A Comparative Analysis of Research Quality of Public and Private Universities

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Abstract

This paper discusses findings from a study designed for evaluating PhD dissertations and comparing quality of dissertations of public and private universities. The main objectives of the study were to evaluate the research quality of PhD education dissertations of public and private sector universities in Pakistan and to compare and analyze the dissertation quality of public and private sector universities in Pakistan. Of 308 PhD education dissertations, 178 dissertations were evaluated on a twenty-element rubric created for the evaluation of PhD dissertations in education. The main finding of the study is that the dissertation quality of public sector universities was found better than private sector universities on several categories of the rubric. The difference was significant in two elements of the rubric, while on the remaining categories, public sector universities were found better on the percentage scale compared to private sector, but statistically the result was not significant. Results are discussed and conclusion provided, for improving research quality at universities and for raising the standard and quality of educational research at both public and private universities in Pakistan.

Keywords: Research quality, evaluation; rubric; PhD dissertations; public universities; private universities.

Introduction

Since independence, the education system – at school, college, and university levels – of Pakistan and its quality has been the focus of attention of scholars, policy makers, politicians and the public. It is well documented that even those countries that got independence after Pakistan are gaining prominence in regional and international spheres due to education, and thereby invest in human resources and technological advancement. Their rise could only be attributed to maintaining rigour and quality in education and research.

This study focused on evaluating and comparing the research quality of public and private universities in Pakistan. There is a strong perception that the research quality of private sector universities is not good in Pakistan[1]. The reason behind this perception may be that public sector universities follow the Higher Education Commission's (HEC) strict rules for conducting research and evaluation of PhD dissertations. Doing a PhD from a public university takes more time than a private university; private universities violate admission standards and have less qualified faculty members[1].

Since evaluating dissertations for their quality and standard has not attracted many researchers, only a few researchers have ventured into these unchartered territories, to have given importance to and systematically evaluated dissertations for their quality and academic rigour. In this regard, Boote and

Beile conducted research on the quality of literature review done in dissertations[2]. They adapted a rubric and created criteria guideline for that rubric, based on which they evaluated researches. However, their rubric was only applicable to the literature review section of dissertations.

In a similar vein, Mahmood and Shafique explored the quality of education and research in public and private sector universities in Pakistan[3]. The researchers conclude that the reason for low quality of education in Pakistan is the lack of qualified faculty. They estimated that only 25 percent faculty is PhD in Pakistani universities. The researchers contend that no incentives were provided for faculty members who were engaged in research. They also argue that doing quality and credible research has no priority in Pakistan, although the HEC has been endeavoring to promote research culture in Pakistani universities.

In an effort to grade dissertations, Lovittsset off by asking faculty members to create criteria for the evaluation ofdissertations[4]. The participants created guidelines for different scales and quality of dissertations. All the members were in agreement about the quality of an outstanding dissertation that, it occurred once or twice in a decade and called it "page turners."

Fen and Ju conducted a study in Taiwan[5];they used different methods on different sections for evaluating dissertations, due to

which their research reliability could be questioned. The researchers created their rubric with the help of books, magazines, and the Internet. Fitt*et al.* conducted a study on assessing the quality of doctoral dissertation literature reviews in instructional technology[6]. The researchers used raters for evaluation of PhD dissertations and they were trained on the 12 points rubric of Boote and Beile. The study was limited to only the Literature Review sections of PhD dissertations.

In Iran Khatami *et al.* evaluated the research quality of PhD dissertations of Isfahan Faculty of Dentistry[7]. The authors sought to evaluate all aspects of dissertations for quality, rigouretc. However, their research itself had numerous shortcomings. For instance, they used questionnaire survey to ask about the quality of dissertations, which in this case is not a reliable method for the kind of research they undertook, because of its apparent biasness. Given the discussion above, it was important to design a study that could evaluate quality and standard of PhD dissertations on various levels and dimensions, thus in the process making an effort not only to identify significant gaps in the knowledge but also to contribute significantly to the existing body of academic knowledge.

Methodology

A qualitative research design underpinned the nature of the study; a tested rubric design was used for the evaluation of PhD education dissertations developed by the *principal investigator* of this study.

Population: The population of the study comprised all available PhD dissertations in the field of education from public and private sector universities in Pakistan. The following universities were part of the study:

Private Universities: Sarhad University of Science and Information Technology Peshawar (SUIT), Hamdard Institute of Education and Social Sciences Karachi (HIESS), Foundation University College of Liberal Arts and Sciences Rawalpindi Pakistan (FUCLAS).

