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Iqra university

2022

Online at <https://mpra.ub.uni-muenchen.de/112326/>
MPRA Paper No. 112326, posted 11 Mar 2022 11:12 UTC

How skills influence the students' employability in a developing economy?

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Abstract

This paper aims to identify the factors that can affect the overall graduate employability (OGE) of the private university graduates in a developing economy. Many economies are facing substantial issues in job markets. Moreover, many young people are unemployed and barely get a good job. Hence, it is necessary to examine how skills set influence the employability in a developing economy like Pakistan. The authors carefully selected six such employable factors after searching the existing literature. Those six factors: academic performance (AP), technical skills (TS), communication skills (CS), personality (PE), leadership & motivational skills (LMS); and teamwork and problem solving skills (TPSS), had been considered as the independent variables while OGE had been considered as the single dependent variable. Design/methodology/approach – The authors collected the primary data from a valid sample of 200 employers through a structured questionnaire working as the hiring managers. Those respondents were selected on a random basis. The authors used exploratory factor analysis to validate the items under those independent variables and structural equation modeling with AMOS (24) to test the hypothesized relationship between each independent variable and the dependent one. Research limitations/implications – Based on the findings, this paper can help scholars in further investigating the employability factors. Practical implications – This explorative study will guide the fresh graduates in developing

their required employability skills while assisting the employers in recruiting suitable candidates with the required skills and performance. *Keywords:* *Employability, Skills, Graduate students, Private universities, soft skills, technical skills.*

Chapter # 1

Introduction

1. Introduction

1.1 Background of the study:

The concept of Graduate employability has over time become a topic of interest among HEI's & it means the suitability of graduates' knowledge together with their personal abilities & skills to the changing needs of the marketplace. Hence, employability is a changing concept. In particular, it is claimed that graduates do not possess the competencies required by end this is also reflected in the growing trend of unemployment among graduates worldwide. Philpott (2000). Among the contributing factors is the curriculum that lacks innovative aspects that would enable graduates to acquire the competencies required by employers or the skills required to be self-employed. Graduates with a higher level of employability skills and competencies are more likely to engage in entrepreneurial activities & meet employers' demands in terms of productivity (Haughton et al., 2012, p. 671).

There are several factors that can affect graduate employability among which **academic performance** is one of them. The employability with the great academic performance must have higher ratio of employability because they have the set of skills and good academic education. With the help of good skills and academic performance they would perform better on their workplace. Cuthbert and Spark (2008); Cuthbert, Spark, and Burke (2009). The employability with the great academic performance must have higher ratio of employability because they have

the set of skills and good academic education. With the help of good skills and academic performance they would perform better on their workplace. Employability skills denote characters that may make an individual attractive to potential employers, Bridgstock (2009). Since it has been proven that these employability skills encourage performance in the workplace, it is postulated that they may also enhance academic performance.

Apart from academic performance **technical skills** also affect employability. It is assumed that technical skills are required to get the job on the workplace. In this regard, argued that the workplace expects that the fresh graduates on their first job would have all technical skills required for the workplace and they also think that the universities have prepared them in such a way; Ewubare (2010) So, those who lacks technical skills are more likely to not get the desiring job because of lack of ability. But those who have the technical skills would get the desire job in the organization. Technical skills can also contribute towards communication skills because the existence of skill can provide the confidence to communicate. Aliyu (2015)

Along from technical skills **communication skills** also affect employability. People those who can communicate in good manner are more likely to come in the limelight then those have insufficient communication skills According to Bharathi (2016). These communication skills help the graduates in gaining the job which

they need. Graduate with good communication skills helps the organizations to gain more clients and allows the organization to become prosperous. Kementerian Pengajian Tinggi Malaysia (2006).

Apart from communication skills, **teamwork skills** also affect employability. It is more likely that people who can work in a team can be the brighter employee of the organization. Because they can contribute towards the organization in better ways to Emmanuel (2015). So, if the graduate has an ability to work in the team would cause less or no troubles for the organization and can perform their task with full devotion despite concerning about their designation in the teamwork. Improved teamwork can help in achieving the goals of the company. Marchioro, G. (2010).

Along with teamwork skills **motivational skills** also affects employability. Organizations seek to appoint such workers who contributes towards the well-being of the organization rather than those who demotivate others and does not allow other to perform well on the organization. People with good motivational skills can have good leadership qualities. Cakmak, Öztekin, and Karadağ (2015) Also improve your performance, minimize errors and promote collaboration with your coworkers, enabling you to perform your role more efficiently.

Apart from motivational skills **leadership qualities** can also affects employability.

Employees those have leadership qualities would contribute in much greater way in the organization because they would be able to motivate its team. They would have the ability to encounter hurdles, motivate their team, keep the morale high.

Colin Dale (2005) Leadership quality would always contribute in positive ways. So, it can be assumed that leadership quality among the graduate would be highly appreciable by the workplace.

Leadership qualities can also include **problem solving skills**. Employees with problem solving skills would allow them to sort out any challenge occurs during the project or within the organization. This factor could also contribute towards employability of the graduate. Problem solving skills also improves the personality of the employee. It can make the employee more professional, firm, and influential. Rehman and Mehmood (2014).

However, as far as, the **personality** also affects employability. Like, the graduate with good personality would stand out among others and that graduate would be appealing. Then those who have no good personality. Graduates with good personality would seems to have more job opportunities than those who lacks good personality. Potgieter and Coetzee (2013).

