WOMEN PARTICIPATION IN ACADEMIC CADRE IN HIGHER EDUCATION INSTITUTIONS (HEIS) OF PAKISTAN: A CASE STUDY OF UNIVERSITIES IN SINDH

Erum Khushnood Zahid Shaikh
Dr.Pervez Ahmed Pathan
Zahid Hussain Kazi

ABSTRACT

Women comprise 50 percent of the total population in Pakistan and make a significant contribution to economic development of Pakistan (Economic Survey of Pakistan, 2010-2011:151). There are various factors including poverty and socio-cultural prejudices which affect female education in Pakistan as in general and Sindh in particular. Consequently, women's employment status in both public and private sectors remain unequal to men. Therefore, this research paper examines employment ratio of male and female in Higher Education Institutions (HEIs). The research study also identifies major causes that hamper female participation in Higher Education Institutions (HEIs). The study also present research publications, teaching experiences and education status through quantification of data using formal statistical approaches along with informal methods of data collection. The results are applicable in understanding the wok environment of Universities and women status in those institutions. This study will be beneficial for making policy in order to uplift female faculty status in public HEIs.

_____

INTRODUCTION

Higher Education Institutions (HEIs) take significant part to generate opportunities for equitable employment and to remove the socio-economic disparities (Isani & Virk, 2003). Highly educated women can play productive role to ensure sustainability of economic growth rate, but educated women are far behind their men in many fields such as in Higher Education Institutions (HEIs) and their representation is on the decline from junior to senior academic positions.

Therefore this research article is focused to scrutinize female faculty research capacity and their contribution of Universities in Sindh, Pakistan. This research article is separated in three key parts: part one deals with introduction and review of literature; part two presents research methodology and part three based on the study findings, summary of conclusions and recommendations.

CONCEPTUALIZATION
Women represent half of the world population and efficiently contributing side by side with men into various public and private sectors of economy all over the world (United Nations, 2010). The proper utilization of this available human capital (i.e. women) can play important role in the high and stable economy growth of a country (Syeda *et.al.,* 2006). However, in many public and private sectors of economy in both developed and under developed countries of the world women share in employment is not equal to share of men. Pakistan is considered as less developed country and its weak and unstable economy can become strong and stable through full contribution of educated women. However, in Pakistan women education is not being encouraged. According to Economic Survey of Pakistan (2011-12), female literacy rate is only 45 percent and only 3 percent of female population (i.e. 18 to 23 years old) has access at degree level education. At government level, efforts are made to upgrade women education status in country. However, due to various factors such as poverty and socio-cultural obstacles (i.e. girl's early marriages, less importance to girl's education) scenario of women education in Pakistan is not satisfactory. Thus, women have not enough opportunities as compared to men. In Pakistani society due to negative socio-cultural practices for example pattern of gender role (i.e. men is responsible for earning and women is for house work) often women are not permitted to get education and to be employed (Begum *et.al.,* 2011). This pattern of gender role often restricted even to educated women to equally participate with men in labor market (Economic survey of Pakistan, 2011-2012).

In both public and private Higher Education Institutions (HEIs) women are working side by side with men at both academic and management cadre and these institutions can play important role to uplift employment status of educated women. However,

gender gap that favors males is found in Higher Education Institutions (HEIs) without prominent difference between developed and underdeveloped countries. United Nations Educational, Scientific and Cultural Organization Institute for Statistics (2011) reported that in East Asia and the Pacific region in Higher Education Institutions (HEIs) female faculty representation is 36 percent and in North America and Western Europe female faculty representation is 43 percent and this trend is more prominent in male dominating fields such as engineering and commerce. Furthermore, due to various factors including domestic roles women faculty not found sufficient time and energy to actively contribute in research and stuck at junior teaching positions (Singh, 2002). This opens area to investigate women faculty participation at academic cadre in Higher Education Institutions (HEIs) in Sindh, Pakistan and to examine extent at which women faculty contributing in research activities.

