



CURRENT RESEARCH PRACTICES IN HIGHER EDUCATION INSTITUTIONS OF KHYBER PAKHTUNKHWA

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Abstract: The main purpose of the current study aimed to examine the present research practices in Higher Education Institutions (HEIs) of Khyber Pakhtunkhwa. Survey research approach was applied. For this purpose, 254 faculty members were selected from eight public sector universities through stratified sampling method. A self-developed questionnaire comprised of demographic attributes of teachers in the first part and statements related to institutional and personal research practices contained in the second part. Independent sample t-test was applied. The result of the study indicates that faculty members satisfied with institutional policies, resources and shows dissatisfaction about research funds allocated by the Government and Higher Education Commission.

Keywords: Institutional Research Practices, Personal Research Practices

I. INTRODUCTION

The role of academicians of Higher Education Institutions (HEIs) is significant in both teaching and research. There is no doubt that research is considered an important and essential part of university. Therefore, higher education institutions are considered entrepreneur engine and hub of research-oriented knowledge generator (Ali, Saeed & Munir, 2018). University academicians play a significant role in the performance of university. Research publication enables faculty to earn better and salary and better tenure. Academicians are often called researchers because they always involves in research activities like research projects, filed research and research publication. So, participation in such research activities polished their research skills resultantly, high productivity in research field increases the university ranking. It is necessary for reshape the new data, empower the faculty members to grasp their specific field of research, to dissect their skills, look at also permit the faculty to understand their aptitudes which is important for effective teaching and positive attitude towards research (Batool, 2018). One of the vital role of university teachers in Pakistan is to conduct research because the productivity of research one of the essential criteria for the performance appraisal of universities at Higher Education Commission (Khan, Bibi & Khan 2018). Indeed, teaching and research are equally important for university for teachers and they pay equal focus to teaching and research as a part of their responsibility because involvement in research activities enhances the teaching quality (Javed, Ahmad & Kharo, 2020).

The higher education institutions of technologically advanced countries have rich research culture as compared to developing countries. The scholarly output of university teachers is a significant contributing factor in the development of knowledge based economy of developed countries. On the opposite side, higher education institutions in developing countries have firm teaching tradition but poor research culture (Salazar- Clemeña & Almonte-Acosta, 2007). In Pakistan, research in universities has witnessed growth after the establishment of Higher Education Commission (HEC) in 2002. HEC initiated many reform to invest in universities and to revive declining research culture. HEC funded universities to develop their research capabilities and established strong research culture (Osama et al., 2009). However, this development is not substantial as compared to the neighboring countries like China, Iran and India. It is observed that only 90 researcher are involve in research and development per million of the total population of Pakistan, compared with Japan (5126 researchers), Korea Republic (4281 researchers) and Singapore (5005 researchers). The share of Pakistani research in the world's publication is 0.4% while India's share 20%. In Pakistan, only 2.6% students having age 17-23 years were enrolled in HEIs while 6.2% in Indian and 12.7% students enrolled in Iran (Jave et al., 2020). However, the productivity of research observed improving after establishment of HEC. The spending budget on universities was increased from RS. 3.9 billion to RS. 33.7 billion. Consequently, significant increase in the research publication jumped from 1138 in 2005 to 12413 in 2017 (Naeem, Tahir Afridi & Bilal, 2019).

Thus, the current study explores the present research practices and established research environment in universities of Khyber Pakhtunkhwa in perspective of faculty perception. Following objectives are made:-

1. To examine the perception of faculty members regarding intuitional research practices in HEIs in perspective of demographic attributes (Gender, designation and experience).
2. To investigate the faculty views regarding individual research practices in HEIs across demographic attributes.

Significance of the study

The primary focus of this study is to explain and examine the prevailing research practices in the public sector universities of Khyber Pakhtunkhwa. The current study is helpful in improving the faculty interest towards research activities. This study highlights the supervisory practices and their critical role in the contribution in research productivity and university performance. This study provides a clear picture about the institutional and personal research practices and academician's attitude towards research work. The findings of the present study are beneficial for administrators and HEC to know about the existing research culture of the selected universities.

