchase intentions of people about Takaful products. In the second step, the effect of religious beliefs was entered in the above mentioned regression analysis. The effect of awareness (based upon unaided recall) was removed and only effect of religious belief on purchase intentions was entered into the equation to know whether the new variance explained significant new variance in the dependent variable. In this step, religious belief was considered as a main effect. The beta, in this model, was statistically significant (.000) for religious belief (M1).The positive beta (0.416) indicated that higher religious beliefs were associated with higher purchase intentions hence proving our second hypothesis.

And finally, in the third step, we found that the interaction term significantly added new variations in the value of purchase intentions (DV) and yielded a significant p-value of (. 008). Effect for interaction term of awareness and religious belief was entered and its beta showed the result of (-. 141). Explanation of this beta was shown through graphical representation as recommended by Aiken & the West (1991).
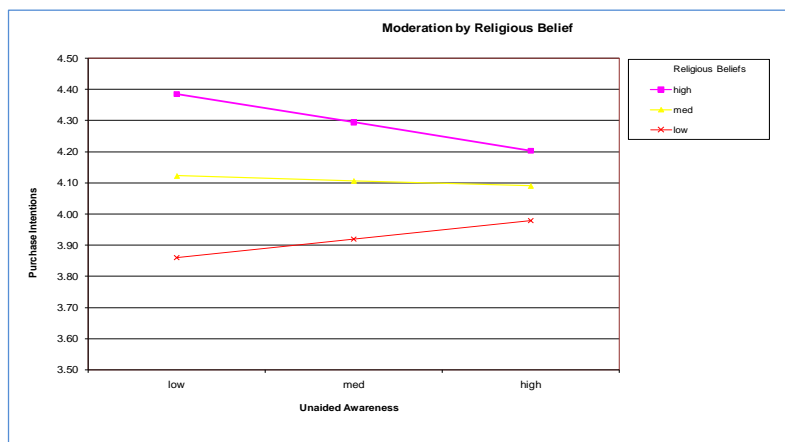
Graph: 1 (Moderation by religious beliefs between awareness based upon unaided recall & purchase intentions)

The most basic approach to construct a moderation interpretation is to compare and contrast the slopes of the lines. The graph was constructed through unstandardized beta values of Model 3, its mean and standard deviation. In the graph it can be seen that the steepest slope occurs for the people who reported low religious beliefs about acceptability of Takaful products. It interpreted high association between awareness and purchase intentions when there were fewer considerations of religious beliefs. People tend to buy more Takaful products when they consider less whether their religion allows its usage or not. On the other hand, flattest slope occurs and shows weakest association between awareness and religious beliefs. If we recall third hypothesis, it was hypothesized that "Religious Beliefs moderate the effect of awareness on purchase intentions of people about Takaful products". This hypothesis was accepted because the increase in religious considerations causes weak association between the two variables. In other words, people start hesitation in buying Takaful products when they consider their religious beliefs which do not allow them any interest-based or risky investment.

Measuring Product Awareness based upon Aided Recall for Takaful Products

Y= Purchase Intentions of people about Takaful products as dependent variable (DV)

X1=Awareness based upon Aided recall as a first predictor (IV)

M1=Religious Belief of people, a moderator and a 2nd predictor (IV)

X1M1=Interaction term as a 3rd predictor (IV)

On the basis of R2-change= (0.013, 0.173 and 0.174) from model summary, table of coefficients is obtained as below:

Model # 2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.028	.048		83.655	.000
	PAw2	.202	.104	.112	1.937	.054
2	(Constant)	3.079	.133		23.079	.000
	PAw2	.029	.098	.016	.292	.770
	RB	.287	.038	.412	7.537	.000
3	(Constant)	3.051	.145		20.983	.000
	PAw2	.019	.100	.010	.185	.854
	RB	.295	.042	.424	7.097	.000
	PAw2RB	.086	.172	.029	.500	.618

a. Dependent Variable: PI

Regression analysis of awareness, based upon Aided recall, showed the positive beta value (. 112) which is statistically insignificant because the p value is not.05. It indicates that there is no relationship between awareness (based upon aiding recall) and purchase intention of people to buy Takaful products offered. Hence our first hypothesis was rejected. In the second step of regression model when the effect of religious belief was entered, it also showed a positive significant variance in the value of DV indicating the beta value of (. 412). The beta for M1 was highly significant (. 000). It showed that a positive increase in religious beliefs about usage of Takaful products highly affects the intentions of people to buy them and proves our hypothesis. The third step of regression between interaction term and purchase intentions indicated positive beta value (. 029) resulting positive variation in the values of other variables but showed an insignificant relationship with purchase intentions. For the explanation of moderation, this relationship was explained through graphical representation asunder:
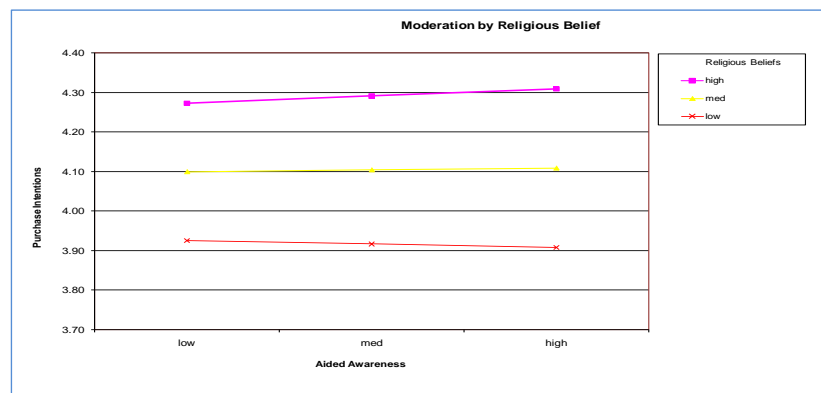
Graph: 2(Moderation by religious beliefs between awareness based upon aided recall & purchase intentions)

In graph 2, steepest slope is showing a high association between awareness and purchase intentions when people showed high religious beliefs about acceptability of Takaful products. We can interpret that hypothesis 3 is provided on the ground that people tend to buy Takaful products when their awareness increases on the basis of aided recalls (i.e. advertisement or conversation) and positive religious beliefs.