1.2 Problem Statement:

The concept of employability to be applied within a range of different context to both developed and developing countries. So, many researchers have been conducted in the context of developing countries for example Wickramasinghe (2010), Nawaratne (2012), Rasul (2018), Shams (2019). In the context of developed countries, some researchers have been conducted: Verlag Weltarchiv (2005), Kletzer and Fairlie (2018), ILO (2012a), Kahn (2010), Schultz (2019). In the context of Pakistan, the study discovered that pressure for employability; academic performance, technical skills were the chief predictors of students' passion. Zahari Ishaq (2018). The another study claims that the personality, leadership & motivational skills, teamwork and problem skills are necessary for the overall employability to success at workplace; Abbas (2019). Hardly there are no study exists of all the variables together with employability in Pakistan.

Pakistan produces about 445,000 university graduates and 25,000-30,000 per year. In spite of these statistics, Pakistan also has the second major out of school population (22.8 million children) after Nigeria. Graduates across the 50 countries reveals that about 80.3 percent (**74 percent in Pakistan**) university graduates mean to choose employment as a career right after completion of their studies. Samo and Mahar (2016); Sieger, Fueglstaller, and Zellweger (2016). There is strong competition for employability of public and private university graduates for getting jobs. According to

National Education Policy (2017), 14% students are enrolled in private sector universities in Pakistan.

This study aims to contribute to the factors affecting the employability of private university graduates. The authors pre-selected six employable factors after searching the current literature and made an extensive exploratory factor analysis. However, even after spending a vast amount of expenditure on generating graduates, there is a lack of contribution from them to the economy of the country. There is a lack of studies conducted to investigate this critical issue prevailing.

1.3 Research objective:

The research objective of this exploratory study was been identified further down:

1. To identify those skills that effect overall graduate employability.

1.4 Research question:

The research question of this exploratory study was been identified further down:

1. What are those skills that effect overall graduate employability?

1.5 Significance of the study:

The results of this study will show where there is a need to focus and redesign capabilities, which will aid educational institutions in improving their strategies for skills that are found to have a significant impact on graduate employability.

Although the findings will be helpful for educational institutions to improve students' skills in order for graduates to be more employable.

1.6 Limitations of the study:

While studying our independent variables and their impact on our dependent variables, the study faced some limitations in the areas of sample size, location, selection of variable and limitation of sector. For the sample, we conducted our survey on the sample of 250 people; not taking more than those into account therefore our study is limited to the responses of 250 individuals. Moreover, the geographically we were restricted to the city of Karachi only, no one outside of the said city has participated in the study. Apart from this, our variable selection is up to six independent and one dependent variable only. Multiple other variables could have affected our dependent variable but we only chose six of those. Lastly, the sector limitation also played its role here since we mostly considered the responses from existing students which left out individuals from other sectors like employees etc.

1.7 Organization of the study:

Chapter 2 cover all the theories and researches that took place in past from previous studies, journal and internet. Lastly, it is described here how to evaluate system and propose alternatives. Chapter 3 comprises of all the procedures and research design

and data collection. Whereas, Chapter 4 Explain the data analysis. Chapter 5 includes recommendation and concluding the research.

Chapter # 2

Literature Review

2. Literature Review

2.1 Theoretical Background:

This model is based on two theories namely **HUMAN CAPITAL THEORY (HCT)** and **THEORY OF INTERROLE LEARNING TRANSFER (ILT)**. The human capital theory posits that human beings can raise their productive capacity through greater education and skills training. Human capital theory, primarily formulated by **Becker (1962)** and **Rosen (1976)**. **Edward Thorndike (1874)** His identical elements theory of transfer states, that the extent to which information learned in one situation will handover to another situation, is determined by the similarity between the two situations.

2.2 Hypothesis Development:

Academic performance & employability:

Academic performance represents performance outcomes that indicate the extent to which a person has accomplished particular goals that were the focus of activities in instructional environments, specifically in school, college, and university. **Lee and Shute (2019)** stated that relationship academic performance and employability is significant. **Stankov (2018)** also claim that the relationship between these two variables were significant. **McEnery (2020)** also stated that relationship academic

performance and employability **Liem and Tan (2017)** also stated that relationship academic performance and employability

H1: According to this follow up, our first hypothesis is “There is a significant relationship between academic performance and employability”.

Technical skills & employability:

Technical skill is knowledge about and proficiency in a particular type of work or activity. It includes competencies in a specialized area, analytical ability, and the ability to use proper tools and techniques. Technical skills play a vital role in producing the actual products a company is designed to produce. High demand for technical skilled workers is not only dependent on the quantity of skilled workers and even industry has highlighted that the quality of their own skilled workers in the industry is essential to enhance productivity and develop the economy. **Julie (2019)** stated that relationship academic performance and employability is significant. **Kadderi Mat Desa (2010)** is also stated that relationship academic performance and employability is significant. **Noraiddah et al., (2011)** also claim that the relationship between these two variables were significant. **Hasni, and Sye (2020)** also claim that the relationship between these two variables were significant.

H2: According to this follow up, “There is a significant relationship between technical skills & employability”.

Personality & employability:

Personality is the characteristic patterns of thoughts, feelings, and behaviors that make a person distinctive. The study of personality emphasizes on two broad areas: One is understanding individual differences in particular personality characteristics, such as sociability or irritability. **Allport (1999)** stated that relationship academic performance and employability is significant. (**Weinberg and Gould (2018)**) also stated that relationship academic performance and employability is significant. **Potgieter (2012)** claim that the relationship between these two variables were significant. **Tomlinson (2019)** also claim that the relationship between these two variables were significant. **Aparicio-Ting (2020)** also claim that the relationship between these two variables were significant.

H3: According to this follow up, there is a significant relationship between personality and employability.

