Timely Post-Graduate Degree Completion: A Case Study of Jamshoro Education City

JAGUL HUMA LASHARI*, ARABELLA BHUTTO**, AND QAZI MUHAMMAD MOINUDDIN ABRO**

ABSTRACT

This study identifies the status of postgraduate students at the master degree level regarding their degree completion in the three public sector universities at Jamshoro Education City. The status is identified by analyzing enrolment of the postgraduate and comparing it with rate of their degree completion. In addition, the paper also discusses their characteristics which lead them towards the degree completion. For this paper, enrolment of the postgraduate students at the master level is compared with the degree completion rate of 2008 academic session only. The result shows the obvious difference between enrolment and rate of the degree completion. In total 417 postgraduate students were enrolled in 2008 session, however, only 60 (14%) of students have completed their postgraduate degrees. Those who have completed their degrees, with respect to universities 6% students belong to US (University of Sindh), 22% belong to MUET (Mehran University of Engineering & Technology) and 8% students belong to LUMHS (Liaquat University of Medical & Health Sciences). The demographical data of the postgraduate students has also shown some variations like gender, age, employment, and financial resources. In addition, the research requirements also vary for different postgraduate students. The research requirements include lab based, field based and library based resources. The characteristics of the postgraduate students of three public sector universities including financial resources, employment status, and working organization also show differences with each-other in terms of the degree completion.

Key Words: Postgraduate Students, Degree Completion, Characteristics.

1.   INTRODUCTION

Higher education institutes produce critical thinkers and innovators, as well as healthy, informed and engaged citizens. The institutes offering higher education maintain social mobility and a high standard of living. The higher education can combat the current public policy challenges including democratic renewal and health care [1]. Therefore, the desire to pursue higher education is constantly increasing in our society.

One of the major causes in our society is dependence of good jobs on the higher education. The school leavers recognize that higher qualifications will offer better job opportunities, low likelihood of becoming unemployed, and in most cases, a higher salary than those with a secondary school qualification [2].

The institutes offering the higher education need the constant development and improvement which can have

* Research Associate, and **Assistant Professor,
Mehran University Institute of Science, Technology & Development, Mehran University of Engineering & Technology, Jamshoro.

the direct and indirect impact on learning of our human resources also in terms of long-term ramification. The institutes are responsible to provide effective (human) resources as one of most important key factor of the success in higher education [3].

Successful and timely completed postgraduate degrees are equally important for students, supervisors, universities, and for those institutes which fund the higher education [4]. In recent years, education sector is expanding very rapidly all over the world. A demand for new and varied disciplines in education has been created due to globalization and digital revolution [5].

This study is focused on the postgraduate students at the master degree level of 2008 academic session only, because they possess the recent experiences of being the postgraduate master student. In addition, the time duration of this academic session has been also completed and therefore it is expected for these students to achieve their degrees.

After analyzing variation in the characteristics of the students and finding impacts of such variations, this study offers recommendations, related to the degree completion of postgraduate students, to government, higher education institutions and other related stakeholders (research organizations, and industries) etc.

2. RESEARCH OBJECTIVES

This research paper mainly focuses on comparison between the enrolment rate and the degree completion rate of the postgraduate master students of 2008 academic session in universities at the Jamshoro Education City. The reason behind this difference is being understood by categorizing postgraduate students according to their institutional and other demographical characteristics. In the end, the relationship between these characteristics and the degree completion rate is being investigated.

3. LITERATURE REVIEW

3.1 Higher Education Institutions

In the changing world, where uncertainty is increasing, all higher education institutions should provide favorable responses to the social needs and it is proven by experiences that universities can provide best services to community if they have concerns of continues improvement in the quality of their service [6]. Hamerstedta, et. al. [7] suggest that "Universities will be the core elements as we transit to the new knowledge economy".

The quality of higher education is highly dependent on the outstanding research. The academic research not only conducted by the faculty members but also by students plays very important role for the scientific progress of any country [8]. The quality of higher education is fundamental to a country's development because universities educate and prepare the professionals [9].

3.2 Postgraduate Degree Completion

The postgraduate students work on their research thesis that is important to fulfill the requirement for their degree and add some knowledge to society. The low retention rate of postgraduate students not only impact students and their institutions but also cause the economic burden connected to premature departure of students from universities as a consequence make our society weak in bearing the ability of a nation to compete in global economy [10].