I.   Measuring Product Awareness based upon previous use of Takaful products

Y= Purchase Intentions of people about Takaful products as dependent variable (DV)

X1=Awareness based upon previous use as a first predictor (IV)

M1=Religious Belief of people, a moderator and a 2ⁿᵈ predictor (IV)

X1M1=Interaction term as a 3ʳᵈ predictor (IV)

On the basis of R2-change= (0.032, 0.182 and 0.186) from model summary we gain table of coefficients as below:

Model # 3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.008	.041		98.201	.000
	PAw3	.811	.262	.178	3.092	.002
2	(Constant)	3.076	.133		23.205	.000
	PAw3	.440	.247	.096	1.784	.075
	RB	.276	.038	.396	7.331	.000
3	(Constant)	3.090	.133		23.219	.000
	PAw3	.519	.257	.114	2.021	.044
	RB	.271	.038	.390	7.164	.000
	PAw3RB	-.502	.455	-.061	-1.103	.271

a. Dependent Variable: PI

Regression analysis of the Model 1 showed a positive beta value of (. 178) and significant relationship between awareness (based upon previous use of Takaful products) and purchase intentions of people. Weak but positive relationship showed that awareness, based upon previous experience, positively affects purchase intentions up to some extent. Hence our first hypothesis was proved. In the second model, significant beta value of (. 396) also showed weak but positive correlation and showed that religious beliefs affect the purchase intentions and proved the second hypothesis. In the third model; beta value of (-. 061) explained negative variance in the value of the dependent variable. Moderating effect was explained through graphical representation when unstandardized beta values of Model # 3 in the graphical data entry were entered.
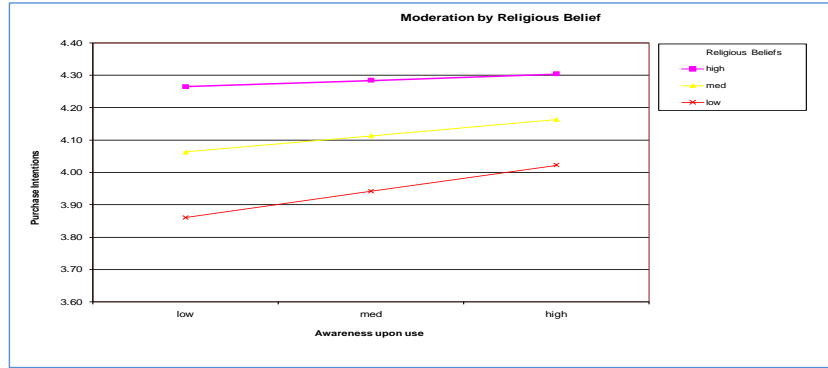
Graph: 3(Moderation by religious beliefs between awareness based upon previous use & purchase intentions)

All the three lines were showing positive association between awareness and purchase intentions of people, but the steepest slope (high association) occurred when religious beliefs were low. On the other hand, the line became flat (weak association occurred) as the moderating effect of religious beliefs was increased. It can be interpreted that after experiencing Takaful products and having increased awareness about those products, people tend to leave buying them in the future or their intentions become less for future purchase. The hypothesis was proved on the ground that religious beliefs moderate the effect of awareness and diminish the purchase intentions of people.

II.   Measuring Product Awareness based upon Survey Questions

Y= Purchase Intentions of people about Takaful products as dependent variable (DV)

X1=Awareness based upon questionnaire items as a first predictor (IV)

M1=Religious Belief of people, a moderator and a 2nd predictor (IV)

X1M1=Interaction term as a 3rd predictor (IV)

On the basis of R2-change= (0.230, 0.288 and 0.327) from model summary we gain table of coefficients as below:

**Model # 4**

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.071	.113		27.162	.000
	PAw4	.263	.028	.479	9.352	.000
2	(Constant)	2.656	.138		19.182	.000
	PAw4	.204	.030	.371	6.848	.000
	RB	.183	.038	.264	4.864	.000
3	(Constant)	2.455	.143		17.123	.000
	PAw4	.240	.030	.437	7.923	.000
	RB	.191	.037	.275	5.202	.000
	PAw4RB	.149	.036	.210	4.117	.000

a. Dependent Variable: PI

In this analysis, awareness data were collected through 6 survey questions. Model # 1 regression analysis showed highly significant results and positive beta (. 479) showed that awareness among

people (based upon survey questions) positively and highly affects their intentions. Hence our first hypothesis was proved here when people actually know about Takaful and are well aware of offered products. Model 2 also showed positive beta value (. 264) showing a positive and significant effect of religious beliefs on purchase intentions and proved the second hypothesis. In Model 3, an interaction term of awareness and religious beliefs showed a highly significant relationship between interaction term and purchase intentions and interpreted that religious beliefs significantly moderate the effect of awareness on purchase intentions. Large and positive relationship through the beta of (. 210) was shown through graphical representation.
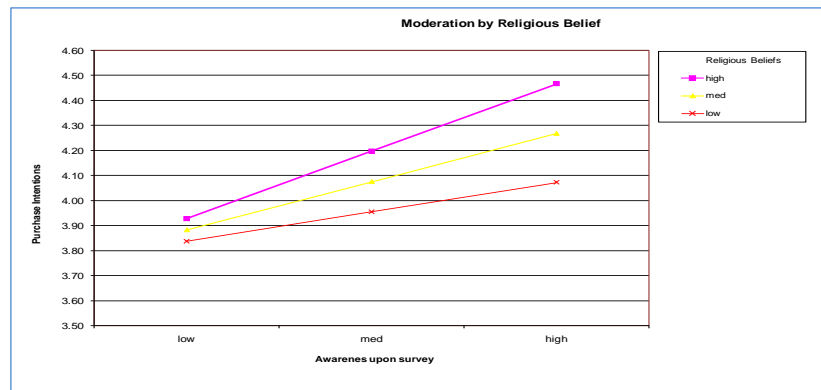
Graph: 4 (Moderation by religious beliefs between awareness measured through survey questions & purchase intentions)

When awareness among people was collected through questionnaire results comprising of six items, it showed different results. Flattest slope (weak association) occurs when people reported less consideration for religious beliefs, whereas steepest slope (high association) occurs when high religious beliefs are entered. It means religious considerations and beliefs positively moderate the effect of awareness on intentions of people to buy Takaful products.