Communication skills & employability:

Communication skills are the abilities you practice when giving and receiving different kinds of information. Some examples consist of communicating new ideas, feelings or even an update on your project. Communication skills include listening, speaking, observing and empathizing. **Saunders and Mills (2017)** stated that relationship academic performance and employability is significant.

McCarthy and Carter (2013) also stated that relationship academic performance and employability is significant. **Finch et al. (2018)** also claim that the relationship between these two variables were significant. According to this, our fourth hypothesis is:

H4: Communication skills has a significant relationship with employability.

Leadership and Motivational skills & employability:

Motivation is a goal-oriented characteristic that supports a person achieve his or her objectives. It inspires an individual to work hard at achieving his or her goals. Leadership is used as a **means of motivating others**. See **Gill (2015)** stated that relationship academic performance and employability is significant. **House et al., (2018)** also stated that relationship academic performance and employability is significant. **Pinder (1998)** also claim that the relationship between these two variables were significant. **Zacharapolou et al., (2019)** also claim that the relationship between these two variables were significant. **Lussier (2013)** also claim that the relationship between these two variables were significant. **Slater, and Kurz (2020)** also claim that the relationship between these two variables were significant. According to this, our fifth hypothesis is:

H5: Leadership and Motivational skills has a significant relationship with and employability.

Team work skills & problem solving skills:

Problem solving is the ability to work through problems by using critical thinking skills to attain a solution. In the workplace teams have to resolve problems every single day. Problem solving as a team recovers the chances of coming up with the best solution or result. **Zorn (2002)** stated that relationship academic performance and employability is significant. **Guzzo (2018)** also stated that relationship academic performance and employability is significant. **Bailey (2019)** also claim that the relationship between these two variables were significant. **Willard-Holt (2000)** also claim that the relationship between these two variables were significant. **Potvin (2020)** also claim that the relationship between these two variables were significant. According to this, our sixth and last hypothesis is:

H6: Teamwork skills and problem solving skills has a significant relationship with employability.

2.3 Empirical studies:

1. Jackson (2013) examines an empirical study analyzing business graduate's performance in oral communication skills & strategies for improvement. A communication skill has been used as the dependent variable and overall graduate employability is used as the independent variable. The data was collected from 674 business graduates belonging to all 39 Australian universities. Systematic sampling technique has been used to evaluate this relationship. Result shows positively significant relation of overall graduate employability with communication skills. It has been suggested that graduates should learn such skills like communication skills so that they can employ at better industries. It was also recommended that overall graduate rate their oral communication skills highly, inconsistent with industry dissatisfaction with performance in this area.
2. Ayodele, oladokun and shakantu (2020) examines an empirical study analyzing employability skills of real state graduates. A technical skill has been used as the dependent variable and overall graduate employability is used as the independent variable. The data was collected from real estate employers in two different markets of real estate in Nigeria: Lagos and Abuja, and also real estate graduate employees who have a working

experience of minimum six months. Systematic sampling technique has been used to evaluate this relationship. Result shows positively significant relation of overall graduate employability with technical skills. It has been suggested that students should focus on technical skills because it emphasizes the development of mathematical or information related tasks and enhance and empowers student's ability. It was also recommended that skill gap is found in graduates who lead to less productivity and skills remains unmatched. So, it will be great if students focus on learning skills to produce better for firms and excel in careers.

3. Kamaruddin, ahmad and hamid (2020) examines an empirical study analyzing graduate employability post covid-19. Problem solving and teamwork skill has been used as the dependent variable and overall graduate employability is used as the independent variable. The data was collected from 1445 final year students in Malaysia. Systematic sampling technique has been used to evaluate this relationship. Result shows positively significant relation of overall graduate employability with problem solving and teamwork skills. It has been suggested that during covid-19 getting jobs were really difficult and the graduates who were getting the jobs were really skilled and have different skills to solve problems of firms in these difficult

times. It was also recommended that rural areas were less affected due to covid-19 and graduates from such areas were getting internships and were prepared to face all the challenges.

4. Dolce, Emanuel, Cisi and Ghislieri (2019) examined the soft skills of accounting graduates: perception versus expectations. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered from 251 Italian graduates and 74 Italian joint-stock companies. Systematic sampling technique has been used to evaluate this relationship. Result shows negatively insignificant relation of overall graduate employability with technical skills. It has been suggested that the importance of such skills are needed in financing firms.
5. Kerry, Bullough , Shibli and Wilson (2017) examined the effect of engagement in sport on graduate employability. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered from 112 employers and 13 university senior executives as part of mixed method approach. To evaluate the data structural equation modeling technique was used. The result showed a positive and significant relation of technical skills on overall

graduate employability. It is recommended that technical skills are really needed in era of sport for graduates to be hired.

6. Rasula, Rauf , Mansor , Yasin and Mahamod (2013) examined the graduate employability for manufacturing industry. The study used problem solving and teamwork skill as independent variable and overall graduate employability as dependent variable. The sample data was gathered from 107 employers through questionnaires. To evaluate the data systematic sampling technique was used. The result showed a positive and significant relation of problem solving & team work skills on overall graduate employability. It is suggested that problem solving & team work skills are knowledge gained from useful information in daily activities. Employees must be cooperative and participative to work better for a firm.

7. Trish, Clokie and Fourie (2016) examined Graduate Employability and Communication Competence: Are Undergraduates Taught Relevant Skills. The study used leadership and motivational skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through an online survey which was sent to managers of 40 organizations and 30 responses were received for analysis. Systematic sampling technique has been used to evaluate this relationship. The result

showed a positive and significant relation of leadership and motivational skills on overall graduate employability. It is recommended that facilitator must include motivational courses to enhance motivation and leadership qualities in students.