The postgraduate students first identify a suitable research problem, worthy of investigation, from their chosen field of study. Later, they investigate, analyze and finally prepare their dissertation reports. The choice of research area and formulation of a suitable problem are the most difficult tasks confronting postgraduate research students because the identified problem have expected to meet the tripartite conditionality of a significance,

originality and feasibility. Also in addition to these conditionality, students writing dissertations are required to consider all other problems they encounter with regard to individual competence and professional experience and including other possible difficulties like availability of data, financial constraints and limitation of time [11].

Above all, administrators of the higher education institutes must be aware of the reasons that why students depart from institutions of higher learning prematurely and what can be done to help students overcome these barriers so they can achieve their academic and career goals [3].

The higher degree is inherently challenging as predicted on the fact that work must result in a significant original contribution to knowledge in the chosen discipline [4]. The quality of research for achieving higher degree is important and said that if students experience poor supervision, an unsupportive climate, and inadequate infrastructure, degree students will be less likely to complete their degree, with negative cost for the students, the university, and society [12].

It is observed that, issues of completion like availability of employment, financial support, gender, attendance status, field of study and age, have an impact on completion rate [13]. The study conducted by Bills [14] have discussed factors like students satisfaction with different characteristics like overall experience, access to work space, access to computing facilities, access to equipment, integration into research community, ambience of research culture, and financial support, all have impact on completion.

However, parameters for completing dissertation on time still need further empirical investigation. Such parameters include student attributes that are academic record, English language proficiency, communication skills, disabilities, number of dependents, financial situation, support from friends and family [4]. In addition, the research infrastructure is also identified as an important parameter for further empirical investigation. The research infrastructure includes study facilities which fulfill needs of the project, project funding, access to key equipment or facilities, travel support or funding to access specialist facilities, library and computing facilities and others related to the institutional infrastructure.

Some identified parameters for further investigation include the supervisory arrangements in nature, frequency and effectiveness of supervisory meeting, nature of student induction program, supervisor experience, involvement of student in presentation and publications, introduction and interaction with peers. Such type of data can be readily collected through questionnaires or interviews from individual students [4].

4. THEORETICAL AND CONCEPTUAL GAPS

A review of literature related to the postgraduate degree completion has identified different conceptual gaps. The most important gap identified is the lack of published research work about comparison between enrolment and timely completion rates of postgraduate students who are studying in different disciplines in universities of Pakistan. This investigation can provide information about customer demand and results after service experiences.

The second conceptual gap relates to a lack of published work in higher education of Pakistan related to demographic variation at level of postgraduate students. So far, the work accomplished is related to undergraduate students' satisfactions that mostly belong to the same age, employment status, and with less social responsibilities. For universities as service providers it is important to know all aspects of their customers [3].

5. SAMPLE DIVERGENCE

In Pakistan, there are many public and private institutes, which offer the Postgraduate degrees at master level. The

universe of this study is the higher education sector of Pakistan and particularly the Jamshoro Education City comprising of three public universities:

(1)   University of Sindh, Jamshoro, Pakistan.

(2)   Mehran University of Engineering & Technology, Jamshoro, Pakistan.

(3)   Liaquat University of Medical and Health Sciences, Jamshoro, Pakistan.

This area of study has been selected because all three universities are offering postgraduate degrees in different disciplines of study and are at the same geographical location. The data for this research is collected from universities of Jamshoro Education City during July 29 to November 20, 2011. The targeted population is all MS/ MPhil/ME students enrolled in the 2008 academic session.

The focus of this study is on the postgraduate students' degree completion and students of 2008 academic session only are chosen to judge their degree completion rate. The population of the postgraduate students in 2008 academic session in universities at the Jamshoro Education City is 417.

6.   RESEARCH METHOD

At the start, required secondary data related to enrolment of the postgraduate students at master level is collected from administration of the three universities. Along with enrolment, the degree completion rate, and contact details of students have also been collected from the administration offices. The data presents a rational to work on the chosen research topic. The literature review helped in developing the questionnaire which then distributed to the post graduate students to collect the required data. In total, 131 students were contacted. The data obtained from these students was then analyzed through the SPSS (Statistical Packages for Social Sciences) software 17 Version. The tests of descriptive statistics and chi-square were performed to get required results and achieve the research objectives. Microsoft excel software was also used at some places to make charts and diagrams.