III. Overall Awareness measure(based upon Unaided recall, Aided recall, previous use & Survey questions about Takaful products offered in market)

Y= Purchase Intentions of people about Takaful products as dependent variable (DV)

X1=Overall Awareness as a first predictor (IV)

M1=Religious Belief of people, a moderator and a 2nd predictor (IV)

X1M1=Interaction term as a 3rd predictor (IV)

On the basis of R2-change= (0.157, 0.233 and 0.249) from model summary we gain a table of coefficients as below:

Model # 5

<div align="center">

Coefficients^a

</div>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.342	.106		31.413	.000
	PAw5	1.137	.154	.396	7.377	.000
2	(Constant)	2.837	.138		20.535	.000
	PAw5	.773	.162	.269	4.777	.000
	RB	.212	.039	.304	5.396	.000
3	(Constant)	2.698	.148		18.206	.000
	PAw5	.881	.166	.307	5.294	.000
	RB	.225	.039	.323	5.728	.000
	PAw5RB	.500	.203	.134	2.461	.014

a. Dependent Variable: PI

Model # 1 regression analysis was run on overall awareness (which includes all above mentioned medium of data collection of awareness) and the result showed significant positive beta (.396) value which interprets strong relationship between awareness and purchase intentions. It also indicates that as awareness increases, it affects positively on purchase intentions and increases the probability of future purchase decisions of people about Takaful products. Hence first hypothesis was proved. Model 2 also showed a significant positive beta value of (. 304) for the main effect of religious beliefs. It showed that religious beliefs significantly affect purchase intentions of people. Hence second hypothesis was proved. In Model 3, an interaction term of collective awareness and religious beliefs also showed significant beta value (. 134) and showed clear variation in the value of the dependent variable. It shows that the interaction term exists between the two predictors and a dependent variable. Hence third hypothesis was proved. Moderation was checked through graphical representation.
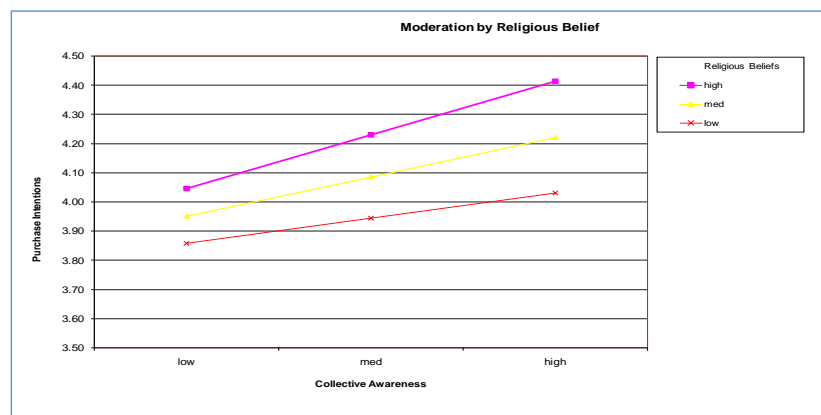
Graph: 5 (Moderation by religious beliefs between overall awareness & purchase intentions)

When the results of collective awareness were entered for the graphical representation, they showed that the flattest slope (weak association) occurred when there was low religious consideration, whereas slope became steeper and showed the strongest association between awareness and intentions when considerations for religious beliefs increased. The hypothesis was proved showing that religious beliefs positively and significantly moderate the effect of awareness on intentions of people to buy Takaful products offered in the market.

Conclusion

The research showed different and interesting results for each step of awareness. For model 1 when people were not much aware of Takaful products, the results of the study showed a negative association between product awareness and purchase intentions as the moderating effect of religious beliefs increased. However; in Model 2 & 3 when people got aware and used Takaful products, the results were entirely changed. Injection of religious beliefs showed more significant results and showed a positive and a cumulative association between product awareness and purchase intentions. On the other hand; Model # 4 & 5 when collective results of product awareness were entered, they clearly showed a strong association between these two variables when the strong moderating effect of beliefs was entered. The results of regression were in similarity with the studies conducted by Musadik (2011) and Ustaoglu (2014). In short; People tend to buy more Takaful products when they are more aware and know that the product is religiously allowed.

Limitations of the present study

This research is limited to one city of Pakistan and should be expanded to other regions to get generalized results. Research on each Takaful product should be done separately to know about different levels of awareness about each product line. Hence better advertisement plans could be made about specific products. Moreover, other Islamic modes of finance e.g. sukuk should also be covered in finding the more broad share of the Pakistan Islamic finance market.

Future prospects

This is the first study of this kind using the above mentioned variables in the Pakistan Takaful market. There is a hope that it will serve for good Takaful market decisions. This study is very helpful for Takaful operators of Pakistan to know the basic factor of sales increase. Takaful operators can advertise more strongly and increase awareness among people on the basis of religious factors which clearly allow usage of Takaful products. This study is also helpful in Shari'ah appliance research centers. For researchers, this study serves as a new thought and enhances the scope for further research in the field of religious beliefs. Govt. Takaful agencies can use this study for better understanding of the current acceptable ratio of Takaful products among people who consider their religion more. Hence, future contracts with other countries can be made in the light of this kind of research.

References

- Aaker, D. (1996). Measuring brand equity across products and markets. *California Management Review*, 38, 3, 102-20.
- Abdul Rahim, A.W. (2006). *International Conference on Takaful*. Langkawi, Malaysia,.
- Ahmad, S.H. (2011).Factors influencing the tendency to subscribe with Takaful among Martial Arts practitioners.*University Utara Malaysia, college of business , 806136*.
- Aiken, L.S., & West, S. G.(1991). Multiple regression: Testing and interpreting interactions. *Newbury Park*, CA: Sage.
- Amin, H. (2007). An analysis of mobile credit card usage intention.*Information Management and Computer Security, 15*(4), 260-269.
- Anwar, H. *Islamic Finance: A Guide for International, United Kingdom*.*GMB Publishing Ltd*., (2008).

