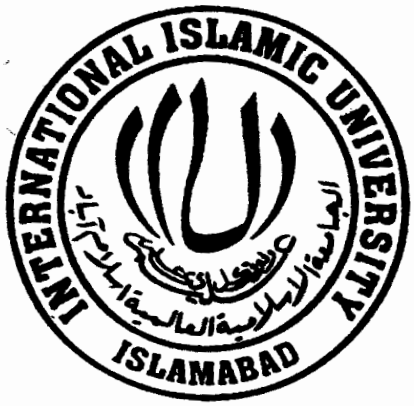
Factors Related to Research Productivity at International Islamic University Islamabad Pakistan



By

Muhammad Zafar Iqbal

26-FSS/MSEDU/F07

DEPARTMENT OF EDUCATION
FACULTY OF SOCIAL SCIENCES
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD
2009

15-7-2010

Revised
1- Two copies with one PDF
2- Define main & c2
3- Edit Author's name
19/1/2011

Universities and colleges - Faculty - Research
Universities and Colleges - Faculty - Statistics
Universities and colleges - Evaluation

Factors Related to Research Productivity at International Islamic University Islamabad Pakistan

By

Researcher
Muhammad Zafar Iqbal
Reg. No. 26-FSS/MSEDU/F07

Supervisor
Dr. Azhar Mahmood

DEPARTMENT OF EDUCATION
FACULTY OF SOCIAL SCIENCES
INTERNATIONAL ISLAMIC UNIVERSITY
ISLAMABAD

2009

Factors Related to Research Productivity at International Islamic University Islamabad Pakistan

Muhammad Zafar Iqbal

Reg. No. 26-FSS/MSEDU/F07

Submitted in partial fulfillment of the requirements for

MS in Education at the Faculty of Social Sciences,

International Islamic University, Islamabad.

DEPARTMENT OF EDUCATION
FACULTY OF SOCIAL SCIENCES
INTERNATIONAL ISLAMIC UNIVERSITY,ISLAMABAD
2009

CERTIFICATE

This thesis entitled "Factors Related to Research Productivity at International Islamic University Islamabad Pakistan" submitted by Muhammad Zafar Iqbal in partial fulfillment of MS degree in Education, has been completed under my guidance and supervision. I am satisfied with the quality of student's research work and allow him to submit this thesis for further process as per IIUI rules and regulations.

Date: ----------

Signature: ----------

Name: Dr. AZHAR MAHMOOD

Factors Related to Research Productivity at International Islamic University Islamabad Pakistan

By

Muhammad Zafar Iqbal

26-FSS/MSEDU/F07

Accepted by the Department of Education, Faculty of Social Sciences, International Islamic University, Islamabad as partial fulfillment of the requirements of the degree of **MS IN EDUCATION.**

Supervisor: ----------

(Dr. Azhar Mahmood)

Internal Examiner: ----------

(Dr. Shamsa Aziz)

External Examiner: ----------

(Brig. (R) Dr. Allah Bakhsh Malik)

Head,
Department of Education,
International Islamic University,
Islamabad.

Dean,
Faculty of Social Sciences,
International Islamic University,
Islamabad.

ABSTRACT

Research is a vital and necessary part of modern university education. Universities are producers of new knowledge. Research publications are necessarily required for academic employment and promotion. The purpose of this study was to investigate the factors related to research productivity at International Islamic University, Islamabad and to find out the causes of high and low research productivity at university level. Population of the study comprised of 476 faculty members working at International Islamic University Islamabad, Pakistan. A sample consisting of 232 male and female faculty members was selected through the stratified sampling technique. Quantitative research methodology was adopted; data were collected from IIUI academicians through opinionnaire. The collected data was analyzed by using statistical methods and SPSS (version 12). To describe the data at the initial stage, percentages were calculated. At the second stage, Mean score, SD and Chi-Square were applied. On the basis of findings, the conclusions were drawn that extra teaching load, performance of administrative duties along with academic duties, lack of funds, nonexistence of research leave, negative attitude of the faculty toward research, lack of research skills, non-availability of latest books, absence of professional journals and fewer number of university own journals are the major causes of low productivity of IIUI faculty. Faculty members were satisfied with the computer and internet facility provided to them by the university. However, they wanted more research grants/funds, availability of latest books & journals, arrangement of research conferences and seminars. Based on the findings of the study, it was observed that faculty members wanted escape from administrative duties. They wanted more incentives and rewards, establishment of departmental libraries and desired to have exposure to foreign universities. According to the faculty members, they should be given less teaching load and smooth progressive environment to increase the research productivity. Based on findings of the study, it is suggested that positive attitude and excellent interpersonal relations of the faculty members cause high productivity. Faculty members should share ideas and research work among one another to enhance their research output. Faculty members having good number of publications can motivate and guide their colleagues who have no research output. University management should collaborate with renowned universities and research organizations. Heads of the departments and Deans of the faculties should issue appreciation letters to the faculty members who publish papers/articles in recognized journals or present their papers at conference proceedings.

Dedicated to

Researcher's mother, father, wife and children, whose love, patience and sacrifice was a constant source of inspiration during the study.

ACKNOWLEDGEMENTS

I offer all the praises, deepest appreciation and self-effacing thanks to Almighty Allah, the most beneficent, the supreme, the highest, the omnipotent and the omnipresent, the existent creator, the cherisher and the sustainer of mankind. I am thankful, that my creator made me the follower of the great educator and the leader of all times, **Prophet Hazrat Muhammad** (peace be upon him). My creator endowed me with vision, will, energy, courage and patience to complete this study.

I extend my cordial and sincere gratitude to Dr. Azhar Mahmood Chaudhary, the supervisor of my research, for his guidance, endurance, sincerity, motivating discussions, academic attention and plenty of time. I owe a special debt, deepest respect and appreciations to Prof. Dr. Khalid Hassan Bokhari, the Chairman, Department of Education. I would also like to pay special thanks to Prof. Dr. A. R Saghir, who provided me with valuable contributions, especially extending help in data analysis. I am also thankful to Dr. Asad Abbas Rizvi, Dr. Muhammad Munir Kayani, Dr. Saeed-ul-Hassan Chishti and Sheikh Tariq Mahmood, for their time to time guidance on a number of occasions.

I express my sincere thanks to my father, who is more than a father and provided me a chance to continue my education up to M.S level, my wife, my sons and daughter for their support, helpful suggestions and encouragement. I can not forget the support and co-operation extended by my uncles Chaudhary Hassan Muhamamd and Chaudhary Khadim Hussain.

I am thankful to Mr. Abdul Majeed, Additional Director, Personnel, Hafiz Muhamamd Ijaz Abbasi, Assistant Director, Personnel. Special thanks go to all the respondents for their cooperation and hospitable nature, which really helped me a lot.

In addition, I would also like to pay thanks to my friends Khalid Mahmood Malik, Dr. Waheed, Lecturer COMSAT, Hafiz Aftab Ahmed, Lecturer, IIUI, Dr. Saleem Mughal, Lecturer, G.C. University, Faisalabad, Mr. Muhammad Afzal, Lecturer, Govt. Degree College Dinga, Mr. Muhammad Sadique, Research Officer, Allama Iqbal Open University, Islamabad, Mr. Muhammad Nasir Khan, Research Associate, Mr. Muhammad Jawad Shakir, Programme Coordinator, FMS, IIU, Mr. Riaz Laghari, Lecturer in English, F.G Liaqat Ali Degree College, Rawalpindi, Mr. Gulenaushad, Mr. Muhammad Rashid, Mr. Athar, Mr. Muhammad Ibrar and Mr. Khurshaid Alam.

Last but not the least, I would like to pay thanks to the composers of the study namely Mr. Muhammad Irfan Malik and Mr. Muhammad Ameen. I am also thankful to the Library staff of Allama Iqbal Open University, International Islamic University, Islamabad, National Library, Islamabad and Arid Agriculture University, Rawalpindi.

Muhammad Zafar Iqbal

LIST OF ABBREVIATIONS

IIUI: International Islamic University, Islamabad.

HEC: Higher Education Commission (Islamabad)

FSL: Faculty of Shariah & Law.

FET: Faculty of Engineering and Technology.

FBAS: Faculty of Basic and Applied Sciences.

FLLH: Faculty of Languages, Literature and Humanities.

FOA: Faculty of Arabic.

FOE: Faculty of Economics.

IIIE: International Institute of Islamic Economics.

IRC: Information Resource Center.

FUS: Faculty of Islamic Studies (Usuluddin).

FMS: Faculty of Management Sciences.

FOSS: Faculty of Social Sciences.

IRI: Islamic Research Institute.

DA: Dawah Academy.

SA: Shariah Academy.

DVIP: Demographic Variable Information Performa.

TTS: Tenure Track System.

BPS: Basic Pay Scales.

SSHRC: Social Sciences & Humanities Research Council.

NRPU: National Research Program for Universities.

TABLE OF CONTENTS

Sr. No.	Title	Page No.
1	**Chapter 1 INTRODUCTION**	1
1.1	Introduction	1
1.2	Statement of the problem	3
1.3	Significance of the Study	3
1.4	Objectives of the Study	4
1.5	Research Questions	4
1.6	Delimitations	4
1.7	Definition of Terms	5
1.8	Population	7
1.9	Sample	7
1.10	Instrument	8
1.11	Data Collection	9
1.12	Data Analysis	9
2	**Chapter 2 REVIW OF RELATED LITERTURE**	10
2.1	Definitions of Research	10
2..1.1	Characteristics of good research	15
2.2	What is Research Productivity?	15
2.2.1	What is Research Paper?	16
2.2.2	What is not Research Paper?	18
2.2.3	Definitions of Research Paper	19
2.2.4	Why Research Papers are necessary?	20
2.2.5	Steps in Writing of Research Paper	22
2.2.6	Parts of a Research Paper	24
2.2.7	Preparation and Submission of Research Papers	25
2.2.8	Measurement of Research Productivity	32
2.2.8.1	Quantity Measurement	33
2.2.8.2	Measurement of Quality	33
2.2.9	Determinants of Research Productivity	34
2.2.10	What is Research Journal	34
2.2.11	Pressure for Publications	35
2.2.11.1	Number of Research Papers Required for BPS Scheme	36
2.2.11.2	Number of Research Papers Required for TTS Scheme	36
2.3	Research Productivity and Role of Universities	37
2.4	Research Productivity and Role of Higher Education Commission	43
2.4.1	National Research Programme for Universities (NRPU)	45
2.4.2	Pak-US Science and Technology Cooperative Programme	46
2.4.3	Research Grants for Humanities & Social Sciences	46
2.4.4	Pak Org of Collaborative Research (POCR)	46
2.4.5	Presidential Programme for Young Innovators	47
2.4.6	Support for Research	47
2.4.7	Digital Library and E. Reforms	48

2.4.8	Research and Development	48
2.4.9	Faculty Members and Research	49
2.4.10	Students and Research	52
2.4.11	Relationship Between Teaching and Research	52
2.4.12	Presentation of Papers at Conferences & Professional Meetings	54
2.4.13	Research Awards for Pakistani Research Scholars	56
2.4.14	HEC Criterion for Ranking of Universities	56
2.5	Factors Affecting Research Productivity	56
2.5.1	Role of Research Assistants and Research Productivity	57
2.5.2	Colleagues and Research	58
2.5.3	Institutional Factors	58
2.5.4	Personal Factors	61
2.5.5	Research Funds and Research Productivity	62
2.5.6	Role of Gender in Research Productivity	62
2.5.7	Proximal and Distal Goals	63
2.5.8	Role of Incentives and Rewards	64
2.5.9	Promotion Factor	64
2.5.10	Salary and Research Productivity	64
2.6	Theories of Motivation	65
2.6.1	Maslows' Theory of Motivation	65
2.6.2	Hertzberg's Two Factor Theory of Motivation	67
2.6.3	Importance of Work Place	67
2.6.4	Role of Expectancy	69
2.7	Introduction of International Islamic University, Islamabad	70
2.8	Previous studies on Research Productivity	72
2.9	Organizational Research Culture	74
2.9.1	What is Organizational Culture	74
2.9.2	Importance of Organizational Research Culture	75
2.9.3	Research culture at IIUI	75
3	**Chapter 3 METHOD AND PROCEDURE**	77
3.1	Introduction	77
3.2	Population	77
3.3	Sample	77
3.4	Instrument	78
3.5	Pilot Testing	79
3.6	Data Collection	79
3.7	Data Analysis	80
4	**Chapter 4 ANALYSIS AND INTERPRETATION OF DATA**	81
4.1	Introduction	81
4.3	Discussions	122
5	**Chapter 5 SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS**	124
5.1	Summary	124
5.2	Findings	125
5.3	Conclusion	135

5.4	Recommendations	136
5.5	Recommendations for Future Research	138
	Bibliography	139
	Annexure (i)	144

LIST OF TABLES

Table No.	*Title*	*Page No.*
4.1	Responses about teaching load is a hurdle in writing and presentation of research papers.	82
4.2	Responses about performance of administrative duties reduce the research productivity of the faculty members.	83
4.3	Responses about performance of other academic duties other than teaching as preparation of course outlines etc.	84
4.4	Responses about proper time management.	85
4.5	Responses about knowledge of statistics and understanding of research methodology.	86
4.6	Responses about need of training to conduct research.	87
4.7	Responses about computer knowledge and its role in writing of research papers.	88
4.8	Responses about Usage of web/Internet positively affect research productivity.	89
4.9	Responses about interest level of the faculty member to carry out research.	90
4.10	Responses about increase in age results in enhancement of number of publications.	91
4.11	Responses about teaching experience and research productivity.	92
4.12	Responses about aged teachers have more number of research publications than young faculty.	93
4.13	Responses about supervision of M.Phil & Ph.D students and research productivity.	94
4.14	Responses about role of Ph.D students in research productivity.	95
4.15	Responses about supervision of Ph.D students and enhancement of research skills.	96
4.16	Responses about supervision of class room projects.	97
4.17	Responses about linkage between teaching and research.	98

4.18	Responses about married teachers produce more research papers than unmarried university teachers.	99
4.19	Responses about family commitments do not allow married faculty members to attend conferences.	100
4.20	Responses about attitude of faculty members and interpersonal relations and its affect on research output.	101
4.21	Responses about background in science subjects and research productivity.	102
4.22	Responses about background in humanities & social sciences and research output.	103
4.23	Responses about teachers write and present research papers for the sake of promotion.	104
4.24	Responses about, university teachers write research papers to adopt Tenure Track System.	105
4.25	Responses about research papers as necessary criteria for promotion of university teachers.	106
4.26	Responses about research publications help faculty members to earn better salary package.	107
4.27	Responses about faculty members working under Tenure Track System produce more research papers.	108
4.28	Responses about IIUI teacher's satisfaction with the computer facility.	109
4.29	Responses about teacher's satisfaction with the library, E. library and Internet facility.	110
4.30	Responses about satisfaction with the funds/grants facility.	111
4.31	Responses about the role of appreciation by the Dean.	112
4.32	Responses about appreciation by the Head of Department.	113
4.33	Responses about colleague faculty members, who have good number of publications can motivate their colleagues having no publications	114

4.34	Responses about writing and presentation of research papers is an interesting activity.	115
4.35	Responses about writing and presentation of research papers is a boring and tiring activity.	116
4.36	Responses about presentation of research papers provide a chance to learn about foreign culture.	117
4.37	Responses about writing and presentation of research papers is a useless practice.	118
4.38	Responses about the role of incentives and rewards.	119
4.39	Suggestions of the respondents to remove the causes of low research productivity.	120
4.40	Responses of the respondents to improve the prevailing situation.	121

CHAPTER 1

INTRODUCTION

1.1 Introduction

Universities are considered as producers of new knowledge. During 21st century, the role of university academicians is not limited to teaching only. Research is becoming a vital and necessary part of modern university education. Universities are considered as modern entrepreneur engine and generator of new knowledge through research. According to Cresswell (1986), teaching and research are equally important for university teachers, they may give equal attention to research and teaching as a part of their duty, because participation in research directly improves the quality of teaching. Research enables the academicians to fully understand their disciplines, which is imperative for effective teaching. Research publications enable academicians to earn better salary package and get better tenure.

Middlewood (1999), conducted a study to examine the effects of research on teaching. The results showed that 94 percent respondents answered to a question that they learned new skills and developed professional understanding about their subjects 52 percent respondents replied that research and advancement in the profession are interlinked. Sixty percent respondents replied that involvement in research activities has a positive influence upon working environment and improves the over all reputation of the institution. According to Katz (2001), participation in research of the faculty members, gives them self-confidence, polishes their professional skills, gives them better status and enables them to grow professionally. Teachers having good

record of publications are considered talented and first-rate teachers. Research is important for academic growth. Writing and presentation of research papers enhance their teaching skills and provide them a chance to develop sound thinking and communication abilities. University academicians, who actively participate in research, enjoy better tenures and higher academic status. Completion of a difficult and complex project gives personal satisfaction. Similarly, publication of a research paper develops feelings of autonomy and contributes to personal growth.

According to Lertputtarak (2008), active researchers do not merely accept results or findings, but always adopt a critical approach, whenever they come across new studies. Research oriented academicians keep themselves in touch with the latest updates in their disciplines. Research experience advances the knowledge and polishes the intellectual vitality of the academicians. Rowland (1996), says that teaching and research exists together in an inclusive balance in any department. Obviously research supports and motivates teaching.

During the 21st century, each country realized the importance of research. In Pakistan, Higher Education Commission initiated a number of steps to promote a new culture of research in Pakistani universities. The HEC is giving more and more funds to the university faculty members to conduct research and to increase the number of publications of the university academia. Funds are provided to the scholars to present their work abroad. Research publications are necessarily required for the promotion of university teachers. Keeping in view the fact that a few faculty members at IIUI have notable record of publications, the need was felt to explore the causes of low research productivity among the faculty members. Therefore, the focus of this study was to investigate the factors, related to the research productivity of academicians at International Islamic University, Islamabad.

1.2 Statement of the Problem

Present study was undertaken to investigate the factors related to research productivity among the faculty members at International Islamic University Islamabad. Researcher wanted to know that administrators, academicians, researchers' and even students of higher education are fully acquainted with the importance of research publications. Why some faculty members produce, publish, write and present researches and others never try to write a paper throughout their academic career? Which aspects motivate university teachers to write research papers and what are the causes of low research productivity?

1.3 Significance of the Study

Investigation of factors related to the research productivity of the university faculty members is of greater interest to the academicians trying to preserve their academic status and to the University management to provide a smooth and progressive environment to the academicians. Although, this study focused at one university due to paucity of time and scale, the study was planned in such a way that it will be beneficial to other universities facing a similar situation. The study will be supportive to the university management to formulate new research policy. This study will provide new perspectives on the issue of publications and will be courteous for the faculty members having no publications to enhance the productivity of research.

Now-a-days, research is as important as teaching. University teachers are under pressure to publish research papers to fulfill the selection and promotion criteria or to adopt the Tenure Track System. Research publications facilitate the faculty members to earn higher salary packages. At IIUI, many obstructions need to be removed to produce more research. Faculty members should be properly trained to

make them familiar with necessary research skills and statistical skills, training to conduct studies, in order to publish their work in shape of research papers.

This study will facilitate university teachers to produce good researches. This study will be a document to be used by the university lecturers, Assistant Professors, Associate Professors, Research Associates, Teaching Assistants and university students. This study will enable the university management, deans and directors to provide requisite facilities to the faculty members. It is expected that this study will provide a guideline to university management to formulate good policies to enhance the research productivity of academicians.

1.4 Objectives of the Study

Following were the objectives of the study:

1) To investigate the factors, related to research productivity at university level.
2) To find out the causes of high and low research productivity at university level.
3) To investigate about the research facilities available to the academic staff to conduct research.

1.5 Research Questions

1. What are the factors that affect research productivity of academicians at IIUI?
2. Which factors cause low research productivity?
3. Which factors are responsible for high research productivity?
4. Are the teachers satisfied with the research facilities provided to them by the university?

1.6 Delimitations

Study was delimited to the academic staff of the male and female campuses of International Islamic University.

1.7 Definition of terms

Academicians

Deans, Professors, Associate Professors, Assistant Professors, Lecturers, Teaching/Research Associates and Programnme Coordinators appointed under regular, contact and adhoc mode of appointment and are responsible for academic and administrative duties.

Administration

Rector, President, Vice President (Academics), Vice President (Administration & Finance), Vice President (Human Resource Management), Deans, Deputy Deans, Chairmen and Chairpersons were included as administration in this study.

Researchers

Members of faculty involved in research activities which directly contribute to the advancement and generation of new knowledge. Qualified and professional academicians who conduct researches and publish them in the form of research reports and papers.

Research Productivity

Writing, publications and presentations of research papers or reports in professional journals, especially publication of research papers in journals recognized by Higher Education Commission and presentation of papers at national and international meetings or conference proceedings, is taken as research productivity in this study.

Publication

To make public of a research output to the masses, through its publication in a recognized journal.

Recognized Journal

National or International professional journals, recognized by Higher Education Commission, Islamabad, Pakistan

Public Sector University

Universities working under the umbrella of Higher Education Commission, controlled by the Ministry of Education and Government of Pakistan. A university constituted under an Act or Ordinance and recognized by the HEC. Public sector universities are autonomous institutions of higher learning, having independence to generate and utilize the sources and are also autonomous to select employees.

Expert

Persons having special and practical knowledge or skills in a certain subject.

HEC

Higher Education Commission, Islamabad, Pakistan.

IIUI

International Islamic University, Islamabad, Pakistan.

TTS

Tenure Track System is a mode of appointment launched by Higher Education Commission.

BPS

Basic Pay Scales, a typical mode of appointment launched by the government of Pakistan and adopted by the International Islamic University, Isamabad.

SSHRC

Social Sciences and Humanities Research Council. This council works under the umbrella of Higher Education Commission, Islamabad, Pakistan

NRPU

National Research Program for Universities, a programme introduced by the HEC.