7.   DATA ANALYSIS AND RESULTS

7.1   Comparison between Enrolment and Degree Completion

In the 2008 academic session, total 417 students were enrolled in the Postgraduate Master degree programs in universities at the Jamshoro Education City, and only 60 of them have completed their degrees, as shown in Fig. 1.
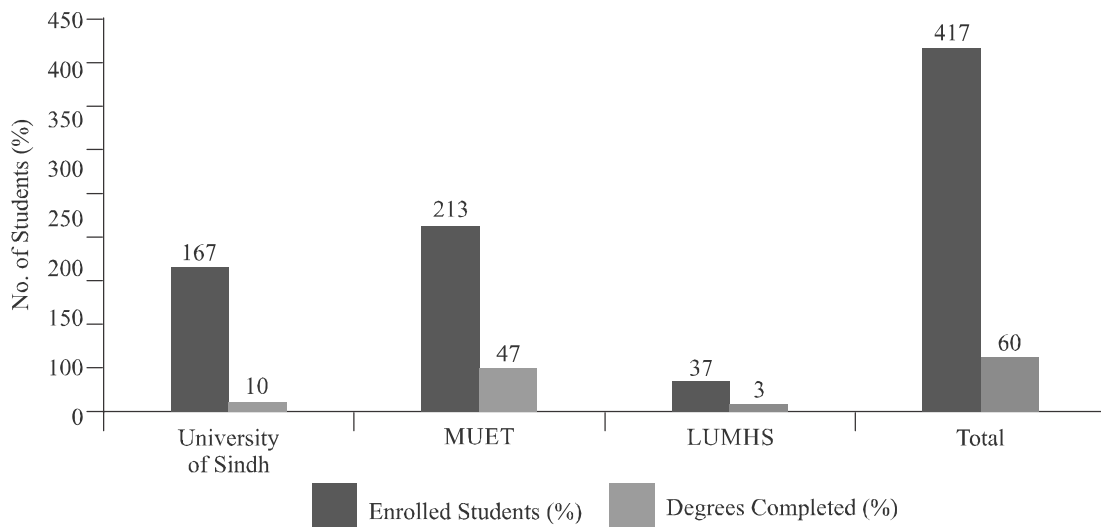

FIG. 1. POSTGRADUATE STUDENTS' ENROLMENT AND DEGREE COMPLETION [3]

7.2 University wise Comparison between Completed Degrees and Degrees in Progress

The comparison between post graduate degrees completed in the 2008 academic sessions and degrees in progress at three public sector universities at the Jamshoro Education City is shown in Fig. 2. According to obtained results, 14% of total postgraduate students completed their degrees and degrees of 86% postgraduate students are still in progress. Out of those who have completed their degrees 6% students belong to US, 22% students belong to MUET and 8% students belong to the LUMHS. The results show below 25% postgraduate degree completion rate in universities at Jamshoro education city [3].

7.3 Identification of Postgraduate Students' Characteristics

For this research, though students belong to all three universities at Jamshoro Education City but they are different in numbers. Therefore sample size from all three universities is not same. The total number of respondents of survey questionnaire is 131 from which 50(38.2%) students were from US, 71(54.2%) belong to MUET, and 10 (7.6%) of postgraduate students belong to LUMHS.

The students comprise of both male and female gender. The results show that, 96 (73.3%) postgraduate students were male and 35(26.7%) were female students.

The different age groups of postgraduate students were also identified ranging from 22 to above 32 years. Students according to their age groups showed that 37(28.2%) of postgraduate students belong to 22-25 years age group, 74 (56.5%) belong to 26-31 years age group and 20(15.3%) postgraduate students belong to 32 years or above age group.

The research setting of post graduate students also differ from each-others. From these students 81(61.8%) surveyed postgraduate students were performing lab-based research projects, 8(6.1%) were doing library based research projects and research of 34(25%) postgraduate
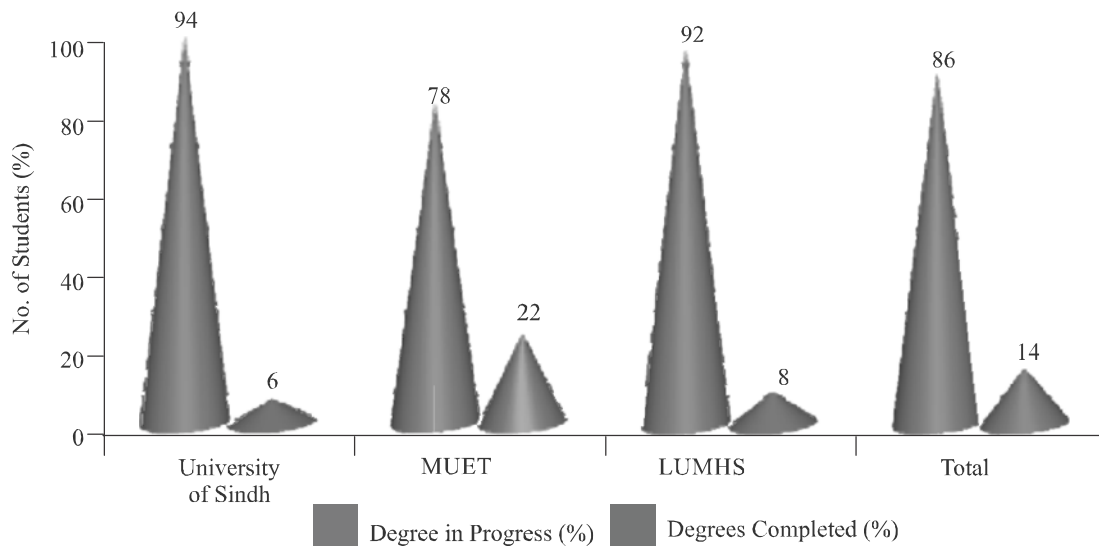