- *APA 6th edition manual guide*. Retrieved from: http://www.utsa.edu/trcss/docs/APA%206th%20Edition.pdf
- Ayub, M. (2009). An Introduction to Takaful – An Alternative to Insurance.*Karachi: State Bank of Pakistan.*
- Bashir, D.M. (2012). Awarenass, service qualit and product effects on satisfaction of islamic banking in brunei darussalam. *2nd International conference on management (2nd ICM 2012) proceeding.Sultan sharif ali islamic university-Brunei Darussalam: ISBN: 978-967-5705-07-6.*
- Berry, W.D. (1993). Understanding regression assumptions. Newbury Park, CA: Sage.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioural sciences. (2nd edn).* New York: Erlbaum.
- Delener, N. (1994). Religious contrasts in consumer decision behaviour patterns: Their dimensions and marketing implications. *European Journal of Marketing,* , 28(5), 36.
- Essoo, N., & Dibb, S. (2004). Religious influences on shopping behaviour: An exploratory study. *Journal of marketing management, , 7*(8), 683.
- Fox, J. (1991). *Regression Diagnostics.* Newbury Park, CA: Sage.
- Glock, C.Y. (1962). On the study of religious commitment. *Journal of Religious Education,57*(4), pp.98.
- Hamid, M.A., Husni, S & Palil, M.R (2013). The Ownership of Islamic Insurance (Takaful) in Malaysia. *International Journal of Advances in Management and Economics , 2*(6),22-30.
- Haque, A., Rahman, S., & Yasmin, F. (2012). Exploring the relationship between religiosity, ethnocentrism and corporate image: young muslim consumers perspective.*Journal of Business and Policy Research* , 7(1), 60-71.
- Himmelfarb, H.S. (1975). Measuring religious involvement. *Social Forces*, 53, 606-618.
- Ismail, K., Vivishna, S., Khurram, W., & Jafri, S.K. (2012). Evaluating consumer purchase intentions for genetically modified food in Malaysia: A comparative study of Muslim and Non-Muslim consumers. *Journal of Applied Sciences, Engineering and Technology*.
- Keppel, G., & Zedeck, S. (1989).*Data analysis for research designs: Analysis of variance and multiple regression/correlation approaches*. New York: Freeman.
- Khan, M.S., Hassan, M.K., & Shahid, A.I. (2010). Banking behavior of islamic bank customers in Bangladesh. *Journal of Islamic Economics, Banking and Finance*.
- King, M.B. (1967). Measuring the religious variable: Nine proposed dimensions. *Journal for the Scientific Study of Religion,* 6, 173-190.
- Lenski, G. (1961). *The Religious Factor: A Sociological Study of Religion's Impact on Politics, Economics and Family Life.* Connecticut: Greenwood Press.
- Lofgren, E., & Li, J, (2010). *Brand Loyalty- A study of the prevalent usage of celebrity endorsement in cosmetics advertising.* University UMEA.
- McDaniel, S., & Burnett, J. (1990). Consumer religiosity and retail store evaluative criteria.*Journal of the Academy of Marketing Science* , 18(2), 101-112.
- Mohd. Ma'sum, B. (2001).Principle of Contract Affecting Takaful and Insurance – compared.Part 1: Arab Law Quarterly (London).
- Newaz, F.T. (2014). Religiosity, generational cohort and buying behaviour of islamic financial products in Bangladesh.Victoria University of Wellington.
- O'Connell, C.M. (1975). Dimensions of religiosity among Catholics. *Review of Religious Research , 16*(3), 198-207.

- Online resource: Moderation Mediation Graph Help Centre - *School of Psychology - Victoria University of Wellington.htm.*

- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnila, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research,14*(3), 224-35.

- Rahim, F.A., & Amin, H. (2011). Determinants of Islamic Insurance acceptance: Anempirical analysis.*International Journal of Business and Society,* 12(2),37 - 54.

- Riaz, S. (2009). Car islamic insurance- influence of age, education & income in Pakistan and U.A.E: A Comparative Study. *International Review of Business Research Papers , 5*, 457-467.

- Saleh, N. A. (1986). Unlawful gain and legitimate profit in islamic law. riba, gharar and islamic banking. Cambridge: Cambridge University Press.

- Smith, C., Winterman, V., & Abell, A. (1998). The impact of information on corporate decision making in the insurance sector.Library Management, 19(3), 154-173.

- Sood, J., & Nasu, Y. (1995). Religiosity and nationality: An exploratory study of their effect on consumer behavior in Japan and the United States.*Journal of Business Research , 34*(1), pp.1-9.

- Stark, R.S., & Glock, C.Y. (1968). American Piety*. Berkeley: University of California Press.*

- Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3rd edn). Mahway, NJ: Lawrence Erlbaum.

- Swartz, N.P., & Coetzer, P. (2010). Takaful: An islamic insurance instrument. *Journal of Development and Agricultural Economics , 2*(10), 333-339.

- Tabachnick, B.G., & Fidell, L.S. (2001). *Using multivariate statistics (4th edn).*New York: HarperCollins.

- Ustaoglu, M. (2014). Public Awareness, Understanding and Attitudes towards Interest-free Insurance (Takaful) Services Evaluation by Education Level: Survey Based on Empirical Analysis for Turkey. *Journal of Asian and African studies*.

- Verbit, M.F. (1970). *The components and dimensions of religious behavior: towards a reconceptualization of religiosity.* New York: Random House.

- Wahab, A.R., Lewis, M.K., & Hassan, M.K. (2007). Islamic Takaful: business models, shariah concerns and proposed solutions. *Thunderbird International Business Review, 49(3),* 371–396.

Impact of Capital Structure on Profitability Empirical Evidence of Non-Financial Firms Listed on Karachi Stock Exchange

Muhammad Usman[1] & Sana Saleem[2]

Abstract

This study examined the impact of capital structure on profitability. Data is collected from 71 non-financial firms listed on KSE (100 index) from the period of 2008-2013. Random panel regression methodology is used to measure the association between capital structure and the firm's profitability. The capital structure is measured by debt-to-equity ratio, short term debt to total assets, long term debt to total assets while the return on equity is used as a proxy of profitability. The results of this study show that STD has a positive and significant impact on ROE while LTD has a negative and insignificant effect on ROE. Debt to equity ratio also has a positive and insignificant relationship with ROE. The result shows that management of firms listed on KSE should use more current liabilities as compared to long term debt because it increases the profitability and wealth of shareholders.

Keywords: Short Term Debt, Long Term Debt, Debt to Equity and Return on Equity

Introduction

The basic purpose of this research is to find out the effect of capital structure on profitability. The capital structure is an important decision that organization has to take with great care and planning because it affects the profitability of the firm. The capital of the company, According to the Akinsulirre (2002) is an " amount of money possessed by a business firm or a person that can be invested from one point of time to another in order to earn profits but with the intention not to reduce the value" capital structure is a way through which firm finance its operations. Basically, it is a combination of equity and debt, which represent the ordinary share, long term debt, preference share and short term debt. There are 3 ways through which firm finance its operations. These include, issuing shares, debt and retained earnings. Debt financing is a commitment of firm to repay backs the interest and principal to the lender at the end of the specified period and if the firm is unable to pay interest and principle payment over the particular period it will become the cause of financial distress and ultimately lead to bankruptcy. Equity financing is the ability of the firm to raise capital from general public by offering the ownership right by issuing the share certificate. Equity holders become the ultimate owner of the firm and the company rewards them with dividend from the profit earn by the company.