1.8 Population

Professors, Associate Professors, Assistant Professors, Lecturers, Teaching/Research Associates and Programme Coordinators working at International Islamic University, Islamabad, on regular, Tenure Track System, contract, adhoc and secondment basis were taken as population of the study. Total number of the population was 476. Detail of population was as under:

POPULATION SUMMARY

Faculty/ Institute	Professors	Associate Professors	Assistant Professors	Consult-ants	Lecturers	Teaching/ Research Associates	Prog. Cor.	Tot
Shariah & Law	4	1	24	1	12	-	2	44
FET	3	2	8	4	9	1	1	28
FBAS	2	3	20	-	35	12	3	75
FLL	4	3	11	-	23	8	2	51
Arabic	2	3	14	-	17	8	1	45
Eco. WC	-	-	3	-	7	2	2	14
Islamic Studies	2	6	9	-	21	7	-	45
FOSS	9	-	17	2	16	11	2	57
FMS	2	1	11	14	13	9	3	53
Dawah Academy	-	1	6	11	-	-	-	18
Shariah Academy	-	-	4	-	-	-	-	4
IIIE	6	-	6	1	11	2	1	27
IRI	4	-	4	-	7	-	-	15
Total	38	20	137	33	171	60	17	476

1.9 Sample

This study was quantitative in nature and the sample was taken from Deans, Chairmen, Chairpersons, Professors, Associate Professors, Assistant Professors, Lecturers, Teaching/Research Associates and Programme Coordinators working at International Islamic University, Islamabad. Sample was drawn by applying the stratified random sampling technique out of four hundred and seventy six faculty members working at IIU. Fifty percent academicians i.e. (232 of the total number) from each stratum were selected as a sample, subject to the condition that each one

stratum was selected as a sample. Summary of the sample explains how 50% population was selected as a sample.

SAMPLE SUMMARY

Faculty/ Institute	Professors		Associate Professors		Assistant Professors		Consult-ants		Lecturers		Teaching/ Research Associates		Prog Cor.		Total	
	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S
Shariah & Law	4	2	1	1	24	12	1	1	12	6	-	-	2	1	44	23
FET	3	1	2	1	8	4	4	2	9	4	1	1	1	1	28	14
FBAS	2	1	3	1	20	10	-	-	35	17	1	6	3	1	75	36
FLL	4	2	3	1	11	5	-	-	23	11	8	4	2	1	51	24
Arabic	2	1	3	1	14	7	-	-	17	8	8	4	1	1	45	22
Eco. WC	-	-	-		3	1	-	-	7	4	2	1	2	1	14	7
Islamic Studies	2	1	6	2	9	4	-	-	21	10	7	3	-	-	45	22
FOSS	9	4	-	-	17	8	2	1	16	8	1	5	2	1	57	26
FMS	2	1	1	1	11	6	14	7	13	6	9	4	3	1	53	26
Dawah Academy	-	-	1	1	6	3	11	5	-	-	-	-	-	-	18	9
Shariah Academy	-	-	-	-	4	2	-	-	-	-	-	-	-	-	4	2
IIIE	6	3	-	-	6	3	1	1	11	5	2	1	1	1	27	14
IRI	4	2	-	-	4	2	-	-	7	3	-	-	-	-	15	7
Total	38	17	20	9	137	67	33	1	171	82	6	29	18	9	476	232

P= population
S= sample

1.10 Instrument

An opinionnaire was developed for data collection after reviewing the related literature, in accordance with IIUI manual and keeping in view the requirements of Higher Education Commission, reviewing the previous related researches and in consultation with some academicians. The opinionnaire was developed at five point Likert's scale and consisted of 40 items. Five options were given as SDA=1, DA=2, UD=3, SA=4 and SDA=5.

1.11 Data Collection

Data were collected by administering the opinionnaire developed for the study. To distribute the opinionnaire, the researcher personally visited all the departments and faculties of IIUI. Few faculty members returned the opinionnaire at the spot. Many faculty members were reminded and requested to return the opinionnaire. After one week the researcher reminded the faculty members to return the opinionnaires. 210 out of 232 opinionnaires were received back. Three incomplete opinionnaires were not included in the analysis. 89% of the respondents returned the filled up opinionnaire. Therefore, 207 opinionnaires were appropriately providing the required data.

1.12 Data Analysis

This study was quantitative in nature; data obtained from the sample were analyzed through manual calculations and by using the SPSS (Version 12). Percentage, Mean, Standard Deviation, Chi Square and Yates Correction techniques were used to analyze the data.

Chapter 2

REVIEW OF RELATED LITERATURE

Chapter two is divided into eight parts; part one elaborates what is research, definitions of research and characteristics of good research. Part two describes what is research productivity, measurement of research productivity, quality measurement, quantity measurement, determinants of research productivity, definitions of a research paper, what is a research paper, steps in writing of research papers, what is not a research paper, guidelines to write research papers. Part three explains the role of universities, faculty members and research and part four deals with the role of Higher Education Commission. Part five deals with factors related to research productivity. Part six explains the theories of motivation. Part seven describes the structure of International Islamic University, Islamabad. Part eight deals with previous research studies on research productivity and part eight describes organizational research culture.

2.1 Definitions of Research

According to Mason (1997), research may be defined simply as "the search for answers to questions".

Koul (2007), says that research is a systematic attempt to obtain answers to meaningful questions about a phenomenon or events through the application of scientific procedures. It is an objective, impartial, empirical and logical analysis and recording of controlled observations that may be lead to the development of

generalization, principles or theories, resulting to some extent in prediction and control of events that may be consequences or causes of a specific phenomenon.

According to Oxford English Dictionary (1998), research is defined as the systematic study of materials and sources in order to establish facts and reach the conclusions.

Kerlinger (1986), says that research is systematic, controlled, empirical and critical investigation of natural phenomenon by theory and hypothesis about the presumed relations among such phenomenon.

According to Azam (2001), research goes beyond description and required analysis. It looks for explanations, relationships, comparisons, predictions, generalizations and theories. Usually the purpose of research is to look the things, which others already have looked before, but the contribution of the researcher is to observe the phenomenon, which earlier researchers have not seen. Such work is presented in a prescribed format, which is called research paper.

According to Malik (1998), research is a careful, systematic and patient investigation undertaken to discover or establish facts and relationships.

Research starts with a problem, collects data and facts, analyzes them critically and reaches decisions and based on actual evidence. It involves original work instead of a mere exercise of personal opinion. It evolves form a genuine desire to know rather than to prove something. It is quantitative, seeking to know not only what, but how much. Measurement is the central feature of research. Scientific research, whatever type it may be and whatever method it may employ, follows substantially the following steps while solving a problem:

1. Formulation and development of the problem for investigation and survey of the related literature.

2. Selection and use of one or more appropriate methods for gathering evidence, together with analysis and interpretation of the data.
3. Reporting and implementation of the findings.

According to Mertens (2005), research is different from understanding and knowing. Researchers do not know through insight, divine inspiration, acceptance of authorities, but it is a systematic inquiry that is designed to collect, analyze, interpret, understand, describe, predict and control to know.

Gupta (1993), says that research is the search for new facts or to modify previous ones in any branch of knowledge. The Webster's international dictionary proposes a very inclusive definition of research as "a careful critical inquiry or examination in seeking facts or principles, diligent investigation in order to ascertain something". The obvious function of research is to add new knowledge to the existing store, but its power for cleansing out minds of clinches and removing of rubbish inapplicable theory is equally notable. In simple words, research can be defined as any scholarly investigation for truths, for facts, for certainties. Trial & Error methods can no longer be appreciated; decisions should be accurate, timely and should be based on facts and realities. Modern concept of research is broad based and provides for a well meaningful investigation into any field of academics.

Bell (2004), says that different styles, traditions or approaches used different methods to collect data, but no approach prescribes nor automatically rejects any particular method. Quantitative researches collect facts and study the relationship of one set of facts to another. Researchers adopting a qualitative perspective are more concerned to understand individual's perceptions about the phenomenon, they seek insight rather than statistical analysis.

According to Best (1992), research is directed towards the solution of a problem. It may attempt to answer a question or to determine the relation between two or more variables. Research emphasizes the development of generalizations, principles, or theories that will be helpful in predicting future occurrences. Research is more than information retrieval. Many departments gather and tabulate statistical information that may be useful in decision making, but these activities can not be termed as research. Research is always based upon experimental verification, recognizable, reliable, valid and first hand material or sources. Research finds out the solutions of unanswered questions employing a systematic, logical and expert effort.

Research is a brain activity conducted to find out the solutions, to know the origins, causes, effects and relations to explore the phenomenon. Research enables us to assess, continuously and constantly access, again reassess to take a decision and to draw a conclusion. Research is not merely limited to laboratories, it can be conducted in all disciplines, all subjects, all areas and in all settings. Research addresses the problems of institutions, libraries, culture, business, education, industry, without funding, with little funding or with huge funding. Research is a journey to a new knowledge and learning.

According to Salkind (2006), research is apolitical activity, through which new knowledge is discovered for the betterment of society. It is based on theory, organized new knowledge in the existing body of knowledge. Research is an activity, which can be replicated and it is based on logical rationale and tied to a theory. Research is doable activity, which generates new questions and is logical in nature. Research questions asked today will provide foundations for the research questions that will be asked tomorrow. According to Azam (2001), research involves the creative combination of subjectivity and objectivity to investigate an issue in order to

provide serious results and findings, even conclusions and recommendations about it. Research is analysis of the views on a subject, backed by convincing evidence and reasons. Most of research papers are not concerned with finding out new things, but the findings of most of research papers are new. The aim of writing of research papers is to re-orient the thinking, to solicit new questions and to focus on new aspects of the complex reality.

Research is a continuous process, to search the truth or an organized effort to reach near the reality. Research highlights new problems, collects data or information about those problems, draws conclusions and make recommendations. Researcher carefully investigates data, analyzes data, explains data and verifies the facts. Research corrects the mistakes, research adds and advances knowledge. Knowledge gained through research is always objective and scientific. Research-based knowledge is always logical, rational and based on experience. According to Rashid (2001), research is a conscious effort to collect information, to verify information and to analyze information. Research is an organized effort to solve complex and teasing problems. According to Best (1999), Francis Bacon advocated direct observation of the phenomenon, arriving at conclusions or generalizations through the evidence of many individual observations. The inductive process of moving from specific observations to the generalization faced logic from some of the hazards and limitations of deductive thinking. Bacon recognized the obstacle that the deductive process placed in the way of discovering new truths: the impediments to the discovery of truth.

2.1.1 Characteristics of Good Research

Salkind (2006), mentioned the following characteristics of high quality research:

1. High quality research is based on others work.
2. Good research can be replicated.
3. Findings of a good research are generalizable for other settings.
4. Quality research is based on logical theories.
5. Subject or title must be doable.
6. Good research always generates new questions.
7. High quality research is always conducted apolitically.

Besides the above mentioned characteristics, Salkind (2006), says that research does not withhold food from pregnant women to study the effects of malnutrition and does not force to eat harmful food just to examine the effects. High quality research does not plagiarize others work. It does not falsify or misinterpret data to draw required results. High quality research adopts standard steps throughout the research process.

2.2 Introduction to Research Productivity

According to Oxford Dictionary (1998), research means the careful study or investigation, especially in order to discover new facts or information. Productivity means efficiency, especially in industry, measured by comparing the quantity of production with the time taken or the resources used to produce. Research productivity is combination of two words "Research" and "Productivity. "Research" means very careful, observant and vigilant study or investigation of phenomenon, particularly to search and find out new particulars, information and facts. While "Productivity" means production or output, produced in duration of time, both the words mean different to different people. With reference to higher education, research

productivity means publications of papers in professional journals, in the shape of books or presentation of research papers in conference proceedings, to work on projects, publication of monographs, development of experimental designs and production of artistic/creative works.

Research productivity and research activity are interrelated. Research means to conduct research, collecting data, analyzing data, while productivity means writing, reading and publication of research papers in professional referred journals, displaying on the web or to make it known to public through any other means, in shape of books or making its presentation on the television or radio. According to Cresswell (1998), research productivity includes research publications in professional journals and in conference proceedings, writing a book or chapter, gathering and analyzing original evidence, working with post-graduate students on dissertations and class projects, obtaining research grants, carrying out editorial duties, obtaining patents and licenses, writing of monographs, developing experimental designs, producing works of an artistic or creative nature, engaging in public debates and commentaries

2.2.1 What is Research Paper?

According to Gay (2000), preparation of research report for publication in a professional journal serves the interests of the professional community as well as those of the researcher. Progress in educational research requires that researchers share their efforts so that others may profit from. Dissertations and theses are not read nearly as often as professional journals; thus, publication in a frequently read journal permits the largest possible audience to read about and use the findings of a research study. From a personal point of view, it is definitely to the researcher's advantage, especially new graduate, to have a publication. When applying for a position, for

example, most of what a prospective employer knows about you is what he or she reads about you. Since a newly graduated individual is likely to be short on professional experience, having a publication definitely gives him or her an edge. Having a publication in a reputed journal not only indicates the worthiness of the study but also indicates that teacher has the ability and energy to prepare, submit and publish a scholarly report.

Ray (2006), says that research article is the story of an experiment, starts with description, already known through studies, about the particular phenomenon, what you studied and rationale of the study. Research article elaborated, how you studied, what you concluded, how you concluded. How you fit your results into the results of previous studies. Research article involves the differences and similarities to previous studies. It is a form of communication and follows the following steps. (1) Abstract (2) Introduction (3) Method (4) Results and (5) Discussions. Active vice pattern is used in research papers.

According to Roth (1966), when we talk about research, different pictures come to our mind. We assume that a white coated laboratory scientist, having many instruments around and playing with chemicals is a researcher. Few times we imagine that a bespectacled scholar reading his stale volumes is a researcher, or we think about a person, ringing doorbells and ask house wives about the quality of beauty soap, or we imagine about a team, often visit the houses and ask about number of children, number of adults, monthly income, level of education etc. We think that all of above categories are involved carefully in their work in a systematic way, so we consider all of them as researchers. Many visual images are associated with the word research; similarly there are many types of research.

The purpose of various types of research varies, but the method is essentially the same, facts are gathered and interpreted so that conclusions can be drawn. This assignment may be called a "term paper", "library report" "investigation report" or "research paper", these terms often used interchangeably. Whatever it is called, the assignment will require that you locate information on a given subject and write down conclusions based on your findings. Research paper is always a new work, which cannot be found anywhere else. Writing of research paper requires critical thinking, creativity, ability to gather facts, ability to examine them gravely and organize the ideas effectively. Writing a research paper is neither a quick nor an easy task. But it is not an overwhelming one, either. Undertaking of worthwhile projects and planned procedure is necessary to produce a successful research paper.

2.2.2 What is not a Research Paper?

According to Winkler (1984), summary of an article or book is not called a research paper. Single source does not permit to be selective about materials and does not lead to exercise judgments. The ideas of others repeated uncritically is not a research paper. If someone repeats the conclusions of other people without weighing them, it can not be called a research paper. A group of quotations, no matter how skillfully put together is not a research paper. Quotations have an important place in a paper; they are the words of experts in the field and support the ideas of the researcher. But a paper mere consisting of quotations alone can not be considered a research paper. Unsubstantiated personal opinion does constitute a research paper. Copying another person's work without acknowledging it, whether the work is published or unpublished, professional or amateur, is not research, it is plagiarism. It is morally wrong to pass off any writing, researcher did not do it and there are laws providing punishment for anyone found guilty of plagiarism.

2.2.3 Definitions of Research Paper

Winkler (1984), says that research paper is typewritten paper in which researcher presents the views and findings on a chosen topic, known as the term paper, library paper, or research paper. Research paper is usually between five and fifteen pages long. No matter what the paper is called, task is essentially the same; to read on a particular topic, evaluate information about it and report findings in the shape of a paper.

Publication and presentation of research papers enable the researchers to share the new knowledge with academic community or professionals. Academicians and students of universities can get motivation from such papers. Moreover, research articles facilitate the academicians to access what are facts in the light of research. Publication of research work is equally important for researcher himself, researcher can understand other's research work, just having a glance. When researchers present their papers in national or international conferences, they come to know the situation prevailing in other countries, regions, universities, provinces, organizations or departments. Presentations of other researchers applaud the participants to raise questions about the nature, methodology and quality of research. Moreover, participation polishes participants knowledge, clarifies them how to work, how to study, what to study, when to study, how to compose, compile and how to write or present research papers.

According to Weidenborner, (2007), successful research project is more than collection of information, it requires planning ahead, which sources to consult, what kinds of notes to take and how to put it all together into an effective paper, research process involves three essential operations, searching, reading and writing.

Research paper is not merely composition of professional experiences or views, it also includes rich knowledge, critical thinking, critical evaluation skills and expertise. Research papers based on ideas, drawn from books, newspapers and from non-published sources and based on previously conducted researches by professionals. Publications of papers have its rewards, but it is difficult to achieve this task. According to Azam (2001), research paper is an argumentative essay and disciplined writing, which creates new knowledge or adds to the existing store of knowledge. Research paper involves intensive study of a limited topic, collection of data, investigation of facts and collection of opinion from numerous sources. An article is not fiction, although it might contain semi fictitious anecdotes or imaginary dialogue to illustrate certain points, it is factual piece. Sometimes research papers described as a feature and usually convey messages. Research paper is written in an intelligently precise fashion to answer the scholarly problems or questions.

According to Roth (1966), research paper is synthesis of the discoveries about a topic and evaluation of these discoveries. These discoveries consist in large part, of course actual words of experts in the field are valuable; but they would be valueless unless new conclusion is drawn from them.

2.2.4 Why Research Papers Necessary?

According to Winkler (1984), one obvious reason for writing a research paper is that the experience familiarizes the students with the conventions of scholarly writing. The students learn accepted styles of documentation, the ethics of research and great deal about the chosen subject. Research paper writing enables the students and academicians how to find a single piece of information from massive information. Writing of research paper develops actual skills on, how to use library and enables

academicians to know how to search for required stuff, necessarily required to carry out academic duties. Writing of research paper polishes logical and imaginative skills.

Winkler (1984), counts the following benefits of research papers:

- How to think?
- How to organize your ideas?
- How to discriminate between worthless and useful opinions?
- How to summarize the gist of wordy material?
- How to budget your time?
- How to conceive of research project from the start, manage it through its intermediary stages and finally assemble the information uncovered into useful, coherent paper?

Publication of research papers and reports in professional journals and presentation of papers serve the community of professionals, students and scholars in specific and to the masses in general. Journals provide a plateform to the academicians and researches to share their findings. According to Gay (2000), people read theses and dissertations very rarely, but they often read journals. Publications of articles make known the scholar to a large world-wide community as well as to the researcher himself. Publication helps him out in employment. Publication of articles shows the importance and worth of the research, which strength the energy and ability to publish more and more.

According to Gay (2000), major purpose of professional meetings is to share knowledge more quickly than can be done through the reading of journals. Presentation of research papers enables the participants to know about the particular problems, issues, or situations, especially figures and tables enable them to quickly understand the realities. During conference proceedings copies of the papers to be

read are provided to the participants, whom show their interest to have access which enables them to accept the results or provide them a chance to conduct a similar study to explain the phenomenon.

2.2.5 Steps in Writing of Research Papers

Winkler (1984), counts following seven steps in writing Research Paper:

Sr.	*What you must do*	*What you must produce*	*When its due*
1.	A topic must be selected that is complex enough to be researched from a variety of sources, but narrow enough to be covered in ten or so pages.	Two acceptable topics, one of which will be approved by the instructor	At the end of the first week
2.	Exploratory scanning and in depth reading must be done on the approved topic	A bibliography of all titles to be used in the paper	At the end of the second week
3.	The information gathered must be recorded (usually on note cards) and assembled into a coherent sequence	Note cards, a thesis statement and an out-line.	At the end of third week
4.	A thesis statement must be drafted, setting forth major ideas of your paper.	-do-	-do-
5.	The paper must be outlined in its major stages.	-do-	-do-
6.	The paper must be written in rough draft and the thesis argued, proved, or supported with the information uncovered from the sources. Borrowed ideas, data and opinions must be acknowledged	A rough draft of the paper	At the end of fourth week.
7.	A bibliography must be prepared, listing all sources used in the paper. The final paper must be written	The final paper, complete with bibliography.	At the end of fifth week.

Research may be undertaken in any field; English, Chemistry, Anthropology, History, or Accounting. Whatever the subject may be, goals will be the same: to learn from the study you have undertaken, to do as competent a job as possible of presenting your material and to earn as high a grade as possible. You can most readily achieve these goals if you follow an orderly procedure from the time the paper is assigned if you follow an orderly procedure from the time the paper is assigned until the time you turn it in. Rather than looking for short cuts, concentrate on doing each step well. If some parts of the process seem tedious at first, you will find them easier as they become more familiar.

Roth (1966), mentioned following five steps in writing a research paper:

Choosing the Topic

Special attention is required to choose a topic, because first step is basic to everything else. Bear in mind some topics lead to production of excellent papers while other do not. Very broad or generalized topic does not necessarily mean to get "A one paper"

Collecting information

Choosing a topic for research is mostly done at desk. The second step requires trips to the library and taking notes on the topic. Some topics also demand material from outside the library. An engineer may visit a building site to collect information. Social scientists may approach people to have interview or to fill up questionnaire. Collecting information is search in research.

Evaluating the material

A good research paper reflects a critical attitude toward the facts and requires evidence of original thinking. Particularly researcher developed a serious view point towards the gathered material. When evaluation of the information is over, researchers formulated their own ideas.

Organizing ideas

Collection of musical notes can be either random noise or a melody. A collection of nuts, bolts and rods can be scrap-metal pile or a useful machine. The results in each case depends on how the material at hand is put together. Similarly collection of facts, quotations and ideas can be meaningless if it is not well organized. To produce a successful research paper, organization of ideas is crucial.

Writing the paper

Carefully organized facts and ideas will make writing the paper relatively easier. Enough time is required to make more than one revision before the final paper is due. Then, complete documentations and bibliography are the necessary characteristics of a research paper.

2.2.6 Parts of Research Paper

Elmes (1989), mentioned following parts of research article.

Sr.	Name of the part	Details
1	Abstract	What you did to whom and what you found
2	Introduction	Why you did or doing the research; the hypothesis you tested
3	Method	A description of all variables; enough detail so that someone else can repeat your project
4	Results	Tables and figures that summarize your results, point the reader to most pertinent data.
5	Discussion	State how your results are related to the hypothesis which was tested; including relevant inferences and conclusions.
6	References	All reference cited in the paper belong here.

Ray (2006), mentioned the following parts of Research Paper

Abstract: It is the summary of the article, comprising of 100 to 120 words, typical abstracts provide clear information about the statement of purpose, method used and results drawn. Which design was used? Main results or conclusions are also included in the abstract portion.

Introduction: Introduction portion reviewed what is already known about the phenomenon, being studied. Researcher also explain the reasons and purpose of the study and this portion, this section also contains what was the hypothesis of the study. Objectives of the study and hypothesis are also included in the Introduction section of research papers.

Method or Procedure: This segment comprises of, what was done, how it was done, so that other researchers may repeat the experiment, if the research paper is based on experiment. Method portion includes, how participants or population was selected, under which circumstances and conditions the study was completed. Which tools and equipments were used, what procedure was adopted and how population was briefed. Under which settings the study was completed, details about the reliability and validity of the material, apparatuses or instruments are given.

Results: This section takes into account the outcome of the study or the experiment; which statistical technique or method was applied and how the data was analyzed.