METHODOLOGY

In public higher education sector of Pakistan there are 73 public universities out of which 14 public universities are in the province of Sindh (HEC Official website, 2012). In the context of research objectives three public sector universities (i.e. University of Sindh, Jamshoro, Liaquat University of Medical Health Sciences, Jamshoro and Mehran University of Engineering & Technology, Jamshoro) purposively selected. The selection of the sample universities of this research to ensure that representation in term of degree awarded by the institutions should be included. The selected universities are 22 percent of total public universities in Sindh. Raosoft sample size calculator was used to determine the sample size of respondent and 98 women teaching staff (including professors, associate professors, assistant professors and lecturers) was selected to collect the data through questionnaire. In this research study, researcher applied formal statistical approaches and simple regression technique for prediction; researcher also used MS Excel and Statistical Package for Social Sciences (SPSS) to analyze the data.

RESULTS AND FINDINGS

In the cultural context of Pakistani society, various factors are contributing to low women representations at academic cadre in Higher Education Institutions (HEIs) this includes unsatisfactory women education status, socio-cultural obstacles etc (Begum *et.al.,* 2011). Figure-1 indicates that the women representation in higher education sector has been improved but gender gap still exist in universities in Pakistan. This is due to increase in female enrolment proportions and government initiatives.

FIGURE: 1
MEN-WOMEN TEACHING STAFF AT TERTIARY LEVEL
IN PAKISTAN (%) N=18
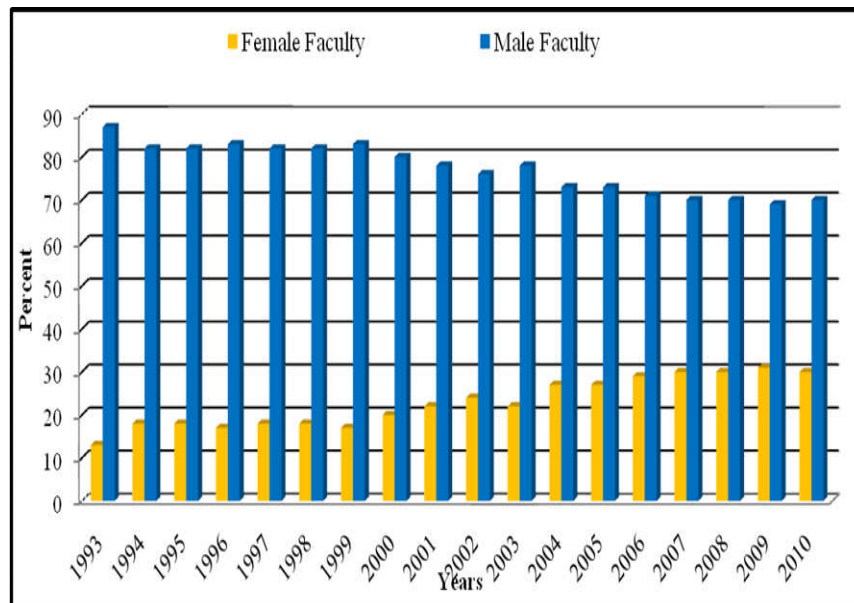
Source: Federal Bureau of Statistics of Pakistan, 2012

Table-1 shows women participation in academic cadre in Mehran University of Engineering & Technology (MUET) data indicates that women unequally participated at all academic categories, while absence of women in professor category disclose extend of deprivation among educated women during last five years. In Mehran University of Engineering & Technology (MUET) majority of female faculty were young on other side,

overall female faculty representation ratio were gradually increasing this leaves hope to see more women at all academic positions in this university.