FIG. 2. COMPARISON BETWEEN COMPLETED DEGREES AND DEGREES IN PROGRESS [3]

students was field based in universities at the Jamshoro Education city. The results also showed variation in stages of degree. In detail 47(35.9%) survey respondents have completed their degrees with research work, 59(45%) were working on their research projects, 23(17.6%) have only even completed their course work and 2(1.5%) postgraduate students have not done any work for their master degree.

The postgraduate students finance their degrees from different resources. This parameter also showed variation. Majority of the postgraduate students 68(51.9%) were self supporting their studies as they are employed. The 51(38%) are financially supported by their families, 9(6.9%) postgraduate students are availing scholarships and 3(1.5%) are supported by other financial resources for their degrees. During study the postgraduate students are also working at different jobs. This factor showed variation also, in terms of job status, 82(62.6%) postgraduate students were employed and 46(35.1%) were unemployed and 3(2.3%) have other works. The 62.6% employed postgraduate students also showed variation in their working organizations. From those 64(48.9%) were employed in universities, 9(6.9%) were employed in industries and 15(11.5%) postgraduate students were employed in other than university and industry [3].

Variation in their primarily enrollment was also observed. The majority of the postgraduate students were enrolled as full-time students. The results showed that 112(84%) were full-time enrolled and 19(14.5%) were enrolled as part-time in the postgraduate degrees at master level in universities at the Jamshoro Education City. All of these characteristics and their related values are given in Table 1.

7.4 Relationship of Degree Completion with Characteristics of the Postgraduate Students

By studying less relationship between characteristics of postgraduate students and their degree completion, can identify causes of less interest in particular group of postgraduate students. As a result, policies can be formulated by universities to encourage the postgraduate students to complete their degrees in future.

The results given in Table 2 show the relationship of different characteristics with the degree completion. The characteristics are showing strong relationship with degree completion and are highly significant at 0.000 p-value. These characteristics are type of enrolled university (24.515 chi-square value), financial resources (21.024 chi-square value) and employment status (22.573 chi-square value). However, Gender of students shows non-significant value as 0.521 p-value (0.411 chi square value), research setting shows 0.113 p-value (5.978 chi-square value) this shows that relationship of gender of students and research setting with degree completion is not observed significantly different with respect to universities at Jamshoro Education City [3].

8. CONCLUSIONS

The results related to the postgraduate students present variations between enrolment and degree completion rates in three public sector universities at the Jamshoro Education City. The overall degree completion rate of the Postgraduate students in 2008 academic session is 14%. However, this rate of degree completion is different at different universities at the Jamshoro Education City. The degree completion at MUET is identified at a level of 22% of total enrolment; in comparison to US (6%) and LUMHS (8%). The results showed the MUET performance is better in comparison to other two universities.

Even though the performance of MUET is better in comparison to other universities, still the problem of less degree completion is valid at the part of MUET. Not only MUET, but it is an issue for all three universities and all other stakeholders of higher education.

To understand the variation in characteristics of the postgraduate students, several factors like their belongings to different age groups and their employment status have been studied. The post graduate research needs dedicated time and resources as the post graduate student work individually on their project. Being involved with other job responsibilities also causes the variation between enrollment and degree completion rate.

Several characteristics related to postgraduate students were identified in this research study and include differences in gender, age groups, disciplines, research areas, research setting, and type of enrolment. The majority of postgraduate students were working in different organizations while the majority of undergraduate students concentrated full-time on their studies. These differences require separate policies for postgraduate students.