8. Bhanugopan and Fish (2009) examined Achieving graduate employability through consensus in the South Pacific island nation. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 400 questionnaires was delivered to the human resource department of the organization and only 200 responses were gathered. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of technical skills on overall graduate employability. It is recommended those students who are joining employment for the first time might need to be more realistic to learn these skills.

9. Mutairi, Naser and Saeid (2014) examined Factors Impact Business Graduates Employability. The study used communication skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 400 questionnaires was

distributed to employers and academicians. Employers are represented by banks & company's managers. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of communication skills on overall graduate employability. It was also recommended that they must focus on other variables as well such as leadership skills to enhance recruitment of business graduate.

10. Roslan, Hamid, Ijab, and Bukhari (2019) examined Social Entrepreneurship Learning Model in Higher Education using Social Network Analysis. The study used personality as independent variable and overall graduate employability as dependent variable. The sample data was gathered through a social media app namely, twitter from 350 respondents. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of personality on overall graduate employability. It is suggested that social entrepreneurship courses will allow students to learn new skills and try to involve something new and skill based.

11. Sehgal and Nasim (2017) examined Total Interpretive Structural Modeling of predictors for graduate employability for the information technology

sector. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 500 domain expert respondents. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of technical skills on overall graduate employability. It was also recommended that the present study highlights the significance of work-based learning for graduates in IT sector. It can be acknowledged from the literature that a lot of the employability skills that are demanded by employers can only be learned through practical exposure like internships, real life projects and work placements.

12. Succi and Canovi (2019) examined Soft skills to improve graduate employability: comparing students and employers' perceptions. The study used communication skills and leadership and motivational skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through online questionnaire from 250 respondents. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of communication skills and leadership and motivational skills on overall graduate employability. It was recommended that 86% of respondents

indicate an increased emphasis on soft skills over the last 5–10 years and that companies consider soft skills more significant than students/graduates.

13. Poropat (2011) examined the role of citizenship performance in academic achievement and graduate employability. The study used academic performance as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 350 students who completed their courses. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and insignificant relation of academic performance on overall graduate employability. It was recommended to educational researchers and university teachers to pay more attention to multi factors of academic performance.

14. Pinto and Ramalheira (2017) examined Perceived employability of business graduates: The outcome of academic performance and extracurricular activities. The study used academic performance as independent variable and overall graduate employability as dependent variable. The sample data was gathered through online questionnaire from 460 respondents. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of academic performance on overall graduate employability. It is suggested that

academic performance collective with the participation in extracurricular activities can be a valuable approach to achieving distinctiveness.

15. Shah, Pell and Brooke (2004) examined beyond first destinations. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 204 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of technical skills on overall graduate employability. It was recommended that number of skills were also acknowledged as potential areas for improvement. The most significant for both disciplines were managing people and information technology, and the majority of the remaining skills were deemed to require some level of consideration to develop them further within the degree program.

16. Jayasingam, Fujiwara and Thurasamy (2016) examined ‘I am competent so I can be choosy’; choosiness and its implication on graduate employability. The study used teamwork and problem solving skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 244 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result

showed a positive and significant relation of teamwork and problem solving skills on overall graduate employability. It is suggested that those who have high competencies such as communication skill or teamwork are perceived to be more employable related to those who lack such competencies.

17. Saad, Robani, Jano and Majid (2013) examined Employers' perception on engineering, information and communication technology (ICT) students' employability skills. The study used technical skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 200 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of technical skills on overall graduate employability. It is suggested that Universities may not be able to implement all the alterations immediately, but should be able to adjust progressively, thus, ensuring that their graduates are relevant to the needs of industry.

18. Pool and Qualter (2013) examined Emotional self-efficacy, graduate employability, and career satisfaction: Testing the associations. The study used communication skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through

300 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of communication skills on overall graduate employability. It is suggested that it should also improve graduate employability; ensuring graduates have a greater chance of securing and retaining occupations in which they can experience satisfaction and success.

19. Tholen (2014) examined Graduate employability and educational context: a comparison between Great Britain and the Netherlands. The study used academic performance as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 150 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of academic performance on overall graduate employability. It was also recommended that providing students with the tools to make better informed choices about university courses might certainly be beneficial for many students; yet it is not likely to change students' employability strategies.

20. Ngoma and Ntale (2016) examined Psychological capital, career identity and graduate employability in Uganda: the facilitating role of social capital.

The study used personality as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 520 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of personality on overall graduate employability. It was also recommended that it is the social interactions that support individuals to build their careers through advice, mentoring, learning and brain-storming in a social setting.

21. Hinchliffe and Jolly (2011) examined Graduate identity and employability.

The study used academic performance as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 400 online questionnaires. Systematic sampling technique has been used to evaluatze this relationship. The result showed a positive and significant relation of academic performance on overall graduate employability. It was suggested that the stage of graduate identity has to be negotiated first.

22. Tomlinson (2017) examined Forms of Graduate Capital and their Relationship to Graduate Employability. The study used technical skills as independent variable and overall graduate employability as dependent

variable. The sample data was gathered through 200 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of technical skills on overall graduate employability. It was suggested that they can notify a graduate's immediate relations to the job market and shape how they and others perceive their potential and scope.

23. Clarke (2017) examined Building employability through graduate development programs. The study used leadership and motivational skills as independent variable and overall graduate employability as dependent variable. The sample data was gathered through 350 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and insignificant relation of leadership and motivational skills on overall graduate employability. It was also recommended that there is an expectation that they will have the potential to become future leaders and managers.