TABLE: 1
WOMEN AT ACADEMIC CADRE IN MEHRAN UNIVERSITY OF ENGINEERING & TECHNOLOGY (MUTE) N=5

Designation	BPS	2007-08		2008-2009		2009-2010		2010-11		2011-2012	
		Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
Professor	21	48	-	49	-	46	-	43	-	39	-
Associate Professor	20	34	-	34	-	34	-	35	1(3)	31	2(6)
Assistant Professor	19	83	12(14)	96	12(12)	106	14(13)	108	14(13)	112	14(12)
Lecturer	18	126	18(14)	132	22(17)	138	26(19)	144	36(25)	152	40(26)
Grand Total		291	30(10)	311	34(11)	324	40(12)	330	51(15)	334	56(17)

Source:Registrar Office Mehran University of Engineering & Technology (MUET), 2012.
( ) Figures parentheses are percent.

Table-2 shows women participation at academic cadre in University of Sindh, Jamshoro data highlights that during last five

years female faculty more or less improved their relative positions. However, women have not yet been able to equally participate at academic cadre in University of Sindh, Jamshoro, on other side their representation is on the decline from senior to junior academic positions. Comparative analysis shows that compare to Mehran University of Engineering & Technology (MUET), women academic participation is better in University of Sindh, Jamshoro.

TABLE: 2
WOMEN AT ACADEMIC LEVEL IN
UNIVERSITY OF SINDH, JAMSHORO N=5

Designation	BPS	2007-08		2008-2009		2009-2010		2010-11		2011-2012	
		Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
Professor	20/21	92	19(21)	90	22(24)	91	22(24)	80	23(29)	74	22(30)
Associate Professor	19/20	56	13(23)	43	9(21)	42	9(21)	34	7(20)	31	4(13)
Assistant Professor	18/19	136	34(25)	150	40(27)	150	40(27)	187	54(29)	192	52(27)
Lecturer	17/18	124	48(39)	153	68(44)	161	69(43)	169	68(40)	214	85(40)
Grand Total		**408**	**114**(28)	**436**	**139**(32)	**444**	**140**(32)	**470**	**152**(32)	**511**	**163**(32)

Source:Registrar Office, University of Sindh, Jamshoro, 2012.
( ) Figures parentheses are percent.

Table-3 shows women participation at academic cadre in Liaquat University of Medical & Health Sciences (LUMHS). Medical field is supposed to be a favorable subject for women. Therefore, women participation at academic cadre in Liaquat University of Medical & Health Sciences (LUMHS) is comparatively more encouraging than other sample universities. Although women not equal to men in any teaching faculty but positive trend towards close gender gap at lower teaching positions will be the cause of more women at senior teaching position in future.

TABLE: 3
WOMEN AT ACADEMIC CADRE IN LIAQUAT UNIVERSITY OF MEDICAL & HEALTH SCIENCES (LUMHS) N=5

Designation	BPS	2007-08		2008-09		2009-10		2010-11		2011-12	
		Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
Professor	21	38	8 (21)	37	7 (19)	37	7 (19)	34	7 (20)	31	6 (19)
Associate Professor	20	22	2 (9)	20	2 (10)	20	2 (10)	24	2 (8)	23	3 (13)
Assistant Professor	19	41	11 (27)	47	14 (30)	62	23 (37)	42	15 (36)	43	19 (44)
Lecturer	18	106	40 (38)	107	40 (37)	107	40 (37)	106	43 (40)	132	55 (42)
Grand Total		**207**	**61 (29)**	**211**	**54 (26)**	**226**	**72 (32)**	**206**	**67 (32)**	**229**	**83 (36)**

Source: Registrar Office LUHMS, 2012
( ) Figures parentheses are percent.

5.1 Applying Simple Regression Method

Simple linear regression is a statistical technique used for prediction and to indentify the influence of independent variable on dependent variable (Jeffrey, 2012). In this study simple linear regression technique applied on secondary data to find out and predict the significant change in female faculty participation (i.e. in numbers) during past 18 years in Higher Education (HEIs) of Pakistan.

