The Role of Statistics to Develop Human Resources in Organizations: A Case Study of Academic Institutions in Sindh during 2000-09

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Abstract

Statistic plays a very important role to make decision and to equip human resource in Pakistan. Development in the country is possible only through technically skilled people in this modern age. Before making and implementing policies, it is essential that to interpret factual statistical information. Statistics enhance human experience and knowledge to understand, describe and to measure information. It is not possible to plan anything without the help of statistics. In Pakistan, due to inadequate data, drawback and inaccuracies in making different plans in different sectors like education, health, industries has emerged. In any profession as medical, engineering, office work, we need skills that require information to perform activities in effective manner.

The main purpose of this paper is to highlight the importance of statistics to bring change by developing human resources and it can only be possible when we have accurate information about skilled and non skilled people.

The theme of this paper is to collect information about the accuracy of information to make different policies or to take different type of decisions in institutions especially in academic institutions which work like a backbone for the country.

Statistical knowledge is considered as an effective tool in decision making for the development of human resource where education level is very low. Academic institutions are required to equip their human resources with modern skills through which they can compete in competition era.

Statistical applications are very much important and numerical information is work like asset for government who are responsible to make policies for academic institution to develop human resource. These policies if based on accurate and factual information than implemented policies can give productive result and can be helpful to improve economic, financial, social, and demographic life of academician and research workers and also registered students.

The statistical information and techniques can be useful in inquires and accountabilities. Statistical information is also helpful to keep the record of human

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resources and to monitor performance of human resources. Statistical procedures can appraise workers and to get information like number of qualified and specialized human resource, age, height, responsibilities, service period, yearly enrolment, yearly recruitment, retirement etc with help of tables, graphs and numeric.

Key Words*:   HRD, Statistical procedures, information, Accuracy, Productivity*

1. **Introduction**

Statistics is second-hand as systematic techniques plus tools are helpful in decision making in different fields [Daniel & James, 1986]. Statistics is very encouraging to run the business administration of state former to apply some strategy. Each country examines benefit, weakness, strength and limitation of policy with the help of statistics [King, 1982]. Amplified requirement of statistics and diminished charge of statistics are showing statistical intensification [Bowerman, Richard, Michael, 2001]. The foremost task of statistics is to gather the facts and present it in a methodical mode and interpret the data [Kurtz, 983].

In organizations, statistics is used to shorten complexity and to bring development in academic matters. Statistics is directly and indirectly used in every academic institution for not only record keeping purpose but also for future decision making activity. Statistics can measure uncertainty and predict future of the organization [Bowerman, Richard, Michael, 2001].

Statistics take part in human resource management as concerned about explanation of administrative study of statistical data and analysis of current and historic results. Improvement and accurateness depends on used statistical modus operandi, significance of information and constructive hope management. Statistics is used in academic management [Dessler, 1988].

Statistics is helpful to conduct different types of investigations and can suggest future remedial steps. Furthermore, it is helpful and useful to utilize resources in education and to provide quality services to educational institution. The academic institutions are responsible to award the degree to the students at school, college and university level in both public and private sector. The main aim of registered students at one side to get the degree and on the other side to get skilled knowledge that helps them to acquire job or to run their own businesses. To bring development in every sector we need specialized human resources through our academic institutions that are responsible to produce quality human resources and also run the institutions with the help of qualified human resources.

There is a need of training at vocational and technical centers plus to maintain the quality and to equip and develop the human resource through the inter-

action of academic institutions at city, provincial and country level. If the government of Pakistan is willing to improve the condition of human resource in the country especially in Sindh then they must use the factual statistical information for productive purpose.

Following Table-1 shows Comparison of Public Sector Spending on Education in which Pakistan is spending 201% with literacy rate is 57% according to World Bank, UNDP, UNESCO, FBS and Ministry of Education in 2009-2010 survey.

Table-1: Comparison of Public Sector Spending on Education

Comparison of Public Sector Spending on Education

Country	Public Sector Spending (As % GDP)	Literacy Rate
Bangladesh	2.6	55.0
Malaysia	4.7	92.1
Nepal	3.2	57.9
Pakistan	2.1	57.0
Vietnam	5.3	92.5
-:not available	**Source: World Bank, UNDP, UNESCO, FBS, Ministry of Education**	
Figures for latest available year		

**Chart-1 of Table-1: Comparison of Public Sector Spending on Education**
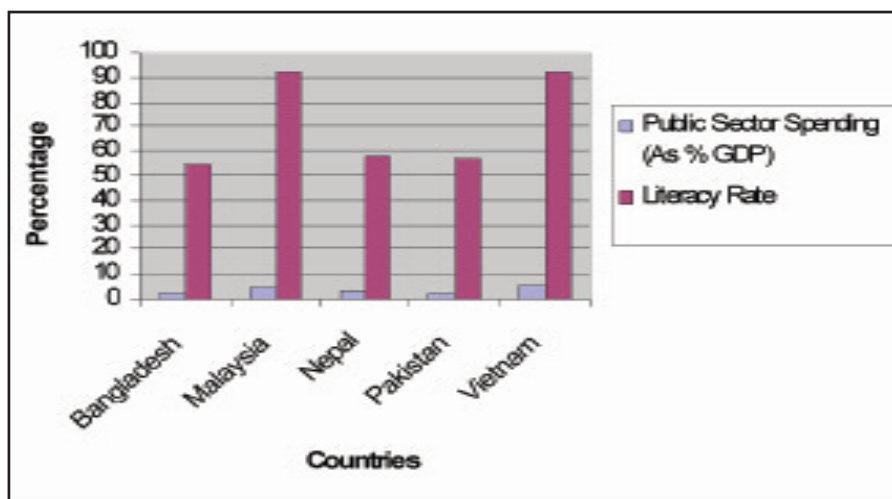
Following Table-2 shows the literacy rate from 2006-07 to 2008-09 in Pakistan especially focusing on Sindh where in 2006-07 female literacy ratio was 42% in comparison in 2008-09 where that ratio increased with minor change of 46% that shows an unsatisfactory level needs more attention.

Table-2: Literacy Rate 10 yrs+, GER & NER Trend in Pakistan & Gender Parity Index (GPI)

REGION/ PROVINCE		Literacy rates (10 years & above)			GER Primary (age 5-9)			NER Primary (age 5-9)		
		2006-07	2007-08	2008-09	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Pakistan	Male	67	69	69	99	97	99	90	59	61
	Female	42	44	45	81	83	83	51	52	54
	Both	**55**	**56**	**57**	**91**	**91**	**91**	**56**	**55**	**57**
	Rural	45	49	48	84	83	85	52	51	53
	Urban	72	71	74	106	106	106	66	66	68
	GPI	**0.63**	**0.64**	**0.65**	**0.82**	**0.86**	**0.83**	**0.85**	**0.88**	**0.87**
Punjab	Male	67	70	69	106	102	102	64	62	64
	Female	48	48	50	95	92	92	59	59	60
	Both	58	59	59	100	97	97	62	61	62
	GPI	0.72	0.69	0.72	0.90	0.90	0.90	0.92	0.95	0.94
Sindh	Male	67	69	71	88.00	87.00	93.00	56.00	55.00	57.00
	Female	42	42	45	68	72	75	43	46	49
	Both	55	56	59	79	8	84	50	51	54
	GPI	0.63	0.61	63	0.77	0.83	0.77	0.77	0.84	0.80
Khyber Pakhtun-khwa	Male	67	68	69	96	94	102	56	55	58
	Female	28	33	31	67	71	70	41	41	45
	Both	47	49	50	82	83	87	49	49	52
Balochis-tan	Male	58	66	62	89	88	93	48	47	51
	Female	22	23	23	52	59	54	31	35	36
	Both	42	46	45	72	75	75	41	41	44
	GPI	0.38	0.35	0.37	0.58	0.67	0.55	0.65	0.74	0.64