Hypothesis of the Study

Following hypotheses are formulated:-

H₀₁: There is no significant difference in faculty's perception regarding institutional research practices in across demographic attributes.

H₀₁: There is no significant difference in faculty's perception regarding institutional research practices demographic attributes.

II. LITERATURE REVIEW

Institutional Research Practices

There are many indicators of strong research culture and institutional is one of them. Institutional factor play a vital role in the university performance in perspective of research productivity. Institutional factor contains policy, mission and goals, resources (physical and financial), seminar and workshops and Research funds (Meigounpoory & Ahmadi, 2012). There are some attributes identified by Townsend and Rosser (2007, batool) which is associated with research quality such as clear mission and goals, qualified and skillful staff, conducive environment for research, accessibility to resources, reward system and research collaboration. According to Nguyen, Klopper and Smith (2016) research collaboration play a significant role in high research productivity. Research collaboration consists in developing relationship in research matters, maintain relationship with staff members and using it for achieving research objectives. It has proved that positive correlation between high collaboration and research productivity. According to White, James, Burke and Allen (2012) there are different ways of collaboration occurs between colleagues in research publications, research projects and working together in research teams. This happens where an environment of mutual research interest, shared research goals and values. Nguyen et al. (2016) focused that collaboration should be continuously occurs between the colleagues in order to maintain research motivation and improve research culture in the institution. Continuous collaboration creates a supportive research culture among faculty members. So, rich research culture leads towards greater performance of university and high productivity in research output (Batool, 2018). Noreen and Adeeb (2014) explored that lack of physical resources in the institutions like libraries, access to internet, photocopier, workshop Hall which influences the research practices. Moreover, research grants are necessary for effective research practices and universities in Pakistan facing issues regarding research grants and majority of faculty members demand research funds from HEC. Research collaboration is the only factor found in majority of the institutions.

Personal Research Practices

Individual or personal practices contain research skills and interest, attitude towards research, research knowledge and research output (Batool, 2018). According to Salazar-Clemena and Almonte-Acosta (2007) found that dome faculty members have low research productivity due to lack of research skills and low

interest towards research. Therefore, research enhancement skills program may arrange for academicians to increase the level of research interest and development of research skills. According to North, Zewotir and Murray (2011) the university teachers' performance is determined through their research work, paper publication in recognized and impact factor journals, presentation of research paper in national and international conference, writing books and funded projects available. Moreover, demographic attributes of the teachers such as age and experience may influence on their performance.

Batool (2018) explored that research performance may differ with time. Young teachers are more energetic and have interest in conducting research and create new knowledge. They have more time and enthusiasm to accomplish prescribed goals. Contrary, senior faculty members have less time to conduct research due to administrative responsibilities. They are less determined as compared to young teachers. Ghabban et al. (2019) illustrates that there are numerous factors which affect the research productivity and research culture including university's policies, mission and goals, researchers' preferences, attitude of researchers towards research. In other words, personal and environmental factors play a significant role in improving research productivity. Bentley depicts that personal and institutional factors could affect the number of research publications between the countries. Both personal and institutional research practices are critical elements to improve the research productivity and performance of the university. According to Shahbazi-Moghamdam et al. (2015) personal, behavioral and university factors are most important for increasing research publication and citation rates.

Personal or individual research practices are an essential factor to enhance the performance of teachers. Research productivity is highly variable and can be affected by many factors like institutional, personal, creativity, research funds, ambition and research skills. Lack of research skills, unfamiliarity with computer technology and low motivation towards research are one of the main factors which cause low research productivity (Ghabban et al., 2019).