Simple Linear Regression Equation

$$Y = b_0 + bx$$

Where

Y= dependent variable (i.e. female faculty in numbers)
b_0=intercept/constant
b=coefficient
x_1=independent variable (i.e. years)

Figure 2 shows simple regression results and trend highlights that over last 18 years women academic participation in Higher Education Institutions (HEIs) of Pakistan has been increased. However, comparative analysis of figure 2 with figure 1 indicates that women academic representation is not significantly improved. The positive value of b coefficient, value of F-statistics and value of t- statistics indicates that the equation as a whole is statistically significant in explaining women academic participation in Higher Education Institutions (HEIs) of Pakistan.
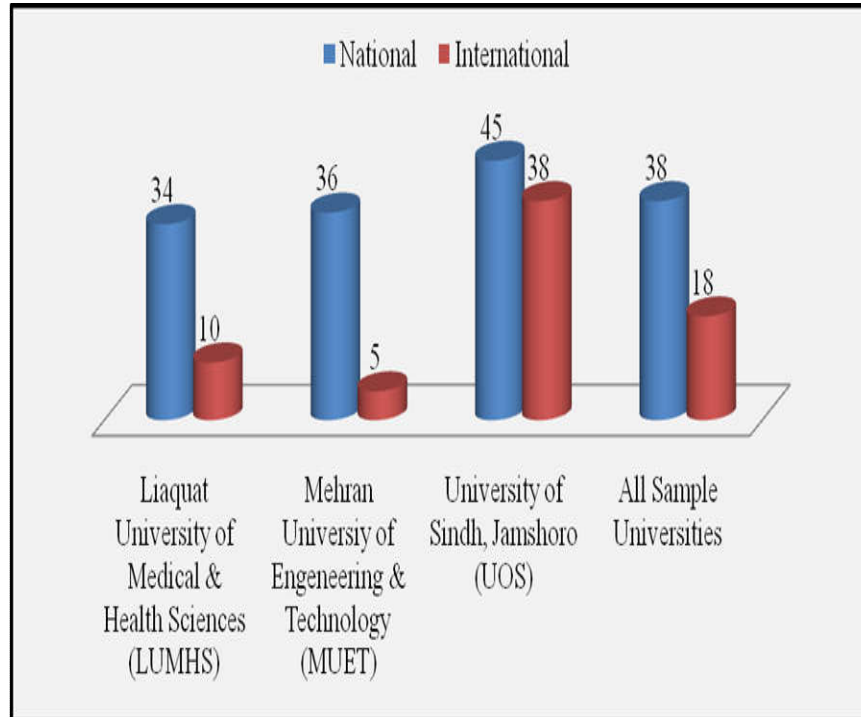
FIGURE: 2
SIMPLE REGRESSION TREND FOR WOMEN FACULTY
PARTICIPATION IN HEIS OF PAKISTAN
N =18 YEARS (1993 TO 2010)
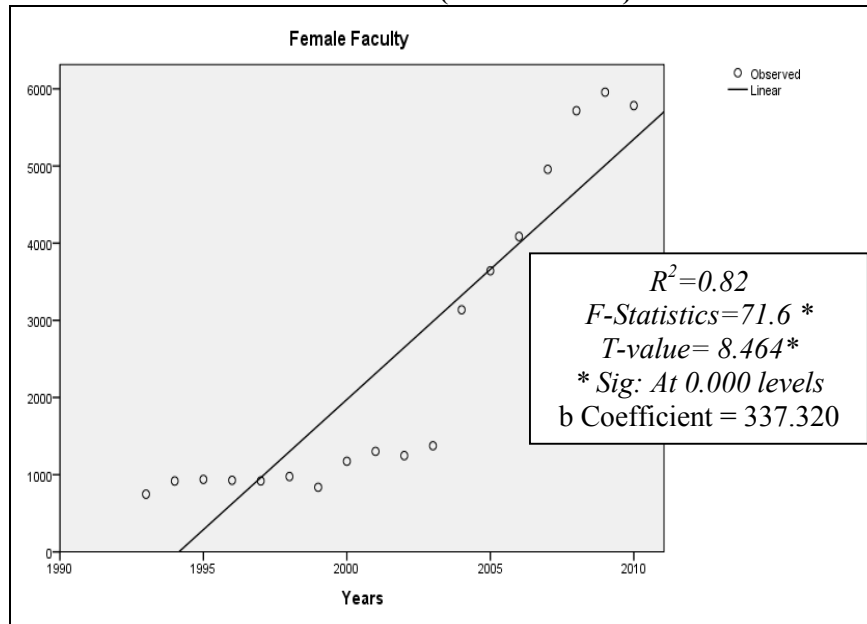
Data Source: Federal Bureau of Statistics of Pakistan, 2012.