TABLE 1. STUDENTS' CHARACTERISTICS

Students' Characteristics		Frequency & Percentage	Minimum	Maximum	Mean	Standard Deviation
University	SU, Jamshoro	50(38.2%)	1	3	1.69	0.606
	MUET, Jamshoro	71(54.2%)				
	LUHMS, Jamshoro	10(7.6%)				
Gender	Male	96(73.3%)	1	2	1.27	0.444
	Female	35(26.7				
Age	22-25	37(73.3%)	1	3	1.870	0.649
	26-31	74(56.5%)				
	32 Above	20(15.3%)				
Research Setting	Lab. Based	81(61.8%)	1	4	1.76	1.037
	Library Based	8(6.1%)				
	Field Based	34(25.0%)				
Degree Stage	Completed with Research	47(35.9%)	1	4	1.85	0.759
	In-Process	59(45.0%)				
	Only Course Work	23(17.6%)				
	Others	2(1.5%)				
Financial Resources	Self Supporting	68(51.9%)	1	4	1.60	0.721
	Family Supported	51(38.9%)				
	Scholarship	9(6.9%)				
	Other	3(2.3%)				
Employment Status	Employed	82(62.6%)	1	3	1.40	0.536
	Not Employed	46(35.1%)				
	Other	3(2.3%)				
Working Organization	University	64(48.9%)	1	3	1.44	0.771
	Industry	9(6.9%)				
	Other	15(11.5%)				

The relationship of all identified characteristics of the postgraduate students were examined with degree completion. The type of university (as MUET is showing high rate of degree completion), financial resources (as postgraduate students who are self-financing their degrees) are showing significant relationship with degree completion. The employment status and type of enrolment are also related with the degree completion (as postgraduate students are employed in universities are more interested in the degree completion than other postgraduate students which are employed in other organizations).

Postgraduate students working on their research projects of different settings as lab based, library based, field based and both gender, males and females are completing their degrees without any significant difference at university level. Differences in degree completion between these groups of postgraduate students are not identified.

TABLE 2. RELATIONSHIP OF DEGREE COMPLETION WITH CHARACTERISTICS OF STUDENTS

Students' Characteristics	Degree Completion		Chi-Square Value	Degrees of Freedom	Probability Value
	No	Yes			
Enrolled University					
University of Sindh, Jamshoro	43(86.0%)	7(14.0%)			
MUET, Jamshoro	32(45.1%)	39(54.9%)	24.515	2	0.000
LUHMS, Jamshoro	9(90.0%)	1(10.0%)			
Age of Students					
22-25	26(70.3%)	11(29.7%)			
26-31	51(68.9%)	23(31.1%)	8.721	2	0.013
32 Above	7(35.0%)	13(65.0%)			
Gender of Students					
Male	60(62.5%)	36(37.5%)	0.411	1	0.521
Female	24(68.6%)	11(31.4%)			
Research Setting					
Lab. Based	53(65.4%)	28(34.6%)			
Library Based	6(75.0%)	2(25.0%)	5.978	3	0.113
Field Based	23(67.6%)	11(32.4%)			
Other	2(25.0%)	6(75.0%)			
Financial Resources					
Self	34(50.0%)	34(50.0%)			
Family	42(82.4%)	9(17.6%)	21.024	3	0.000
Scholarship	8(88.9%)	1(11.1%)			
Other	0(0.0%)	3(100.0%)			
Employment status					
Yes	40(48.8%)	42(51.2%)	22.573	2	0.000
No	41(89.1%)	5(10.9%)			
Working Organization					
University	27(42.2%)	37(57.8%)			
Industry	5(55.6%)	4(44.4%)	9.700	2	0.008
Other	13(86.7%)	2(13.3%)			

9. RECOMMENDATIONS

(i) Universities must propose classified policies with respect to specified characteristics of postgraduate students.

(ii) Universities must make formal linkages with other similar universities and share their experiences related to teaching and research. As universities possess scare resources, in terms of human capital, equipment and infrastructure, the linkage will help offer benefits of sharing these resources of each other.

(iii) Universities must try to enhance the market value of their postgraduate degrees by solving the problems faced by nation with the help of science and technology to increase research interest. Related bodies e.g. ministries and industries must offer clear incentives to research students (working at various organizations) in the form of rewards/benefits if they get the higher qualifications.

(iv) Universities must establish formal and informal linkages with industries related to the subject area of postgraduate students and also with organizations related to university disciplines. The linkages with industries may motivate post graduate students to complete their degree by clearly identifying their job markets.

This research is first of its own kind in the context of Jamshoro Education City. However, in future, the scope of the research can be enhanced by covering more geographical areas in Hyderabad and then in Karachi. The same can also be adopted to include both the graduate and the postgraduate degree levels.

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