Chart-2 Table-2: Literacy Rate 10 yrs+, GER & NER Trend in Pakistan & Gender Parity Index (GPI)
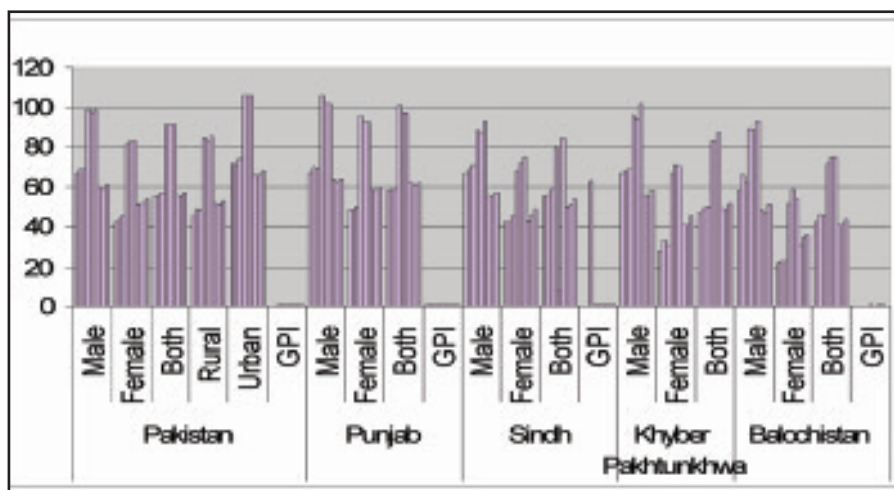
Following Table-3 show the no of enrollment in institutions yearly from 2008-09 till 2009010 and also analyzing teacher's availability.

Table-3: Number of Mainstream Institutions, Enrolment and Teachers by Level

Year	Enrolment		Institution		Teachers	
	2008-09 (P)	2009-10 (E)	2008-09 (P)	2009-10 (E)	2008-09 (P)	2009-10 (E)
Pre-Primary	8,434,826	8,623,544	—	—	—	—
Primary Mosque	18,468,096	18,714,582	156,653	156,364	465,334	469,151
Middle	5,414,157	5,445,247	40,919	41,456	320,480	323,824
High	2,556,186	2,699,589	24,322	24,822	439,316	447,117
Higher Sec/ Inter	1,074,323	1,147,807	3,291	3,399	76,184	78,656
Degree Colleges	429,251	458,835	1,238	1,275	21,176	21,385
Universities	803,507	948,364	129	132	50,825	56,839
Total	37,180,346	38,037,968	226,552	227,448	1,373,315	1,396,972

P: Provisional   E: estimated
Source: Pakistan Education Statistics 2007-08, 2008-09 and 2009-10, Economic Survey 2009-10, Islamabad

Chart-3 of Table-3: Number of Mainstream Institutions Enrolment and Teachers by Level
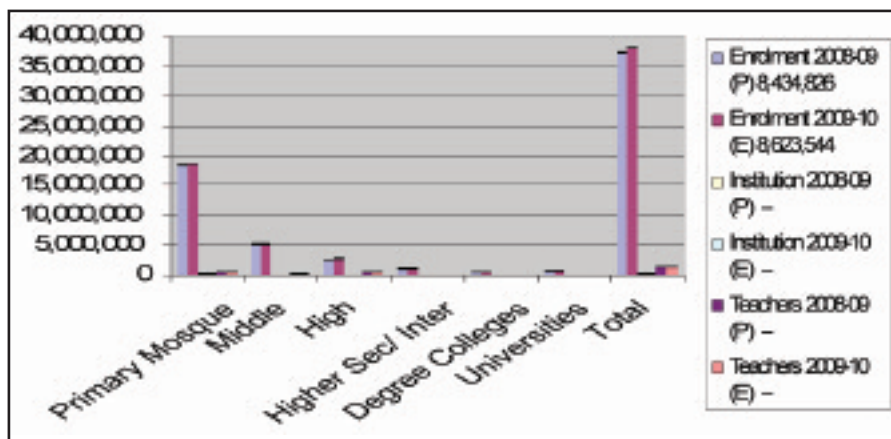

Following Table show the missing facilities in Government schools needs prior attention to facilitate students and staff.

Table-4: Missing Facilities in Government Schools 2008-09

Province/ Area	Without Building	Without Boundary Wall	Without Drinking Water	Without Latrine	Without Electricity
Sindh	11,669	24,470	26,240	22,588	39,615
ICT	0	15		50	8

Source: NEMIS 2008-09 AEOAM, Ministry of Education, Islamabad

Chart -4 of Table-4: Missing Facilities in Government Schools 2008-09
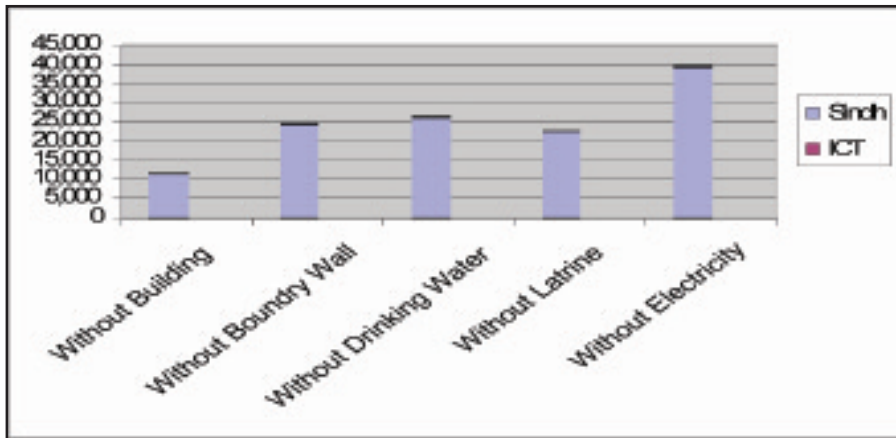
Following table show the public sector budgetary allocation in 2009-10 received from Economic survey of Pakistan 2009-2010.

**Table-5: Summary of Public Sector Budgetary Allocation for Education 2009-10**

Federal Government	Current	Development	Total (Rs in million)
Ministry of Education	3718.665	5500.000	9218.655
Provincial Governments Sindh	13919.081	6020.000	19939.081
District Government Sindh	31930.127	5714.157	37664.284

• : Tentative Statement   • Source: Ministry of Education
** : Provisional data based on projection