Conceptual Model

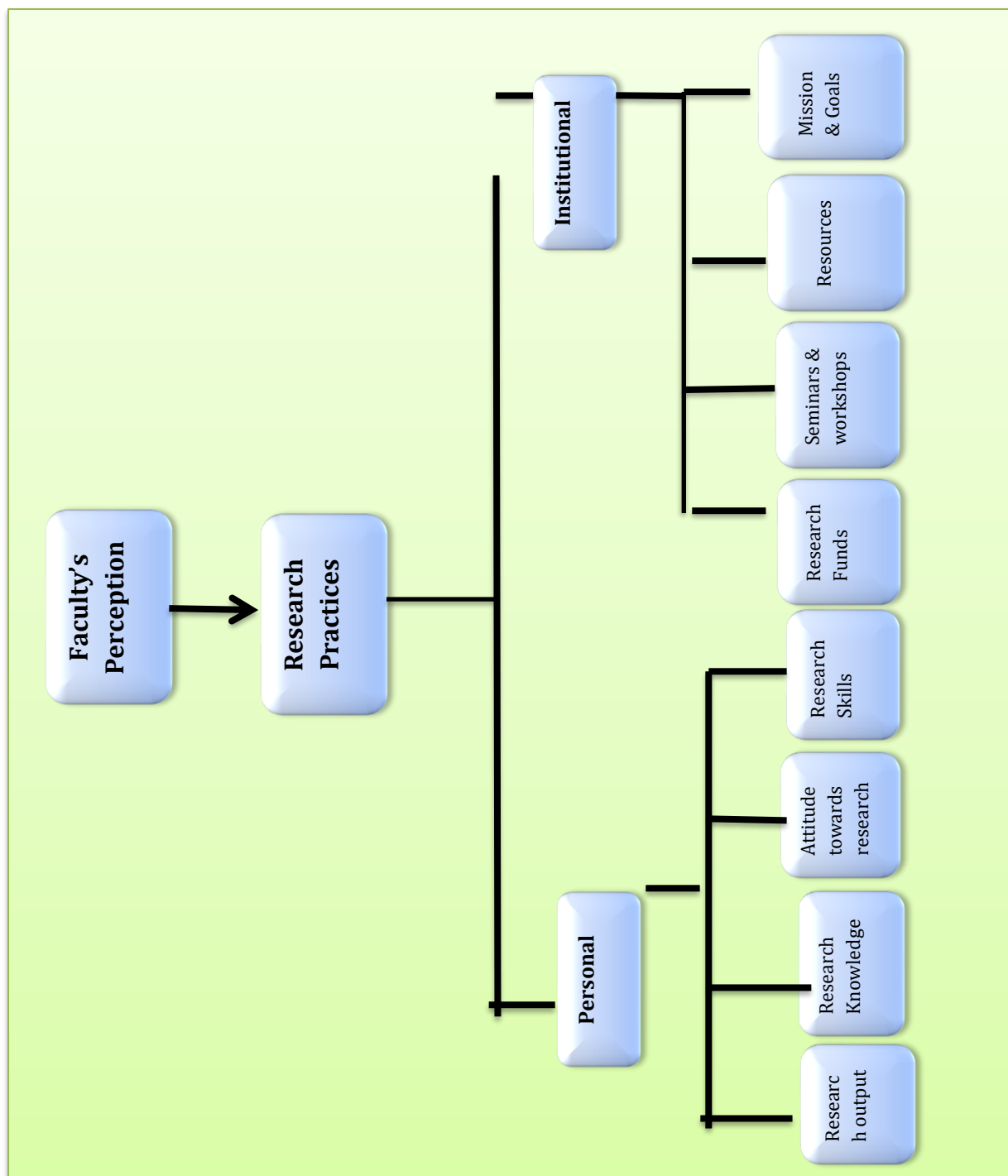


Figure 1: Conceptual model

Figure 1 indicates the conceptual model regarding the faculty perception about existing research practices employed in the universities. Conceptual framework is the explanation of research of how research problem would be addressed. It shows in integrated manner of looking at a research problem (Liehr & Smith, 1999). The conceptual framework illustrates the faculty perception about the institutional and personal research practices in HEIs. Moreover, different dimensions of institutional research practices such mission and goals, resources, seminars and workshop and research funds whereas personal factor

research skills, attitude towards research, research knowledge and research output are explored in perceptive of faculty views.

