

# **EXPLORING STUDENTS' PREFERENCES FOR UNDERGRADUATE RESEARCH- A GATEWAY TO ECONOMIC TRANSFORMATION**

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# Introduction

- Universities role in economy development
- Growth of knowledge based economy- research innovation by universities thereby staggering economic development.
- possible through strong research programs in universities.
- vital component of this research-UGR
- Weak UGR in developing countries
- Resulting- poor research-based experience

# Introduction

- UGR- research program in which the UG students are involved in original work related to some current problem beyond the scope of curriculum and which may encourage publishable material
- the problem under investigation may not be related to curriculum or course of studies
- students work on solving problems-produce new knowledge- published.

- universities are expected- to contribute towards sustainable development of economy through quality preparation of students in education as well as research
- UGR- a gateway to economic transformation
- UGR movement in US- late twentieth century
- UGR- top universities including University of Berkeley, Boston, the Georgia Institute of Technology, UCLA, MIT, Michigan, New Hampshire, Oregon etc.
- universities in Pakistan- weak UGRP
- HEC initiatives- faculty-led research projects, RA's,

# Objectives of the study

- Exploring views of UG students on involvement in UGR
- Identifying students' perception about working as research intern with local industry
- Designing a framework for increasing students' involvement in UGR

# Methodology

- Descriptive
- Data collected- a questionnaire from 4 universities in Rawalpindi-Islamabad
- Population- UG students of science and social science
- Total respondents- 2068
- Valid questionnaires- 2004
- Questionnaire validated- pilot tested
- Responses- converted into percentages gender wise and chi square values was calculated using cross tabs
- Open ended item in Questionnaire for qualitative dimension to data interpretation.

- Open ended item- exploring students' motive and expectation from involving as research intern with the local industry.
- The frequency of students' responses was categorized and then converted into percentages to rank preferences.
- For developing framework to help strengthen industries-academic linkages- a systematic exploration of students' preferences was carried out.

Students' Preferences		Male (%)	Female (%)	Total (%)	Chi square
Willing to work as research intern with local industry	Yes	85.3	89.6	87.5	19.31, p<.05
	No	14.7	10.4	12.6	
Future plan after passing bachelor	Opt for Job	33.4	35.5	34.6	16.28, p<.05
	Enrol in MS/PhD	52.6	56.5	54.7	
	Any other	14.0	8.0	10.7	
Managing time effectively if join a research internship	Yes	81.2	86.7	84.3	11.47, p<.05
	No	18.8	13.3	15.7	
Prefer duration of research internship	1 month	52.9	54.4	53.7	31.96, p<.05
	4 months	24.2	26.9	25.6	
	More than 4 months	22.9	18.7	20.7	
Prefer time of year for research internship	During Semester	53.9	44.8	49.4	16.33, p<.05
	Summer vacation	46.1	55.2	50.7	
Prefer days for involvement in research internship	Weekdays	46.9	49.8	48.4	1.71, p>.05
	weekends	53.1	50.2	51.6	
Prefer type of research work	Field research	67.3	59.4	61.4	14.26, p<.05
	Lab research	22.6	27.0	24.8	
	Desk research	10.1	13.6	11.9	