Chart-5 of Table-5: Summary of Public Sector Budgetary Allocation for Education 2009-10
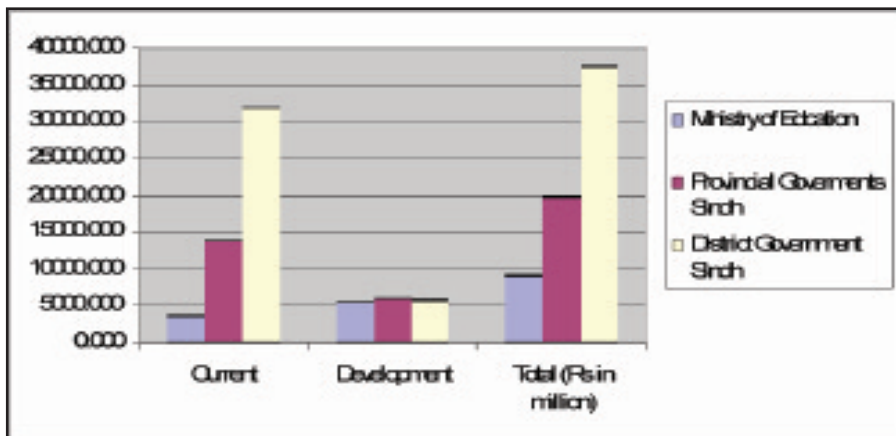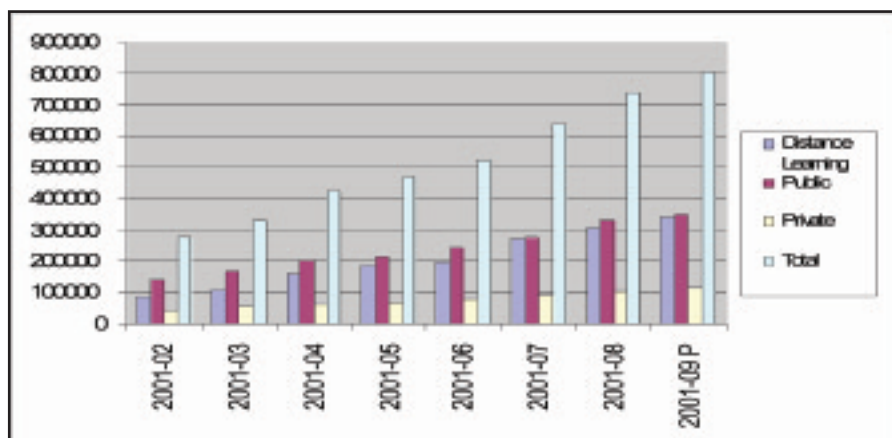
Following Table show the enrollment from 2001 to 2009 data received from HEC

Table-6: Enrolment at Universities/ DAI + Constituent Colleges by Sector

Year	Distance Learning	Public	Private	Total
2001-02	89749	142652	43873	276274
2002-03	108709	167775	55261	331745
2003-04	159257	202871	61108	423236
2004-05	187557	216454	67953	471964
2005-06	199660	242879	78934	521473
2006-07	272272	276226	91563	640061
2007-08	305962	331664	103466	741092
2008-09	339704	348434	115369	803507

Source: HEC

Chart -6 of Table-6: Enrolment at Universities/ DAI + Constituent Colleges by Sector

Following table show the development and non development expenditure made by Higher education from 2005 to 2010.

Table-7: Development and Non Development Expenditure on Higher Education (Millions Rs.)

Year	2005-06	2006-07	2007-08	2008-09	2009-10
Released Recurring	10493.412	14332.521	12536.498	15766.425	21500.000
Released Development	10890.877	14409.156	15390.455	16420.408	22500.000
Released Total	21384.289	28741.677	27926.953	132186.833	44000.000

*: Allocation   Source: HEC

Chart-7 of Table-7: Development and Non Development Expenditure on Higher Education (Millions Rs.)
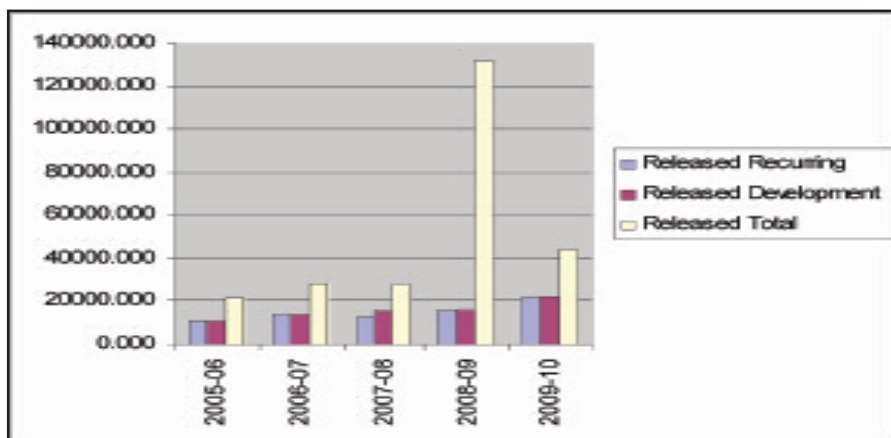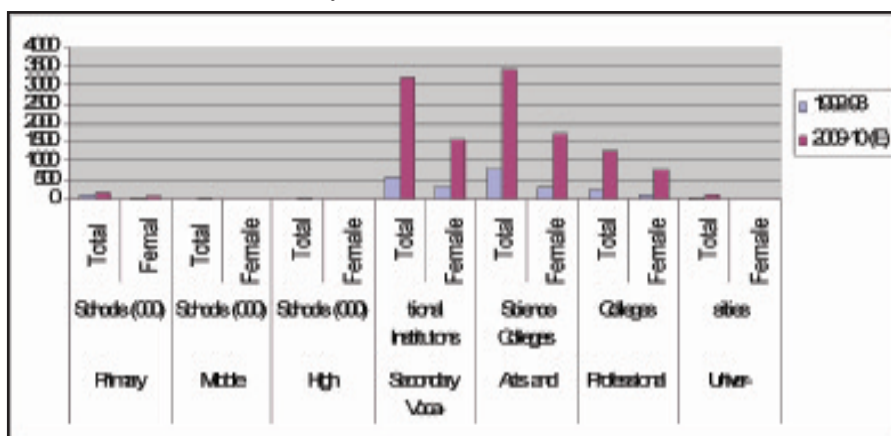

Following table show the number of educational institutions from 1992-2010.

Table-8: Number of Educational Institutions by Kind, Level and Sex

Years	Primary Schools (000)		Middle Schools (000)		High Schools (000)		Secondary Vocational Institution		Arts and Science Colleges		Professional Colleges		Universities	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1992-93	130.6	40.3	11.8	5.4	8.7	2.8	602	316	800	293	260	109	27	-
2009-10 (Estimated)	156.4	64.6	41.5	20.8	24.8	9.7	3193	1540	3,399	1741	1,275	742	132	-

Source: Annual Pakistan Education Statistics Reports, AEPAM, Islamabad, Planning Division, Pakistan, Islamabad (www.hec.gov.pk)

Chart-8 of Table-8: Number of Educational Institutions by Kind, Level and Sex

Following table show the enrollment in educational institutions by kind, level and sex

Table-9: Enrolment in Educational Institutions by Kind, Level and Sex

| Year	Primary Stage (I-V) (000 No)		Middle Stage (VI-VII) (000 No)		High Stage (IX-X) (000 No)		Secondary Vocational (000 No)		Arts and Science Colleges (000 No)		Professional Colleges (000 No)		Universities (Number) (000 No)	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1992-93	10,271	3,696	3,040	994	1,168	357	93	24	422	151	281,200	100,400	68,301	14,856
2009-10	18,715	8,297	5,445	2,335	2,700	1,136	274	103	1,148	533	458,835	261,140	948,364	436,086

E:Estimated

Notes:
1. All figures include Public and Private Sector data
2. All figures includes Non Formal Basic Education (NFBE) and Deeni Madaris data
3. Female institutions include percentage of mixed institutions