The relationship between capital structure and firm value has been explained by Modigliani and Miller (1958) in the past decade. At that time, Modigliani suggested that capital structure does not affect the firm value in the perfect market where there is no transaction cost and taxes. After that in (1963) he

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corrected and proved that capital structure affect the firm value by considering the existence of taxes and suggested that debt provide tax benefit and firms should use more debt to increase the profit by taking the advantage of the tax shield. Other theories like pecking order theory (POT) and static tradeoff theory (TOT) also explains the way through which firms can choose capital structure. According to the pecking theory, firms should rely on the internal financing and then turn to the debt financing if the additional capital require and at the end use the equity financing.

If a firm has good capital structure with the mixture of equity and debt, it can get the competitive advantage from other firms. Research has shown that firms must use the mixture of debt to equity, if it uses 100 % equity, then there is a lot of problems such as higher taxes and poor governance and if the firm use only debt than all the profit will be distributed to creditors and they only care for their principle and interest payment. According to POT, firms those are profitable and generate more earnings are expected to use less debt than the firms who are generating less earning. The static tradeoff theory suggested that firms should use debt at that level where benefit of debt equal to the cost of debt. However, as said by Myer (2001), each theory has its own postulation, but not a single theory provide a complete picture to put into practice the capital structure.

There are various studies on the relationship between capital structure and profitability, but there is no consensus about the positive and negative relation between profitability and capital structure. For example, Abor (2005) found a significant positive relation between total debt and profitability while Alemaida and Campello (2007) found the inverse relation between profits and debt financing. So there is a need to examine the effect of capital structure on profitability due to the lack of this consensus about what meet the criteria of optimal structure.

The purpose of this research is to contribute to the knowledge on the impact of capital structure on profitability according to current trends. This research will contribute to help the manager to make a good decision about the capital structure of the firm. It helps the manager to choose the component of the capital structure that enhance the profitability and performance of the firm.

Objectives of the Study
- To determine the impact of capital structure on firm profitability
- To determine an optimal capital structure that improve the profitability of firm

Significance of the Study
The capital structure is an important factor that influences the profitability of the firm. By investigating the relation between capital structure and profitability will clarify that capital structure has a negative or positive relationship to profitability which will help the manager in benchmarking the capital structure which improve the profitability. Changes in capital structure affect the profitability. For example, if the POT holds, increase in debt ratio will decrease the profitability. On the other hand, if the TOT holds, deviation from the optimal capital structure will also decrease the share price. So it is important to check the association between capital structure and profitability to make effective and sound capital structure decision.

Literature Review
The capital structure is a way by which firms, finance its activities through debt and equity. Basically, it is a mixture of equity and debt, which is needed to finance the asset and activities of the firm. It involves the debt, equity, mixture of equity, debt and retained earnings. A firm can use any mixture of debt and equity to finance its assets where it can maximize the shareholder wealth and market value of the firm. All the

firms do not use the standard capital structure because each firm is different in their financial need and have different financial decisions. So it is difficult to find the capital structure where the cost and risk is minimized and that can maximize the value of shareholder and increase the profit. There are different theories available that provide clear direction and help in making the capital structure decision.

Capital Structure Irrelevance Theory

Modigliani and Miller (1958) were those who had laid the foundation of capital structure. They gave a theory named "Capital structure irrelevance" and found that capital structure does not have any impact on the market value of the firm in the perfect market by assuming the absence of taxes, transaction cost and companies can get the loan at the same rate. This is inconsistent with the real world.

Capital Structure relevance Theory

After that in 1963, M and M corrected and proved that capital structure affects the firm value by considering the existence of taxes. They explain that debt provides the tax benefit in the form of lower tax payment because interest payments are tax deductible. They also suggest that firms can maximize the value by using more debt due to the tax shield benefit.

Pecking Order Theory

Modigliani and Miller theory was criticized due to some weakness and irrelevance assumption in the real world. However, their work has laid the foundation of capital structure and for other theories that are suggested by the other researcher by taking into account the other market imperfections. Myers and Majluf (1984) expanded the M&M work and developed the pecking order theory and suggest that firms should choose internal resources over external resources and should rely on internal financing, which includes retained earnings and turn to the debt financing only if the additional capital require and at the end use the equity financing. This preference is due to the asymmetric information and agency cost. From a firm perspective, debt financing is more costly because insider has more information than outsiders, and investors or outsider knows that so they demand a high return on their investment. Equity financing is costly because the investor has perception equity is more risky than debt because the firm will issue shares only when they are overvalued not when they are undervalued. So they also demand higher compensation on equity than debt. So from an insider point of view, debt financing is better than equity financing and internal financing is more secure source of financing.

There are various studies that support the pecking order theory. Abiodun (2010) find out the link between debt financing and profitability in beverage and food sector of Nigeria for a period of 10 years from 2000 – 2009. Panel data were generated and analyzed by using regression analysis. Capital structure was measured by the size, debt financing, equity financing, debt to equity ratio and profitability was measured by the ROA ratio. He analyzed that there exist an inverse relationship between profitability and debt. This is due to the high cost of borrowing in the country. This suggests the companies' management to efficiently use the borrowed funds to increase the profitability. Reheman et al (2007) found the relationship between profitability and capital structure in Lahore stock exchange. They found a negative relationship between debt and operating profit and positive relation between equity and operating profit. They explain that more long term debt increases the fixed cost lead to decrease in profit. Shubuta and Alsawalhah (2012) studied the same relationship with industrial firms listed on the Amman Stock Exchange during the period of 2004-2009 and found the inverse relationship between debt financing and profitability and positive link between size and sales growth on profitability. They explain that during the economic downturn, firm cash flow goes to down, which cause not only decrease in

profitability of firms, but also increase the default risk of service of debt interest and principle payment and suggest that firm should use equity financing as main financing option. Niresh (2012) said that high interest rate on debt lead to decline in profitability.

Medan (2007) finds out the association between capital structure and overall performance on Indian firms. His study focus on how the debt to equity combinations plays an important role in the overall performance of Indian firms. He found that some firms perform very well with leverage and some are negatively affected by debt. He found that the firms that have gearing ratio 50%-85% can earn more return on equity while the excessive debt using firms does not fall in this category. The firms that have low and high gearing ratios should make an effort to improve their performance by taking different combinations of debt–equity whether it is increasing or decreasing. Indian firms use 30-70, 40-60% debt and equity and other needs are fulfilled by reserves and surplus. This study also reveals that the firms that operate at the breakeven point also use the debt to get the profit and the point where the ROE is higher is perfect combination that not only insures that risk is controllable but also it make the more return for shareholders.