Discussion: Discussion section takes account of consequences, how the findings of the study relate to previous findings. How results relate to various theories, along with limitations and delimitations.

2.2.7 Preparation and Submission of Research Papers

Journal articles are similar to thesis, but its contents are very much shorter to thesis or dissertation. According to Gay (2000), lengthy dissertation or thesis may be submitted in shape of two or more research articles. This is applicable, especially to larger studies. Introduction section of an article briefly describes the theme, hypothesis, method section shortly describes, subjects, instrument, research design and procedure. The result section is generally of greater interest to the reader and typically this section is shorter than preceding sections. Before submission of manuscript of the research paper to a journal editor, researcher must submit his work to a professional, who may be able to read the manuscript with critical eye, keeping in view the acceptance criteria of a certain journal.

After having the opinion of a professional the researcher may mail his article to the editor, with a covering letter. Journal editor detaches the name of the researcher, the name of his/her institution and sends the manuscript to the panel of experts/editorial board for a blind review. In case of acceptance, editor informs the researcher that article is accepted for publication in the coming or next issue of the journal. In case of rejection editor also informs the researcher and mentions the reasons for rejection. It is not ethical to send the same article to many journals simultaneously. However, in case of rejection researcher may send out the same article to another journal.

Salkind (2006), mentioned the following important points to note while writing research paper.

1. Typing must be readable.
2. All lines, including headings must be double spaced.
3. Set one inch margin on the top, bottom, left and right.
4. Title page is kept separate and numbered as one.
5. Abstract is written on a separate page and number as page 2.
6. Introduction must start from page No. 3.
7. First line of each paragraph is always indented from five to seven spaces.

Gay (2000), counts the following guide lines and rules to write and type a research paper:

1. Before writing a research paper, researcher must carefully complete a planned research project.
2. Research report is always written in the past tense.
3. The researcher is required to prepare an outline of the major topics, headings and sub-headings.

4. The foremost rule of research report writing is that researcher must be as objective as possible.
5. The researcher must focus on the objectives, personal pronouns such as I and we should be avoided. Personal pronouns must be avoided and passive voice format must be used.
6. Researcher must adopt a clear, simple, straightforward and concise style to write a research report.
7. Usage of abbreviations and contractions is generally discouraged.
8. Correct spellings, grammatical constructions and punctuation are not too much to expect of a scientific report.
9. To give reference, only last name of the author is referred to in the main body of the report, first name, initials and title are included in the reference and bibliography section.
10. If the first word of a sentence starts with a number and number is nine or less than nine, numbers are given in words instead of digits, otherwise numbers are articulated as Arabic numericals.
11. The same standard of scholarship should be applied to the typing of the report as to the writing of the report.
12. The researcher must provide the final manuscript to the typist in the correct form, typist's duty is to type not to polish the paper.
13. If the writer intends to deliver special instructions/directions to the typist, he/she must make sure that the typist has completely understood the instructions.
14. The writer should give a copy of the style manual to the typist to follow the requisite guidelines e.g paper size, font and margins.

15. The final types report should be proofread carefully.
16. Generally typists utilize word processing software to type the report, writer should make sure that the word processor has requisite features, e.g automatic page numbering, spelling checker, ability to rearrange words, sentences & paragraphs.
17. Most research reports consistently follow a selected system for format and style.
18. Format refers to the general pattern of organization and arrangements of the report.
19. Style refers to the rules of spelling, capitalization, punctuation and typing followed in preparing the report.
20. While specific formats may vary in terms of specific headings included, all research reports follow a very similar format that parallels the steps involved in conducing a study.
21. Most colleges, universities and professional journals either have developed their own, required style manual or have selected one that must be followed.
22. In addition to acquiring and studying a copy of the selected manual, it is also very helpful to study several reports that have been written following the same manual.
23. Research report usually takes the form of a thesis, dissertation, journal article, or paper to be read at a professional meeting.
24. Depending upon its form, the report may be divided into sections or chapters, but these divisions are similar in content.
25. The title page usually includes the title of the report, the author's name.

26. The title should be brief (10 to 12 words, as a rule of thumb) and at the same time it should describe the purpose of the study as clearly as possible.
27. The title should, however, at least indicate the major independent and dependent variables and sometimes it names the populations studied.
28. The abstract of the paper should describe the most important aspects of the study, including the problem investigated, type of subjects and instrument, the design, the procedures and the major results and the major conclusions.
29. Introduction section includes a description of the problem, a review of the related literature, a statement of the hypothesis and definition of terms.
30. A well written statement of the problem generally indicates the variables and the specific relationship between those variables, investigated in the study.
31. The review of related literature describes and analyzes what has already been done related to the topic in hand.
32. A good hypothesis clearly and concisely states the expected relationships between two or more than two variables and defines those variables in operational and measurable terms.
33. The introduction section also includes operational definitions of the terms used in the study, which do not have a commonly known meaning.
34. The method section includes a description of the subjects, instrument, design, procedure, assumptions and limitations.
35. The description of the subjects includes a definition and description of the population from which the sample was selected and may describe the method used in selecting the sample or samples.

36. The description of each instrument should be related to the function of the instrument in the study, what is the instrument intended to measure and the data related to validity and reliability.
37. The procedure section should describe each step followed in conducting the study, in chronological order, in sufficient details to permit the study to be replicated by another researcher.
38. The result section describes the statistical techniques that were applied to the data.
39. Tables and figures are used to present the findings in summary or graph form and clarity to the presentation.
40. Tables must contain numerical data in rows and columns and generally include descriptive statistics, such as mean and standard deviation and the results of the tests of significance such as t and f ratios.
41. Discussion section includes interpretation of the results, conclusions and implications.
42. The reference or bibliography section of the report lists all the sources alphabetically by author's last names that were directly used in writing the report.
43. Every source cited in the paper must be included in the references and every entry listed in the references must appear in the paper; in other words, the sources in the paper and the sources in the references must correspond exactly.
44. If APA style manual is followed, secondary sources are not included in the references.
45. If sources were consulted that were not directly cited in the main body of the report, these may be included in an appendix.

46. Citations in the text for secondary sources should indicate the primary source from which they were taken; the primary source should be included in the references.
47. Appendixes include information and data pertinent to the study which either are not important enough to be included in the main body of the report are too lengthy.
48. Appendixes contain such entries as materials especially developed for the study (for example, tests, questionnaire and cover letters), raw data and data analysis.
49. Based on the review of related literature and references, research should identify tow or three journal which publish studies in the area of research presented by his her study.
50. Examination of recent issue will give some guidelines, related to format, style and length of article acceptable to the selected journal.
51. None of the preliminary page of a thesis or dissertation becomes part of a journal article; only title remains.
52. The result section is usually of greater interest to the reader and thus typically gets reduced less than preceding sections of the paper. Correspondingly, the discussion section will probably not require too much revisions.
53. Instead of a summary, many journals require an abstract of a given length, usually between 100 to 150 words.
54. Before submitting a manuscript to a journal editor, research should have at least one other person to read it.

55. The required number of copies of the manuscript and a brief cover letter indicating the title of the article and mailing address of the researcher should be mailed to the editor of the journal.
56. The major focus of professional meetings is typically to have members share new knowledge and research findings.
57. While a great deal of informal exchange occurs, the structures, scheduled portion of meeting usually takes the form of paper presentation.
58. Research reports presented at meeting follow the same general format as all other reports and, in fact, the manuscript of the papers presented at conferences, have close resemblance to the manuscript of the article which is submitted to a journal for publication.
59. The major purpose of professional meeting and conferences is to share knowledge more quickly than can be done through the reading of journals.
60. Presenter must prepare an outline, what he/she wants to say at the conference.
61. It is good to practice the presentation by making it to anyone who will listen it.

2.2.8 Measurement of Research Productivity

According to UNESCO report (2006), research productivity is recognizable output of an institution which can be measured in number of publications in a given subject or field. Research productivity can be determined through the level of commitment and motivation, it is influenced by reward, incentives and recognition.

Lerputtarak (2008), says that the key issue regarding measurement of research productivity is the confusion of quality and quantity of publications. Research productivity can be measured at individual level or at institutional level in terms of quality and quantity.

2.2.8.1 Quantity Measurement

Frequently used method to measure the research productivity is numerical count of the publications in the recognized or non referred journal during a limited time and calculation of research-based published books. Number of articles presented at national or international conferences, display of such work at recognized electric or print media is also a measure to determine the quantity of research. According to Cresswell (1986), the most common way to determine the research output is to plus the published books, published articles.

According to Radhakrishma (1993), the most important way to measure the research productivity of academicians is to count of number of published articles in referred journals. If count of published articles is zero than count of presented articles is meaningless. According to Lertputtarak (2008), publication of articles in referred journals certified that scholar can contribute to the generation of new knowledge, because recognized journals publish the work, after having the review of experts. Recognized journals assess the article with strict criteria, before publication, while non referred journals certified that scholar contributed to knowledge and do not adopt stringent standard.

Cresswell (1986), says that papers which are presented at international conferences have more prestige than the papers which are presented at national or local conferences. The prestige of associations, organize conferences also vary from country to country. Few organizations follow a very accurate criterion to accept the paper even for presentation.

2.2.8.2 Measurement of Quality

Editors of the referred journals send the manuscript of articles to the group of experts for peer review. Professionally qualified experts make analysis and review

the article thoroughly before its acceptance for publication. Members of the editorial board check the nuts and bolts of the article before issuing a letter of acceptance. If article is found to be up to the mark, journal editor inform the author through a mailed or email letter. If article under review lacks few characteristics, editors communicate these shortcomings to the author in writing. It is not ethical to send same manuscript to many journal at a time. If a certain journal rejects the manuscript, then author reserve right to send it out to another journal. It is not legal to approach the reviewers. Many editors dispatch the manuscript to the experts without identity, while others put the manuscript along with identity.

2.2.9 Determinants of research productivity

Research productivity, combination of two words is difficult to explain, different people interpret both the terms according to their profession. Oxford Dictionary (1998), explains that, Research means the careful study or investigation, especially in order to discover new facts or information. Productivity means efficiency, especially in industry, measured by comparing the amount of produced stuff with the time taken or the resources used to produce it. Lertputtarak (2008), says that, totality of research output of the academicians compared with the facilities provided to them by the university e.g funds, time and other research facilities is called research productivity.

2.2.10 What is a Research Journal?

Ray (2006), says that journal is collection of articles and empirical reports, produced by the researchers and scholars of a particular subject, as journal of medicine, journal of personality or Education. Journal enable scientists to describe what they had done and are the channel for scientists to display their work. Journal articles cover various topic related to the broad or specific areas. Lumiansky (1979),

says that journals have a responsibility not only to select the good material and reject the bad, but also to maintain or raise the quality of what is published. The refereeing system is intended to play this essential role in the scholarly communication process, serving to screen and to classify scholarly knowledge. Lack of agreement among referees presents a special problem for editors, writers and affecting the overall quality of published literature. In case of disagreement, editors usually seek another review or decided the issue themselves. The routine solicitation of more opinions, however, puts an additional strain on the peer review system, sometimes no avail. A simple procedure to resolve disagreement and improve the quality of decision making has been tested by a number of journals. The editor requests each referee to reassess the manuscript in the light of the comments of the other reviewers, which are forwarded without revealing the identity of one review to another. The editor then makes the decision to publish the article or return it to the researcher to carry out the correction. This procedure has been found very useful in a variety of situations requiring among group assessments.

Lumiansky (1979), says that most scholars spend ten to twelve hour a week to read book and journals, one of four spend sixteen hours or more. Historians read more than teachers of English and Romance languages. University teachers like to read books as compare to journals. Humanists are active book readers and book buyers.

2.2.11 Pressure for Publications

London (1979), says that most academics including 70 percent of the senior scholars responding to the survey enquiry "Report of the National Enquiry", reports that they have felt institutional pressure to publish and believed that their positions and prestige are dependent on publishing. Moreover, as the Enquiry's survey reveals, the pressure to publish have increased in the 1970s, because of the rise in academic

unemployment and competition for advancement. They are being felt even at the less prestigious four-year colleges and not surprisingly, have led to an increase in article writing". Incentives of publications are attractive, pleasing and beneficial to scholars.

According to Lumiansky (1979), prestige and position of senior scholars and academicians depends upon their publications. Faculty members have more pressure to publish after 1970, due to academic unemployment and competition for advancement. Academicians working at colleges have less pressure to publish as compare to university teachers. University teachers have surprisingly led to an increase in article writing and their publications. Many academicians feel less pressure to write articles and indicate that university scholars publish for desirable benefits. Articles and books are produced to get better tenure, which are not read carefully. A limited number of articles are considered significant and given credit, beyond that number no credit is given for publications. Now HEC, has launched Tenure Track System for Ph.D degree holders who earned their degree from abroad or their thesis was evaluated by foreign experts. Currently following HEC criteria is followed by the recognized universities to appoint the academicians.

2.2.11.1 Number of Research Papers Required for Basic Pay Scale

Name of Post	***Experience and number of publications required***
Lecturer	No experience no publication required.
Assistant Professor	No experience no publication required for Ph.D degree holders.
Associate Professor	Eight publications (with at least two publications in last five years)
Professor	Twelve research publications (with at least three publications in last five years).

http://hec.gov.pk/hrd/faculty-programs.html

2.2.11.2 Research Papers Required for Tenure Track Scheme

Name of Post	***Experience and number of publications required***
Lecturer	No experience no publication required.
Assistant Professor	No experience no publication required.
Associate Professor	Ten research publication (with at least four publications in the past five years).
Professor	Fifteen research publications (with at least five publications in the past five years).

http://hec.gov.pk/hrd/faculty-programs.html

2.3 Research Productivity and Role of the Universities

Universities are considered as guardians and producers of knowledge. In Pakistan research is carried out by university teachers and students. University students carry out research to fulfill the degree requirements, while academicians bother to take research projects to meet the promotion criteria. The study titled "Factors related to research productivity at International Islamic University" can be divided into three areas, role of universities, role of academicians and research productivity. Universities generally provide two types of rewards, extrinsic reward and intrinsic rewards. Extrinsic rewards includes, salary increase and promotion. While intrinsic rewards are concerned with academicians e.g they feel happy and satisfied when their work is published. Publications make them known to the whole world. Successful completion of a research project causes a source of satisfaction for faculty members. According to Katz & Coleman (2001), completion of a difficult and complex project cause personal satisfaction, publication of a research paper develop feelings of autonomy and causes personal growth.

Albach & Lweis (1995), conducted a survey study on academic staff of fourteen countries and found that 75% respondents agreed that research publications must be there to appoint and evaluate faculty members. Majority of respondents agreed that faculty members having good number of publications can get better tenure as compare to those who never publish. Research publications are not only necessary criteria to promote academicians, but also pertinent to enhance the prestige and economic status of the university. Grover (1992), conducted a study with information faculty of 190 institutions and noted that top 50 institutions were also having equal weight according to their ranking position. Research publications bright the future of the institution. Institutions of higher education which produce higher number of

publications, also earn good reputation and such institutions stands at top positions, whenever they are ranked. Higher ranking institutions earn good reputation, prestige and publicity, which results in increase in enrollment. Resultantly such institutions enjoy higher financial status.

According to Isani (2005), Universities are like green houses, where various types of seeds grow into plants and are send out throughout the world. University Education enables students to cope with the challenges of the dynamic world. University Education transmits the past controls the present and predicts the future. Universities are institutions of higher education and research, which awards academic and professional degrees in wide range of subjects, from graduate level to the post-doctorate level. Adeeb (1996), says that the purpose of Higher Education is to expand the knowledge and second is to establish a relationship between theory and practice. Nirman (2007), says that the mission of higher education is to advance knowledge, to create knowledge, to disseminate knowledge through research and to provide a service to the community. Relevant expertise assist societies in cultural, social and economic development and promote scientific and technological research in the social sciences, humanities and in the creative arts. Higher education means the education which is delivered by the universities, colleges and other degree awarding institutions. Higher education starts with inputs higher secondary students and the output is the graduates, post graduates, doctorates and post doctorates. Higher education produces thinkers, philosophers and persons with profound and unfathomable feelings. Higher Education always plays a indispensable role for societal development. Presently concept of higher education is getting changed. Research is a necessary part of higher education.

According to Geiger, (1986), Higher education sector in the twenty-first century is very different from that of the late nineteenth and twentieth centuries. Universities now perform important roles as the guardians of public knowledge. Universities are considered as an important part of the modern entrepreneur, universities are recognized as generators of scientific and technological knowledge. There are changes in the internal and external environments of academic institutions that have resulted in significant differences in the ways in which the mission of institutions are now expressed. According to Task Force Report on Higher Education (2001), Higher education has always been remained as an important component of the social agenda, but it has acquired a new meaning today. Universities are required to enable the students, to produce high quality research and they may be recognized as research producing students.

According to the Perspective Plan Report (2001-2015), Traditional and irrelevant disciplines will be dispensed of or may be merged with those in other institutions while new emerging and marketable disciplines with focus on research will be introduced. Plan also includes the objective to improve the quality of education by increasing the non salary budget of the universities and growing research funds. A considerable allocation will be made to the universities, to enhance their research capabilities and to start new research programmes. According to Nirman (2007), Most worrying problem of higher education needs to address immediately is lacking attention, insufficient funds and inadequate sources to conduct research. Teaching load and supervision of students affecting the quality of research. In low income countries living conditions of teachers and researchers takes bulk of their time, it's a hurdle in carrying out research. While in developed countries; some teachers divert themselves of their teaching duties, because research is better for their

career and research is the main factor for their appointments or promotions. In Pakistan, university teaching is graded as an honorable profession, university teachers are always considered as intellectual scholars, however, performance of academic and domestic duties merely free them to conduct researches and publish them in form of papers. Having publications is getting importance since 1970, but currently. Since the adoption of the Tenure Track System by the Pakistani public sector universities, importance of research publications is increasing rapidly. Higher Education Commission is awarding scholarships and research funds in bulk to promote a research culture in Pakistani universities.

Provision of facilities is also vital to stop the brain drain, thousands of highly qualified unemployed, left Pakistan and provide their valuable services to foreign countries. Provision of better facilities can bring to an end the brain drain. Such measurers will be a guarantee for the development and prosperity of Pakistani society. Provision of better infrastructure, better facilities and better opportunities for staff development is the need of the hour. Lack of sources and facilities force the young scholars to work for abroad. According to the Unesco report (2006), organizational capacity to conduct research, financial status, governance system, trained researchers, successful implementations of research projects and funding ings the production of research at university level.

According to Quddus (1979), no country has ever been able to make progress without a well-developed system of higher education. Young men and women irrespective of their financial status, who can prove their capacity to profit from higher education, must have the full opportunity of acquiring it. We must seek out talent, encourage it and provide it with the opportunity to develop and flourish. Higher education institutions are responsible for conserving knowledge for keeping

abreast of new knowledge and production of new knowledge through research. Institutions of higher education must have a direct concern to teaching and research. In a well developed system of higher education research plays as much part as teaching. The significance of research in all types of higher education institutions, academic or professional, should be emphasized, as provision for fundamental and applied research is essential for any country which wishes to be strong and progressive. Therefore, universities should be encouraged to build up departments in which both teaching and research will occupy a prominent place. The particular functions of a teacher may be considered under four different heads:

i. Teaching (Lectures, Laboratory demonstrations, tutorials)
ii. Research
iii. Personal study, including preparation for class teaching
iv. Contact with students, including personal guidance and supervision of extra-curricular activities "

Clark (2005), states that in any country, universities need to be able to carry out critical role. The first is knowledge building, usually through research, analysis and theory building. The second is imparting of knowledge to the next generation through teaching. A country that cannot develop the new knowledge unique to its own needs or that cannot impart what is needed to the next generation will remain forever stuck in the pattern of intellectual colonialism, dependent on other countries for knowledge building and for the development of new teaching staff. Moreover, a country that cannot conduct its own research on education and learning in its own environment will be starkly try to get benefit from other model countries, having their own system.

According to Russell (2000), as the world grows more complicated, industry is becoming more scientific, an increasing number of experts are required and in the main they are supplied by the universities. Pure learning to survive is one of the

purpose of universities. Universities exist for two purposes one to train men and women for certain professions and second to pursue learning and research without regard to its immediate utility. Every University teacher should be himself engaged in research and should have sufficient leisure and energy to know what is being done in his subject in all countries. In university teaching, skill in pedagogy is no longer important; what is important is knowledge of one's subject and keeness about what is being done in it. Every University teacher ought to have a sabbatical leave (once in every seven years) to spend this time in foreign universities and acquiring knowledge of what is being done abroad.

Vashist (2002), says that University teachers should give the community punctuality, efficiency and devotion to duty, in relation to their teaching work and new ideas and newer methods in relation to their research work. Nirman (2007), says that in present century there is unprecedented change and diversification in higher education. Higher Education is necessary for socio-cultural, economic development and for building the future of new generation. Without adequate higher education and research institutions providing a critical mass skilled and educated people, no country can ensure development. Sharing knowledge can reduce the gap between developed and under-developed countries. Mission and function of higher education is to educate, to train and to undertake research. "

According to Russell (2000), Research is at least as important as education, when we are considering the functions of universities in the life of mankind. New knowledge is the chief cause of progress and without it the world soon become stationary. It could continue, for a time to improve by the diffusion and wider use of existing knowledge but this process, by itself, could not last long. The pursuit of knowledge, if it is utilitarian, is not self-sustaining. Utilitarian knowledge needs to be

fructified by disinterested investigation, which has no motive beyond the desire to understand the world better. All the great advances are first purely theoretical and are only afterwards found to be capable of practical applications. According to the Unesco report (2006), to cope with financial crises universities of the developing countries are under pressure to enroll more people in higher education. Universities of the developing countries are not equipped with proper research facilities, due to financial constraints, universities in developing countries can not hire qualified research oriented teachers, most of the universities of developing countries focus on teaching only. To conduct and transmit research by the university faculty is the need of the hour. Research is carried out by the private agencies rather than universities. In contrast, developed countries have both type of universities, research universities and teaching universities.

2.4 Research Productivity and Role of Higher Education Commission

According to Pervez (2008), standard of research and quality of higher education in Pakistan is far beneath the international standard. Research output graph is bleakly low as is evident in the low number of citations of Pakistani research papers as compared to United States of America, China and India, which have got hundreds of papers and citations. A comparative, analysis of Pakistan, Saudi Arabia, Brazil, India, China and U.S.A shows that Pakistan is ranked in the bottom in terms of original research output.

Table given below presents the position of all science papers during 2007.