Source:
1. Figures of Primary, Middle, High and Higher Sec. from 1992-93 to 2007-08 is based on Annual Pakistan Education Statistics Reports, AEPAM, Islamabad
2. Figures of Inter Colleges and Degree Colleges for 2004-05 and onwards is based on Annual Pakistan Education Statistics Reports, AEPAM, Islamabad
3. Figures of Private School data from 1992-93 to 1999-2000 is based on 8th Five Year Plan: Planning Division, Pakistan
4. Figures of Private School data from 2000-01 to 2004-05 is based on 'Census of Private Education Institution 1999-2000', Federal Bureau of Statistics, Ibd
5. Figures of Private School data of 2005-06 onward is based on 'National Education Census, 2005' AEPAM, Ministry of Education, Islamabad
6. Figures of Technical & Vocational from 2003-04 onward is based on Pakistan Education Statistics Reports, AEPAM, Islamabad
7. Figures of Universities from 1992-93 to 2007-08 was downloaded Islamabad (www.hec.gov.pk)

Chart -9 of Table-9: Enrolment in Educational Institutions by Kind, Level and Sex
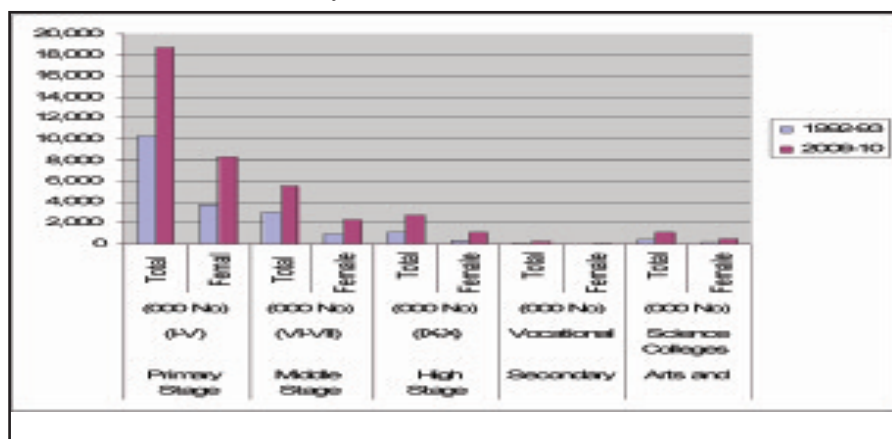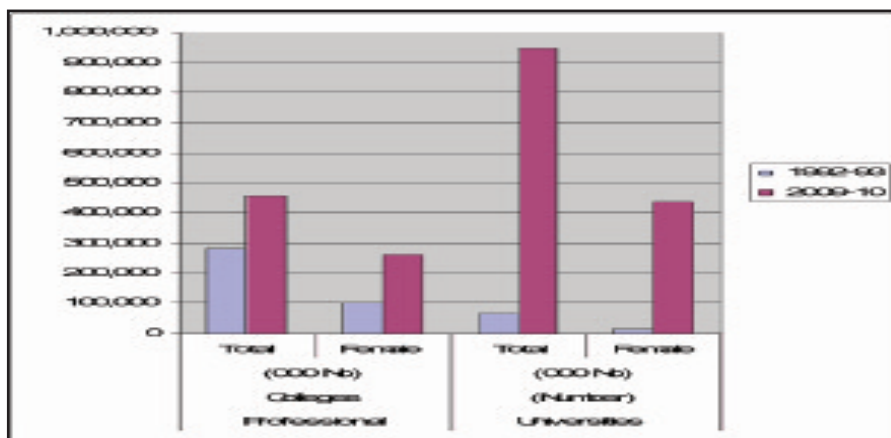
Table-10: Number of Teachers in Educational Institutions in Pakistan by Kind, Level and Sex

Year	Primary Schools (Thousands) *		Middle Schools (Thousands)		High Schols (Thousands)		Secondary Vocational Institution (Number)		Arts and Science Colleges (Number)		Professional Colleges (Number)		Universities (Number)	
	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female	Total	Female
1992-93	332.5	122.5	119.0	66.3	165.6	68.1	9,153	2,605	25,485	9,138	8,269	3,058	5,728	747
2009-10	469.2	218.2	323.8	211.5	447.1	231.1	15,508	5,207	78,656	38,312	21,385	10,900	56,839	-

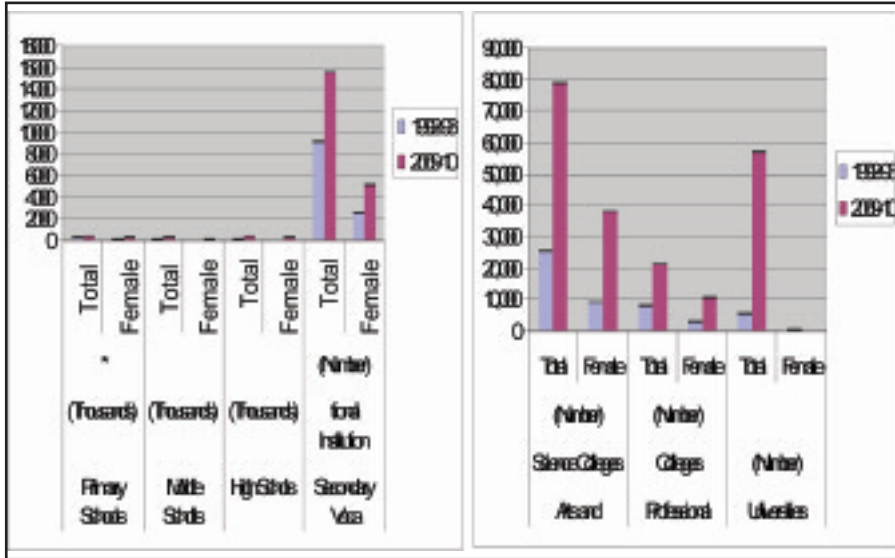P: Provisional and Primary Schools   E: Estimated   -: not available

*:Including Pre-primary and Primary Schools

Source:
1. Figures of Primary, Middle, High and Higher Sec. from 1992-93 to 2006-07 is based on Annual Pakistan Education Statistics Reports, AEPAM, Islamabad

2. Figures of Inter Colleges and Degree Colleges for 2004-05 onward is based on Annual Pakistan Education Statistics Reports, AEPAM, Islamabad

3. Figures of Private Schools data from 1992-93 to 1999-2000 is based on 8th Five Year Plan : Planning Division, Pakistan

4. Figures of Private Schools data from 2000-01 to 2004-05 is based on 'Census of Private Education Institution 1999-2000', Federal Bureau of Statistics, Ibd

5. Figures of Private Schools data of 2005-06 and onwards is based on 'National Education Census, 2005', AEPAM, Ministry of Education, Islamabad

6. Figures of Technical and Vocational from 2003-04 onward is based on Pakistan Education Statistics Reports, AEPAM, Islamabad

7. Figures of Universities from 1992-93 to 2007-08 was downloaded from website of HEC, Islamabad (www.hec.gov.pk)

2. Literature Review

Statistical acquaintance is vital in modern days and recognized as succession tool [King, 1982]. At present, statistics is well thought-out as a means to bring in progress. Now a days, descriptive statistics is used in the form of numbers [Waller, 1979]. In descriptive statistics, we record numbers of birth, death, percentage of Male/Female, causes of death etc [Newman, 960].

The advancement in a realm depends on the sound numerical information for cost-effective setting up in the institutions. It is a great honor of the age that the modern and underdeveloped country and institution realized the importance of statistics and to bring the development in the field of human resources. According to Parkash, The word statistics is derived from Latin word. The term statistics was used in 3050 BC for the creation of pyramids [Parkash, 1978].

Near to 2000 years ago in India they had a system to collect administrative statistics. In 1982, the King stated that during the emperor Akbar period, a comprehensive account of the administration and statistical survey was conducted in the end of 18th century. Germany used systematic correction of official statistics for comparing population, industrial and agriculture output. Napoleon used statistics to raise taxes and to get the information about the revenue and expenditure in war [Daniel & James, 1986].