Public Universities: Arid Agriculture University, Rawalpindi (AAUR), Jinnah University for Women Karachi (JUW), University of Sindh, Jamshoro (USINDH), Allama Iqbal Open University Islamabad (AIOU), International Islamic University Islamabad (IIUI), University of Gomal Dera Ismail Khan (GU), University of Punjab (PU), National University of Modern Languages, Islamabad (NUML), University of Peshawar (UoP), Division of Education University of Education Lahore (UE), Department of Special Education, University of Karachi, BahauddinZakariya University Multan (BZU), University of Sargodha (UoS), Division of Education and Extension, University of Agriculture, Faisalabad (UAF).

Sample: Of the total 308 PhD dissertations, the available dissertations were 217 of which 178 were evaluated on the

rubric designed to evaluate dissertations, which was designed and composed in English[8].

Research Instruments and Data Collection: A tested rubric design was used for the evaluation of PhD dissertations on education in Pakistan[9]. The main purpose of the study was to evaluate the quality of PhD dissertations in Pakistan. The rubric consisted of twenty (20) elements on a five point Likert Scale.

The twenty elements which were evaluated in a dissertation included: topic of the research, abstract, introduction, objectives, research questions, literature review, population, sample, methodology, data analysis, focus on problem, results, discussion, conclusion, ethics of the research, proposed research, quality of report writing, format of the report, suggestions, and references[9]. Detailed guidelines were provided for every element.

Results and Discussion

The data were analyzed using MedCalc software for calculating Z test comparison of two proportions. Firstly, the data were transformed into percentages. Then with the help of MedCalc software, the data were analyzed. The researchers found that on the percentage level, public universities were better than private sector universities but statistically the result was not significant. Here, only those tables are included and discussed the results of which were statistically found significant.

Table-1
Data analysis of objectives on the scale of Good

Objectives In Percentage	Good	
	Public University	Private University
	90	09
	59.602	33.333

The results of table 1 show that the difference in the quality of objectives is significant on the scale of *Good* at 0.05 levels. The P value is 0.0203, which is less than 0.05. The difference in two proportions is 26.26%. The objectives of the dissertations of public sector universities were found good i.e. 59.60% compared to 33.33% private sector. About objectives of research study, Rice University states that the research objectives should determine challenges of a study and should contribute towards the completion of the study[10].

The results of table-2 show that on the scale of *Satisfactory* the difference between two proportions is significant. Private universities scored high on the lower scale. The objectives of 48.14% dissertations were found satisfactory compared to 7.94% public sector universities. The difference between two proportions is 40%. It is evident from the results that private universities scored higher on lower scale while scored lower on the higher scale from which it is apparent that the quality of objectives of public universities is better than private universities. The result of the Table supports this statement. In

this regard, De-Miguel and Mario argue that the research objectives should support the topic[11].

Table-2
Data analysis of objectives on the scale of Satisfactory

Objectives In Percentage	Satisfactory	
	Public University	Private University
	12	13
	7.947	48.148

Table-3
Data analysis of research questions on the scale of Unsatisfactory

Objectives In Percentage	Unsatisfactory	
	Public University	Private University
	0	16
	0.0	59.259

On the scale of *Unsatisfactory* on the element of research questions, the difference between two proportions is significant at 0.05 level in table-3. The research questions of the majority of private universities were found unsatisfactory. A majority of 59.25% research questions of private universities were found unsatisfactory compared to zero percent of public sector universities. The difference in two proportions was 59.25% – chi-square being 91.208 and p value is 0.0001 – which is less than 0.05. It is evident from the results that the scholars of private universities did not know how to come up with research questions or they were not guided appropriately about how to form research questions for their study.

Table-4
Data analysis of methodology on the scale of Excellent

Objectives In Percentage	Excellent	
	Public University	Private University
	35	01
	23.178	3.703

The results of table-4 show that the difference between two proportions is significant on the element of methodology on the scale of *Excellent*. The Methodology of 23.17% researches of Public sector universities were found excellent compared to 3.70% private sector universities; the researchers of public sector universities had described the design, procedure, population, sample and instruments of the study, according to the guidelines and parameters suggested by Gay[12].

Table-5
Data analysis of Sample on the scale of Excellent

Objectives In Percentage	Excellent	
	Public University	Private University
	38	01
	25.165	3.703

Table-5 shows the result of the sample of the researches on the

scale of *Excellent*; the difference in two proportions is significant because the P value is less than 0.05. The Sample of more than 25% public sector universities was found excellent in comparison to 3.70% private sector universities. The sample selection of public sector universities was according to APA style; the researchers had given detailed description about their sample and the selection procedure of their sample, given the guidelines offered by Yount[13].