Year 2007	*All papers*				
U.S.A	**China**	**India**	**Brazil**	**Saudi Arabia**	**Pakistan**
2732819	431859	202727	128687	14538	7943

Source: Original research output (Hoodbhoy, 2007)

Since 2003, HEC has initiated a number of steps to promote a research culture, establishment of Social Sciences and Humanities Research council with a cost of Rs 24 Million is one of them. The objective of the said council is to provide funds and grants to the researchers and to establish connections with foreign universities. This council also provides funds for organization of conferences and seminars. SSHRC is presently allocating Rs.4.744 billion for various projects to promote research culture in social sciences, arts and humanities. This amount is dispensed of, by focusing on following three main proportions:

- Faculty/human resource development in social sciences
- Institutional development
- Promotion of research culture

Foreign Faculty Hiring programme is introduced for promotion of research. Under this programme, HEC, hired the services of eminent local & foreign scholars having rich teaching and research experience from foreign universities. The purpose of this programme is get benefit from their knowledge and research experience and to train the colleagues, to supervise students, to have collaborations and to develop relationships with foreign universities.

According to Clark (2005), Fundamental problems of Higher Education system of Pakistan is that there is no linkage between research and education. First time in the history of Pakistan Higher Education Commission hired a number of foreign faculty members of Pakistani origin, who were holding foreign Ph.D degrees from institutions of repute and were having unyielding record of academic publications. They were hired to dip the seeds of good teaching models and to introduce research culture in Pakistani universities. Foreign Faculty Members are highly paid as compare to regular faculty, scholars appointed under foreign faculty hiring scheme introduced a vide range of Ph.D programmes in many Pakistani

universities, the purpose of this struggle is to promote research culture in higher education sector. Every year HEC, send about 200 students abroad to the universities of Australia, China, Sweden, Germany, U.K and other countries to acquire Ph.D degrees.

According to Pervez (2008), research is dismal and its quality is also very below than western & international standard. Pakistani research papers are cited far less in international literature. Pakistani research papers in science have been cited even below than Kingdom of Saudi Arabia. The comparison with Saudi Arabia is interesting in the sense that this country was known more for its oil reserves and less for excellence in education, but over the last few decades it has put high emphasis by attracting foreign faculty and has built good knowledge base to compete with other countries in the coming years.

Table given below presents the position of all science papers citations during 2007.

Year 2007	***All Science citations***				
U.S.A	China	India	Brazil	Saudi Arabia	Pakistan
356,783,85	163,72,87	793,946	642,745	496,54	269,58

Source: Original research output (Hoodbhoy, 2007)

2.4.1 National Research Programme for Universities (NRPU)

Scarcity of research literature in the universities of the Pakistan, absence of scientific equipments is a major hurdle to have productive, creative, talented and professional faculty member and researchers in all disciplines in Universities and degree awarding institutions of Pakistan. Research always require generous financial grants, the absence of such facilities to the young researchers and faculty members discouraged them and force them to look for developed countries to enjoy better opportunities, which is called brain-drain. The purpose the NRPU is to stop the brain drain and to establish a research culture at our country. (HEC, website)

2.4.2 Pak-US Science and Technology Cooperative Programme

During the year of 2003, Ministry of Science & Technology, Govt. of Pakistan and USA Department of States signed an MoU, to have a widespread collaboration to promote the engineering and technology education in Pakistan, the said programme was put into practice by the US National Academy of Sciences. The purpose of this programme was to develop a relationship and to share the knowledge of technology among the two countries and to uplift the social and economic condition of Pakistan. (HEC, website)

2.4.3 Research Grants for Humanities &Social Sciences

Social Sciences & Humanities Research Council (SSHRC) was established by the HEC to make stronger the research networks among various organizations, to support research collaborations and to cheer the wide dissemination of research findings in the disciplines of Social Sciences and Humanities. (HEC, website)

2.4.4 Pak Org of Collaborative Research (POCR)

Developed countries left behind the Pakistan in the field of latest technology only due to the lack of resources to conduct research. The purpose of this programme is to provide necessary funds to the potential researchers, having the ability to conduct ground-breaking international standard research. This project is started, to provide necessary funds, under a one-window facility, to the renowned Pakistani academicians and researchers, having the ability to work in partnership with their counterparts, who are working in developed countries. Academicians and researchers can work together with Pakistani origin researchers and academicians, who are associated with teaching or research institutes anywhere in the world. (HEC, website)

2.4.5 Presidential Programme for Young Innovators

This project aims to encourage and facilitate the younger faculty members working in public sector universities or degree awarding institutions and to provide them a chance to get higher education at renowned universities of the world. (HEC, website)

2.4.6 Support for Research

Clark (2005), says that before Higher Education Sector Reform, concept of carrying out research, writing and reading of research papers by the university teachers was very limited, HEC, reforms porgramme, encouraged faculty members to conduct researches in relevant disciplines. HEC allocate grants for carrying out research projects, even university students are encouraged to help out the senior researchers in larger studies. HEC not only pay to conduct research, but funds are also provided to present such studies abroad in conference proceedings. Research is now a critical factor for promotion of university academia, even an academician with reputed publications can get better salary package and other incentives. In some cases yearly publication are compulsory for promotion and for extension in contract appointments.

According to Action Plan Report 2001-2005, departments and universities are judged through the following performance indications:

Number of Ph.D faculty members.

Percentage of faculty, who have had teacher training courses.

Number of postgraduate courses per department.

Number of Ph.D students per faculty member.

Total funding obtained from competitive grants.

Number of international publications.

Number of faculty presentations and international conferences.

2.4.7 Digital Library and E. Reforms

Digital library, e. reforms, Open Access and availability of thousands of journals is a real attempt to facilitate the university teachers and students to write research papers. According to Clark (2005), one of the drawbacks of the digital library is that it tends to focus on journals in sciences and technology. As wonderful as the digital library is as a learning tool, it will be even more useful when journals are added for the arts, humanities, social sciences and for education.

2.4.8 Research and Development

According to the HEC, website, vibrant research culture is not only necessarily required for economic growth and development of Pakistan, but also necessary for the development of the academicians of the universities. Higher Education Commission is aware of this actuality of the research and aims to boost the institutions of higher education to promote research in the area of sciences, social sciences, humanities and engineering To achieve the objectives, HEC launched a number of programmes to promote research culture in Pakistan universities. Research grants programme aims to encourage research culture in the universities. The HEC encourages, collaborations to extend research, funds are provided to the researchers, faculty members and students to promote the research culture.

Shortage of scientific equipments and absence of research laboratories at the universities of Pakistan is a hurdle for the academicians to conduct scientific research. Purchase of latest scientific equipments and establishment of such laboratories require huge funds. To eliminate the situation HEC, introduced a distinctive program of sharing the scientific equipments among the institutions of higher education. HEC, also pay out the expenditures to the universities, which dare to purchase such

instruments. HEC has also initiated a program to provide funds to the public sector universities and degree awarding institutions to purchase the spare parts, provision of funds for the repair and maintenance of scientific laboratory equipments. (HEC website)

Recently HEC also pay out the funds to carry out the research in all disciplines. Researchers are provided with scientific equipments, consumable materials, literary material, with in country traveling grants, funds in lieu of salary of research assistants, honorarium to the principal researchers to promote the research culture in the universities of the Pakistan. Detail of programmes initiated by Higher Education Commission is as under:

2.4.9 Faculty Members and Research

Research publications enable the faculty members to be familiar with latest and up-dated books and journals, which makes them to know the latest updates. Research oriented faculty members becomes better users of research, research enable them to quickly understand the studies conducted by other researchers. According to Lertputtarak (2008), active researchers not merely accept the results or findings, but they always adopt a critical & evaluative approach, whenever they come across new studies. Research oriented academicians keep themselves in touch with the latest updates in their disciplines. Research experience advance their knowledge and polish the intellectual vitality of the academicians. University academicians learn such experiences and whenever they get a chance, share it with students.

According to Katz & Coleman (2001), participation in research give them self confidence, polish their professional skills, give them better status, enable them to grow professionally and contribute toward self actualization. It appears that teachers having good record of publications, are considered as talented teachers and first-rate

teachers. Research is important for academic growth, writing & presentation of research papers enhance the teaching skills of the faculty members and provide them a chance to develop sound thinking and communication abilities. University academicians who actively participate in research productivity enjoy better tenures and enjoy higher academic status.

Faculty members who are active researchers always keep themselves in touch with latest researches. Involvement in research activities boost up their knowledge and facilitate them to detain imperative position in that subject. Research publications assist faculty members to cope with confronts and lend a hand to prove themselves as good teachers. Publications improve their self confidence, efficiency and competence, such qualities enable the faculty members to think critically and communicate effectively. According to Katz & Coleman (2001), participation in research improves teacher's self-confidence, enhance their professional status and contribute to their professional growth and self-actualization. Faculty members who commence researchers, read latest publications, keep themselves update about relevant researches and undertake research projects are generally considered as experts, as compare to those who never put publications. Publications are not only significant for career development but also for valuable teaching. Effective teaching is always associated with high-quality research production. Usually college students be grateful for teachers whose books are available to them and university students be pleased about research oriented teachers. Currently university teachers are underneath of more and more publications for promotion and for other stitching benefits.

Suwanwala (1991), opined that many lecturers did not realize the importance of research publications and many of them lacked the knowledge, skills, experience and resources to do research and write research papers. Lecturers did not understand

the vivacity of publications at the early hours of academic career. A lesser amount of funds, scantiness time also cause low research productivity among university academia. In Pakistan snags funding system have an effect on research productivity. One window operation for fund release is direly needed.

Juthawattanathorn, (1994), Problems associated with research is allocation of funds, awarded funds are not sufficient for the researchers to undertake research projects, furthermore, fund allocation system is not flexible. Consequently, universities are incapable to suit research proposals. Pervez (2008), says that research & teaching are interlinked, in Pakistan linkage between research & teaching is missing and higher education system lacks accountability, autonomy and self governance are necessary for higher education institutions. Decisions are imposed on universities, which badly affecting their performance. Research which was neglected in the past is now absolutely necessary to protract higher education system of Pakistan.

Usually research is conducted by professional doctors, engineers, scientists, subject experts, university professors, scholars and university teachers to cope with the job challenges or to meet the course requirements. According to Woolfolk (2004), Research can improve teaching, careful observation, intervention, data gathering and analysis that occurs in large research projects can be applied in any classroom to answer questions such as "which writing prompts seem to encourage the best descriptive writing in my class" "When does Kenyon seem to have the greatest difficulty concentrating on academic tasks" would assigning task roles in science groups lead to more equitable participation of girls and boys in the work?. This kind of problem solving investigation is called "Action Research" by focusing on a

specific problem and making careful observation, teachers can learn a great deal about both their teaching and their students.

Faculty members must publish, publication will give them exposure, university academicians may make public their intellectual research work in journals or at web, they must identify their audience, they must join various organization and community of scholars. Few academicians fear to publish, due to the fear of peer review, but their work may be beneficial for others. Academicians must try to work jointly, isolate working have less rewards. Initially sharing of ideas and concepts with colleagues or seniors have its impact on their publications.

2.4.10 Students and Research

According to Lertputtarak (2008), students listen those teachers carefully and appreciate them, who introduce their own research work during lectures, instead of those who never quote research work. Students appreciate those teachers who introduce them various aspects of the research conducted by their own selves. Productive university academicians can challenge their students. Students always like to learn from teachers, who have more number of publication or about whom they are already familiar. University lecturers who conduct research and publish their studies can motivate their students to carry out research projects. Productive teachers can properly guide their students and motivate them to conduct their own studies and publish the work in form of papers.

2.4.11 Relationship between teaching and research

Due to global changes, teaching profession has become a demanding and challenging. Teacher's role for development of society is like a role model. University teachers can bring big changes in students. Professional worth of university teachers make their students creative, ideological, imaginative and diversified. Universities are

always considered as producers of knowledge, institutions of higher education are considered as agent of change.

Rowland (1996), says that, teaching and Research exists together in a inclusive balance in any department, obviously research supports and motivate teaching. According to Cresswell (1986), participation in research activities get better the quality of teaching in a straight line. Middlewood (1999), found that 94% faculty member advance their knowledge and gain professional skills through research, 60% faculty members reported that research raise the status of institution and are helpful in effective teaching.

Presently higher degree and research publication are equally important. Publications develop feeling of satisfaction and increase the confidence of university teachers. Research oriented faculty members frequently visit various countries such visits enable them to be familiar with the working environment of high profile, higher education institutions and organization. Visiting abroad also provide them a chance to differentiate among the working environment of their parent institution and host institutions. Conferences participation provide them a chance to meet professionals of repute and learn through their experience and work. So research publications and paper reading improve the quality of teaching.

Whiston (1992), states that "University model of higher education is built on the principles that teaching and research are as inseparable as wool and mutton on a sheep farm that they mutually reinforce one another and, in particular that it is one of the non-negotiable defining feature of what is meant by Higher Education that teaching is provided by those who are themselves active in research".

According to Gay (1992), believe it or not, research courses are fruitful source of future researcher. Lertputtark (2008), research provides intellectual platform to

generate new knowledge, which results in professional improvement and human development. Qualified researchers produce quality research and can builds the future of nation. About 35% research is conducted by university academicians and higher education institutions, which provides foundation for national development.

Middlewood (1999), conducted a study to examine the effects of research on teaching. The results showed that 94% respondents answered to a question that they learned new skills and developed professional understand about the subject 52% respondents replied that research and advancement in the profession are interlinked. 60% respondents replied that research involvement has a positive influence upon working environment and over all reputation of the institution. Research productivity also improves the effectiveness of the institution.

During current century administrators and academicians both realize the importance of publications, Higher Education Commission is also giving more and more funds to increase the number of publications of the university academia. Funds and grants are provided to scholars to present their work abroad. Why some faculty members produce research yearly, while few others never like to pen down a paper, even they are desirous to do so. Pressure to publish is increasing day by day. In Pakistan only few academicians have notable number of publications. Teachers having increased number of publication can adopt tenure at better positions. Number of publications is evaluated to appoint professors and associate professors.

2.4.12 Presentation of Papers at Conferences & Professional Meetings

Gay (2000), says that number of organizations such as American Educational Research Association, American Psychological Association etc hold annual national or international meetings and invite a wide variety of professionals having concern to that related area. Thus, while at any given time a number of different paper sessions

may be going on simultaneously in different locations, a person is free to select and attend those sessions that appear to the most closely related to her or his personal interests or needs. Normally prior to the meeting the date of the meeting is announced six months before. Organizations or associations publish a "call for papers" in a journal, newsletter, display it on the web or through any other source, elaborating the details, themes and sub-themes of the conference. In response scholars and researchers send abstract of their papers normally containing 1,000 words. Submitted abstracts are sent out for review and selection of the paper for presentation. After a certain time, researcher receive a letter from the coordinator or focal person, notifying that the paper, submitted by the scholar is accepted and demands for soft or hard copies of the article.

Gay (2000), says that, the major purpose of professional conferences and meetings is provide a plate form to the scholars to quickly share their knowledge and findings with the participants. Presentation of research paper quickly make it public, as compare to reading of journal article. Mostly 10 minutes are allotted to a presenter, however the range is from 5 to 20 minutes. It is not possible to read the complete research paper, word for word reading of research paper is discouraged and copies of the complete research report are provided to the interested participants. It is a much more efficient to use the limited time to give a brief informal summary of the research paper, emphasizing over the results, conclusion and any other central and significant aspect of the study. Audience appreciates a presenter, who talks to them, rather than a presenter who reads to them. It is also good idea to practice your presentation by making it to anyone else who will listen. Presenter should practice, to complete the presentation is within given time, such measures will enable him/her to feel comfortable.

2.4.13 Research Awards for Pakistani Research Scholars

Higher Education Commission has announced a series of award for Pakistani research scholars. Detail of the category of award, amount of award and Nos. of awards is as under:

Sr.	*Category of award*	*Amount in Rupees*	*No. of awards per year*
1.	Best research paper award	Rs. 50,000	20
2.	Best young research scholar award	Rs. 100,000	4
3.	Best innovator reward	Rs. 150,000	1
4.	Best book publication award	Rs. 300,000	4
5.	Lifetime academic achievement award	Rs. 500,000	4

http://hec.gov.pk/hrd/faculty-programs.html

2.4.14 HEC Criterion for Ranking of Pakistani Universities

Sr.#	Details	Scoring
1	Number of research papers published by the faculty and students during 2001-02, 2002-03 and 2003-04	4
2	Research papers produced by the university faculty	3
3	Number of journals published by the university	1
4	Number of books published by the university academicians	1
5	Number of papers presented at international conferences by the university academicians and students.	1
6	Number of papers presented national conferences by the faculty and students.	1
7	Gross score determined by the PCST	2
8	Gross score of the university faculty	2
9	Number of national symposia, workshops and conferences organized by the university or in collaboration with other organizations	1
10	Number of international symposia, workshops and conferences organized by the university or in collaboration with other organizations	2
11	Number of patent designs, formula and other approved varieties	2
12	Number of research projects completed with international collaboration	3
13	Number of M. Phil. faculty members	1
14	Number of Ph.D. faculty members	2
	Total:	26

http://hec.gov.pk/hrd/faculty-programs.html

2.5 Factors Affecting Research Productivity

University teachers have to face many problems to carry out their academic responsibilities in day to day life. Some factors have special relevancy to produce research papers and to own research projects. These may include environmental factors, institutional factors, carrier development factors or demographic factors as

martial status, age, teaching load, availability of sources, e.g internet, library, availability of funds, visiting abroad facility, attitude of the administration, attitude of colleagues, appreciation by the Dean, Chairman, Chairperson, personal interest, social activities, institutional policies, financial status, caliber of the academicians, level of job satisfaction and may be few more.

Unresolved problems are waiting to be solved through research. University teachers and students always highlight and find out the solutions of the problems being faced by the society and which may be faced in future, to achieve the purpose, they always keep themselves in-touch with latest researches, criticize, analysis the researches already conducted and also conduct research studies.

2.5.1 Role of Research Assistants and Research Productivity

According to Gay (2000), in addition to determining what will be done, it must be decided who will done it. Anyone who is going to assist you in any way in actually conducting your study whether a colleague or a teacher, should be considered a research assistant. Regardless of who they are, or what role they will play, all assistants should participate in some type or orientation that explains the nature of the study and the part they will play in it. They should understand exactly what they are going to do and how they are to do it. Their responsibilities should be decided in writing and, if necessary, they should receive training related to their assigned task and be given opportunities for supervised practice. Simulations, in which assistants go through the entire task (e.g., conducting an interview) with each other or with you, are an especially effective training strategy.

Before data collection researcher should become thoroughly familiar with all relevant restrictions, legal or otherwise, related to the collection, storing and sharing of obtained information. All necessary permissions from participants, school

administrators, federal agencies and the like should be obtained in writing. And finally, all data collection activities should be carefully and systematically monitored to ensure that correct procedures are being followed.

2.5.2 Colleagues and Research

Mcniff (1996), says that, the most obvious people to share research are the people of your organization. They will already know that you are doing research and you need to keep them informed at worst, simply out of courtesy and to avoid, being seen us doing something 'unusual', at best to let them see the value of what you have been doing and hopefully they will learn from it themselves. They might even be persuaded to do their own action research. Also consult your principle or manager, make your research accessible to others in your organization. Perhaps you could make a copy of the final report available, or you might request time at a staff meeting, or send round a memo. If this sounds too much for you, ask your manager to announce that your work is available for anyone, who cares to read it and they should approach you for a copy. Be open about your research, so that professional learning is seen as part of normal practice and not mysterious or highbrow.

2.5.3 Institutional Factors

Whiston (1992), says that scientific and artistic creativity is closely intertwined with academic independence. According to UNESCO report (2006), organizational capacity to conduct research, financial status, governance system, trained researchers, successful implementations of research projects and funding directly or indirectly affecting productivity of research at university level. This report sorts out the influencing factors into following categories:

External Factors

1. States financial support, mechanism for monitoring and trend to use research.

2. Incentives and rewards.
3. Sponsorship by foreign and local agencies.
4. Training to conduct research.
5. Distribution of research among public private partnership.
6. Recognition of research work.

Internal Factors

1. University governance system
2. Employment capacity
3. Distribution of resources
4. Quality control system.

Dundar (1998), says that library expenditure have relationship with research productivity, if demands of the faculty members to purchase books for library is higher, such faculty will be more productive. Increased demands in library expenditures increase the research productivity of faculty members. During 1993 According to Vroom (1964), work is a social activity, virtually all work roles require social interaction with other people. The salesman interacts with his customers, the doctor with patents, the supervisor with subordinates and the teacher with his students. Furthermore, most of workers are members of one or more working groups, with whom, they may interact more frequently than with members of their immediate family. Organizations in which promotion is contingent on performance will be productive than those that promote the employees on the basis of family relationships, internal politics, or old school ties. The implicit assumption is that promotions are desired and that workers will strive to perform effectively in their jobs, if they expect that by doing so, they will increase their chances of receiving a promotion.

Radhakrishma, (1993), concluded that the academicians of research institutions conduct more researches and produce more articles than the academician working in 4 year colleges. According to Cresswell (1998), productivity level of selection committee and chair also affecting research productivity of academicians,

committee members having higher number of publications tend to appoint those having higher number of publications. Better salary package is also a factor, which cause to attract productive individual to join as faculty members. Dundar (1998), states that higher expenditures on university libraries results in higher productivity.

Lertputtarak (2008), says that there are various types of educational institutions, category of institution affecting the performance of staff and research productivity, academicians working in research universities are more productive as compare to those faculty members working in four year degree colleges. Faculty members working in doctorate degree awarding universities are highly productive, as they are treated as professionals and have enough freedom to have their own agendas. Cresswell (1986), says that selection criteria affecting research productivity, higher degree awarding institutions adopt critical selection process to maintain the research culture and appoint productive individuals as faculty members. According to Lertputtarak (2008), if Chairmen and members of selection board or committee are having higher publication record, they will appoint research oriented scholars as faculty members. Institutions having highly productive faculty, get more research grants to develop which results in increase in publications.

Hertzberg (1959), says that interpersonal relations of employees, with superiors, subordinates and peers play a vital role for recognition of the institution. Moreover attitude with seniors, administrations policies, working conditions and job security are important factors which relate to the research productivity of an institution or an organization.

2.5.4 Personal Factors Affecting Research Productivity

According to Vroom (1964), work role occupied by a person affecting not only how he will use his working hours, but also how he can spend his leisure time, they way in which other members of the community respond to him and the amount of time, he can spend with his children. The implications of work roles for use of leisure time have generally been overlooked in studies of job satisfaction with the expectation of wages, which certainly affecting how a person can use his leisure hours, little is known about the non work environments associated with various kinds of work roles and the effects of these non work environments on satisfaction and adjustment.

Vroom (1964), says that "The motive for working can not be assigned only to economic needs, for men may continue to work even though they have no need for material goods. Even when their security and that of their children is assured, they continue to labour. Obviously this is so because the rewards, they get for their work, such as respect and admiration from their fellow men".