Eriotis et al (2000) examined the link between debt to equity and profitability and for that purpose they collected the data of various industries from 1995-1996.The study reveal that the profitability of firms depends on debt to equity ratio and this ratio vary from firm to firm. They found the negative association between profitability and debt to equity. The reason behind this result is that either the capital cost is more than the benefit of the investment or the firms who prefer self finance are more profitable than those who use the borrowed funds to finance the assets. In other words, this study found that the firms who borrowed fund are less profitable than the firms who make use of the equity.

Trade off Theory

On the other hand, trade off theory developed by M&M in 1958, suggested that profitable firms use more debt to get the profit than equity. This statement is defined in such away by (Raheman, Zulfiquar and Mustapha, 2007)

- Firms that use more debt get more tax benefit because interest payment decreases the earning and taxable income.
- A firm that has low profit, there is more chances it become bankrupt because they unable to pay interest payment and lose investor trust, on the other hand, if the firm has more profit, there is minimum chances of insolvency and more likely to earn profit.
- If the firm is profitable, chances of bankruptcy are minimum and creditors will have more trust on company and give loan at cheap rate

Myers (1984) found that capital structure adopted by the firm depends on profitability and ability to generate the internal fund. The firm will rely on debt financing if the internal funds are not adequate before looking for the equity financing.

The capital structure decision can be viewed from management and ownership perspective. In this case, the capital structure decision is based on the goals and interest of those who have the power to control the firm. When the capital structure policy is in control of the owners who have a high stake in the company, they will prefer debt financing because it is a good way to check the control of the manager who is appointed to run the firm. At the same time, the owner does not want to dilute or reduce the ownership, control to new shareholders by selling their shares. On the other hand, if the managers hold the control, they will less prefer the debt because of the risk and disciplinary role play of the debt. (Pin dado and Torre, 2004)

Pinegar and Wilbricht (1989) examined the positive association between debt financing and profitability, they explain that when the firm uses more debt, agency problem will be reduced so If the manager invests in risky or nonprofit investment, then he will become unable to pay off the interest and principal payment, and in case of nonpayment of debt creditors will liquidate the company and manager will have to lose the employment or diocesan right. Ooi (1999) also examined the positive association between debt financing and profitable, He argued that profitable firms are more likely to use debt because they are more attractive for lending institutions and get a loan at cheap rate. Dessi and Robertson (2003) found that low growth firms depend more on borrowing to take the advantage of growth opportunities and invest the money in a profitable investment, which enhance the performance and profitability of firms.

Mesquita and Lara, (2003) investigate the link between profitability and capital structure in Brazilian firms. According to them, it is very difficult for firms to make a decision whether to use equity or equity and it becomes even more difficult in the presence of an unstable market environment. They try to find the impact of short run and long run financing on return to equity and used ordinary least square method. They found the positive impact in the short run and inverse relationship in the long run. They explained this relation in such a manner that if the firm uses resources in the short term it will definitely use short term debt because equity financing is costly then debt. They also explain that long term financing is more costly than short term in Brazilian economy due to high rate of interest.

Abor (2005), Christopher et al. (2006), Amjad (2007) and Ahmad et al (2011) found the positive link between profitability and debt, they explained that with the increase in profitability, firms have more free cash flows and ability to pay back debt increases and interest payment reduce the taxable income. Firm goodwill and image improves in the market, which reduce the agency and asymmetric information cost.

Khan (2012) determined the effect of capital structure decision on firms' performance by collecting the data of 36 engineering sector firms (listed on KSE) during the period of 2003 -2009. He performed the analysis by using the pooled OLS regression technique. He found the significant, but a negative association between financial leverage and profitability. He found that the engineering sector in Pakistan mostly depends on short term debt because of underdeveloped debt market and inefficient equity market. In Pakistan, the bank is the main source of finance, due to the weak regulatory structure and asymmetric information; there are very strict debt covenants that force to use less debt.

Balder and Saeed (2013) also found the effect of capital structure on corporate performance by collecting the data of 10 sugar firms (listed on KSE) during the period of 2007-2011.They found the negative association between STD and ROA but found the positive link between LTD and ROA. According to them, as a firm increases the leverage, its performance decreases because short term debt is more expensive as compared to long term, so firms should also try to use the long term debt to meet its daily needs.

The purpose of this research is to find out how the capital structure affects the profitability of the companies listed on KSE (100). Capital structure is an important decision because its effect the profitability of firms and when the manager knows that how it effects he can make an effective and efficient decision in a particular context to remain competitive.

Hypothesis

H1: There is a significant impact of debt-to-equity on profitability
H2: There is a significant impact of short term debt to total assets on profitability
H3: There is a significant impact of long term debt to total assets on profitability

Variables of the study

Dependent variable: Profitability refers to the ability of the firm to generate profit on a regular basis. Profitability ratios are used to measure the performance and profitability of the firm. Ratios basically used to make the judgment about profitability and to benchmark the performance by summarizing the larger quantities of financial data. To measure the profitability, return on equity is used as a dependent variable. Some authors such as Efobi (2012), Mesquita and Lara, (2003) and Anthony & Chinaemerem (2012) and others also used this measure in their studies.

ROE basically measures the amount of net income earned on the capital invested by equity shareholders. It measures the company's profitability by showing that how much profit earned by the company with those funds invested by the shareholders. It is measured by dividing a company's net profit by its total assets. Sometimes this is referred to as "return on investment". ROE is displayed as a percentage and computed as

ROE=Net income / equity

Independent Variables

The capital structure is an independent variable which is measured by debt-to-equity ratio, short-term debt to total assets and long-term debt to total assets. Arbor (2005) and Shubita (2012) used these measures in their studies.

Debt to equity ratio: This ratio measure**s** how much the debt is used by firm as compared to equity. This ratio is important for creditors because they want to assure their principle and interest payment. Debt to equity ratio is calculated by the dividing the total debt to total equity. Many researchers used debt to equity ratio as an important measure of capital structure. (Badar and Saeed, 2013; Talib, 2014 and Noreen et al.2013).