According to the King {1982}, he shared information regarding the schedule of Planets on the root of data was introduced in 1954 to 1601, plus also Newton invented the theory of gravitation. In 1623 to 1687, Sir William used statistics to prepare mortality tasks and Petty calculations and expectation of life at special ages and also in this phase, life insurance concept was developed and in the 1600, statistics was used for reporting political science as well as for recording state affair data. In 18th century, the modern theory of statistics was formulated; many rules and regulations were based on current approach to the problem concerned with modern time statistical theory stated by King, 1982.

In 19th and 20th Century, statistics was introduced in the field of biometry [King, 1982]. Today statistics is widely employed in government and business concerns and all fields of science [Daniel & James, 1986]. Statistics used to scientific technique as apparatus. These paraphernalia are supportive in decision making in diverse fields. Statistics stand for the good fact and figures and it help in strong decision making for future planning [Parkash, 1978].

Future planning consists about past and present statistical results. Increased demand of statistics and decreased cost of statistics these two factors which are showing of statistical growth [Bwerman, Richard & Michael, 2001]. In a communal life, statistics is old to depict and analyze numerical records. These facts stand for social association depending on family size, quantity, monthly takings and measure of mind-set which is second-hand to universal concern. Presently, statistics helps researchers in every field with the analysis of Data [Waller, 979].

3. Significant Role of Human Resource in Academic Institutions

Academic institutions play very significant role in human resource plus human capital formation with the aim to produce skilled manpower. Skilled manpower helps economy to run on the path of sustainable economic development. Next tables show that how with the help of statistics we will be able to take future decisions.

It is far and wide, recognized that education is amid the most significant reason contributing to dearth improvement. Education plays an imperative role and has a cross cutting impact on all aspects of human life. It is a vital investment for human and economic development. Unfortunately, Pakistan's standing on this front has historically been poor, as can be seen in the statistical tables.

Table-11: Enrollment in Educational Institutions by Kind, Level and Sex

Education	1998-99 (E) (000 No)	1999-2000 (E) (000 No)	Change During 1999-2000	% age Increase in total Enrollment
Total Primary level (Class I-V)	18731	20399	1668	8.2
Male	10893	11720	827	7.1
Female	7838	8679	841	9.7
Total Middle Level (Classes VI-VIII)	4338	4644	306	6.6
Male	2631	2762	131	4.7
Female	1707	1882	175	9.3
Total High level (Classes IX-X)	1795	1932	137	7.1
Male	1105	1157	52	4.5
Female	690	775	85	11.0

E: *Estimated*
Source: *Academy of Educational Planning and Management (Ministry of Education.*

The over all input rate at primary stage is 89% (boys 99% and girls 79%, at middle stage this is 47.5% (55% boys and 40% girls), and at high stage, it is 29.5% (35% boys and 24% girls). give the impression of being at participation rate from gender perception, it may be pragmatic that girls partaking rate at all levels are lower than boys.

Table-12: Participation Rate (Percentage)

Stage	Year 1999-2000		
	Both	Male	Female
Primary Stage (Class I-V)	89.0	99	79
Middle Stage (Class VI-VIII)	47.5	55	40
Stage (Class IX-X)	29.5	35	24

Source:
i) *Academy of Educational Planning and Management*
ii) *Estimated population prepared by National Institute of Population studies.*
iii) *All Pakistan pre-school and school age Population 1981-2000 by National Education Management Information System (NEMIS).*

4. Public Sector Expenditure on Education

In Pakistan, during the present year 1999-2000, public sector expenditure on education is estimated at Rs.71.129 billion as compared to Rs.68.598 billion in the last year, showing an increase of 1.7%. Of which, development expenditure is Rs.7.687 billion, compared to Rs.6.321 billion last year, and non development expenditure is Rs.63.442 billion, as compared to Rs.62.276 billion last year.

Public sector expenditure on education as per centage of GDP for the last three years remained on average at around 2.2 percent as shown in Table3 and 4..

Table-13:   Public Sector Expenditure on Education (Rs. in Billion)

Budget	1997-98	1998-99	1999-2000
Development Exp.	7.65	6.32	7.69
Non-Dev. Expenditure	56.43	62.27	63.44
Total:-	64.08	68.60	71.13
Total Exp. As % of GNP	2.34	2.22	2.14

Source: Planning & Development Division.

5. **Research Problem**

In Sindh, inadequate statistical data regarding human resource caused drawback and results inaccuracies in making different plans in academic institutions in Sindh. The main drawback that creates a hitch in developing process in academic institution in Sindh is the lack of factual human resource [skilled and non skilled persons] information. Inadequate data can not be helpful in decision making for the development of human resource where education level is very low and academic institution low in funds.

6. **Research Methodology**

This study is based on qualitative and quantitative research. In this study, data were collected with the help of primary and secondary data. In this study, the sample is Sindh and the sub sample is Hyderabad government schools and private schools, out of which ten schools were selected through random sampling from public and ten from private schools. Total respondents were 120 while sixty respondents from public schools and sixty respondents from private schools [Male/ Female] were selected and ten close ended dichotomous questions were designed and used to collect the data. The secondary data was also collected via Economic Survey of Pakistan, Statistical Survey of Pakistan, to support study. The data were organized by using graphical presentation and charts and to signify the data.

7. **Data Analysis**

Following are the name of the Names of Government Schools at Hyderabad, out of which twenty schools were selected through random sampling

Table- 14:   Names of Government Schools at Hyderabad

S.No.	Name of School
1	Al-Razi High School
2	AA High School
3	Aisha High School
4	Al-Farooque High School
5	Allama Iqbal High School
6	Army Public School Sindh Regiment
7	Asif Memorial Public High School
8	Baba Foundation Public School
9	CAA Model High School (Civil Aviation Authority
10	Comprehensive Boys High School
11	Federal Government Boys High School
12	Federal Government Girls High School
13	Ghulam Husain Hayatullah High School
14	Government Pilot Secondry High School
15	Government (N) Apwa Girls Higher Secondary School
16	Government Allama Iqbal High School
17	Government Boys High School
18	Government Cantt Girls High School
19	Government Comprehensive Boys School
20	Government Girls Double Section High School
21	Government Girls High School
22	Government High School Hali Road Hyderabad
23	Governement Jinnah Girls High School
24	Government Model High School
25	Government Modern High School
26	Government Raza Memorial High School
27	Governnment Rooh-e-Islam High School

28	Governement CDO Education Girls Primary School
29	Government Sir Syed Girls High School
30	Government Girls Comprehensive High School
31	Government Girls High School Faqir Ka Pir
32	Government Girls High School
33	Government Girls Model School GOR Colony
34	Government Girls Pilot School GOR Colony
35	Himayat-ul-Islam Boys High School
36	Government Himayat-ul-Islam Girls High School
37	Governemnt Hope Full High School
38	Govt Islamia modern high school
39	Govt khadija high school
40	Govt khadija memorial Boys High School
41	Khadija Memorial Girls High School (Govt)
42	MA Jinnah Girls High School
43	Madarsatul-Banat Girls High School
44	Marium Siddiqa Girls High School
45	Memon Anjuman Boys High School
46	Memon Anjuman Girls High School
47	Mirza Qaleech Baig High School
48	Model School Old Campus University of Sindh
49	Muslim High School
50	Muslim High School Market
51	Roohy-Islam Girls High School
52	Roshan-ul Islam Girls High School
53	SK Raheem Girls High School
54	SAL Girls High School
55	SK Raheem Boys High School
59	Seth Hafiz High School