Lertputtarak (2008), says that qualification, abilities, attitude, research skills, professional commitment, status of appointment, institution attended to attain higher degree and experience are among personal factors. These factors also relates to the research output of the university teachers. Pfeffer & Langton (1993), found that job satisfaction, training, interest, academic freedom, working environment and funding have positive correlation with research productivity. On the other hand, Blackburn (1991), found these variable did not satisfactorily envisage research productivity.

2.5.5 Research funds and Research Productivity

Maruyama (1992), says that, one final way in which research begins is from the availability of research funds. Federal & State funding priorities channel research in specific directions and encourage educational researchers to form partnerships to work in the desired areas. According to Whiston (1992), by and large funds are distributed to the universities according to their capacity to conduct fruitful research, quality of facilities, presence of research staff and graduate students. There is an obvious interrelationship between research grants and university research capacity.

2.5.6 Role of Gender and Research Productivity

Several studies investigated that men conduct more studies than women. Zaniab (1999), states that married females publish more articles than unmarried females. Zaniab (1999), quotes a study conducted by Astin (1978), on American Education Council members who found that 26 percent women never publish articles, while only 10 percent men were there who never publish articles.

Sax & Hagedorn (2002), narrates that family commitments, large number of young children affecting research productivity of female academicians. Many female professors postpone their marriage to focus on research and to get tenure. Childrearing females decide to resign from tenured academic positions and like non tenure positions due to house hold responsibilities. While Astin (1978), studied that marriage and having children do not affecting the research productivity of female academicians. Zainab (1999), Women academicians working with male depend upon men colleagues and get support to become a researcher.

2.5.7 Proximal and Distal Goals

Determination of goals makes out life easier and charming. Every one have some goals to achieve. Even the creation of the universe and human has its goals. Franken (2002), says that there are two types of goals, proximal goals and distal goals. Proximal goals are immediate goals, while distal goals relate to the future. Achievement of proximal goals helps to achieve distal goals, e.g writing of a term paper is proximal goal, while attainment of M.S degree is distal goal. Distal goals are associated with greater anticipatory emotion and may be called our aspirations. Distal goals are useless without proximal goals and proximal goals are useless without distal goals.

Thinking to become a doctor, produces greater feelings of satisfaction than thinking about finishing a term paper. Thus distal goals have the capacity to sustain motivation even when we are doing a boring, tiring and time consuming assignment. Distal goals keep us on path and enable us not to float into other directions. Persons without distal goals are liable to change their direction even. Distal goals keep us on track and proximal goals enforce us to move. When we talk about doing something, one day we typically fail to get on with the task. The proximal goals motivate us to action to do something. Proximal goal is what we plan to do today or tomorrow. Proximal goals are sub-goals. People often set goals for themselves. Faculty members having distal goal, always struggle to have proximal goals. Writing and presentation of research paper is proximal goal, while distal goal will be to become renowned academician.

2.5.8 Role of Incentives and Rewards

Kyvik (1990), found that faculty members who publish at early years of their carrier and also get its reward, get motivated and produce more research studies at the later stages of academic career.

2.5.9 Promotion Factor

According to Zainab (1999), professional university academicians conduct & publish research studies for their promotion to next higher ranks. Academicians having higher ranks have more publications than those working in lower ranks. Promotion is a key factor, timely promotion opportunities encouraged the employees to work whole heartedly.

2.5.10 Salary and Research Productivity

Lertputtarak (2008), says that there is a strong relationship between salary and research productivity. Higher salary packages attracts renowned academicians feel affecting for the institution, which award higher salary package. Similarly non attractive salary package enforce existing academicians to join other institutions offering higher salaries, which influence the level of productivity. Availability of funds and deployment of research assistants to the research oriented faculty members improve the level of research productivity.

According to Hertzberg (1959), salary included all sequences of events in which compensation plays a role. Surprisingly enough, virtually all of these involve wage or salary increase or unfulfilled expectations of salary increase. Vroom (1964), says that one indisputable source of the desire of people to work is the money they are paid for working. Although we may disagree with the monolithic conception of the classical "economic man" few people would dispute the importance of anticipated economic consequences in the guidance of human conduct. Despite the old saw that

"money can't buy happiness" it can be exchanged for many commodities which are necessary for survival and comfort. It would be incorrect to link the importance of money in our society strictly to the satisfaction of biological needs.

2.6 Theories of Motivation

Motivation plays vital role to achieve the goals, publishing research papers enable the academicians to get better rank, to get better salary package and to achieve other related incentives. Motivation is a key to achieve these goals. Motivation level of the academicians urges them to work hard and produce quality research, which can improve the employment status of academicians and quality of higher education as well. According to Greenberg (1999), motivation process arouse human being and directs their behaviour. As discussed earlier, many researchers based their work on motivation theories. Motives engage in recreation and enable human to accomplish the task.

Motivation theories can be divided into two main types, content theories and process theories. Content theories explain that basic human needs and drives force human being to show their behaviour. Needs and desires force employees to show performance. Maslow's theory of motivation, Hertzberg two factor theory are included among well known content theories.

Against content theories, process theories of motivation describes, how employees works and utilized their abilities to achieve the desired outcomes. Content theories emphasize over needs, while process theories focus on working climate.

2.6.1 Maslow's Theory of Motivation

Maslow (1954), presented a renowned theory known as Maslows's Theory of Hierarchy of needs. Maslow's theory is widely discussed theory during last 50 years and seems to have its application through out human life. This theory is included in

the wide range of disciplines, as Psychology, Sociology, Education and Business Administration as well. Theory based on the idea that needs motivate human beings, it we desire to understand human behaviour, we need to understand human needs. Maslow categorized human needs into five levels. When one level of needs is achieved, then human try to achieve the next targeted needs. So according to Maslow needs are primary to understand human behaviour. Maslow's theory of hierarchy is widely accepted, theory of motivation, however, it has not scientific proof. According to Lerputtarak (2008), Maslow's theory is difficulty to understand, human life is difficult to understand in shape of needs, secondly self actualization is difficult to define and understand.

Maslow says that human needs and motivation are interlinked. Maslow categorize human needs to following five steps or stages:

Physical needs or low order needs, include food, sleep, shelter and escape from diseases, nature disasters, protection or security from wars. Maslow called these two needs as low order needs.

Need for love: When low order needs are satisfied/achieved man desire to be loved and seek affliction. Need for love also include, belongingness, accepted ness and man like to have friends.

Need for Esteem: esteem need includes, pride, ego, self-respect, man feel confident and desire to achieve something.

Self Actualization stage: When above said four needs are satisfied man recognize himself and desire to achieve more and more. The theory of hierarchy is incorporated into various topics, however, last need which is self actualization is difficult to define as it is not a final stage of satisfaction and achievement goes one and on. When one need is satisfied, people get motivated to have the second stage.

Maslow's theory of Hierarchy of needs enable us to understand the role of motivation at work. Human mofivation arises from needs and human being set their needs according to their importance. Maslow divides human needs into five categories. When people satisfy thè lower order needs, they continue seek love, affiliation and esteem. Esteem need require pride, self respects, feelings of achievement and confidence. So having notable record of research publications enables the faculty members to fulfill their need for esteem. Acceptance of papers for presentation or publication gives them self respect. Faculty members gain a feeling of achievement, whenever their work is published. According to the theory achievement have a direct effect on the human motivations.

2.6.2 Hertzberg's Two Factor Theory of Motivation

Maslow based his theory on five human needs, while Hertzberg base the theory only on two factors, satisfaction or dissatisfaction. Hertzberg (1959) and his fellows interviewed 200 engineers and accountants and identified two important factors related to working environment and motivation.

2.6.3 Importance of Work Place

Hertzberg (1959), says that working place is one of the most absorbing thing, men think and talk about, greater part of the day spends upon discussions about working place, people talk about their working place in many ways, sometime, we discuss about colleagues, their personalities, sometime we discuss about attitude of seniors or juniors, few people like to discuss about the attitude of head of department, e.g Zain is not eligible to get promotion, Office Air-Conditioner was not functioning properly, how delegate opined about the organization. All such discussions show that how much people are interested to their working places. Even few times, we do not need to ask a person about his her organizational climate. Just his or her views are

enough to know the level of job satisfaction. We can easily guess whether the employee is happy or otherwise, nature of our feeling reflect our attitude towards working place.

Hertzberg (1959), says that the straight forward question "How do you like your job" is asked directly when old friends meet after long separation. Then people stop and weigh the circumstances, the demands of honesty and to add pluses and minuses to arrive at a total assessment, one man might say:

"I do not feel satisfied; the sectional head is always looking over my shoulders. I cannot turn around, but he is picking faults. I had five drawings rejected last month and I know other men by without a lot less. Its this recession and I can't move now. But when things pick up, I will be out in no time flat. Meanwhile, I don't knock myself out. I do an adequate job, but you can't put your heart in it when you know you are waiting for a chance to leave".

"I was making a vital long distance call, even though it was against regulations, the division is woefully understaffed can I made the call in a desperate effort to get caught up on the work. My boss caught me and ripped the phone right out of my hand. I was provoked to the point at which I had to walk away. All day I found it hard to concentrate; my blood pressure is up and I am so jumpy. First chance I get I am leaving".

Briefly environment of working place is as important as employment itself. Every working individual have an opinion about his working environment, whether it is positive or negative or satisfactory. When a person says, "I am just interested in salary, I never care what's going on? Single sentence clearly states that person is not interested about the output, he just works for salary and to pass the time. Such discussion among friends easily enable each other to comprehend the level of job

satisfaction. Hertzberg (1959), says that there are only two factors, which tells us about the output of the employees, these are factors are satisfaction and dissatisfaction. Hertzberg says that salary package, job status, job security, interpersonal relations of employees and working environment are hygiene factors. Institutional policies, style of administration, leadership style and type of supervision effects the output of the employees. Maslow's theory highlights the human needs, while Hertzberg theory focus on working environment.

According to Lerputtarak (2008), Hertzberg theory is important to enhance the output of the employees, as job satisfaction increases the output of employees. This theory is applicable to managers and administrators and apposite to enhance the satisfaction and reduce the dissatisfaction, the theory of Hertzberg also encourage the employees to work more and motivate managers to give more incentives to the employees.

2.6.4 Role of Expectancy

According to Vroom (1964), expectancy is a momentary belief, concerning the likelihood that a particular act will be followed by a particular outcomes. Expectancy is an action outcome association and subjective probability that an act will be followed by an outcome. The specific outcomes attained by a person are dependent not only on the choices that he makes, but also on events which are beyond his control, when a person buy a ticket in a lottery, he is not certain of winning the desired prize, but goes on and on to avail chances, a political leader seldom believe that he will win the election, similarly a person who seeks promotion is seldom certain that he will successfully triumph over the other candidates. Vroom (1964), says that whenever an individual chooses between alternatives which involve uncertain outcomes, it seems clear that his behaviour is effected not only by his

preferences among these outcomes but also by the degree to which he believes these outcomes to be probable.

2.7 Introduction of the International Islamic University Islamabad

The International Islamic University is a unique institution of higher education, firstly started it's functioning as Shariah Faculty in the Quaid-i-Azam University Islamabad in 1979. It was upgraded to university in 1980 and it was given the status of full-fledged autonomous university in March 1985 with four faculties, namely Faculty of Islamic Studies (Usuluddinn), Faculty of Shariah & Law, Faculty of Arabic and Faculty of Economics. Now IIU is functioning with nine teaching faculties, namely Faculty of Social Sciences, Management Sciences, Basic & Applied Sciences, Engineering & Technology and Faculty of Languages & Literature. Three research institutes namely, Islamic Research Institute, International Institute of Islamic Economics and Iqbal International Institute of Research and Dialogue are also functioning under the umbrella of IIUI. All the faculties are offering variety of programmes from graduate level to MS and Ph.D level. Iqra Centre for Technical Education is also a part of IIU. Two renowned academies, namely Shariah Academy and Dawah Academy work under the umbrella of IIU.

International Islamic University was established with a vision to provide an international Islamic seat of higher learning, research institution and training in various branches of knowledge with special emphasis on Islamic Studies, Social Sciences and humanities to be taught, studied, developed and reconstructed in such a way as to produce a balanced and harmonious human personality, duly informed of and embedded in the Islamic world view and infused with Islamic idealism and fully aware of the human intellectual and scholastic heritage, including the most current developments in human knowledge.

The main objective of the establishment of the International Islamic University was to produce scholars to meet the economic, social, political and intellectual needs of the modern Muslim world. The objective of the establishment of IIUI was to encourage and promote education, training and research, in Islamic, social, natural and applied sciences. University is presently launching three research journals namely Al-Dirasat al-Islamiyyah (Arabic), Islamic Studies (English) and Fikr-o-Nazar (Urdu). Islamic Studies is an internationally peer reviewed research journal in Islamics, published since 1962 by the Islamic Research Institute. This journal publishes research articles, notes, comments, review-articles and book reviews in all disciplines of Islamic Studies including the Qur'an, Hadith, Tafsir, Sirah, 'Ilm al-Kalam, Jurisprudence, Fiqh, Law, Religion, Philosophy, Psychology, Anthropology, Sociology, Culture, Civilization, Political Science, Economics, Language, Literature, History, Science and Technology. Its contributors include some of the very best scholars from across the world. Islamic Studies is among the journals approved for research publications by Higher Education Commission of Pakistan.

International Islamic University has very close academic collaboration with the following universities:

1. Al-Azhar University, Cairo, Egypt.
2. Ummul Qura University, Makkah, Saudi Arabia.
3. Islamic University, Madina, Saudi Arabia.
4. Imam Muhammad Bin Saud University, Riyadh, Saudi Arabia.
5. King Abdul Aziz University, Jaddah, Saudi Arabia.

2.8 Previous Studies on Research Productivity

Many researchers across the world address the research productivity of nursing staff, business faculty, scientists, psychologists, sociologists and few of the academicians. Blackburn (1991), based his research on need theory, life stage theory, theory of socialization and theory of cognitive motives to study the selected personal, environmental, motivational variables and work load, efforts to conduct research. Need theory explains that gender and age are variables, which effect the research production. Life stage theory describes that interest in teaching increases as the age increases. During the later stages of life male desire to have affiliation with someone, so male develop their more interest in teaching and research. Theory of socialization describes that relationship among faculty members, environment of the institution, interpersonal relations of the faculty, affecting their research our put. Need theory describes that various needs motivate academicians to proceed ahead and produce research.

Blackburn (1991), found academicians holding Ph.D degree conduct more studies as compare to those having M.Phil and master degree. Blackburn says that self competency, financial aids, grants, highest degree earned from, age, self evaluation, self perception, research environment and career development are important variables, which affecting the research output of the university and college academicians. He also found that institutions can provide opportunities to the academicians to improve their competencies. Institutional leadership can motivate the academicians to sign research projects and enhance productivity.

Hertzberg (1959), conducted a study the factors of the working place and found that most absorbing thing to the employees is the environment of the institution. People spend a larger part of the day while discussing about the working place, people

talks about work in many ways, sometime, they discuss about colleagues, their personalities, about the attitude of seniors or juniors, few people like to discuss about the attitude of head of department. All such discussions show that how much people are interested to their working places. Even few times, we do not need to ask a person about his her organizational climate. Just his or her views are enough to know the level of job satisfaction. We can easily guess whether the employee is happy and contented or otherwise, nature of our feelings reflect our attitude towards the working place. Hertzberg (1959), says that environment of the working place is as important as employment itself. Every working individual develops an opinion about his working climate, whether it is positive, negative or satisfactory. When a person says, "I am just interested in salary, I never care what's going on? Single sentence enough to indicate that person is not interested in his work, he just works for salary and to pass the time. According to Hertzberg production is directly related to the level of job satisfaction.

Dundar (1998), studies that library expenditures have relationship with research productivity, if demands of the faculty members to purchase books for library are higher, such faculty will be more productive. Increased demands in library expenditures results in increase the research production of the faculty members.

Blackburn (1995), found that working climate motivates the faculty members to be productive, colleagues can provide immediate feed back to enhance the productivity and can pressurize non productive faculty members to show productivity. Colleagues can appreciate or criticize the new ideas of other faculty members. Briefly various studies conducted to find out the factors based on the theory of motivation, need theory and self efficacy theory. Few researchers based their work on expectancy theory, theories of socialization or on the reinforcement theory. Many factors are there which effect the research productivity of the academicians, broadly there are personal

factors, institutional factors, demographic factors and career development factors, which affecting the productivity of the academia.

Lertputtarak (2008), conducted a study to find out the factors related to the research productivity of Thailand universities faculty members and found the following factors related to the research productivity of university academicians:

1. Ecological factors,
2. Institutional factors,
3. Factors related to career development
4. Social contingency factors and
5. Personal factors

2.9 Organizational Research Culture

2.9.1 What is Organizational Culture?

According to Punnett (2006), culture is a concept that is familiar to most of people of an organization. Culture refers to a shared, commonly held body of general belief and values that define what is right and what is wrong. The word culture apparently originates with the Latin word "cultura", which is related to word 'cults', which means worship. Culture is a system of knowledge, standard, perceiving, believing, evaluating and acting in human community or environmental settings. Members of a 'cult' believe in specific ways of doing things and thus develop a culture that enshrines those beliefs. Culture also includes values, needs, attitudes and norms of an organization.

According to Moorhead (1989), since 1970 many theorists sporadically used the term, 'organizational culture' 'sub culture' but during the early 1980 organizational culture became a central concern in the study of organizational behaviour. Hundreds of researchers began to work in this area, numerous books were published, important academic journals dedicated entire issues to the discussion of culture, even organizational culture become basic part of the business vocabulary and the analysis of organizational culture is one of the most important specialties in the field of organizational behaviour. Organizational research culture has no single widely accepted definition. However, it is a firm way to do things around here:

broadly, how an organization conduct research, how its management solves the problems; how an organization develops learning to cope with the problems.

2.9.2 Importance of Organizational Research Culture

Organizational culture influenced the performance of an organization. Organizational culture refers to some set of values held by individuals in an organization. These values define what is good or acceptable and what is bad or unacceptable for the organization. For example, in some business organizations, it is not acceptable to blame the customers. These organizations believe "customer is always right". In other organizations it may be acceptable to blame the customer. In each case employees of an organization understand how they should act in the organization. Organizational research culture is not written down in the shape of a book or made explicit in a training programme, but it is the basic assumption of the employees of an organization. Research culture has a positive influence on its employees. Some organizations even distribute the organizational values to its employees in writing. Organizational culture is a set of values, often taken or granted that help people in an organization understand which actions are considered acceptable and which are considered unacceptable, often these values are communicated through stories and other symbolic means. Research culture is created by the organizational leadership and maintained or transformed by the people.

2.9.3 Research Culture at IIUI

The purpose of the establishment of IIUI, was to provide an international Islamic seat of higher learning, with special emphasis on teaching and research, with an objective to produce scholars to meet the economic, social, political and intellectual needs of the modern Muslim world, to encourage and promote education, training and research, in the discipline of humanities and sciences. To achieve these objectives, research is an essential component of all the programmes. All the faculties of IIU have bee presenting M.Phil and Ph.D programmes successfuly. IIUI, has also published three research journals, Al-Dirasat al-Islamiyyah (Arabic), Islamic Studies (English) and Fikr-o-Nazar (Urdu). "Islamic Studies" is an

internationally peer reviewed research journal, being published by the Islamic Research Institute, since 1962. This journal publishes research articles, notes, comments, review-articles and book reviews in all disciplines of Islamic Studies including the Qur'an, Hadith, Tafsir, Sirah, 'Ilm al-Kalam, Jurisprudence, Fiqh, Law, Religion, Philosophy, Psychology, Anthropology, Sociology, Culture, Civilization, Political Science, Economics, Language, Literature, History, Science and Technology. Its contributors include some of the very best scholars across the world. *Islamic Studies* is among the journals approved for research publications by Higher Education Commission of Pakistan. Islamic University has very close academic collaboration with the Al-Azhar University, Cairo, Ummul Qura University, Makkah, Islamic University, Madina, Imam Muhammad Bin Saud University, Riyadh and King Abdul Aziz University, Jaddah.

International Islamic University, has established Information Resource Center (IRC), to transform the academic community of IIU into a virtual/ cyber academic community. With an objective to provide highly professional information to its academicians. This centre works under the umbrella of Faculty of Management Sciences. The centre has access to the digital information resources of the world and provides highly structured information services to teachers, researchers, students and management of IIU. The University has established computer labs, in all the faculties, for its students and teachers. There are separate computer labs for Ph.D students, all the labs are equipped with latest model of computers. IIUI has provided computer systems to all the faculty members. Internet facility is available throughout the campuses. IRC also conducts researches, trainings workshops and publishes research material and papers on the World Wide Web. The university also encourages the academicians to go abroad for higher studies.

CHAPTER 3

METHOD AND PROCEDURE OF THE STUDY

3.1 Introduction

This study was about the factors supporting or hindering the research activities of the University. The study was designed to investigate the causes of low and high research productivity at IIUI, to know the level of satisfaction of the faculty, their attitude towards research, factors motivating the academicians to produce and present research papers. The chapter three is discussed under the following headings:

3.2 Population

Population of the study consisted of 476 faculty members working at International Islamic University, Islamabad, Pakistan on regular, Tenure Track System, contract, adhoc and secondment basis. Total population of the study was 476. There were nine faculties, two institutes and two academies, fifty percent faculty members were randomly taken as sample.

3.3 Sample

This study was quantitative in nature. Sample was taken from the Professors, Associate Professors, Assistant professors, Lecturers, Teaching/Research Associates and Programme Coordinators working at International Islamic University, Islamabad. Sample was drawn by applying the stratified random sampling technique, out of four hundred and seventy six faculty members working at IIU. Fifty percent academicians

ie. (232, of the total number) from each stratum were selected as sample, subject to the condition that each one stratum was selected as sample. Summary of the sample explains how 50% population was selected as sample.