III. RESEARCH METHODOLOGY

Research Design

Survey research design was followed as per the nature of the study. According to Creswell (2014) survey research design is process in which scholar identify the trend in the perception, attitude and behavior of small or large group of people through research instrument. In the present study, researcher examined the faculty views regarding existing research practices applied in the higher education institutions through questionnaire to achieve the research objective.

Population and Sampling Method

All faculty members including lecturer, assistant professors, associate professors and professors working in eight public sector universities of Khyber Pakhtunkhwa was constituted the population of the study. To determine the sample size, a sample 254 was selected out 692 faculty members (population) through stratified sampling method. Yamani (1967) mathematical formula was applied to determine the sample size.

Table 1 Computation of sample size

E	N	n (sample size)
0.5	692	
Formula	$N = \frac{N}{1 + Ne^2} = \frac{692}{1 + 692(0.5)^2}$	254

Research Instrument

A self-developed questionnaire was used for the purpose of data collection. The questionnaire contained two portions. The first part of the instrument comprised of respondents' demographic attributes including gender, experience and age whereas second part further segmented into two parts. First part contained statements about institutional practices whereas second part comprised statements regarding personal research practices.

Validity and Reliability

Questionnaire was validated by applying index of Item Congruence- Objectives (IOC). The basic purpose of the IOC is to measure the content validity of the research instrument while Cronbach's Alpha was used to estimate internal consistency of the instrument. Table 2 indicates score of IOC and Cronbach's alpha.

Table 2 Validity and Reliability Score

Research Practices	IOC = $\frac{\sum R}{N}$	Cronbach's Alpha (α)
Institutional Practices	0.6-0.9	.843
Personal Practices	0.5-1.0	.903

Data Collection and Analysis

Researcher used different modes for data collection. For this purpose, researcher sent questionnaire via email, postal service and personally visited to some universities. Researcher received 237 (93%) completed questionnaires. To examine the views of faculty members across demographic attributes, independent sample t-test was applied.

IV. DATA ANALYSIS

Table 3 Descriptive statistics

Demographic attributes	Frequency	Percentage
Gender	Male	168
	Female	69

Research Experience	1-15 Years	91	38%
	More than 15 years	146	42%

Table 3 indicates sample information by using Descriptive statistics (Frequency and Percentage). The table shows that 168 male and 69 female academicians participated in the study. In addition, 91 teachers with 1-15 years experiences and 146 teachers with more than 15 years experience participated in the stud. The table also indicates that 148 faculty members having age 25-40 years and 89 faculty members with age 41-60 years participated in the study.

Table 4 Gender comparison of Faculty's Views regarding Institutional Research Practices

	Gender	N	Mean	S.D	t-score	P-value
Policy, Mission & Goals	Male	168	3.10	1.42	-3.78	.001
	Female	69	3.71	1.02		
Resources (Physical & Financial)	Male	168	3.47	1.45	-.112	.911
	Female	69	3.49	1.92		
Seminar & Workshop	Male	168	3.24	1.34	1.51	.131
	Female	69	3.10	0.92		
Research Funds	Male	168	2.18	1.20	-1.78	.076
	Female	69	2.07	1.17		

Table 4 shows the views of faculty members applying t-test. The table indicates same perception of both male and female faculty members in perspective of current resources and seminars while research while significant difference between male and female views regarding institutional policies. Moreover, faculty members show significantly low satisfaction regarding research funds.