Short term debt to total asset: This ratio measures what percentage of short term debt is used to finance total asset. Short term debt is a type of debt which matures within one year. This ratio is calculated by current liabilities divided by total asset. Rehman et al (2012) and Badar and Saeed (2013) also used this measure in their study.

Long term debt to total assets: This ratio measures how much long term debt is used to finance the total asset. Long term debt is a type of debt which is taken for more than 1 year. This ratio is calculated by dividing the non-current liabilities by total assets. (Bader and Saeed, 2013).

Research Methodology

Population: The Population of this study includes all the firms listed on KSE. The sample consists of non- financial firms listed on KSE (100 index) during the period of 2008 to 2013. Financial firms are excluded because their need to leverage and financial characteristics is different from non financial firms. Balance sheet structure of financial firms (insurance companies, banks and investment trust) is also different from the non financial firms, for that reason, financial firms are excluded from the sample. Firms with incomplete financial information during the period of the study are also excluded. There are total 73

non financial firms listed on a KSE 100 index. Panel data are used in this study that is a combination of both the cross sectional and time series data.

Sampling technique: In this study, the non probability sampling technique is used because each firm does not have an equal chance of selection. A quota sampling technique is used and only the non financial firms listed on the Karachi stock exchange (Kse-100) index are selected.

Data collection: Secondary data is used for this study and data is collected from the annual financial statements of the companies i.e. balance sheet and income statement. It also includes the articles and KSE published reports.

Analysis Tool: To test the relationship between capital structure and profitability, random panel regression methodology is used. The random effects model is used based on the Hausman (1978) test. Eviews is used for data analysis. Normality and linearity of data are also checked.

Model Specification

ROE = β_0 + $\sum \beta \chi it$ + μ

Where

ROE = measure of profitability that shows the returns on capital invested by shareholders

ao = the regression intercept

β = the regression coefficient

Xit = different independent variable for profitability that is used in this model

μ = the error term that explain the impact of other variable that is not included in model

Relationship between the capital structure and profitability is measured by testing the following model

ROE = β_0 + β_1RDE + β_2RSTDTA + β_3R LTDTA + μ

ROE = f (RDE, RSDTA, LDTA)

Where

ROE = return on equity is used as dependent variable. It is measure of company performance

RDE = ratio to debt to equity

RSTDTA = ratio of short term debt to total asset

LTDTA = ratio of long term debt to total asset

Results and Analysis

Descriptive Statistics

	ROE	STD	LTD	DE
Mean	0.1976	0.3417	0.1460	1.5839
Median	0.1838	0.2993	0.0918	1.0306
Maximum	1.2546	2.3729	1.1554	15.0117
Minimum	-0.6357	0.0000	0.0000	-4.0842
Std deviation	0.2175	0.2341	0.1583	1.9815
Observations	405	405	405	405

Mean value of return on equity of the firms listed on the Karachi stock exchange for the period of 2008-2013 is 0.19 shows that on average firms are not performing well. This poor performance indicates the fact that firms listed on KSE are facing the downfall from the period of 2007-2011 because of global financial crisis, internal economic and political instability. (Mushtaq et al., 2014). The mean of the ratio of debt to equity is 0.41 and the median is 1.042 shows that firms listed on the Karachi stock exchange use more debt as compared to equity. The mean of the ratio of STD to total asset is 0.34 shows that 34% shows that 34% asset are financed by short term debt. This shows that firms listed on the Karachi stock exchange depend more on short term debt because the bond market in Pakistan is not so developed. It is also discouraged by the state bank to use the long term debt while the mean of the ratio of the LTD to total asset is 0.14 shows that 14% of total asset are financed by long term debt. It shows that it is not significant and preferred way of financing to use long term debt to finance the assets. This is due to the fact that when the firms rely more on short term debt due to underdeveloped debt market, the only option for the firms to get long term financing is to borrow from the banks, but they put the restrictive covenant that firms has to fulfill for getting the continues supply of fund which makes it unfavorable for these companies to get the capital by this source of financing (Khan, 2012; Sheikh and Wang, 2011). There are total 405 observations.

Data Analysis

Dependent Variable: ROE				
Method: Panel EGLS(Cross – section random effects)				
Sample: 2008-2013				
Included observations: 405				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	0.1405	0.0207	6.7894	0.000
STD	0.1175	0.029448	3.990404	0.0001
LTD	-0.002574	0.078316	-0.032871	0.9738
DE	0.007991	0.009919	0.805657	0.4209
R-squared	0.025	**Adjusted R-squared**	0.018	
Value of Durbin Watson		1.96		

Table1 also shows that short term debt has a positive and significant impact on profitability and coefficient 0.11 shows that 11 % variation in profitability is explained by short term debt. It means a 11 % increase in the profitability can be achieved by 1% increasing the short term liabilities. This relationship is confirmed by Abor (2005) and Amjad (2007) who find the results similar with us. So H2 is accepted and there is a significant relationship between short term debt and profitability.

The regression result of long term debt to total asset shows the negative impact on profitability. The regression coefficient (-0.002) means there is an inverse relationship between the long term debt and profitability but it is insignificant, so we cannot use the result for the policy purpose and for decision making. This relationship is confirmed by San & Heng (2011) and Lara and mesquite (2003). So H3 is rejected.

Similarly, debt to equity ratio also shows the positive and insignificant impact on profitability which is consistent with the study of Talib (2014). So H1 is rejected and there is an insignificant relationship between debt equity ratio and profitability.

The adjusted R square, also called the coefficient of determination is the percentage of variance in the dependent variable explained by the independent variables and is 2%.It means 2% variation in model is explained by independent variables which shows that the independent variable has not very strong relationship with dependent variable and other variables also affects the profitability.

Value of Durbin Watson test is 1.96 which is close to 2 which mean the existence of dependence of error term between the successive units of the error term is unlikely. So there is no serial correlation.

To remove the biases of the results multicollinearity is accessed by Variance Inflation Factor (VIF) which is ideal if the value of VIF is less than 4. So VIF for this model is 1.01 which shows the absence of the problem of multicollinearity Unit root test is applied to check the existence of variance among regressors as well.

The Breusch pagan test is applied to check the heterocedascity of data where the tabulated value (7.81) is greater than the calculated value (7.45) which shows that there is homoscedascity and data is normally distributed among the error term throughout the regression line.