SAMPLE SUMMARY

Faculty/ Institute	Professors		Associate Professors		Assistant Professors		Consult-ants		Lecturers		Teaching/ Research Associates		Prog Cor.		Total	
	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S
Shariah & Law	4	2	1	1	24	12	1	1	12	6	-	-	2	1	44	23
FET	3	1	2	1	8	4	4	2	9	4	1	1	1	1	28	14
FBAS	2	1	3	1	20	10	-	-	35	17	12	6	3	1	75	36
FLL	4	2	3	1	11	5	-	-	23	11	8	4	2	1	51	24
Arabic	2	1	3	1	14	7	-	-	17	8	8	4	1	1	45	22
Eco. WC	-	-	-		3	1	-	-	7	4	2	1	2	1	14	7
Islamic Studies	2	1	6	2	9	4	-	-	21	10	7	3	-	-	45	22
FOSS	9	4	-	-	17	8	2	1	16	8	11	5	2	1	57	26
FMS	2	1	1	1	11	6	14	7	13	6	9	4	3	1	53	26
Dawah Academy	-	-	1	1	6	3	11	5	-	-	-	-	-	-	18	9
Shariah Academy	-	-	-	-	4	2	-	-	-	-	-	-	-	-	4	2
IIIE	6	3	-	-	6	3	1	1	11	5	2	1	1	1	27	14
IRI	4	2	-	-	4	2	-	-	7	3	-	-	-	-	15	7
Total	38	17	20	9	137	67	33	1	171	82	60	2	18	9	476	232

P= population
S= sample

3.4 Instrument

Opinionnaire was developed for data collection, after reviewing the related literature, in consultation with IIUI manual, keeping in view the requirements of Higher Education Commission, after reviewing the previous related researches and in consultation with some academicians. The opinionnaire was developed at Likert's five point scale and consisted of 40 items. Five options were given as SDA=1, DA=2, UD=3, SA=4 and SDA=5.

Description of the opinionnaire is given below:

Sr.	Factors	Item No.
1.	DVIP (Demographic Variable Information Proforma)	I to xv
2.	Performance of Administrative and Academic duties	1,2,3,17,
3.	Research Skills	4,5,6
4.	Computer Knowledge	7,8
5.	Age	10,11,12
6.	Supervision of M.Phil/Ph.D students	13,14,15,16
7.	Marital status	18,19
8.	Promotion and Salary	23,24,25,26
9.	Rank or designation	27
10.	Facilities provided for research	28,29,30
11.	Attitude towards research	9,34,35,36,37
12.	Incentives and rewards	31,32,38
13.	Background in basic sciences	21
14.	Background in social sciences	22
15.	Collegial behaviour	20,33
16.	Open ended questions, to have the opinion of the respondents to improve the facilities to conduct research	39
17.	Open ended questions, to have the opinion of the respondents about the factors, positively affecting the research productivity	40

3.5 Pilot Testing

Opinionnaire was pilot tested on twelve faculty members not included in the sample. (One Professor, four Assistant professors, four lecturers, two Teaching Research Associates and one Programme Coordinator, were included among the pilot testing). Expert opinion was taken from Dr. Asad Abbas Rizvi, Dr. Saeed-ul-Hassan Chishti, Dr. Muhammad Munir Kyani, Assistant Professors and Sheikh Tariq Mahmood, Lecturer. Few amendments were made to validate the instrument. Reliability of the instrument was measured through SPSS which was 0.87.

3.6 Data Collection

Data were collected by administering the opinionnaire developed for the study. To distribute the opinionnaire, the researcher personally visited all the departments and faculties of IIUI. Some of the faculty members returned the

opinionnaire at the spot. Many faculty members were reminded and requested to return the opinionnaire. After one week researcher reminded the faculty members to return the opinionnaires. 210 out of 232 opinionnaires were returned. Three incomplete opinionnaires were not included in the analysis. Therefore, 207 opinionnaires were appropriate and provided the required data.

3.7 Data Analysis

This study was quantitative in nature; data obtained from the sample were analyzed through manual calculations and by using the SPSS (Version 12). Percentage, Mean, Standard Deviation, Chi Square and Yates Correction were used to analyze the data.

CHAPTER 4

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

This chapter deals with the analysis and interpretation of the data. The data was collected through a opinionnaire. It was developed at Five Point Likert's scale. It was reviewed by a group of experts and was pilot tested before administration to the sample of the study. Amendments were made to make the instrument valid. 210 opinionnaire out of 232 were returned. Returned opinionnaires were through checked, 03 incomplete opinionnaires were not included for analysis. Entire data was analyzed by applying Mean, Standard Deviation, Chi-Square and Yates Correction. Level of significance selected for the study was 0.05. Data were edited into the SPSS (Version 12.0). At initial stage percentages were calculated through SPSS. Values of the Chi-Square were calculated through Microsoft Excel 2007. Item wise interpretation is also given in this chapter. The Mean Score and values of Standard Deviation were calculated through SPSS (version 12.0). Chapter 4 consists of 40 tables.

Table 4.1 Responses about Teaching Load as a Hurdle in Writing and Presentation of Research Papers

	Fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean Score	SD	χ^2	Table Value
SDA	14	41.4	-27.4	750.76	18.13				
DA	41	41.4	-0.4	0.16	0.00				
UD	6	41.4	-35.4	1253.16	30.27	3.62	1.24	117.95	9.49
A	94	41.4	52.6	2766.76	66.83				
SA	52	41.4	10.6	112.36	2.71				
Total	207				**117.95**				

Level of significance 0.05

The Table 4.1 shows the calculated value of χ^2 (117.95) which was greater than the table value 9.49 for 4 df at 0.05 significance level. So it was concluded that the statement was positively significant regarding Teaching load as hurdle in writing and presentation of research papers. Therefore, it was concluded that Teaching Load was a hurdle in writing and presentation of research papers.

Table 4.2 Responses about Performance of Administrative Duties along with Academic Duties Affecting Research Productivity of Faculty Members

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	35.9	1288.81	31.13	4.16	0.91	209.21	9.49
DA	11	41.4	-30.4	924.16	22.32				
UD	8	41.4	-33.4	1115.56	26.95				
A	104	41.4	62.6	3918.76	94.66				
SA	79	41.4	37.6	1413.76	34.15				
Total	207				**209.21**				

Level of significance 0.05

The Table 4.2 shows the calculated value of χ^2 was 209.21 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding performance of administrative duties along with academic duties affecting research productivity of faculty members.

Table 4.3 Responses about Performance of Academic Duties other than Teaching, as Checking of Assignments, Guidance to Students, Paper Marking and Preparations of Course Outlines Reduce the Research Productivity of Academicians

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	3	41.4	-37.9	1436.41	35.62				
DA	39	41.4	-2.4	5.76	0.14				
UD	15	41.4	-26.4	696.96	16.83	3.71	1.04	159.74	9.49
A	108	41.4	66.6	4435.56	107.14				
SA	42	41.4	0.6	0.36	0.01				
Total	207				**159.74**				

Level of significance 0.05

The Table 4.3 shows the calculated value of χ^2 was 159.74 which was greater than the table value 9.49 for 4df at 0.05 significance level. It was concluded that the statement was positively significant regarding performance of academic duties other than teaching, as checking of assignments, guidance to students, paper marking, preparations of course outlines reduce the research productivity of academicians. Therefore, it was concluded that performance of academic duties other than teaching, as checking of assignments, guidance to students, paper marking and preparation of course outlines reduced the research productivity of academicians.

Table 4.4 Responses about Proper Time Management Positively Affecting the Research Productivity of Faculty Members

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	4	41.4	-36.9	1361.61	32.88				
DA	12	41.4	-29.4	864.36	20.88				
UD	5	41.4	35.9	1288.81	31.13	4.19	0.886	221.68	9.49
A	106	41.4	64.6	4173.16	100.80				
SA	80	41.4	38.6	1489.96	35.99				
Total	207				**221.68**				

Level of significance 0.05

The Table 4.4 shows the calculated value of χ^2 was 221.68 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding proper time management positively affecting the research productivity of faculty members. Therefore, it was concluded that proper time management positively affecting the research productivity of the faculty members.

Table 4.5 Responses about Knowledge of Statistics, Research Methodology and Research Skills are Necessarily Required to Conduct Research Studies and to Write Research Papers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	0	41.1	-41.1	1689.21	1.00	4.41	0.738	153.10	9.49
DA	7	41.1	-44.8	2007.04	38.75				
UD	10	41.1	-41.8	1747.24	33.73				
A	81	41.1	29.2	852.64	16.46				
SA	109	41.1	57.2	3271.84	63.16				
Total	207				**153.10**				

Level of significance 0.05

The Table 4.5 shows the calculated value of χ^2 was 153.10 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding knowledge of Statistics, research methodology and research skills were necessarily required to conduct research studies and to write research papers. Therefore, it was concluded that knowledge of Statistics, research methodology and research skills were necessarily required to conduct research studies and to write research papers.

Table 4.6 Responses of the Respondents about Faculty Members Need to be Trained to Conduct Research and Write Research Papers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	0	41.1	-41.1	1689.21	1.00				
DA	6	51.8	-45.8	2097.64	40.49				
UD	10	51.8	-41.8	1747.24	33.73	4.43	0.72	158.23	9.49
A	80	51.8	28.2	795.24	15.35				
SA	111	51.8	59.2	3504.64	67.66				
Total	207				**158.23**				

Level of significance 0.05

The Table 4.6 shows the calculated value of χ^2 was 158.23 which was greater than the table value 9.49 for 4 dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding faculty members need to be trained to conduct research and write research papers. Therefore, it was concluded that faculty members agreed to get training to conduct research and to write research papers.

Table 4.7 Responses about Computer Knowledge Makes it Easy to Conduct Research Studies and Write Research Papers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	0	41.1	-41.1	1689.21	1.00	4.42	0.633	175.24	9.49
DA	4	51.8	-47.3	2237.29	43.19				
UD	4	51.8	-47.3	2237.29	43.19				
A	100	51.8	48.2	2323.24	44.85				
SA	99	51.8	47.2	2227.84	43.01				
Total	207				175.24				

Level of significance 0.05

The Table 4.7 shows the calculated value of χ^2 was 175.24 which was greater than the table value 4.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant that computer knowledge made it easier to conduct research studies and write research papers. Therefore, it was concluded that computer knowledge facilitates the faculty members to conduct research studies and helped them in writing of research papers.

Table 4.8 Responses about Usage of Web/Internet

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	0	41.1	-41.1	1689.21	1.00				
DA	4	51.8	-47.3	2237.29	43.19				
UD	7	51.8	-44.8	2007.04	38.75	4.35	0.642	170.94	9.49
A	109	51.8	57.2	3271.84	63.16				
SA	87	51.8	35.2	1239.04	23.92				
Total	207				170.94				

Level of significance 0.05

The above Table shows the calculated value of χ^2 was 170.94 which was greater than the table value 9.49 for 4 dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding usage of web/internet positively affecting research productivity of academic staff. Therefore, it was concluded that usage of web/internet positively affecting the research productivity of academic staff.

Table 4.9 Responses about Interest level of the Faculty Member towards Research Studies

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	1	41.4	-39.9	1592.01	38.45	4.28	0.716	250.56	9.49
DA	6	41.4	-35.4	1253.16	30.27				
UD	8	41.4	-33.4	1115.56	26.95				
A	111	41.4	69.6	4844.16	117.01				
SA	81	41.4	39.6	1568.16	37.88				
Total	207				**250.56**				

Level of significance 0.05

The above Table shows the calculated value of χ^2 was 250.56 which was greater than the table value 9.49 for 4 dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding interest level of faculty member to conduct research studies positively affecting their research productivity. Therefore, it was concluded that interest level of faculty member towards research studies was positively affecting their research productivity.

Table 4.10 Responses about Age and Number of Research Publications

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	23	41.4	-18.4	338.56	8.18	2.86	1.192	47.28	9.49
DA	74	41.4	32.6	1062.76	25.67				
UD	39	41.4	-2.4	5.76	0.14				
A	51	41.4	9.6	92.16	2.23				
SA	20	41.4	-21.4	457.96	11.06				
Total	207				**47.28**				

Level of significance 0.05

The Table 4.10 shows the calculated value of χ^2 was 47.28 which was greater than the table value 9.49 at for 4 df 0.05 significance level. It was concluded that the statement was negatively significant regarding increase in age results in, increase in number of research publications. Therefore, it was concluded that increase in age did not result in, increase in research publications.

Table 4.11 Responses about Teaching Experience and Research Publications

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	29	41.4	-12.4	153.76	3.71				
DA	91	41.4	49.6	2460.16	59.42				
UD	40	41.4	-1.4	1.96	0.05	2.54	1.051	93.46	9.49
A	41	41.4	-0.4	0.16	0.02				
SA	6	41.4	-35.4	1253.16	30.27				
Total	207				**93.46**				

Level of significance 0.05

The Table 4.11shows the calculated value of χ^2 was 93.46 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant regarding teachers having more teaching experience had more number of research publications. Therefore, it was concluded that experienced teachers had not more number of publications.

Table 4.12 Responses about Aged Teachers have More Number of Publications than Young Faculty Members

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	34	41.4	-7.4	54.76	1.32				
DA	79	41.4	37.6	1413.76	34.15				
UD	39	41.4	-2.4	5.76	0.14	2.63	1.187	51.33	9.49
A	39	41.4	-2.4	5.76	0.14				
SA	16	41.4	-25.4	645.16	15.58				
Total	207				**51.33**				

Level of significance 0.05

The above Table shows the calculated value of χ^2 was 51.33 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was negatively significant regarding aged teachers have more number of publications than young faculty members. Therefore, it was concluded that aged teachers had not more number of research publications than young faculty members.

Table 4.13 Responses of the Respondents about Supervision of M.Phil and Ph:D Students Positively Affecting Research Publications

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	31.13				
DA	32	41.4	-9.4	88.36	2.13				
UD	28	41.4	-13.4	179.56	4.34	3.67	1.028	129.40	9.49
A	103	41.4	61.6	3794.56	91.66				
SA	39	41.4	-2.4	5.76	0.14				
Total	207				**129.40**				

Level of significance 0.05

The Table 4.13 shows the calculated value of χ^2 was 129.40 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was positively significant regarding supervision of M.Phil and Ph.D students positively affecting research publications. Therefore, it was concluded that supervision of M.Phil and Ph.D students was positively affecting the research productivity of the faculty members.

Table 4.14 Responses about Role of Ph.D Students in Data Collection

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	6	41.4	-35.4	1253.16	30.27				
DA	29	41.4	-12.4	153.76	3.71				
UD	41	41.4	-0.4	0.16	0.02	3.59	1.009	113.07	9.49
A	98	41.4	56.6	3203.56	77.38				
SA	33	41.4	-8.4	70.56	1.70				
Total	207				**113.07**				

Level of significance 0.05

The Table 4.14 shows the calculated value of χ^2 was 113.07 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding Ph.D students helps the faculty members in data collection and play their role as research assistants. Therefore, it was concluded that Ph.D students helped the faculty members in data collection and played their role as research assistants.

Table 4.15 Responses about Supervision of Ph.D Students Enhance Research Skills of the Faculty Members

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	31.13				
DA	18	41.4	-23.4	547.56	13.23				
UD	27	41.4	-14.4	207.36	5.01	3.82	0.931	183.79	9.49
A	116	41.4	74.6	5565.16	134.42				
SA	41	41.4	-0.4	0.16	0.00				
Total	207				**183.79**				

Level of significance 0.05

The above Table shows the calculated value of χ^2 was 183.79 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was positively significant regarding supervision of Ph.D students enhanced research skills of the faculty members. Therefore, it was concluded that supervision of Ph.D students enhanced research skills of the faculty members.

Table 4.16 Responses about Supervision of Class Room Projects

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	4	41.4	-36.9	1361.61	32.88	3.43	0.916	140.09	9.49
DA	34	41.4	-7.4	54.76	1.32				
UD	53	41.4	11.6	134.56	3.25				
A	101	41.4	59.6	3552.16	85.80				
SA	15	41.4	-26.4	696.96	16.83				
Total	207				**140.09**				

Level of significance 0.05

The Table 4.16 shows the calculated value of χ^2 was 140.09 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was positively significant regarding supervision of class room projects affecting the research productivity of the faculty members. Therefore, it was concluded that supervision of class room projected positively affects the research productivity of the faculty members.

Table 4.17 Responses about Linkage Between Teaching and Research

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	2	41.4	-38.9	1513.21	36.55	4.02	0.929	165.2	9.49
DA	19	41.4	-22.4	501.76	12.12				
UD	18	41.4	-23.4	547.56	13.23				
A	102	41.4	60.6	3672.36	88.70				
SA	66	41.4	24.6	605.16	14.62				
Total	207				**165.21**				

Level of significance 0.05

The Table 4.17 shows the calculated value of χ^2 was 165.21 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was positively significant regarding teaching and research are interlinked. Therefore, it was concluded that according to the view of IIU faculty members teaching and research were interlinked.

Table 4.18 Responses about Married University Teachers Produce More Research Papers than Unmarried Teachers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	16	41.4	-25.4	645.16	15.58				
DA	75	41.4	33.6	1128.96	27.27				
UD	75	41.4	33.6	1128.96	27.27	2.72	0.96	97.61	9.49
A	32	41.4	-9.4	88.36	2.13				
SA	9	41.4	-32.4	1049.76	25.36				
Total	207				**97.61**				

Level of significance 0.05

The Table 4.18 shows the calculated value of χ^2 was 97.61 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was negatively significant regarding married university teachers produced more research papers than unmarried teachers. Therefore, it was concluded that married university teachers did not produce more research papers than unmarried teachers.

Table 4.19 Responses about Family Commitments

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	8	41.4	-33.4	1115.56	26.95				
DA	46	41.4	4.6	21.16	0.51				
UD	57	41.4	15.6	243.36	5.88	3.20	0.959	112.7	9.49
A	88	41.4	46.6	2171.56	52.45				
SA	8	41.4	-33.4	1115.56	26.95				
Total	207				**112.73**				

Level of significance 0.05

The Table 4.19 shows the calculated value of χ^2 was 112.73 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was negatively significant that family commitments did not allow married teachers to present papers at conference proceedings. Therefore, it was concluded that family commitments did not affect the research productivity of the married teachers and did not prevent them to present papers at conference proceedings.

Table 4.20 Responses about Attitude of Faculty Members and Interpersonal Relations Affecting on Research Publications

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	3	41.4	-37.9	1436.41	34.69	3.76	0.812	282.77	9.49
DA	18	41.4	-23.4	547.56	13.23				
UD	27	41.4	-14.4	207.36	5.01				
A	137	41.4	95.6	9139.36	220.76				
SA	22	41.4	-19.4	376.36	9.09				
Total	207				**282.77**				

Level of significance 0.05

The Table 4.20 shows the calculated value of χ^2 was 282.77 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding attitude of Faculty members and interpersonal relations had its affect on research productivity. Therefore, it was concluded that respondents were agreed that the attitude of the Faculty members and interpersonal relations was affecting the research productivity.

Table 4.21 Responses about Teachers Having Background in Science Subjects Produce More Research Papers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	31.13	3.04	0.987	88.630	9.49
DA	69	41.4	27.6	761.76	18.40				
UD	57	41.4	15.6	243.36	5.88				
A	64	41.4	22.6	510.76	12.34				
SA	12	41.4	-29.4	864.36	20.88				
Total	207				**88.63**				

Level of significance 0.05

The Table 4.21 shows the calculated value of χ^2 was 88.63 which was greater than the table value 9.49 for 4 dfs at 0.05 significance level. It was concluded that the statement was negatively significant regarding teachers having background in science subjects produce more research papers. Therefore, it was concluded that teachers having background in science subjects did not produce more research papers.

Table 4.22 Responses about Faculty Members having Background in Humanities and Social Sciences Produce More Research Papers

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	3	41.4	-37.9	1436.41	34.69				
DA	71	41.4	29.6	876.16	21.16				
UD	68	41.4	26.6	707.56	17.09	3.00	0.937	99.10	9.49
A	54	41.4	12.6	158.76	3.83				
SA	11	41.4	-30.4	924.16	22.32				
Total	207				**99.10**				

Level of significance 0.05

The Table 4.22 shows the calculated value of χ^2 was 99.10 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant that faculty members having background in humanities and social sciences produced more research papers. Therefore, it was concluded that faculty members having background in humanities and social sciences did not produce more research papers.

Table 4.23 Responses about University Teachers Write and Present Research Papers for their Promotion to Next Scales

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	2	41.4	-38.9	1513.21	36.55	3.78	0.851	205.5	9.49
DA	19	41.4	-22.4	501.76	12.12				
UD	33	41.4	-8.4	70.56	1.70				
A	121	41.4	79.6	6336.16	153.05				
SA	32	41.4	-9.4	88.36	2.13				
Total	207				**205.55**				

Level of significance 0.05

The Table 4.23 shows the calculated value of χ^2 was 205.55 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding university teachers wrote and present research papers for their promotion to next scales. Therefore, it was concluded that university teachers wrote and present research papers for the sake of promotion to next scales.

Table 4.24 Responses about Adoption of Tenure Track system

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	13.13				
DA	29	41.4	-12.4	153.76	3.71				
UD	81	41.4	39.6	1568.16	37.88	3.34	0.910	111.6	9.49
A	74	41.4	32.6	1062.76	25.67				
SA	18	41.4	-23.4	547.56	13.23				
Total	207				**111.62**				

Level of significance 0.05

The Table 4.24 shows the calculated value of χ^2 was 111.62 which was greater than the table value 9.49 for 4dfs at 0.05 significance level. It was concluded that the statement was undecidedly significant regarding university teachers produced research papers to adopt tenure track system. Therefore, it is concluded that faculty members were undecided that university teachers produced research papers to adopt Tenure Track System.

Table 4.25 Responses about Research Papers as Criteria for Promotion

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	34	41.4	-7.4	54.76	1.32				
DA	69	41.4	27.6	761.76	18.40				
UD	48	41.4	6.6	43.56	1.05	2.66	1.146	43.41	9.49
A	45	41.4	3.6	12.96	0.31				
SA	11	41.4	-30.4	924.16	22.32				
Total	207				**43.41**				

Level of significance 0.05

The Table 4.25 shows the calculated value of χ^2 was 43.41 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant regarding teaching experience was sufficient criteria, research papers should not be a condition to promote university teachers. Therefore, it was concluded that respondents agreed that research papers should be a condition to promote university teachers.

Table 4.26 Responses about Research Publications Helps the Faculty Members to Earn Higher Salary Package

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	6	41.4	-35.4	1253.16	30.27	3.67	0.887	244.62	9.49
DA	20	41.4	-21.4	457.96	11.06				
UD	31	41.4	-10.4	108.16	2.61				
A	130	41.4	88.6	7849.96	189.61				
SA	20	41.4	-21.4	457.96	11.06				
Total	207				**244.62**				

Level of significance 0.05

The Table 4.26 shows the calculated value of χ^2 was 244.62 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding research publications helped the faculty members to earn higher salary package. Therefore, it was concluded that research publications helped the faculty members to earn higher salary package.

Table 4.27 Responses about Faculty Members Working Under Tenure Track System are More Productive as Compare to Those Working Under BPS Scheme

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	14	41.4	-27.4	750.76	18.13	3.18	0.993	94.0	9.49
DA	32	41.4	-9.4	88.36	2.13				
UD	75	41.4	33.6	1128.96	27.27				
A	74	41.4	32.6	1062.76	25.67				
SA	12	41.4	-29.4	864.36	20.88				
Total	207				**94.09**				

Level of significance 0.05

The Table 4.27 shows the calculated value of χ^2 was 94.09 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was negatively significant regarding faculty members working under tenure track system were more productive as compare to those working under BPS scheme. Therefore, it was concluded that faculty members working under tenure track system were not more productive as compared to those teachers working under BPS scheme.