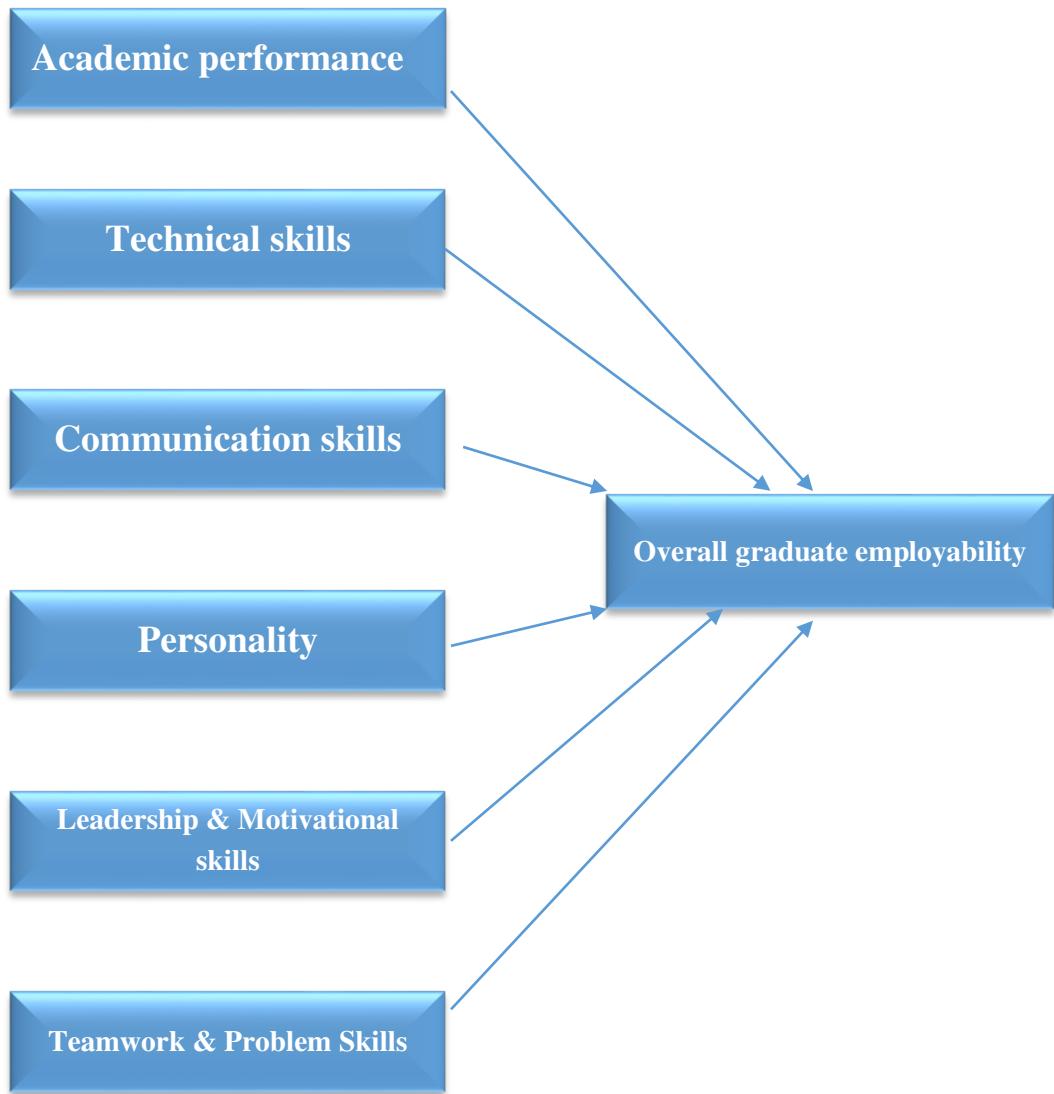
24. Poon (2012) examined Real estate graduates' employability skills: The perspective of human resource managers of surveying firms. The study used teamwork and problem solving skills as independent variable and overall graduate employability as dependent variable. The sample data was

gathered through 450 online questionnaires. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of teamwork and problem solving skills on overall graduate employability. It was suggested that they are hoping to get the right equilibrium between technical knowledge and soft skills in order to make sure students are more employable.

25. Finch, Peacock, Levallet and foster (2015) examined a dynamic capabilities view of employability: Exploring the drivers of competitive advantage for university graduates. The study used personality as independent variable and overall graduate employability as dependent variable. The sample data was gathered through online questionnaires from 250 respondents. Systematic sampling technique has been used to evaluate this relationship. The result showed a positive and significant relation of personality on overall graduate employability. It has been suggested that university graduates can be competitive during the recruitment process is warranted.

2.4. Conceptual framework:

It is a diagrammatic representation of all variables, which shows how they are related to each other.



CHAPTER # 3

METHODOLOGY

3. Methodology

3.1. Research purpose:

There are three types of research purpose:

The research purpose of this study is explanatory because exploratory research on the selected topic has already been made before. Since this study is not the first to initiate this idea. So, this purpose is best for it.

3.2. Research approach:

There are three types of research approach:

Quantitative research means collecting, analyzing and based on numerical data. For this research approach the collection of data would be in numbers (Raza & Khan, 2021). So, this approach is best for it.

3.3. Research design:

Research design was correlational, since this study was supposed to discover the relationship between independent and dependent variables. So, this design is best for it.

3.4. Sampling technique:

The sampling technique used for this research is a non-probability sampling technique called convenience method sampling.

3.5. Target audience/Population:

Target audience / population for this study are graduate students.

3.6. Sample size:

The sample size for this study is **250**.

3.7. Statistical techniques:

The statistical technique that is used for this research is this software called **partial least squares structural equation modeling (PLS-SEM)**.