Male

Female

Time management

Opt for Job

Enroll MS/PhD

Any other

Engagement with industry

No engagement

1 month

4 months

Above 4 months

During Semester

During Summer  
Vacation

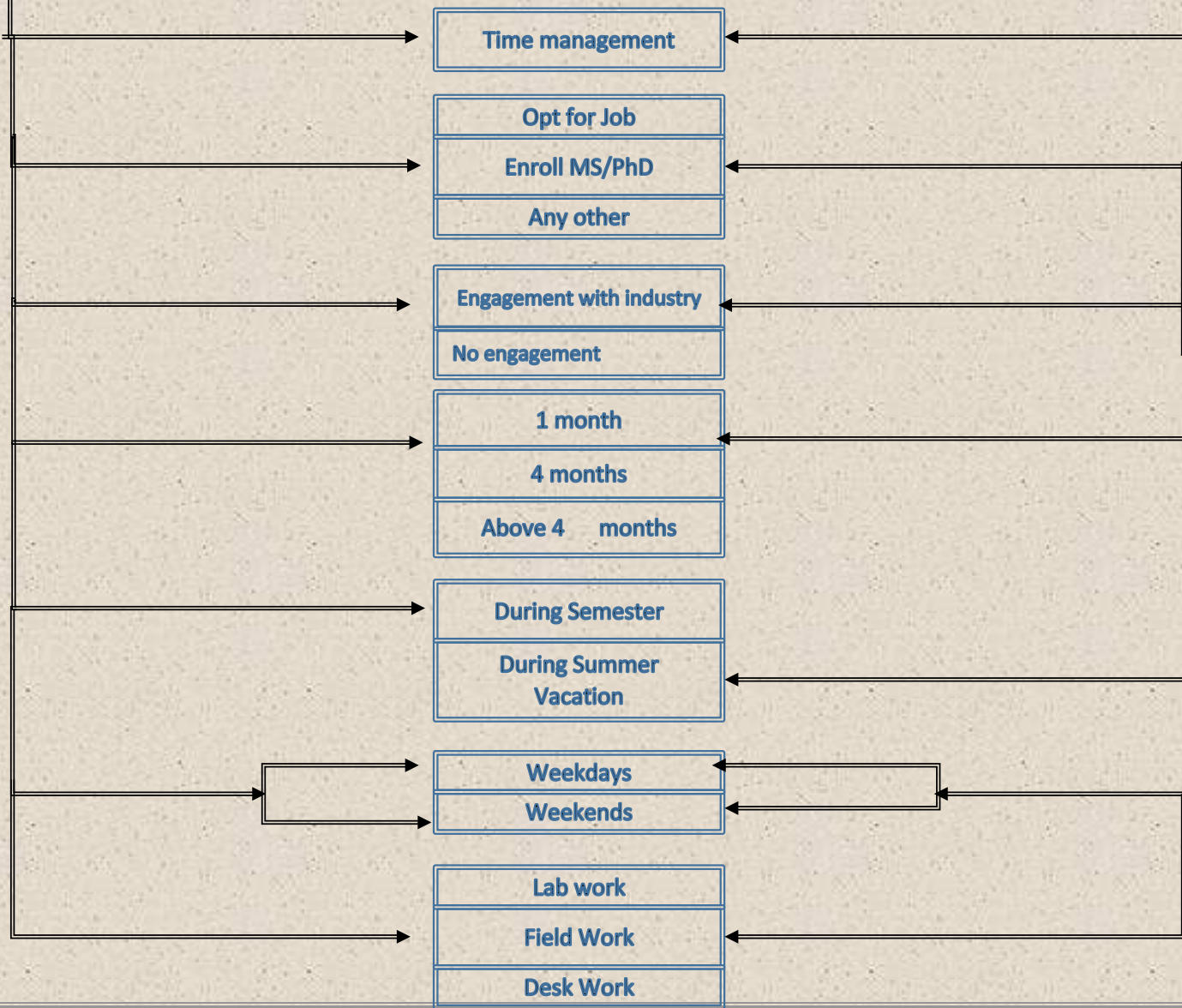
Weekdays

Weekends

Lab work

Field Work

Desk Work

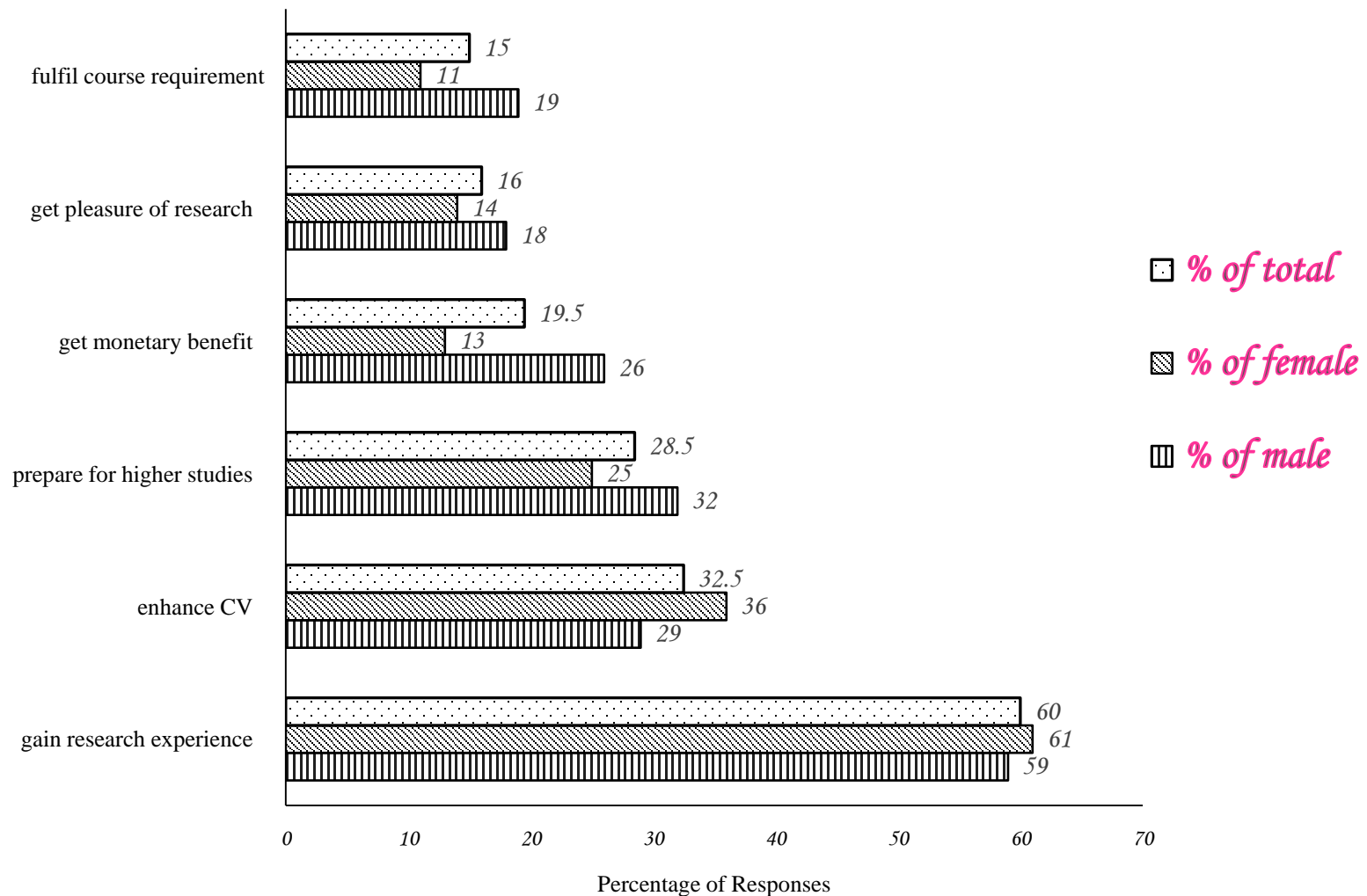


- Both gender can effectively manage their time even if they are involved in research based activities
- preference for continuing higher studies
- UG students willing to work as research intern with local industry
- Preferred duration- one month.
- male students prefer research internship during summer while the female students prefer research work during summer vacation.
- Both gender can be involved during weekdays/ weekends

## *Open-ended item*

- The students responded differently on the open ended item.
- What do the students expect from involvement in research internship with local industry and the reason for involving in research internship?

**Figure 2. Students' expectation from involvement in research internship**



# Conclusion

- strongest economies-driven by knowledge as compared to traditional inputs
- This requires a renewed focus on improving higher education research especially UGR
- Exploring research preferences of UG students will provide a different perspective towards improving UGR in universities in Pakistan
- help in improving human research capital which will finally pass to the local industry for stimulating economic development
- universities should develop intensive industrial linkages for sustainable development

# Limitations

- focussed on UG students only which limits the generalizability of the findings
- For greater reliability- relevant faculty members, university administration and the professionals associated with industry
- Questionnaire was used for collection of data
- Future researches may use different research instruments for triangulation and collecting diverse type of data for improving UGR and industrial linkages.

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