Conclusion

Current study finds out the association between capital structure and profitability by taking the data of firms listed on KSE (100 index) during the period of 2008-2013.For this purpose, random effect panel regression methodology is used. Results of financial variables indicate that there is a significant positive relationship between short term debt and profitability. Such positive association recommends that financing by mean of debt expand the profitability of firms because the main part of firms listed on KSE financial structure includes short term debt, which is a cheaper way of financing as compared to long term debt. Short term debts are less expensive because low interest rate is paid on short term loans which increase the profitability. For the small and medium firms in Pakistan, it is difficult to access capital market due to the practical and cost difficulties. The findings of the current study are consistent with the Abor (2005), Amjad (2007) and Ahmad et al (2011). Debt to equity ratio has an insignificant positive relationship with profitability. Long term debt also has negative and insignificant relationship with return on equity. These results are consistent with the study of Talib (2014).

The result of the study shows that firms listed on the Karachi stock exchange adopted the capital structure on the basis of the pecking order theory. Due to the underdeveloped bond market as well as the lack of investment culture in Pakistan, firms have to face the difficulty in getting the capital. Therefore, firms mostly rely on the short term debt to finance its operations and capital expenditures. Banks are the main source of financing in Pakistan, but due to the information asymmetries, fluctuation in earnings and weak regulatory arrangements, firms are forced to borrow less debt. Another reason is that creditors put the restrictions on the companies not to invest in the risky projects, bringing maximum return and sometimes creditors put their representatives in board of director to examine the companies' activities and exert more influence if the debt ratios exceed the limits.

Results of studies show that capital structure has a significant impact on companies' profitability so companies should consider the effect of short term versus long term debt on profitability before making decision.

Recommendations

The result of current study indicates that the components of capital structure have considerable effect on firm's profitability. Long-term debts as well as short-term debts have substantial impact on the firms' performance. Long-term debts are comparatively more expensive than short-term debts. In this way, it is recommended that firms should employ short term loans/debts for financing instead of long-term loans. For the reason that these are more expensive. It is true about short term debt's interest rate change with the passage of time, but the cost of long-term debt is more than the short-term loans over time, as interest has to pay on a debt where the funds are not required.

Limitation and Scope for Future Research

- This research is restricted on non financial firms listed on KSE .Other financial firms can be used to conduct the research.
- This research is based on Secondary data collection method .Other data collection method can be used.
- The impact of capital structure on profitability can be examined on the firms that are not listed on stock exchange.

References

- Abiodun, B.Y. (2010). Impact of firms' capital structure on firms' profitability in Nigeria.

- Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana", *Journal of Risk Finance*, Vol. 6 Iss: 5, pp.438 – 445.

- Ahmad (2011). Determinants of capital structure: Evidence from Pakistani non-financial firms. *African Journal of Business Management* Vol. 5(28), pp. 11375-11385, 16 November, 2011, Available online at http://www.academicjournals.org/AJBM DOI: 10.5897/AJBM11.218, ISSN 1993-8233 ©2011 Academic Journals.

- Amjeid, S. (2007). The impact of financial structure on profitabiity:study of pakistan textile sector. Islamabad.

- Almeida, H., & Campello, M. (2007). Financing frictions and the substitution between internal and external funds." EFMA Annual Conference.

- Badar, R., & Saeed, A. (2013). Impact of capital structure on performance empirical evidence from sugar sector of Pakistan. European Journal of Business and Management, ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol.5, No.5, 2013.

- CAI, J., & Zhang, Z. (2005). Capital Structure Dynamics and Stock Returns", *Journal of Finance.*

- Christopher, F. B., Schafer, D., & Talavera, O. (2006). The effects of short-term liabilities on profitability: The Case of Germany', *Discussion Paper of DIW Berlin*.

- Dwilaksono, H. (2010). Effect of short term debt and long term debt on profitability in Indonesia stock exchange" *Business and Entrepreneurial Review, ISSN 2252-4614,* Vol. 10, No.1, pg 77 – 87.

- Eriotis, N., Vasiliou, D., & Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: an empirical study. Managerial Finance, 321-331.

- Gill, A., Nahum, B., & Mathur, N. (2011). The effect of capital structure on profitability: Evidence from the United States". *International Journal of Management,* Vol. 28, No. 4, Part 1, pp. 3-15.

- Hussain, M.N, Gull, S. (2011). Impact of capital structure on profitability" *Interdisciplinary Journal of Contemporary Research Business, Vol.3, No.3.*

- Khan, A.G. (2012). The relationship of capital structure decisions with firm performance: A study of the engineering sector of Pakistan" *International Journal of Accounting and Financial Reporting*, ISSN 2162-3082 2012, Vol. 2, No. 1.

- Myers, S.C. (1984). The capital structure puzzle". *Journal of Financial Economics* Vol. 39, No. 3, p.p. 375-592.

- Modigliani, F., & Miller, M.H., (1958). The cost of capital, corporation finance and the Theory of investment. *The American Economic Review*, 48(3).

- Mesquita, J.M.C., & Lara, J.E. (2003). Capital structure and profitability: the Brazilian case, *Academy of Business and Administration Science Conference*.

- Madan, K. (2007). An analysis of the debt-equity structure of leading hotel chains in India, *International Journal of Contemporary Hospitality Management*, 19 (5), 397-414.

- Ooi, J. (1999). The determinants of capital structure: evidence on UK Property Companies. *Journal of Property Investment & Finance*, Vol. 17 No. 5, pp. 464-80.

- Pinegar, M., & Wilbricht, L. (1989). What managers think of capital structure theory: a survey. Financial Management, winter, pp 82 – 91.

- Pindado, J., & Torre, C.D. (2004). Capital structure: Theory and evidence from the ownership structure. Spain: Universidad de Salamanca.
- Roberta, D., & Donald, R. (2003). Debt, Incentives and Performance: Evidence from UK Panel.
- Schwartz. (1959). Theory of the Capital Structure of the Firm", *Journal of Finance,* 14(1), 18-39.
- Rehman. (2012). Impact of debt structure on profitability in textile industry of Pakistan. ISSN: 2229-6158, Vol.3 No.2, pp. 61- 70, IJER | Mar - Apr 2012 Available online@www.ijeronline.com.
- Raheman. (2007). Capital structure and profitability: case of Islamabad stock exchange. *International Review of Business Research Papers, Vol. 3 No.5 November 2007 Pp.347-361*
- Sivaprasad, S., & Muradoglu, Y. (2007). An empirical analysis of capital structure and abnormal returns. *Cass Business School Research Paper*.
- Shubuta., & Alsawalhah. (2012). Relationship between capital structure and profitability. *International Journal of Business and Social Science*, Vol.3 No.16.