3.8. Questionnaire and Measurement Instrument:

For the questionnaire made for this study, Likert scaling is used which is a 5-point scale reaching from strongly disagree to the point of strongly agree. It began with demographics including age, field of education, gender, institute and then we had a total of 15 questions; 5 from each variable, to be answered. Questionnaire on Google forms been made and approved by the instructor. After its approval, Questionnaire goes online for the students of universities to fill. The questionnaire used is adapted from Hossain et al., (2021)

3.9. Ethical consideration:

While working on the report, this study followed strict regulation of all the ethical code of conduct necessary for this research. Following were the measures which took to ensure ethical consideration:

Researchers of this study did not force any individual for their personal or sensitive information. Consent of the respondents was keenly taken care of. As promised, Researchers restricted the questionnaire for research purpose only and did not include any individual's personal information in the research. The research objective was not kept hidden from the target audience so they knew what they were signing up for. There was transparency and honesty in our interaction with the target audience. This study did not use any illegal way of approaching the target audience. There was no misleading information or any sort of ambiguity in the study's objective.

Chapter # 4

Data Analysis

4. Data Analysis

In this study, the (PLS-SEM) technique was applied to the data, using Smart PLS version 3.2.3. We followed the Raza et al. (2020) measures and applied a bootstrapping method with 5000 subsamples to determine the significance value for each path coefficient. PLS-SEM is chosen over other covariance-based SEM because it performs well on the models with numerous variables, or with the studies having a complex model. This technique is also top suitable in the scenario where the emphasis is on predictive modeling. Another purpose for choosing PLS-SEM is its statistical power, which is higher than covariance-based structural equation modeling (CB-SEM) (Qazi et al., 2021; Raza & Khan, 2021). PLS-SEM was performed in two steps. The first step contains the evaluation of the measurement model; the second step contains the evaluation of the structural model. In the measurement model, we evaluated the construct validity and discriminant validity criteria, whereas, in the structural model, we assessed the R² and the significance of the path coefficients (Raza et al., 2021; Guoyan et al., 2021).

4.1 Measurement Model:

The measurement model evaluated the convergent and discriminant validity. The convergent validity evaluates the values of individual item reliability, Cronbach's Alpha, composite reliability, and average variance extracted (AVE) (Raza et al., 2021). The result of convergent validity reports in Table 2 and, as seen from the

results, the individual item reliability, Cronbach's Alpha, and composite reliability, of all the concepts are higher than 0.55, which meets the benchmark given by Tabachnick & Fidell. Moreover, the value of AVE is greater than 0.5 which meets the finish point given by Fornell and Larcker. The table 2 shows that all the variables have a greater value than the beginning value except the OGE construct whose value of AVE is less than 0.5 that is 0.462.

The discriminant validity was evaluated by examining the correlation matrix, cross-loading, and heterotrait-monotrait ratio of correlations (HTMT) criteria. As seen in Table 3, the square root of AVE (cross-diagonal values) is higher than the off-diagonal part, which meets the standards given by Fornell and Larcker (1981) and same can be observed in Ali and Raza (2017) Qazi et al. (2020). According to them, the square root of AVE should be higher than the correlation of two hidden variables. Table 4 shows the cross-loadings of the items, revealing that all the items are loaded higher in their important construct in comparison with the corresponding variable. Moreover, the cross-loading difference is also higher than the proposed beginning of 0.1 (Qazi et al., 2021; Raza et al., 2021).

TABLE 2:

Constructs	Items	Loadings	Cronbach's α	Composite reliability	Average Variance extracted
AP	AP1	0.802	0.832	0.775	0.539
	AP2	0.860			
	AP3	0.795			
CS	CS1	0.831	0.825	0.796	0.567
	CS2	0.743			
	CS3	0.773			
LMS	LMS1	0.723	0.769	0.805	0.510
	LMS2	0.719			
	LMS3	0.783			
	LMS4	0.721			
OGE	OGE1	0.808	0.731	0.772	0.462
	OGE2	0.796			
	OGE3	0.720			
	OGE4	0.802			
PE	PE1	0.818	0.759	0.815	0.595
	PE2	0.748			
	PE3	0.745			
TPS	TPS1	0.783	0.794	0.830	0.619
	TPS2	0.772			
	TPS3	0.806			
TS	TS1	0.775	0.715	0.802	0.575
	TS2	0.722			
	TS3	0.776			

Where AP is academic performance; CS is communication skills, LMS is leadership and motivational skills, OGE is overall graduate employability, PE is personality, TPS is teamwork and problem solving skills, TS is technical skills.

The result of the heterotrait-monotrait ratio of correlations is stated in Table 5. The result shows that all the concepts are below 0.85 except LMS against AP and OGE against AP which does not follows the beginning value given by Ahmed et al. (2021) Qureshi et al. (2021) that except two ratios none of the HTMT value is higher than 0.85. Thus, the above outcome describes discriminant validity.

4.1.1 Structural Model:

The Structural model is expected through PLS-SEM Software, each path in a table shows a Hypothesis that is tested on the basis of sign, size and statistical significance which exists between the variables results are shown in table no 6 given below. SRW (Standardized regression weight) denotes the β or coefficient value displaying the magnitude of the influence of independent variables are (**Academic performance, Technical skills, Communication skills, Personality, Leadership & Motivational skills, Teamwork & Problem Skills**) on the dependent variable is (**Overall graduate employability**). If the coefficient value is stronger, then the impact of independent variables is stronger on the dependent variable. The Significance level of every hypothesis considered on $P < 0.1$ will be accepted and $P > 0.1$ will be rejected or insignificant considered. In table no 6 the entire Hypothesis are shown but our 3 hypotheses are accepted (**H1** “Academic performance”, **H3** “Leadership & Motivational skills”, **H5** “Teamwork & Problem Skills”) and creating a significant positive effect on Overall graduate employability.