60   Seth Kamalu-din High School

61   Shah Latif Girls High School

62   Sir Syed Girls High School

Following are the name of the Names of Private at Hyderabad, out of which twenty schools were selected through random sampling

Table- 15:   Name of Private Schools at Hyderabad

S.No	Name of Private Schools
1	Aamir High School
2	Abdul Rasool High School
3	Adeel Model School
4	Aga Khan Girls High School
5	Aga Taj Muhammmed High School
6	Al-Hira Public School
7	Al-Huda Grammar High School
8	Al-Rehaman High School
9	Al-Falah High School
10	Al-Farabi High School
11	Ali's High School
12	Alvi Gils High School
13	Anees Hussain School of Excellence
14	Angel Paradise High School
15	Anglo Oriental School
16	Anna English School
17	Apwa Sindh Happy Home High School
18	Aqeel Bright Kids High School
19	Army Public School
20	Asif Memorial Public School
21	Baba Foundation Public School

22	Barbies House English Medium School
23	Beacon House School System (Qasimabad)
24	Beacon House School System(Latifabad)
25	Beacon House School System (Sindhi Muslim Housing Society
26	Blue Bird High School
27	Blue Sea , The School of Kids
28	Boston House Public School
29	Bright Future Public School
30	Bright Kids Academy
31	Bright Scope English Medium Elementary High School
32	Brilliance Academy
33	Bukhari High School
34	CAA Model School
35	City Cambridge High School
36	City High School
37	City Kehkashan School
38	City School Nursery Branch
39	Companion Grammar High School
40	Cosmopoliton High School
41	County Cambridge High School
42	Crecent Model High School
43	Angle Academy High School
44	Eden Grammar School
45	Education Home high School
46	Falcon House Grammar High School
47	Farhan Public Higher Secondary School
48	Farhan Public School
49	Fuji Foundation Model School
50	Foundation Public School (Thandi Sarak)

51	Foundation Public School (Latifabad)
52	Hyderabad School of Academic Excellence
53	Info Teach Public School
54	Isra Higher Secondary Wadhoo Wah
55	KB Jackson High School
56	Kamran Children Elementary High School
57	Kulsoom Ghulam Hussain Memorial English School
58	Kulsoom High School
59	Latif Niazi Memorial High School Junior Section
60	Liaquat Memorial High School
61	Little Angles Middle School
62	Little flower high school
63	MPL high school
64	Madina blessing high school
65	Manarat-al Noor School
66	Maryam High School
67	Mother Montessori Cambridge School
68	Mother Montessori Cambridge School Latifabad
69	Mohammadi English Teaching School
70	Multi - Purpose Child Welfare School And Center
71	Mumtaz High School
72	National High School
73	New Banat High School
74	New Sadia Cambridge High School
75	New Tiny Tots High School
76	Niazi Grammar School
77	Nobel Grammar School
78	Oxford Public High School
78	Pak Call School

80	Pakistan Pilot High School
81	Public Health School
82	Regional Telecommunication Training School
84	Roots Public School
85	Royal Cambridge School
86	Royal Grammar High School
87	Sadaf High School
88	Safiya Royal School
89	Saint Ghazali Elementary School
90	Shafiq Niazi High School
91	Shams High School
92	Sindh Birds English High School
93	Sindh Grammar High School
94	Somi Grammar High School
95	Sent Bonaventure's High School (Qasimabad)
96	Sent Bonaventure's High School (Tiluk Incline)
97	Sent Marry's Girls High School
98	Strong Base High School
99	Sunny High School
100	Tahir Kids High School
101	The Birds High School
102	The City School
103	The Flowers High School
104	Kehkashan High School
105	The Pioneers Cadet Academy
106	The Scholar's Academy
107	Tiny Tots High School
108	Tooba Children High School
109	True Educators School

110   VIP Public School

111   Zartaj Public School

112   Zeeshan Model High School

113   Zubair High School

114   Zaini Public School

115   Quaid Public High School

116   Shaheen Public School

117   Kids Corner High School

118   Ideal Public School

Table-16: Name of Selected Government Schools

Following is the list of names selected schools for study

S.No.	Name of Selected Schools
1	Sir Syed Girls High School
2	Shah Latif Girls High School
3	Muslim High School
4	Mirza Qaleech Baig High School
5	Model School Old Campus University of Sindh
6	Memon Anjuman Boys High School
7	Govt Islamia modern high school
8	Govt khadija high school
9	Government Girls High School Faqir Ka Pir
10	Government Cantt Girls High School

Following is the list of names selected schools for study

Table-17: Name of selected Private Schools at Hyderabad

S.No.	Name of Private Schools
1	Aga Taj Muhammmed High School

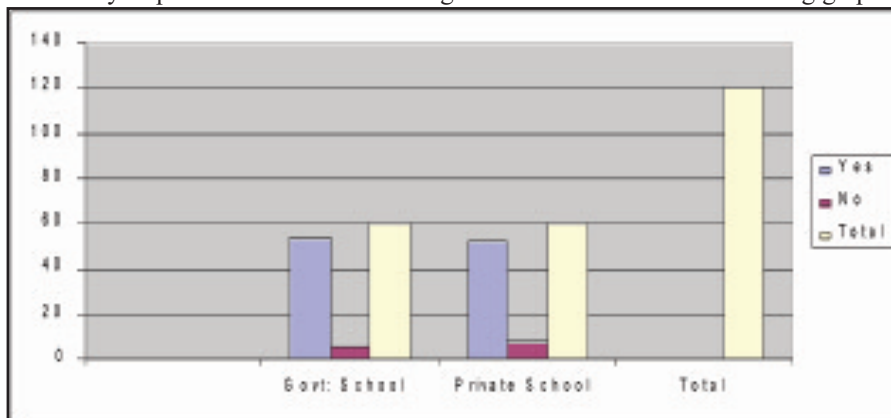| 2	Anees Hussain School of Excellence
3	Apwa Sindh Happy Home High School
4	Aqeel Bright Kids High School
5	Army Public School
6	Beacon House School System (Qasimabad)
7	Blue Bird High School
8	Blue Sea , The School of Kids
9	Eden Grammar School
10	Falcon House Grammar High School

Following is the description and graphical presentation of questionnaire asked by respondents from public and private schools

1. Statistics plays very important role to make decision in schools.

	Types of Schools			Total
		Yes	No	
Respondent	Government School	54	6	60
	Private School	52	8	60
	Total			120

Survey Note:

In this question, the number of respondent were 120 in which 54 respondent from Public Schools are in the favor of this question and 6 are in against on the other hand 52 respondents are In the favor of this question and 8 are in against from the Private schools side so this data reflects that majority of the respondents consider that statistics is very important for decision making in schools as shown in following graph.