According to Higher Education Commission of Pakistan (HEC) required criteria faculty promotions at senior academic positions (i.e. Professor and Associate Professor) also required particular numbers of research articles. Figure 3 presents the trends related to women's research publications at national and international level. Data indicates that prominent proportion of sample women not actively participating in research publications in journals and this trend is more prominent at international level and in Engineering University. Therefore, women not equally participated with men at senior teaching positions (i.e. full Professor and Associate Professor) and this trend is more prominent in Mehran University of Engineering & Technology (MUET).
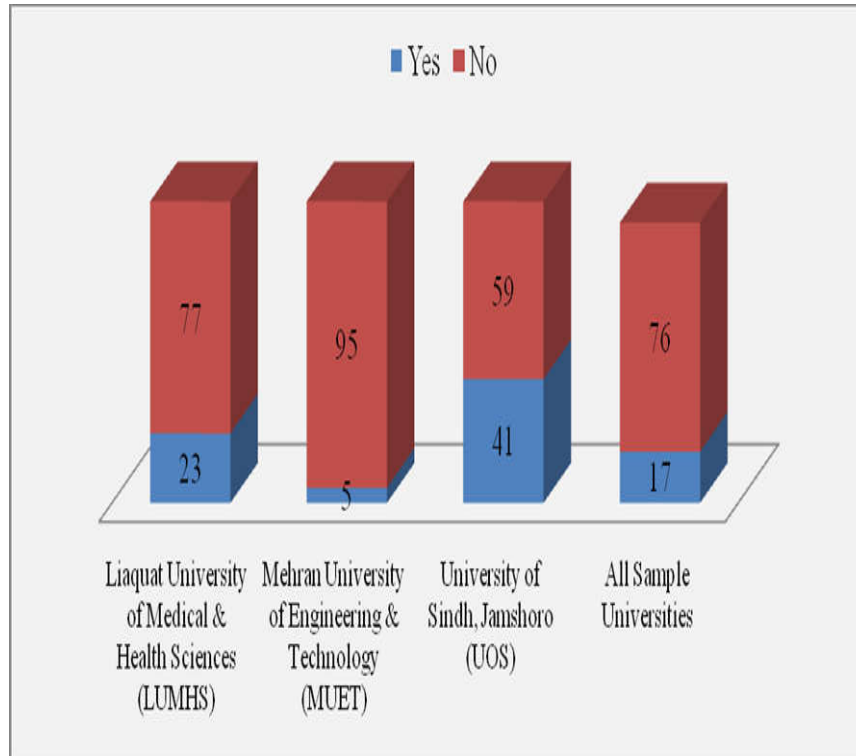
FIGURE: 3
NATIONAL AND INTERNATIONAL RESEARCH
PUBLICATIONS BY WOMEN N=98 (%)

Source: Survey Data, 2012

According to Higher Education Commission of Pakistan (HEC) required criteria faculty promotions also depends on higher post graduate degree in the field of research. Figure 4 indicative that only 17 percent sample women academic staff uplift their education status at PhD/Specialization degree level therefore, limited at lower teaching positions (i.e. lecturers).