Table-6
Data analysis of sample on the scale of Satisfactory

Objectives In Percentage	Satisfactory	
	Public University	Private University
	22	11
	14.569	40.740

The results of table 6 show that on the category of sample on the scale of *Satisfactory* the difference in two proportions is significant. Private sector universities scored higher on the lower scale compared to public sector universities. This shows that the sample quality of public sector universities is better than private universities because public sector universities scored high on the higher scale.

Table-7
Data analysis of data analysis and result on the scale of Good

Objectives In Percentage	Good	
	Public University	Private University
	66	05
	43.708	18.518

Table-7 shows that on the scale of *Good:* on the category of data analysis and results – the difference between two proportions is significant because, the P value is less than 0.05 and the difference between two proportions is 25%. The data analysis and results of 43.70% dissertations were found good, which shows that the researchers of public sector universities knew how to analyze data and how to explain results of the study.

Table-8 shows that on the scale of *Satisfactory*, dissertations of 70.37% private sector universities were found satisfactory. The results in two proportions are significant. The P value is 0.0427, which is less than 0.05, but again private universities scored higher on the lower scale, which shows that the research quality of private sector universities is not up to the standard of public sector universities.

Table-8
Data analysis of data analysis and result on the scale of Satisfactory

	Satisfactory	
	Public University	Private University
Objectives	71	19
In Percentage	47.019	70.370

Table-9-
Data analysis of discussion on the scale of Not Included

	Not Included	
	Public University	Private University
Objectives	39	13
In Percentage	25.827	48.148

Table 9 shows that on the scale of *Not Included*, the difference in two proportions is significant on the category of discussion section. Nearly half of private sector universities did not include discussion section in their dissertations compared to dissertations of public sector universities. 25.83% dissertations of private universities did not include discussion section in their dissertations. The Discussion Section is a very important part of research, without which research cannot address the research objectives and research questions that researchers set out to explore.

Table-10
Data analysis of overall study on the scale of Excellent

	Excellent	
	Public University	Private University
Objectives	10	01
In Percentage	6.622	3.703

Table-10 shows the overall quality of dissertations on the scale of *Excellent*; the result of two proportions is insignificant. The P vale is 0.8837 which is higher than 0.05 and the chi-square value is less than 5. On the scale of Excellent, 6.62% public sector universities dissertations were found excellent compared to 3.70% private sector universities.

Table-11
Data analysis of overall study on the scale of Good

	Good	
	Public University	Private University
Objectives	118	18
In Percentage	78.145	66.666

Table-11 shows the quality of overall dissertation on the scale *Good*, the difference between two proportions is not significant; although 78.14% public sector universities dissertation were found good compared to 66.66% private sector universities dissertations. The P value is higher than 0.05 and the chi-square is less than 5.

Table-12
Data analysis of overall study on the scale of satisfactory

	Satisfactory	
	Public University	Private University
Objectives	21	07
In Percentage	13.907	25.925

Table-12 shows the overall quality of dissertations on the scale of *Satisfactory*; 25.92% dissertations of private sector

universities were found satisfactory compared to 13.90% of public sector universities. The difference in two proportions is not significant because the P value is higher than 0.05. The results also show that private sector universities scored higher on the lower scale of quality than the public sector universities.

Conclusion

Of the overall quality of research dissertations of public and private sector universities, the research quality of public sector universities is found better on the percentile scale, but statistically the result is not significant. However, on the component level on nine categories, the result is significant because the P value is less than 0.05, which is evident from the tables presented in this paper. Nevertheless, on the other components, there is difference on percentage level, which shows that the research quality of public universities is better than private universities, but the result is not significant statistically. There is also one interesting angle emerging from this study that, on the lower scale of the research quality, private universities have scored higher than public universities and these results are significant. The difference between the proportions is very high but again it supports the results on the high scale that public universities are better than private universities, because public universities scored higher on the upper scale, which is why they scored lower on the lesser scale.It is concluded that the research quality private universities is not at the required level and needs improvement.It is suggested that private universities need to arrange seminars and workshops for teachers and students on various aspects and stages of conducting and completing quality and credible educational research. Training may encompass aspects from the initial stages of research – i.e. the very conception of framing research questions – to writing research report and dissemination of research findings.

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