2. The statistics is helpful to bring change in schools.

	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
Respondent	Government School	53	7	60
	Private School	50	10	60
	Total			120

Survey Note:

In this question, the number of respondents were 120 in which 53 respondents from Public Schools are in the favor of this question and 7 are in against on the other hand 50 respondents are In the favor of this question and 10 as shown in graph respondents are in against from the Private schools side so this data reflect that majority of the respondents consider that statistics is helpful to bring change in schools.
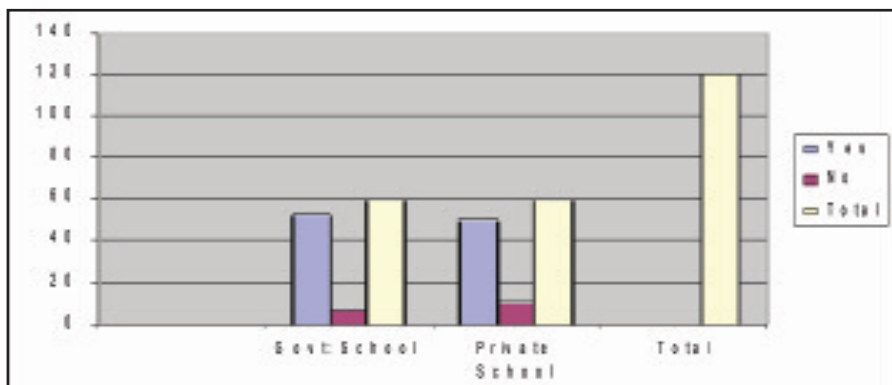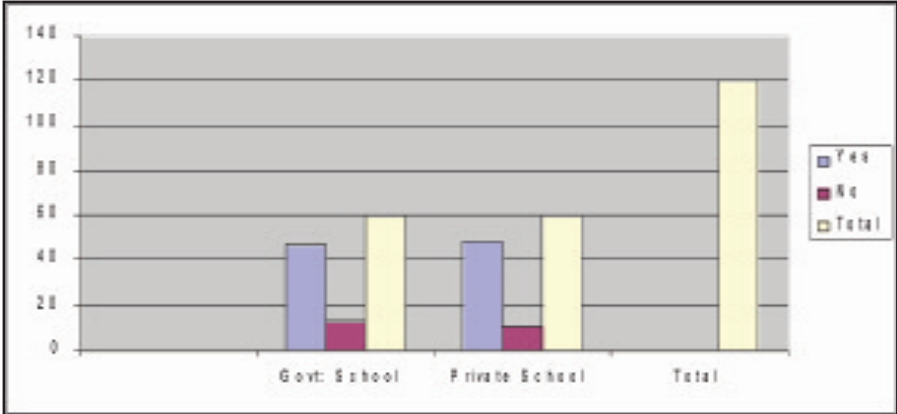

3. The accuracy of information to make different policies.

	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
Respondent	Government School	47	13	60
	Private School	49	11	60
	Total			120

Survey Note:

In this question, the total number of respondents were 120 in which 47 respondents from Public Schools are in the favor of this question and 13 respondents are in against on the other hand 49 respondents are In the favor of this question and 11 respondents are in against from the Private schools side so this data reflects that majority respondents consider that the accuracy of information to make different policies is also shown in following diagram.
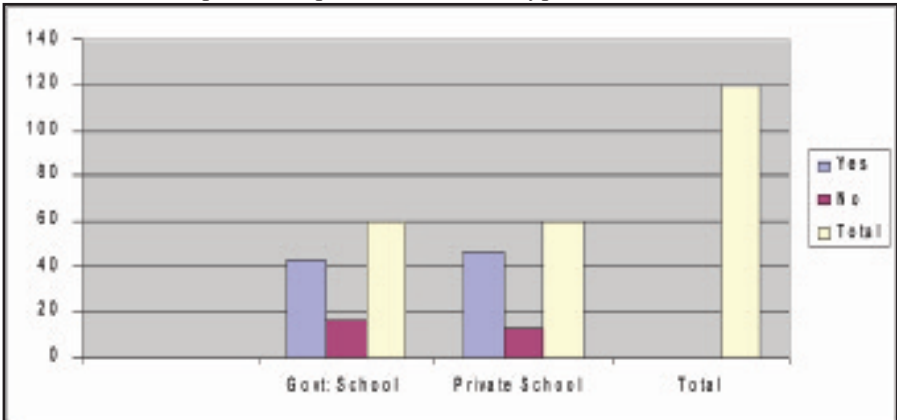
4. The accuracy of information is helpful to implement different types of decision in schools.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	43	17	60
	Private School	47	13	60
	Total			120

Survey Note:

In this question, the total number of respondents were 120 as shown in chart in which 43 respondent from Public Schools are in the favor of this question and 17 respondents are in against on the other hand 47 respondents are In the favor of this question and 13 respondents are in against from the Private schools side so this data reflects that majority respondents consider that the accuracy of information is helpful to implement different type of decision in schools.
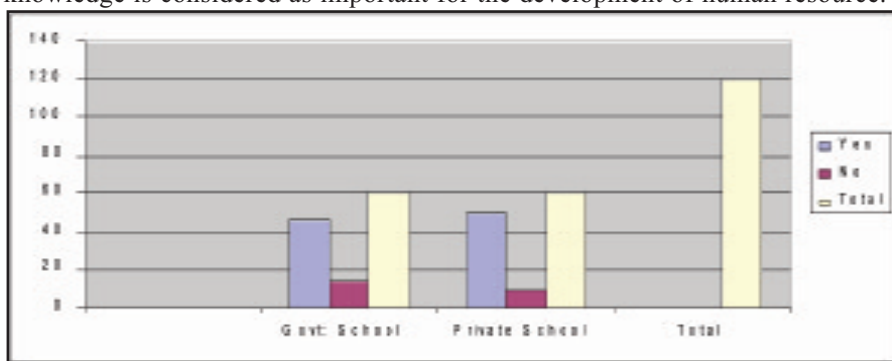
5. Statistical knowledge is considered as important for the development of human resource.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	46	14	60
	Private School	50	10	60
	Total			120

Survey Note:

In this question table and graph shown the total number of respondents were 120 in which 46 respondents from Public Schools are in the favor of this question and 14 respondents are in against on the other hand 50 respondents are In the favor of this question and 10 respondents are in against from the Private schools side so this data reflects that majority of the respondents consider that Statistical knowledge is considered as important for the development of human resource.
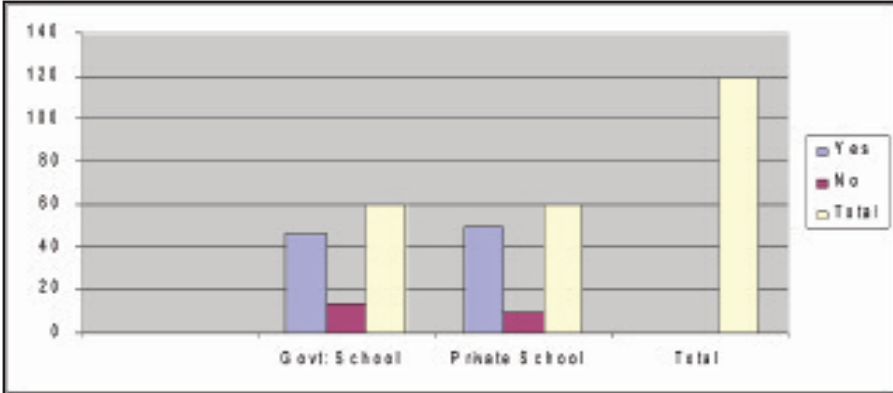

6. Statistics application and numerical information is work like assets for schools.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	48	12	60
	Private School	52	8	60
	Total			120

Survey Note:

In this question, the total number of respondents were 120 in which 48 respondents from Public Schools are in the favor of this question and 12 respondents are in against on the other hand 52 respondents are In the favor of this question and 8 respondents are in against from the Private schools side so this data reflects that majority respondents consider that Statistics application and numerical information is work like assets for schools.