Figure: 4
PhD/Specialized Sample Women n=98 (%)

Source: Survey Data, 2012

According to Higher Education Commission of Pakistan (HEC) the required criteria for faculty promotions at higher academic ranks also required particular years of experience. In table 4 value of maximum years of experience (i.e. 39), value of standard deviation (i.e. 10) and value of average years of experience (i.e. approximately 12) revels that women have particular years of experience in teaching field. Comparatively low values of statistical measures for Mehran University of Engineering & Technology such as maximum years of experience (i.e. 17), value of standard deviation (i.e. 4) and value of average years of experience (i.e. approximately 5.7) indicative that in this

engineering university sample women are less experienced therefore, poorly participated at senior teaching positions.

TABLE: 4
YEARS OF EXPERIENCE IN PRESENT JOB N=98

Statistical Measures	Liaquat University of Medical & Health Sciences	Mehran University of Engineering & Technology	University of Sindh, Jamshoro	All
Minimum	1	1	2	1
Maximum	39	17	32	39
Standard Deviation	11.3	4	10.6	10.5
Average	13.3	5.7	15.5	12

Source: Survey Data, 2012

CONCLUSION AND RECOMMENDATION

This research paper analyzed the women participation at academic cadre in public sector Higher Education Institutions (HEIs) in Pakistan with special focus on public sector universities in Sindh province of Pakistan. Empirical analysis shows that women participation at academic cadre in Higher Education Institutions (HEIs) in Pakistan has been improved however, women faculty still unequally participated with men in Higher Education Institutions (HEIs) in Pakistan as well as in all sample universities in Sindh. Furthermore, Women representation at academic cadre is on decline from junior to senior academic positions. This trend is more widely pronounced in male dominating Higher Education Institutions (HEIs) such as in engineering universities. Qualification, research publications in journals and experience play important role to upgrade women academic status in Higher Education Institutions (HEIs) whereas, survey data reveals women faculty were lack of these qualities. It is suggested that to develop more effective policy to enhance women faculty representation in both traditional and nontraditional[2] subject based Higher Education Institutions (HEIs). There is need to introduce various programs and schemes to upgrade women qualifications. It is recommended to positively

168

change mind-sets of men and women, and develop female-friendly work environment in universities.

REFERENCES

Begum Zohra, et.al., 'Socioeconomic Status of the Girl Students and Their Dropout Rate at Primary Level in Kohat. *European Journal of Social Sciences*, 2011.

Government of Pakistan, *Pakistan Statistical Year Book*. (Islamabad: Federal Bureau of Statics, 2011).

Isani U.A.G., et.al., *Higher Education in Pakistan: A Historical and Futuristic Perspective*. (Islamabad: National Book Foundation, 2003).

Jeffrey M. Wooldridge, *Introductory Econometrics: A Modern Approach*. (South-Western College Publishers, 2012).

Government of Pakistan, *Pakistan Economic Survey 2010-2011*. (Islamabad: Finance Division, 2011).

Government of Pakistan, *Pakistan Economic Survey 2011-12*. (Islamabad: Finance Division, 2012).

Shams S., *Socio-Legal Rights and Privileges of Women in Islam: Women Law and Social Change*, (New Delhi: Ashish Publishing House, 1991).

Singh, *Still a Single Sex Profession?* (London: ACU, 2002).

Social Development in Pakistan, *Annual Review 2007-08: Women at Work*, (Karachi: SPDC, 2009).

Syeda, et.al., *Study Guide on Women and Development*, (Islamabad: Allam Iqbal Open University, 2006).

United Nations, *The World's Women 2010: Trends & Statistics*. (New York: UN Publication, 2010).

UNESCO, *Global Education Digest 2011*. Comparing Education Statistics Across the World. (Canada: UNESCO, 2011).

UNESCO, *Women and Management in Higher Education: A Good Practice Hand Book*. (Paris: UNESCO, 2002).

_____