Table 5 Experience wise Comparison of Faculty's Views regarding Institutional Research Practices

	Experience	N	Mean	S.D	t-score	P-value
Policy, Mission & Goals	1-15 years	91	3.53	1.17	-1.78	0.76
	More than 15 years	146	3.77	1.21		
Resources (Physical & Financial)	1-15 years	91	3.47	1.45	-.112	.911
	More than 15 years	146	3.49	1.19		
Seminar & Workshop	1-15 years	91	3.10	1.42	-8.28	.000
	More than 15 years	146	4.36	1.02		
Research Funds	1-15 years	91	2.33	.562	.857	.392
	More than 15 years	146	2.25	.529		

Table 5 shows that faculty members have same perception regarding institutional policy, mission and goals, institutional resources and research funds whereas significance differences the teachers' views regarding seminar and workshop across research experience.

Table 6 Gender comparison of Faculty's Views regarding Personal Research Practices

	Gender	N	Mean	S.D	t-score	P-value
Research Skills & Interest	Male	168	3.48	1.15	.950	.343
	Female	75	3.37	.885		
Attitude towards Research	Male	168	3.62	.923	-.492	.623
	Female	75	3.67	.979		
Research Knowledge	Male	168	3.92	1.57	1.54	.563
	Female	75	3.81	1.88		
Research Output	Male	168	3.46	1.03	-3.23	.001
	Female	75	3.09	.737		

Table 6 indicates faculty's views regarding personal research practices. The table reveals that same perception of both male and female faculty members in perspective of research skills and interest, attitude towards research and research knowledge while significant difference was found between the views of male and female faculty member about research output.

Table 7 Experience wise Comparison of Faculty's Views regarding Personal Research Practices

	experience	N	Mean	S.D	t-score	P-value
Research Skills & Interest	1-15 years	91	4.45	.555	-.825	.411
	More than 15 years	146	4.53	.667		
Attitude towards Research	1-15 years	91	3.56	.970	-2.97	.003
	More than 15 years	146	3.86	.793		
Research Knowledge	1-15 years	91	4.72	.449	-.497	.620
	More than 15 years	146	4.46	.498		
Research Output	1-15 years	91	3.22	.641	-.357	.000
	More than 15 years	146	3.26	.710		

Table 7 indicates the perception of faculty members regarding personal research practices in perspective of research experience. The table reveals that faculty members have same perception individual's research skills and interest and research knowledge. The table shows that significant difference in teachers' views regarding individual's attitude towards research and research output.

V. DISCUSSION

The current research attempts to explore the present research practices in Higher Education Institutions of Khyber Pakhtunkhwa. The study focuses on the institutional and personal research practices employed in the selected higher education institutions. Research findings indicates that same perceptions of both male and female faculty members regarding dimensions of institutional factor including physical resources, seminars and research funds while no significant difference found regarding institutional policy and goals. Same result was mentioned by Yang (2017) and North et al. (2011). He explored institutional research like resources and research culture play significant role in the research output of the university teachers. The result of the study depicts that same perception of faculty members regarding personal research practices including research skills and interest, attitude towards research and research knowledge while no significant difference was found regarding research output. The result of the study is in line with Naeem et al. (2019). They explored that one of the key factors which influence research culture are institutional and personal factors.

VI. CONCLUSION AND RECOMMENDATIONS

The present research constructed two important dimensions of research practices: institutional research practices and personal research practices. Institutional research practices contain fours examined through four aspects; Institutional policy, mission and goals, resources (physical and financial), seminar and workshops and Research funds whereas personal research practices also examined through four aspects including contain research skills and interest, attitude towards research, research knowledge and research output. The study concluded that faculty members are not satisfied with government or HEC research funding. They satisfied with institutional policies developed for rich research culture. They study also concluded that research out is vary from university to university. Rich research environment leads towards high research output. The study explored positive attitude of faculty members towards research practices. The study recommended that increase the funding to universities in order to improve the research practices and greater research output.

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