7. The factual information can give productive result and can be helpful to improve economic, financial, social and demographic life of academician and registered students.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	53	7	60
	Private School	55	5	60
	Total			120

Survey Note:

In this question the table and graph shown that, the total number of respondents were 120 in which 53 respondent from Public Schools are in the favor of this question and 7 respondents are in against on the other hand 55 respondents are In the favor of this question and 5 respondents are in against from the Private schools side so this data reflects that mostly respondents consider that The factual information can give productive result and can be helpful to improve economic, financial, social and demographic life of academician and registered students.
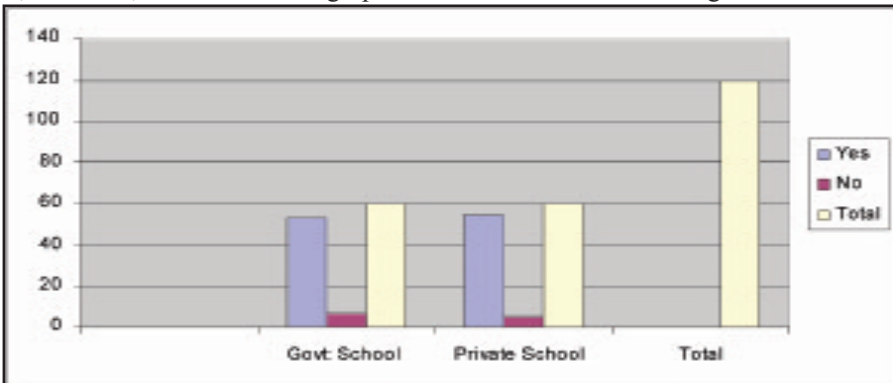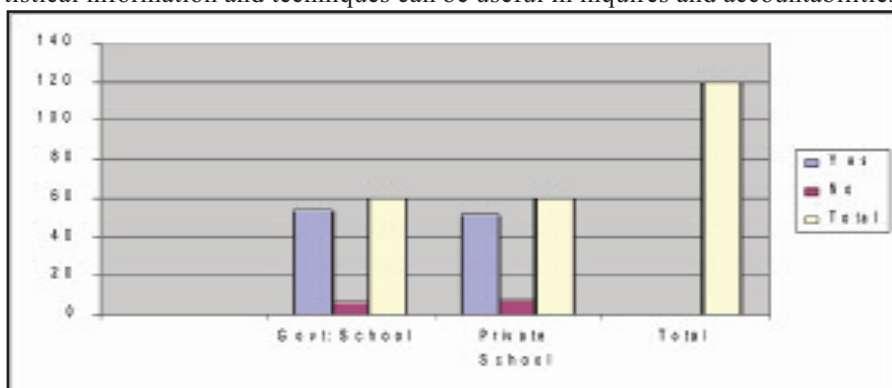
8. The statistical information and techniques can be useful in inquires and accountabilities.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	54	6	60
	Private School	52	8	60
	Total			120

Survey Note:

In this question, the table and graph shown the total number of respondent were 120 in which 54 respondents from Public Schools are in the favor of this question and 6 respondents are in against on the other hand 52 respondents are In the favor of this question and 8 respondents are in against from the Private schools side so this data reflects that majority respondents consider that The statistical information and techniques can be useful in inquires and accountabilities.


9. Statistical information is also helpful to keep the record of human resource and monitor performance of human resource.

Respondent	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
	Government School	52	8	60
	Private School	54	6	60
	Total			120

Survey Note:

In this question, the total number of respondents were 120 as shown in table and graph in which 52 respondent from Public Schools are in the favor of this question and 8 respondents are in against on the other hand 54 respondents are In the favor of this question and 6 respondents are in against from the Private

schools side so this data reflects that majority respondents consider that Statistical information is also helpful to keep the record of human resource and monitor performance of human resource.
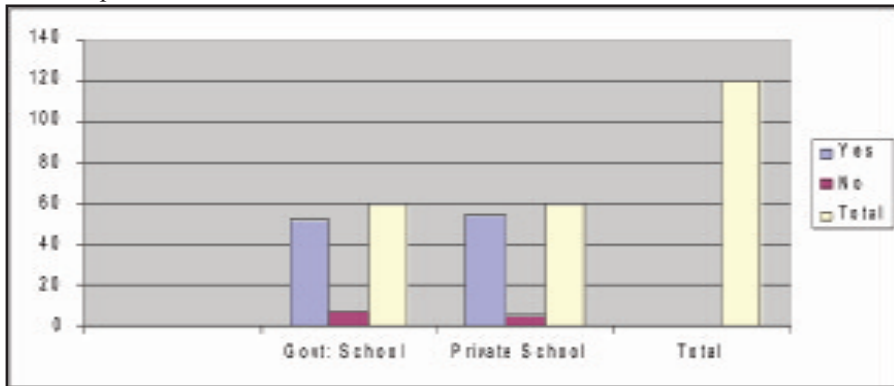

10. Statistical procedure can appraise workers.

	Types of Schools	Respondent Response	Respondent Response	Total
		Yes	No	
Respondent	Government School	49	11	60
	Private School	53	7	60
	Total			120

Survey Note:

In this question, the total number of respondents were 120 in which 49 respondents from Public Schools are in the favor of this question and 11 respondents are in against on the other hand 53 respondents are In the favor of this question and 7 respondents are in against from the Private schools side so this data reflects that majority respondents consider that Statistical procedure can appraise workers.
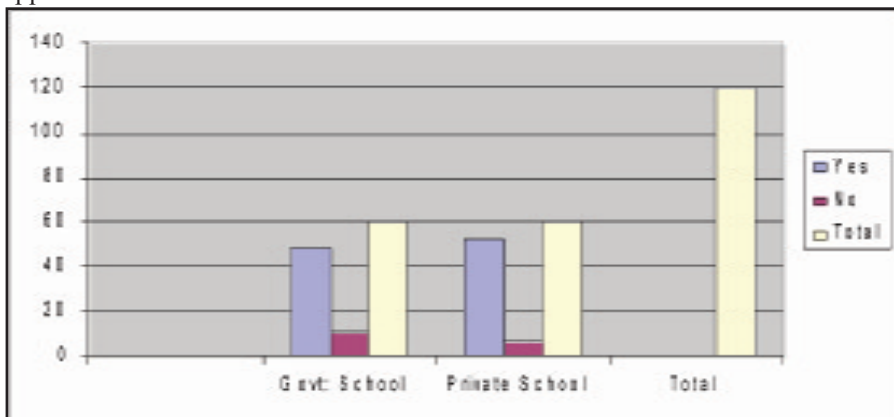
8. **Conclusion**

Human resource play major role to develop academic institutions to bring economical progress in the country especially in Sindh. This can not be possible if faculty, management is not skilled and specialized in their specific fields. Only quality human resource can be able to produce qualified product from their academic institutions. The resources of the schools if utilized in effective manner then development can be possible and achievement of multi aims and objectives in future. In the schools of Sindh, strategic human resource planning and management is required to manage and bring change and to run on the path of success. In Sindh, accurate statistical information can be helpful to bridge academic policies or to take different type of decisions in academic institutions that can contribute like a backbone for the country. Academia need to equip with modern skills that are necessary to compete in modern era.

9. **Recommendation**

Following are some recommendations that if can be implemented can produce fruitful results. Introduce different policies and rules and regulation which can help to improve human resource skills.

- Introduction of statistics at schools level
- Introduction of research at schools level
- Survey research on monthly basis regarding attendance of everyone in schools
- Introduction and implementation of performance appraisal system record for everyone on monthly basis
- Recording of innovative policies
- Launching of schools website along with all records
- Civil defence training to faculty, management and children and keep record

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11. End Notes

*   Data: The term *data* is group of word that represents the qualitative or quantitative information.

*   Quantitative: Information that can be counted or expressed numerically this type of data we normally use for experiments, charts and graph.

*   Qualitative: This information can't be counted or expressed numerically in this type of data we normally analyze the difference between qualitative and quantitative data.