Table 4.28 Responses about Satisfaction of the Faculty members with the Computer/Internet Facilities Provided to them by the University

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	14	41.4	-27.4	750.76	18.13				
DA	24	41.4	-17.4	302.76	7.31				
UD	9	41.4	-32.4	1049.76	25.36	3.67	1.079	238.77	9.49
A	129	41.4	87.6	7673.76	185.36				
SA	31	41.4	-10.4	108.16	2.61				
Total	207				**238.77**				

Level of significance 0.05

The Table 4.28 shows the calculated value of χ^2 was 238.77 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding, the satisfaction of the faculty members with the Computer/Internet facilities provided to them by the University. Therefore, it was concluded that IIUI faculty members were satisfied with the Computer/Internet facilities available to them at the University.

Table 4.29 Responses about Satisfaction with the Library, E. library facility

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	11	41.4	-30.4	924.16	22.32				
DA	38	41.4	-3.4	11.56	0.28				
UD	17	41.4	-24.4	595.36	14.38	3.54	1.272	211.04	9.49
A	123	41.4	81.6	6658.56	160.83				
SA	18	41.4	-23.4	547.56	13.23				
Total	207				**211.04**				

Level of significance 0.05

The Table 4.29 shows the calculated value of χ^2 was 211.04 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding, satisfaction of the faculty members with the library and E. library facility provided to them by the University. Therefore, it was concluded that faculty members of IIU were satisfied with the Library and E. library facility.

Table 4.30 Responses about Satisfaction with the Funds/Grants Facilities

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	24	41.4	-17.4	302.76	7.31	3.18	1.201	88.63	9.49
DA	43	41.4	1.6	2.56	0.06				
UD	29	41.4	-12.4	153.76	3.71				
A	93	41.4	51.6	2662.56	64.31				
SA	18	41.4	-23.4	547.56	13.23				
Total	207				**88.63**				

Level of significance 0.05

The Table 4.30 shows the calculated value of χ^2 was 88.63 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant regarding, their satisfaction with the Funds/Grants. Therefore, it was concluded that faculty members were not satisfied with the Funds/Grants facilities.

Table 4.31 Responses about Appreciation by the Dean

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	31.13				
DA	14	41.4	-27.4	750.76	18.13				
UD	12	41.4	-29.4	864.36	20.88	4.07	0.937	192.4	9.49
A	107	41.4	65.6	4303.36	103.95				
SA	69	41.4	27.6	761.76	18.40				
Total	207				**192.49**				

Level of significance 0.05

The Table 4.31 shows the calculated value of χ^2 was 192.49 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding appreciation by the Dean affected the research productivity. Therefore, it was concluded that appreciation by the Dean affected the research productivity of the faculty members.

Table 4.32 Responses about Appreciation by the Head of Department

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	5	41.4	-35.9	1288.81	31.13	4.16	0.882	229.50	9.49
DA	10	41.4	-31.4	985.96	23.82				
UD	6	41.4	-35.4	1253.16	30.27				
A	111	41.4	69.6	4844.16	117.01				
SA	75	41.4	33.6	1128.96	27.27				
Total	207				**229.50**				

Level of significance 0.05

The Table 4.32 shows the calculated value of χ^2 was 229.50 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding appreciation by the Head of Department positively affecting research productivity. Therefore, it was concluded that appreciation by the Head of Department positively affected the research productivity of the faculty members.

Table 4.33 Responses about the Role of Colleague Faculty Members

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	3	41.4	-37.9	1436.41	34.69				
DA	9	41.4	-32.4	1049.76	25.36				
UD	14	41.4	-27.4	750.76	18.13	4.16	0.837	211.18	9.49
A	109	41.4	67.6	4569.76	110.38				
SA	72	41.4	30.6	936.36	22.62				
Total	207				**211.18**				

Level of significance 0.05

The Table 4.33 shows the calculated value of χ^2 was 212.11 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was positively significant regarding colleague faculty members, who had good number of publication could motivate their colleagues, having no publication to write research papers. Therefore, it was concluded that colleague faculty members, who had good number of publication could motivate their colleagues, who had no publications.

Table 4.34 Responses about Writing and Presentation of Research Papers as an Interesting Activity

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	6	41.4	-35.4	1253.16	30.27				
DA	13	41.4	-28.4	806.56	19.48				
UD	20	41.4	-21.4	457.96	11.06	3.95	0.931	194.91	9.49
A	115	41.4	73.6	5416.96	130.84				
SA	53	41.4	11.6	134.56	3.25				
Total	207				**194.91**				

Level of significance 0.05

The Table 4.34 shows the calculated value of χ^2 was 194.91 which was greater than the table value 9.49 at 0.05 significance level. It was concluded that the statement was positively significant regarding writing and presentation of research papers was a very interesting activity. Therefore, it was concluded that respondents were agreed that writing and presentation of research papers was an interesting activity.

Table 4.35 Responses about Writing and presentation of Research Papers is a Boring and Tiring Activity

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	61	41.4	19.6	384.16	9.28				
DA	95	41.4	53.6	2872.96	69.40				
UD	27	41.4	-14.4	207.36	5.01	2.11	1.048	125.87	9.49
A	15	41.4	-26.4	696.96	16.83				
SA	9	41.4	-32.4	1049.76	25.36				
Total	207				**125.87**				

Level of significance 0.05

The Table 4.35 shows the calculated value of χ^2 was 125.87 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant regarding writing and presentation of research papers is a boring and tiring activity. Therefore, it was concluded that writing and presentation of research papers was not a boring and tiring activity.

Table 4.36 Responses about Presentation of Research Papers Provides a Chance to Learn about Foreign Culture

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	6	41.4	-35.4	1253.16	30.27				
DA	11	41.4	-30.4	924.16	22.32				
UD	39	41.4	-2.4	5.76	0.14	3.79	0.892	184.2	9.49
A	115	41.4	73.6	5416.96	130.84				
SA	36	41.4	-5.4	29.16	0.70				
Total	207				**184.28**				

Level of significance 0.05

The Table 4.36 shows the calculated value of $\chi 2$ was 184.28 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding presentation of research papers provided a chance to learn about the foreign culture. Therefore, it was concluded that presentation of research papers provided a chance to the faculty members to learn about the foreign culture.

Table 4.37 Responses about Writing and Presentation of Research Papers is a Useless Practice

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	89	41.4	47.6	2265.76	54.73				
DA	84	41.4	42.6	1814.76	43.83				
UD	18	41.4	-23.4	547.56	13.23	1.84	0.975	165.87	9.49
A	10	41.4	-31.4	985.96	23.82				
SA	6	41.4	-35.4	1253.16	30.27				
Total	207				**165.87**				

Level of significance 0.05

The Table 4.37 shows the calculated value of χ^2 was 165.87 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was negatively significant regarding writing and presentation of research papers is a useless practice. Therefore, it was concluded that writing and presentation of research papers was not a useless activity.

Table 4.38 Responses about the Role of Incentives and Rewards

	fo	fe	fo – fe	$(fo - fe)^2$	$\frac{(fo - fe)^2}{fe}$	Mean	SD	χ^2	Table Value
SDA	1	41.4	-39.9	159.01	38.45				
DA	8	41.4	-33.4	1115.56	26.95				
UD	9	41.4	-32.4	1049.76	25.36	4.39	0.785	235.77	9.49
A	81	41.4	39.6	1568.16	37.88				
SA	108	41.4	66.6	4435.56	107.14				
Total	207				**235.77**				

Level of significance 0.05

The Table 4.38 shows the calculated value of χ^2 was 235.77 which was greater than the table value 9.49 for 4 df at 0.05 significance level. It was concluded that the statement was positively significant regarding incentives and rewards could motivate the faculty members to write more research papers. Therefore, it is concluded that incentives and rewards could motivate the faculty members to write research papers.

Table 4.39

Responses about open ended questions

To analyze the responses of the faculty members about open ended questions, responses were carefully checked, the responses which were opted again and again, were coded from 1-7 to feed the data into the SPSS (Version 12), as per detail; (1) allocation of funds and grant of research leave, (2) provision of latest books and journals, (3) publication of university's own journals, (4) less teaching load, (5) arrangement of seminars and conferences. Majority of respondents showed their response about the above categories. So code (6) was about all of the above. 44 (21.08%) respondents give no opinion so code seven represented no opinion. The Table 4.39 describes the, frequency, percentage and Means score of the respondents.

Table 4.39 Suggestions of the Respondents to Remove the Cause of Low Research Productivity

	Opinion	Frequency	Percentage	Mean
1	Allocation of funds and research leave	6	2.9	2.91
2	Provision of latest books and journals	19	9.2	12.14
3	Publication of university own journals	3	1.4	13.59
4	less teaching load	18	8.7	22.33
5	Arrangement of seminars and conferences	15	7.7	29.61
6	All of above	102	49.3	79.13
7	no opinion	44	20.8	20.87
Total		207	100.0	

The Table 4.39 shows the frequency, percentage and Mean. The Mean score 79.13 was highest one and depicts that the 102 (49.3%) showed that majority of the faculty members, desire to have funds to conduct researches, along with research leave, faculty members also desired to have access to latest books and journals, they wanted to reduce their teaching load and desire to attend seminars and conferences on research productivity.

Table 4.40

Responses about open ended questions

To analyze the responses of the faculty members about open ended questions, responses were carefully checked, the responses which were opted again and again, were coded from 1-7 to feed the data into the SPSS (Version 12), as per detail; (1) no administrative duty, (2) development of good reading habits (3) incentives and rewards (4) establishment of departmental libraries, (5) exposure to foreign universities. Majority of respondents mentioned the above factors, so code (6) was about all of above. 44 (20.08%) respondents gave no opinion so code (7) represents no opinion. The data has been interpreted in Table 4.40. This Table described the, frequency, percentage and Means score of the respondents.

Table 4.40 Suggestions of the Respondents to Improve the Situation

	Opinion	Frequency	Percentage	Mean
1	No administrative duties	5	2.4	2.43
2	Good reading habits	1	.5	2.91
3	Incentives and rewards	29	14.0	16.99
4	Establishment of departmental libraries	13	6.3	23.30
5	Exposure to foreign universities	13	6.3	29.13
6	All of above	101	48.8	78.16
7	No opinion	45	21.7	21.84
Total		207	100.0	

The Table 4.40 shows the frequency, percentage and Mean. The Mean score 78.13 was highest one and depicts that the 101 (48.8%) that majority of the faculty members mentioned that no administrative duties, good reading habits of the faculty members, establishment of departmental libraries and exposure to the foreign countries were factors which could enhance the research productivity of IIUI faculty members.

4.3 Discussions

Blackburn (1991), found that financial aids, grants, highest degree earned from, age, self evaluation, self perception, research environment and career development were important variables, which were affecting the research output of the university and college academicians. Similarly, the results of this study showed that financial grants, improper time management, extra teaching load, performance of administrative duties and performance of academic duties other than teaching were the causes of low research productivity. Blackburn also found that work load and efforts to conduct research were affecting the productivity of the academicians. The results of the study also showed that the above said factors reduced the research output.

Blackburn (1995) found that working climate motivates the faculty members to be productive, colleagues could provide immediate feed back to enhance the productivity and can pressurize non productive faculty members to show productivity. This study also showed similar results. According to the findings of the study colleague faculty members having good record of publications can motivate their colleagues to publish their work.

Albach and Lweis (1995), conducted a survey study with academic staff of fourteen countries and found that 75% respondents agreed that research publications must be there to appoint and evaluate faculty members. Majority of respondents agreed that faculty members having good number of publications could get better tenure as compare to those who never published. Majority of respondents was agreed that teaching and research are interlinked. Against the results of Albach and Lweis. This study showed that majority of the respondents remained undecided that publications helped faculty members to get better tenure.

The study of Levin and Stephan (1991), Zainab (1999), showed that faculty members produced researches to get financial rewards in future. The results of this study also showed that faculty members wrote and present research papers for their promotion to next higher scales. The Mean score 4.02 revealed that the majority of IIUI faculty members agreed that teaching and research are interlinked. Attitude of the faculty members and their interpersonal relations had affected their research output. The teachers agreed that university teachers wrote and presented research papers for the cause of promotion. Research publications helped the faculty members to earn higher salary package. University teachers were satisfied with the facilities e.g computer, internet, e. library available to them at IIUI. Appreciation by the Head of Department and Dean had a positive impact on the research productivity. Faculty members agreed that writing and presentation of research papers was not a boring and tiring activity. Faculty members opined that incentives and rewards motivated them to write more research papers.

Chapter 5

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The study was designed to investigate the factors related to the research productivity of IIUI faculty members. Objectives of the study were to investigate the factors, related to the research productivity at University level, to find out the factors forcing University teachers to conduct researches, to know the causes of high and low research productivity at International Islamic University, Islamabad. To inquire the level of satisfaction of the academic staff of IIUI with the facilities available to them at IIUI. Two hundred and thirty two faculty members were selected from the population through stratified random sampling technique. Opinionnaire was developed at five point Likert's scale to have the views of the faculty members.

The Demographic variables information Performa along with opinionnaire was distributed among the male and female faculty members working at IIUI. Two hundred and ten faculty members returned the opinionnaire. To describe the data at initial stage, frequencies and percentage were calculated. At the second stage values of the Mean, SD and Chi-Square were calculated through the SPSS (Version 12) and by using the Microsoft Excel 2007.

5.2 Findings

Following findings were drawn after the analysis:

1. The calculated value of χ^2 (117.95) greater than the table value 9.49 for 4dfs at 0.05 significance level showed that the statement was positively significant regarding teaching load is hurdle in writing and presentation of research papers. Therefore, it was concluded that teaching load was a hurdle in writing and presentation of research papers. (Table 4.1).
2. The calculated value of χ^2 was 209.21 greater than the table value 9.49 for 4dfs at 0.05 significance level showed that the statement was positively significant regarding performance of administrative duties along with academic duties was affecting research productivity of the faculty members. Therefore, it was concluded that performance of administrative duties along with academic duties was positively affecting the research productivity of the faculty members. (Table 4.2).
3. The calculated value of χ^2 was 158.81 greater than the table value 9.49 for 4dfs at 0.05 significance level which revealed that the statement was positively significant regarding performance of academic duties other than teaching, as checking of assignments, guidance to students, paper marking and preparation of course outlines reduced the research productivity of the academicians. (Table 4.3).
4. The calculated value of χ^2 was 221.68 greater than the table value 9.49 for 4dfs at 0.05 significance level exposed that the statement was positively significant regarding proper time management positively affects the research productivity of the faculty members. Therefore, it was concluded that proper

time management was positively affecting the research productivity of the faculty members. (Table 4.4).

5. The calculated value of χ^2 was 153.10 greater than the table value 9.49 for 4dfs at 0.05 significance level revealed that the statement was positively significant regarding knowledge of Statistics, research methodology and research skills are necessarily required to conduct research studies and to write research papers. Therefore, it was concluded that knowledge of Statistics, research methodology and research skills were necessarily required to conduct research studies and to write research papers. (Table 4.5).
6. The calculated value of χ^2 was 158.23 greater than the table value 9.49 for 4dfs at 0.05 significance level revealing that statement was positively significant regarding faculty members need to be trained to conduct research and write research papers. Therefore, it was found that faculty members needed to be trained to conduct research and write research papers. (Table 4.6)
7. The calculated value of χ^2 was 175.24 greater than the table value 9.49 for 4dfs at 0.05 significance level revealing that the statement was positively significant regarding computer knowledge makes it easier to conduct research studies and to write research papers. Therefore, it was found that computer knowledge facilitated the faculty members to conduct research studies and helped them in writing of research papers. (Table 4.7).
8. The calculated value of χ^2 was 170.94 which was greater than the table value 9.49 for 4dfs at 0.05 significance level exposed that the statement was positively significant regarding usage of web/internet positively affects the research productivity of the academic staff. Therefore, it was found that usage

of web/internet was positively affecting the research productivity of the academic staff. (Table 4.8).

9. The calculated value of χ^2 was 250.56 greater than the table value 9.49 for 4 dfs at 0.05 significance level revealed that the statement was positively significant regarding interest level of the faculty member to conduct research studies was positively affecting their research productivity. Therefore, it was concluded that interest level of the faculty member towards research studies was positively affecting their research productivity. (Table 4.9)
10. The calculated value of χ^2 was 47.28 greater than the table value 9.49 at 4 dfs 0.05 significance level revealed that the statement was negatively significant regarding increase in age, results in, increase in number of research publications. Therefore, it was found that age had no relevancy with research publications. Increase in age of the faculty members; did not result in increase in research publications. (Table 4.10).
11. The calculated value of χ^2 was 93.46 which was greater than the table value 9.49 for 4 dfs at 0.05 significance level, which made known that the statement was negatively significant regarding teachers having more teaching experience have more number of research publications. Therefore, it was concluded that teachers having more teaching experience did not have more number of research publications. (Table 4.11)
12. The calculated value of χ^2 was 51.33 bigger than the table value 9.49 for 4dfs at 0.05 significance level showing that the statement was negatively significant regarding, aged teachers have more number of research publications than young faculty members. Therefore, it was concluded that

aged teachers had not more number of research publications than young faculty members. (Table 4.12)

13. The calculated value of χ^2 was 129.40 greater than the table value 9.49 for 4dfs at 0.05 significance level demonstrated that the statement was positively significant regarding supervision of M.Phil and Ph.D students positively affects the research publications. Therefore, it was concluded that supervision of M.Phil and Ph.D students positively affected the research productivity of the faculty members. (Table 4.13).
14. The calculated value of χ^2 was 113.07 greater than the table value 9.49 for 4dfs at 0.05 significance level demonstrated that the statement was positively significant regarding Ph.D students and it helps the faculty members in data collection and play their role as research assistants. Therefore, it was concluded that Ph.D students helped the faculty members in data collection and played their role as research assistants. (Table 4.14).
15. The calculated value of χ^2 was 183.79 which was greater than the table value 9.49 for 4dfs at 0.05 significance level showing that the statement was positively significant regarding supervision of Ph.D students enhanced research skills of the faculty members. Therefore, it was concluded that supervision of Ph.D students enhanced the research skills of the faculty members, who supervised Ph.D students. (Table 4.15).
16. The calculated value of χ^2 was 140.09 greater than the table value 9.49 for 4dfs at 0.05 significance level revealed that the statement was positively significant regarding supervision of class room projects positively affecting the research productivity of the faculty members. Therefore, it was concluded

that supervision of class room projects had positive affects on the research publications of the faculty members. (Table 4.16)

17. The calculated value of χ^2 was 165.21 greater than the table value 9.49 for 4dfs at 0.05 significance level demonstrated that the statement was positively significant regarding teaching and research is interlinked. Therefore, it was found that faculty members agreed that teaching and research are interlinked. (Table 4.17)
18. The calculated value of χ^2 was 97.61 which was greater than the table value 9.49 for 4dfs at 0.05 significance level displayed that the statement was negatively significant regarding married university teachers produced more research papers than unmarried teachers. Therefore, it was concluded that respondents were disagreed that married university faculty members produced more research papers than unmarried teachers. (Table 4.18)
19. The calculated value of χ^2 was 112.73 greater than the table value 9.49 for 4dfs at 0.05 significance level revealed that the statement was undecidedly significant that family commitments do not allow married teachers to present papers at conference proceedings. Therefore, it was concluded that respondents were undecided that family commitments did not allowed married teachers to present research papers at conference proceedings. (Table 4.19)
20. The calculated value of χ^2 was 282.77 which was greater than the table value 9.49 for 4dfs at 0.05 significance level showed that the statement was positively significant regarding attitude of the faculty members and interpersonal relations have its affect on the research productivity. Therefore, it was concluded that respondents agreed that attitude of the faculty members

and their interpersonal relations positively affected the research productivity of the faculty members. (Table 4.20)

21. The calculated value of χ^2 was 88.63 greater than the table value 9.49 for 4 dfs at 0.05 significance level revealed that the statement was positively significant regarding teachers having background in science subjects produce more research papers. Therefore, it was concluded teachers having background in science subjects produced more research papers. (Table 4.21)
22. The calculated value of χ^2 was 99.10 greater than the table value 9.49 for 4 dfs at 0.05 significance level demonstrated that the statement was negatively significant that faculty members having background in humanities and social sciences produced more research papers. Therefore, it was concluded that faculty members having background in humanities and social sciences did not produce more research papers. (Table 4.22)
23. The calculated value of χ^2 was 205.55 greater than the table value 9.49 for 4 df at 0.05 significance level revealed that the statement was positively significant regarding university teachers write and present research papers for their promotion to next scales. Therefore, it was concluded that university teachers wrote and presented research papers for their promotion to next scales. (Table 4.23)
24. The calculated value of χ^2 was 111.62 greater than the table value 9.49 for 4dfs at 0.05 significance level exposed that the statement was undecidedly significant regarding university teachers produce research papers to adopt tenure track system. Therefore, it was concluded that respondents were undecided to adopt Tenure Track System. (Table 4.24)

25. The calculated value of χ^2 was 43.41 greater than the table value 9.49 for 4 df at 0.05 significance level revealed that the statement was negatively significant regarding teaching experience as sufficient criteria, research papers should not be a condition to promote university teachers. Therefore, it was concluded that respondents agreed that research papers should be a necessary condition to promote university teachers. (Table 4.25)
26. The calculated value of χ^2 was 244.62 greater than the table value 9.49 for 4 df at 0.05 significance level showed that the statement was positively significant regarding research publications as helpful means for the faculty members to earn higher salary package. Therefore, it was concluded that respondents were agreed that research publications helped the faculty members to earn higher salary package. (Table 4.26)
27. The calculated value of χ^2 was 94.09 greater than the table value 9.49 for 4dfs at 0.05 significance level demonstrated that the statement was undecidedly significant regarding faculty members working under tenure track system are more productive as compared to those working under BPS scheme. Therefore, it was concluded that the respondents were undecided that faculty members working under tenure track system were more productive as compare to those who were working under BPS scheme. (Table 4.27).
28. The calculated value of χ^2 was 238.77 greater than the table value 9.49 for 4 dfs at 0.05 significance level revealed that the statement was positively significant regarding, satisfaction of the faculty members with the Computer/Internet facilities provided to them by the University. Therefore, it was concluded that respondents were satisfied with the Computer/Internet facilities provided to them by the University. (Table 4.28)