On the other hand, our 3 Hypothesis are rejected (**H2** “Communication Skills”, **H4** “Personality”, **H6** “Technical Skills”) and creating an insignificant and positive effect on Overall graduate employability.

4.2 DISCUSSION:

The result displays the good model fitness, structural model, and supports the three hypotheses out of six. As seen from table 6.

Table 3 Summary statistics.

	AC	CS	LMS	OGE	PE	TPS	TS
AP	0.734						
CS	0.476	0.753					
LMS	0.551	0.636	0.714				
OGE	0.509	0.529	0.639	0.768			
PE	0.471	0.637	0.638	0.478	0.771		
TPS	0.415	0.629	0.670	0.632	0.518	0.787	
TS	0.451	0.701	0.578	0.495	0.540	0.588	0.758

Table 4 Loadings and cross loadings.

	AP	CS	LMS	OGE	PE	TPS	TS
AP1	0.802	0.345	0.426	0.396	0.383	0.312	0.350
AP2	0.860	0.226	0.300	0.317	0.243	0.236	0.266
AP3	0.795	0.456	0.473	0.401	0.396	0.356	0.368
CS1	0.425	0.831	0.497	0.431	0.526	0.544	0.594
CS2	0.276	0.743	0.424	0.382	0.397	0.365	0.442
CS3	0.366	0.773	0.512	0.377	0.509	0.503	0.537
LMS1	0.373	0.492	0.723	0.430	0.554	0.468	0.430
LMS2	0.391	0.437	0.719	0.386	0.465	0.412	0.420
LMS3	0.404	0.448	0.783	0.545	0.425	0.544	0.384
LMS4	0.414	0.451	0.721	0.444	0.401	0.479	0.436
OGE1	0.297	0.234	0.315	0.808	0.302	0.285	0.394

OGE2	0.336	0.382	0.498	0.796	0.307	0.487	0.266
OGE3	0.314	0.339	0.384	0.720	0.292	0.410	0.367
OGE4	0.425	0.449	0.507	0.802	0.396	0.502	0.357
PE1	0.334	0.479	0.496	0.361	0.818	0.381	0.428
PE2	0.357	0.569	0.530	0.399	0.748	0.474	0.465
PE3	0.401	0.410	0.441	0.339	0.745	0.330	0.346
TPS1	0.331	0.570	0.536	0.463	0.437	0.783	0.468
TPS2	0.306	0.469	0.510	0.504	0.425	0.772	0.473
TPS3	0.343	0.455	0.537	0.522	0.365	0.806	0.449
TS1	0.297	0.489	0.401	0.346	0.386	0.398	0.775
TS2	0.390	0.563	0.445	0.410	0.414	0.441	0.722
TS3	0.326	0.530	0.462	0.361	0.423	0.493	0.776

Table 5 Heterotrait-monotrait ratio

	AP	CS	LMS	OGE	PE	TPS	TS
AP							
CS	0.800						
LMS	0.890	0.713					
OGE	0.865	0.845	0.662				
PE	0.769	0.423	0.619	0.748			
TPS	0.663	0.705	0.720	0.485	0.761		
TS	0.748	0.120	0.809	0.813	0.827	0.689	

Table-6 Standardized regression weights for the research model.

Hypothesis	Regression Path	Effect type	SRW	Pvalue	Remarks
H1	AP -> OGE	Direct effect	0.189	0.001	Supported
H2	CS -> OGE	Direct effect	0.031	0.031	Supported
H3	LMS -> OGE	Direct effect	0.268	0.000	Supported
H4	PE -> OGE	Direct effect	0.009	0.930	Not Supported
H5	TPS -> OGE	Direct effect	0.330	0.000	Supported
H6	TS -> OGE	Direct effect	0.035	0.686	Not Supported

The hypotheses H1 that a significant relationship exists between academic performance and overall graduate employability and it is consistent with the study

of liem and tan (2017). The relationship between academic performance & overall graduate employability is accepted. The result implies that academic performance is a key to excel in employability as new graduates face a quickly changing and highly competitive employment sector. Students who do well in subjects and have conceptual mind of understanding things with different perspectives can work in transitional workspace and achieve economic success this is why academic performance is necessary to excel in employability. The studies of stankov (2018), McEnery (2020) reported academic performance acts as a predictor that affect the overall graduate employability among students, academicians and employers.

The second hypotheses related to the communication skills and overall graduate employability which is significant and also accepted. The result suggests that communication skills play a vital role in overall graduate employability because communication is a key through which people can change their way of thinking and develop new perspectives. As argued by A. V. bharathi (2016) that a person with a solid information of communication skills will be able to prove her academic performance in a comparatively better manner. These skills develop self-confidence and they also increase the individual's employment opportunities. Thus, the communication skills can make you more employable because they can boost a company's productivity and efficiency Finch et al. (2018).

The third hypothesis between leadership and motivational skills and overall graduate employability can be seen as significant ($\text{Beta}=0.268$, P value < 0.1) and is also accepted. Employees with leadership skills would be able to motivate the organization's team, allowing them to give much more to the organization. They'd be able to overcome obstacles, motivate their team, and maintain morale strong. Take the initiative to take advantage of chances. Before others see you as a leader, you must first become one. Individuals who begin to lead and motivate others are rewarded in healthy companies. Rahman et al. (2016) identified that low motivational level, lack of creativity and leadership values are among the main weaknesses of the graduate students in getting employed. Similarly, lussier (2013) also stated that leadership helps in building connections and networks and developing a good working relationship with consumers at the workplace. Also, it helps to earn the respect & trust of team members.