29. The Table 4.29 shows the calculated value of χ^2 was 211.04 greater than the table value 9.49 for 4 dfs at 0.05 significance level revealed that the statement was positively significant regarding, satisfaction of the faculty members with the library and E. library facility provided to them by the University. Therefore, it was concluded respondents were satisfied with the Library and E. library facility available to them at the University. (Table 4.29)
30. The calculated value of χ^2 was 88.63 greater than the table value 9.49 for 4 dfs at 0.05 significance level revealed that the statement was negatively significant regarding, satisfaction of the faculty members, with the Funds/Grants facility. Therefore, it was concluded that faculty members were not satisfied with the Funds/Grants facilities provided to them by the university and Higher Education Commission. (Table 4.30)
31. The calculated value of χ^2 was 192.49 greater than the table value 9.49 for 4 dfs at 0.05 significance level demonstrated that the statement was positively significant regarding appreciation by the Dean affects the research productivity. Therefore, it was concluded that appreciation by the Dean positively affected their research productivity. (Table 4.31)
32. The calculated value of χ^2 was 229.50 greater than the table value 9.49 for 4 dfs at 0.05 significance level showed that statement was positively significant regarding appreciation by the Head of Department positively affects the research productivity. Therefore, it was concluded that respondents were agreed that appreciation by the Head of Department positively affected the research productivity of the faculty members. (Table 4.32)
33. The calculated value of χ^2 was 212.11 greater than the table value 9.49 for 4dfs at 0.05 significance level showed that the statement was positively

significant regarding colleague faculty members, who have good number of publications can motivate their colleagues, having no publication. Therefore, it was concluded that colleague faculty members, who have good number of publications could motivate their colleagues to write research papers. (Table 4.33)

34. The calculated value of χ^2 was 194.91 greater than the table value 9.49 for 4dfs at 0.05 significance level showed that the statement was positively significant regarding writing and presentation of research papers as an interesting activity. Therefore, it was concluded that respondents were agreed that writing and presentation of research papers was an interesting activity. (Table 4.34)
35. The calculated value of χ^2 was 125.87 greater than the table value 9.49 for 4 dfs at 0.05 significance level proved that the statement was negatively significant regarding writing and presentation of research papers as a boring and tiring activity. Therefore, it was concluded that writing and presentation of research papers was not a boring and tiring activity. (Table 4.35)
36. The calculated value of $\chi 2$ was 184.28 greater than the table value 9.49 for 4 dfs at 0.05 significance level showed that the statement was positively significant regarding presentation of research papers provides a chance to learn about the foreign culture. Therefore, it was concluded that presentation of research papers provided a chance to the faculty members to learn about the foreign culture. (Table 4.36)
37. The calculated value of χ^2 was 165.87 greater than the table value 9.49 for 4 dfs at 0.05 significance level showed that the statement was negatively significant regarding writing and presentation of research papers as a useless

practice. Therefore, it was concluded that writing and presentation of research papers was not a useless activity. (Table 4.37)

38. The calculated value of χ^2 was 235.77 greater than the table value 9.49 for 4 dfs at 0.05 significance level showed that the statement was positively significant regarding incentives and rewards can motivate the faculty members to write more research papers. Therefore, it was concluded that incentives and rewards could motivate the faculty members to write and present more research papers. (Table 4.38)
39. The Mean score 79.13 is the highest one and depicted that 102 (49.3%) faculty members wanted more funds to conduct researches along with research leave, faculty members also desired to have access to the latest books and journals, they wanted less teaching load and desired to attend seminars and conferences on research productivity. (Table 4.39)
40. The Mean score 78.13 showed that the 101 (48.8%) faculty members wanted no administrative duties, desired to develop good reading habits, wanted establishment of departmental libraries and desired exposure to the foreign countries. Therefore, it was concluded that escape from administrative duties, good reading habits, establishment of departmental libraries and exposure to foreign countries could enhance the research productivity of IIUI faculty members. (Table 4.40)

5.3 Conclusions

1. Extra teaching load, performance of administrative duties along with academic duties, performance of academic duties other than teaching as checking of assignments, marking of papers, preparation of course outlines, proper time management, knowledge of statistics, knowledge of research methodology, training to conduct research studies and writing of research papers, computer knowledge, usage of web/ internet, interest level of the faculty members, supervision of M.Phil and Ph.D students, attitude of the faculty members toward research, good interpersonal relations of the faculty members, promotion to next scales, higher salary packages, appreciation by the Dean and the Head of Department, motivation by the colleague faculty members, incentives/rewards, availability of funds, grant of research leave, provision of latest books and journals, arrangement of seminars and conferences, less number of university own journals, exposure to the foreign universities, collaboration with renowned research universities, establishment of departmental libraries and good reading habits of the faculty were the important factors affecting the research productivity of the university faculty members.

2. Promotion to next scales, better salary packages, incentives/rewards, appreciation by the Head of Department and Dean of the faculty, knowledge of Statistics, knowledge of research methodology, exposure to the foreign universities, more number of university own journals, grant of leave to conduct research, availability of research grants, are the causes of high research productivity.

3. Extra teaching load, performance of administrative duties along with academic duties, performance of academic duties other than teaching as checking of assignments, marking of papers, preparation of course outlines, improper time management, lack of knowledge of statistics and research methodology, lack of

research training, lack of arrangement of research conferences and seminars, less availability of funds/grants, lack of research leave were the factors causing low research productivity.

4. Faculty members working at International Islamic University, Islamabad were satisfied with the computer, internet, library and e.library facilities available to them at the International Islamic University Islamabad. However, faculty members were not satisfied with the Funds/Grants facilities provided to them by the University.

5.4 Recommendations

On the basis of findings and conclusions of the study following recommendations are made:

1. University faculty members should be given proper teaching load, they should be given no administrative duties along with their academic duties. Administrative and secretarial duties may be given to the supportive/clerical staff.

2. Faculty members needed to know techniques of proper time management. They may acquire basic knowledge of Statistics, knowledge of research methodology and required to develop research skills to conduct research studies and to write research papers.

3. University administration is required to arrange training programmes for the faculty members, arrange seminars and conferences on research and arrange computer training programmes for the faculty members. .

4. Faculty members are required to have first-rate information about the usage of computer, web and internet and may develop their interest to conduct research studies.

5. Faculty members having Ph.D/M.Phil degrees may supervise M.Phil and Ph.D students. They may take help from the M.Phil/Ph.D students in data collection it will enhance the research skills of the students.

6. Faculty members may develop positive attitude, excellent interpersonal relations, sharing of the ideas and research work among each others to enhance the number of research publications.

7. University management may provide more research funds to its faculty members to conduct researches and they may be granted research leave, once in a period of three years.

8. Heads of the departments, chairmen, chairpersons, deans and directors may issue appreciation letters to the faculty members, who present their papers at conference proceedings or publish their work in recognized journals.

9. Faculty members having good number of research publications can motivate and guide their colleagues who have no publications.

10. University administration may collaborate with renowned universities and research organizations so that university teachers may visit abroad for presentation of research papers, such practice will provide them a chance to learn about the foreign culture.

11. University administration may offer incentives and rewards to its productive faculty, establish departmental libraries and provide latest books and journals to the faculty members.

5.5 Recommendations for future research

1. Present study is quantitative and based on opinionnaire, similar qualitative research may be conducted, which may be based on detailed and scheduled interview.

2. Such type of studies may be carried out at other public sector universities of Pakistan.

3. A Comparative study may be conducted to dig out the causes of low quality research.

BIBLIOGRAPHY

Adeeb, M. A. (1996). *The Concept of Higher Education; Comparative study of Developed and Developing Countries.* Multan: Beacon books.

Albach, P. & Lewis, L. (1995). College Teachers Attitude Change. *Faculty the Accounting Review*, 2 (7), pp 87-98.

Arshad, M. (2003). *A study of Organizational culture and effectiveness of secondary schools.* Lahore: Institute of Education and Research, University of the Punjab.

Astin, H. S. (1978). *Factors Affecting Women's Scholarly Productivity, The higher Education of Wome.* New York: Rosemary Park.

Azam, I. (2001). *Advanced Integrated Studies, Creativity and Research*. Islamabad: PFI and Magralla Voices.

Bell, J. (2004). *Doing your research project a Guide for First Time Researchers in Education and Social Sciences*. (3rd Ed). New Delhi: Viva Books.

Best, W. J., &. Khan, V. J. (1992). *Research in Education* (6th Ed). New Delhi: Prentic Hall.

Best, W. J., &. Khan, V. J. (1999). *Research in Education*. (7th Ed). New Delhi: Prentic Hall.

Blackburn, T., & Lawrence, H. (1995). *Faculty at Work; Motivation, Expectations & Satisfaction*. London: John Hopkins University press.

Blackburn, T., Bieber, J. L., & Trautvetter, L. (1991). Faculty at work; focus on research, scholarship and service. *Research in Higher Education*, 32(4), pp. 385-387.

Clark, (2005). *Education Reform in Pakistan; Building for the future*. Washington D.C: Woodrow Wilson International.

Cresswell, J. (1998). *Qualitative inquiry and research design; Choosing among five tradition.* USA: SAGE Publication Inc.

Cresswell, J. (1986). *Measuring Faculty Research Performance*. San Francisco: Jossey Bass Inc.

Denzin, K., Norman, & Linclon, (1994). *Handbook of Qualitative Research*. London: Sage Publications.

Dundar, H., & Lewis, D. (1998). Determinants of Research Productivity in Higher Education. *Research in Higher Education*, 39 (6), pp. 604-607

Elmes, G. D., & Kantowitz, H. B. (1989). *Research Methods in Psychology* (3rd Ed). New York: West Publishing company.

Franken, E. R. (2002). *Human Motivation.* Australia: Wardsworth Thomson Learning.

Gay, L. R. (2000). *Educational Research; Competencies for Analysis and Application (* 5th Ed). Islamabad: National Book Foundation.

Gay, L. R. (1992). *Educational Research; Competencies for Analysis and Application:* (4th Ed), New York: Maxwell Macmillan International.

Geiger, R. (1986). *To advance knowledge; the growth of American research universities 1900-1940.* New York: Oxford University Press.

Gibbon, J. I., & Donnelly, J. (1994). *Organizations; behavior structure and processes.* USA: Irwin.

Government of Pakistan. (2003). *Education Sector Reforms; Action Plan 2001-2004, Report of Task Force on the improvement of Higher Education.* Islamabad: Ministry of Education.

Government of Pakistan. (2000). *Perspective Plan 2001-2015.* Islamabad: Ministry of Education, Islamabad.

Greenberg, J. (1999). *Managing Behaviour in Organization* (2nd Ed). New Jersey: Prentic Hall.

Griffiths, M. (1998). *Educational Research for Social Justice.* Philadephia: Open University Press Buckingham.

Grover, V., Segars, A., & Simon, S. (1992). An assessment of institutional research. *Productivity in MIS Data Base*, 23 (4), pp.5-9.

Gupta, S. (1993). *Research Methodology and Statistical Techniques.* New Delhi: Deep and Deep Publications.

Hertzberg, F. (1959). *The Motivation to Work* (2nd Ed.). New York: John Wiley & Sons.

Hofstede, G. (1980). *Culture's Consequences; International Differences in work related values.* Beverly Hills: Sage Publications.

Holtz, H., & Zahn, D. (2004). *How to succeed as an Independent Consultant* (4th Ed.). New Jersey: John Wiley & Sons.

Isani, U. A. (2005). *Higher Education in Pakistan; A Historical and Futuristic Perspective.* Islamabad: National Book Foundation.

Juthawattanathorn, M. (1994). *Research and Development.* Thailand: National Bangkok.

Katz, E., & Coleman, M. (2001). The growing importance of research at academic colleges of education in Israel. *Education and Training*, 43 (2), pp. 82-93.

Kerlinger, F. N. (1986). *Foundations of Behavioral Research* (3rd Ed). New York: CBS College Publishing.

Koul, L. (2007). *Methodology of Educational Research* (3rd revised Ed). New Delhi: Vikas Publishing House Pvt.

Kyivk, S. (1990). Age and Scientific Productivity. *Social Studies of Sciences,* 20(1), pp. 149-160.

Lertputtarak, S. (2008). *An investigation of factors related to research productivity in a public university in Thailand; A case study*: Australia: Victoria University.

London, & Baltimore, (1979). *Scholarly Communication; the Report of the National Enquiry.* London: The John Hopkins University Press.

Lumiansky, R. M. (1979). Scholarly Communication. London: John Hopkins University press.

Malik, H. T. (1998). *Meliorism of Research methodology.* Islamabad : Melliorium Publications.

Maruyama, S. D. (1992). *Research in Educational Settings.* New Delhi: Sage Publications.

Maslow, A. (1954). *Motivation and Personality.* New York: Harper and Row.

Mason, J. E., & Bramble, J. W. (1997). *Research in Education and the Behavioral Sciences Concepts and Methods.* Sydney: Brown & Benchmark.

Mcniff, J., & Lomax, P. (1996). *You and your Action Research Project.* London: Routledge Hyde Publications.

Mertens, M. D. (2005). *Research and Evaluation in Education & Psychology* (2nd Ed). London: Sage Publications.

Middlewood, D. (1999). *Some effects of multiple research projects on the host school staff and their relationships.* London: Paul Chapman Publishing.

Moorhead, G. & Ricky, W. G (1989). Organizational Culture (2nd Ed.). Boston: Houghton Mifflin Company.

Nirman, P. (2007). *Encyclopedia of Modern Education in 21st century.* New Delhi: Anmol Publications.

Oxford, University (1998). *Oxford Advanced Learners' Dictionary.* New York: Oxford University Press,

Pervez, T., & Asif, S. (2008). *Financing Higher Education in Pakistan.* Lahore: Government College University press.

Pfeffer J., & Langton N. (1993). The effects of wage dispersion on satisfaction, productivity and working collaboratively; evidence form college and university faculty. *Administrative science quarterly,* 38 (1), pp 382-407.

Punnett, B. J. (2006). *International Perspectives on Organizational Behaviour and Human Resource Management.* New Delhi: Prentic Hall.

Quddus, A. S. (1997). *Education and National Reconstruction of Pakistan.* Lahore: S.I Gillani.

Radhakrishma, R., & Jackson, G. (1993). Agricultural and extension education department heads' perceptions of journals and importance of publishing. *Journal of agricultural Education,* 34 (4), pp. 8-16.

Rashid, M. (2001), *Educational Research.* Islamabad: National Book Foundation.

Ray, J. W. (2006). *Methods Toward A Science of Behaviour and Experience* (5th Ed). Australia: Thomson.

Roadman, A. (2002). The Effects of Academic Origin and Academic Affiliation on Research Productivity; An empirical investigation of information system faculty, Doctoral Dissertation. USA: Mississippi State University.

Roth J. A. (1966). *The Research paper form and content.* Belmont: Wadsworth Publishing Company Inc.

Rowland, J. (1996). Developing Constructive Tension Between Teaching and Research. *International journal of Educational Management,* 10(2), pp. 6-10.

Russell, B. (2000). *Bertrand Russell on Education*: (Reprinted). London: Roultledge Publishers.

Salkind, J. N. (2006) *Exploring Research* (6th Ed). Australia: Pearson Prentice Hall.

Sax J. L., & Hadedorn, L. S. (2002). Faculty Research Productivity; Exploring the role of Gender and Family related factors. *Research in Higher Education,* 43(4), pp 110-115.

Suwanwala, J. (1991). *The Road of University.* Bangkok : Chulalongkorn University Press.

Unesco (2006), UNESCO Forum on higher education, research and knowledge, Global Colloquium on Research & Higher Education Policy: Universities as centres of research and knowledge creation; An Endangered Species 29 November to 1st December 2006. Paris: UNESCO press.

Vashist, V. (2002). *Modern Methods of Training of University and College Teachers.* New Delhi: Sarup & Sons.

Vroom, H. V. (1964). *Work and Motivation.* New Delhi: Wiley Eastern limited.

Weidenborner S. (2007). *Writing Research Papers; A guide to the Process* (5th Ed). Islamabad: National Book Foundation.

Whiston, G. T., & Geiger L. R. (1992). *Research and Higher Education.* Melton Keynes: Open University Press.

Winkler, C. A., & McCuen J. R. (1984). *Writing the Research Paper A Hand Book* (2nd Ed). San Diego: Harcourt Brace Jovanovich Publishers.

Woolfolk, A. (2004). *Educational Psychology* (9th Ed). New Delhi: Pearson Education.

Zainab, A. N. (1999). Personal, Academic and Departmental Correlates of Research Productivity, A review of literature. *Malaysian Journal of Library & Information Sciences,* 4 (2) pp 73-110.

Webliography

http://my.iiu.edu.pk/Centres/InformationResourceCenter/tabid/227/Default.aspx, 01.10.09, 4.00pm

http://hec.gov.pk/hrd/faculty-programs.html, 25.07.2009, time 6.00pm

http www.hec.gov.pk, dated 22.07.2009, time 5.51 pm.

http www.hec.gov.pk, dated 18.04.2009, time 2.36pm.

http www.hec.gov.pk, dated 18.04.2009, time 2.19pm.

http://www.iiu.edu.pk dated 27.08.2009 time 05.15pm.

http://ww2.jhu.edu/jhuonpoint/content/organizational culture pdf 12.10.2009, 6.08pm.

Annexure-I

OPINIONNAIRE FOR FACUTLY MEMEBRS

Note:

All the information regarding these questions will be kept strictly confidential and will only be used for research purpose.

i) Personal information

Gender:

Please tick the relevant

Male		Female	

box:

ii) Respondent's designation:

Dean		Consultant	
Professor		Lecturer	
Associate Professor		Teaching Research Associate	
Assistant Professor		Programme coordinator	

iii) Employment Status:

Regular		Contract	
Tenure Track System		Adhoc	
Under Foreign Faculty Hiring Scheme		Secondment/ sponsored by a agency or organization	

Iv) Qualification:

Post Doctorate		Doctorate	
M.Phil/M.S		Master	

v) Highest degree earned from:

Pakistan		Foreign	

vi) Faculty:

Faculty of Management Sciences		Faculty of Arabic	
Faculty of Languages & Literature		Faculty of Engineering & Technology	
Faculty of Social Sciences		Faculty of Economics	
Faculty of Basic & Applied Sciences		Islamic Research Institute	
Faculty of Islamic Studies (Usuluddin)		Shariah Academy	
Faculty of Shariah & Law		Dawah Aacdemy	

vii) Nationality:

Pakistani		Foreigner	

viii) Age (Years):

Above 60		30-40	
50-60		Below 30	
40-50			

ix) Teaching Experience:

More than 30 years		11-15	
25-30		06-10	
21-25		Less than 5 years	
16-20			

x) Marital Status:

If single please skip the section (xi)

Married		Widow	
Single		Divorced	

xi) If married, number of Children:

More than 6		03	
06		02	
05		01	
04		0	

xii) Number of Articles published in local Journals:

Please tick the relevant box

More than 30		5	
20-25		4	
16-20		3	
11-15		2	
6-10		1	
		Nil	

xiii) Number of Articles published in Foreign Journals:

More than 30		5	
21-25		4	
16-20		3	
11-15		2	
6-10		1	
		Nil	

xiv) Number of Articles presented at International conferences:

More than 30		5	
21-25		4	
16-20		3	
11-15		2	
6-10		1	
		Nil	

xv) Number of Articles presented at National conferences:

More than 30		5	
21-25		4	
16-20		3	
11-15		2	
6-10		1	
		Nil	

Please read the following statements carefully and tick (√) the option you consider as the best answer:

Strongly disagree (SDA)
Disagree (DA)
Un-decided (U.D)
Agree (A)
Strongly Agree (S.A)

No.	*Statements*	*SDA*	*DA*	*UD*	*A*	*SA*
1	Teaching load is a hurdle in writing & presentation of research papers.					
2.	Performance of administrative duties along with academic duties affecting research productivity of faculty members.					
3.	Academic duties other than teaching, as checking of assignments, guidance to students, paper marking, preparations of course outlines reduce the research productivity of academicians.					
4.	Proper time management positively affecting the research productivity of faculty members.					
5.	Knowledge of Statistics, research methodology and Research skills are necessarily required to conduct research studies and to write research papers.					
6.	Faculty members need to be trained to conduct research and write research papers.					
7.	Computer knowledge makes it easier to conduct research studies and write research papers.					
8.	Usage of web/internet positively affecting research productivity of academic staff.					
9.	Interest level of faculty member to conduct research studies positively affecting their research productivity.					

No.	*Statements*	*SDA*	*DA*	*UD*	*A*	*SA*
10.	Increase in age results in, increase in number of research publications.					
11.	Teachers having more teaching experience have more number of research publications.					
12.	Aged teachers have more number of publications than young faculty members.					
13	Supervision of M.Phil & Ph.D students positively affecting research publications.					
14.	Ph.D students help the faculty members in data collection and play their role as research assistants.					
15.	Supervision of Ph.D students enhances research skills of the faculty members.					
16.	Supervision of class room projects affecting teachers research publications.					
17.	Teaching and research are interlinked					
18.	Married university teachers produce more research papers than unmarried teachers.					
19.	Family commitments do not allow married teachers to present papers at conferences proceedings .					
20.	Attitude of Faculty members and interpersonal relations have its affecting on research publications.					
21.	Teachers having background in Science subjects produce more research papers.					
22.	Faculty members having background in humanities and social sciences produce more research papers.					
23	University teachers write and present research papers for their promotion to next scales.					
24.	University teachers produce research papers for their entry to Tenure Track system.					
25.	Teaching experience is sufficient criteria, research papers should not be a condition to promote university teachers.					
26.	Research publications help the faculty members to earn higher salary package.					
27.	Faculty members working under tenure track system are more productive as compared to those working under BPS scheme.					
28.	You are satisfied with the Computer/Internet facilities provided to you by the University.					
29.	You are satisfied with the Library, e. library and internet facility provided to you by the University.					
30.	You are satisfied with the Funds/grants facilities provided to you by the University and Higher Education Commission.					
31.	Appreciation by the Dean affecting research productivity.					
32.	Appreciation by the Head of Department positively affecting research productivity.					
33.	Colleague faculty members, who have good number of publication can motivate their colleagues to write research papers.					
34.	Writing and presentation of research papers is a very interesting activity.					
35.	Writing and presentation of research papers is a boring and tiring activity.					
36.	Presentation of research papers provides a chance to learn about foreign cultures.					
37.	Writing and presentation of research papers is a useless practice.					
38.	Incentives and rewards can motivate the faculty members to write more research papers.					

39) **Please give suggestions to enhance the research productivity of IIUI Faculty members:**

- .....
- .....
- .....
- .....
- .....
- .....
- .....

40) **Please indicate any other factor which has positive impact on the Research productivity of IIUI academicians:**

- .....
- .....
- .....
- .....
- .....
- .....
- .....