The fourth hypotheses between personality and overall graduate employability can be seen as significant but rejected. Personality indicates manner of thinking of an individual (employer), the way he expresses while he interacts with people or in a social group. Qureshi et al. (2016) identified that personality plays a significant role in engagement and employability attributes. Neneh (2019) findings show that study included personality as one of the reasons influencing graduate employability. Also, personality traits offer job appraisals, openness to experience are positively and expressively related with self-perceived employability.

Hypotheses (H5) proposed a significant relationship between teamwork and problem solving skills & overall graduate employability also the result supported the hypotheses. The result suggests that teamwork and problem solving skills are the two vital skills that make a job candidate capable in any situation. Teamwork is a kind of interpersonal skill where an individual can effectively communicate with a team and achieve given roles and targets whereas; problem solving refers to effectively solving a practical problem in a well-organized manner. Gowsalya and kumar (2015) identified that TPS can highly rise the chance of a graduate being employed because of competent skills. Nusrat and sultana (2019) also identified those soft skills including TPS can, in fact not only promotion in getting a job but also sustain it for longer.

The association between the technical skills and overall graduate employability indicated in hypotheses h6 is also significant but rejected. The result suggests that in a present modest world this set of skill is quite essential due to the rapid growth of technology and internet. Furthermore, an employee is expected to be capable in using different software although such capabilities vary according to the nature of the job. Mansour and dean (2016) argued that companies need employees who are professional in technical skills as well as soft skills too. On the other hand, hossain et al. (2020) identified that both soft skills and technical skills are positively linked to employability also they added that creating more technical skills would add a

value in job market because such skills like programmer, project manager or data analyst are scarce.

Chapter # 5

Conclusion

5. Conclusion

Conclusion:

In this study we attempted to find the affect of the employability of private university graduates in Pakistan, the purpose of this research is to conclude the elements that influence the overall graduate employability of Pakistani private university graduates. Academic performance (AP), technical skills (TS), communication skills (CS), personality (PE), leadership & motivational skills (LMS) teamwork & problem-solving abilities (TPSS) were all included as independent variables, with OGE as the only dependent variable. In this study we had used explanatory research purpose and we also use Quantitative research approach our sample size is 250 university graduates. To give a holistic picture of multiple employability determinants, the viewpoints of all stakeholders, such as graduates, employers, & tertiary education workers, must be solicited. Conducting research along these lines may reveal information on public impressions of the quality of the several programs offered by private colleges. The rapid growth of private institutions in Pakistan, combined with the increased quantity of graduates generated each year, necessitates help when choosing programs and universities that would best uniform their learning and long-term professional goals. In this age of globalization, no country can adequately assess the application or significance of any element or variables that signal the demands of employers. Understanding the needs of local and global businesses is clearly a problem not only for private

colleges, but for all institutes involved in higher education. We have discovered that Pakistan produces around 445,000 university graduates and 25,000-30,000 each year. Graduates must be able to adapt to new technologies and skill sets as well as the changing employment context. Individuals with these skills are not just proficient, but also desired. but also ensure that they have stable professional pathways, as expected.

Managerial Implications / Recommendations:

This research was conducted on university students in the higher education sector, and it was completely engrossed in factors affecting overall graduate employability. Furthermore, this study is one of the first to examine the impact of academic achievement, technical skills, communication skills, personality, leadership & motivational skills, and teamwork & problem-solving skills on fresh graduate employment. Students who are affected by this have lower future academic aspirations and life satisfaction, as well as higher levels of anxiety and manic depression.

This study shows that Academic performance found significant for employability, student would embrace their academic performance if they are given timely counseling regarding their course of interest by the university management and university would make some decisions to improve academic performance among students by doing right faculty selection and courses upgradations on right time as

market requirement. Communication skills was found insignificant and it can be reducing if management introduce some strategies, and conduct mock interviews for student's practice and make presentations mandatory for courses. Leadership and motivational skills found supported and it would improve by management if they organize motivational sessions by calling real life motivational speakers to share their experiences among students and by organizing group based assignments and activities to enhance leadership skills and working practices as a group under leadership.

Teamwork found insignificant in this study, as in most of the organizations performance of an individual is highly considerable so institution's management should impose strategy as student have been assigned group assignment or task to perform for their evaluation similarly they should assign some task on individual basis so they could possibly identify themselves whether they could work better on individual basis or in a team. Technical skills were another factor which may affect employability, in this study technical skills have been found significant for employability and in the managerial point of view it can be further improved if academic institutions try to develop high-quality manpower with techno-managerial abilities in order to prepare students to serve as "business leaders" and "managers" in a variety of disciplines. Academically, the institution should be endorsed, mentored, and sustained by the industry, and its curriculum should

incorporate the best of technical and managerial abilities to produce the most exclusive and highly valued variety of future managers, professionals, & entrepreneurs.

Future Recommendations:

As the research study is defined there are some limitations that can be improved in future studies. While studying independent variables and their impact on dependent variables in this study, the study faced some limitations in the areas of sample size, location, selection of variable and limitation of sector. For the sample, we conducted our survey on the sample of 250 people so it is recommended that sample size should be increase; not taking more than those into account therefore this study is limited to the responses of 250 individuals. Moreover, geographically this study was restricted to the city of Karachi only, no one outside of the said city has participated in the study; it is recommended to increase its dimensions geographically to enhance the results. Apart from this, the variable selection of this study is up to six independent and one dependent variable only. Multiple other variables could have affected dependent variable of this study but we only chose six of those, so it is recommended to future researcher to increase or choose other variable which have not been discussed in this study. Lastly, the sector limitation also played its role here since we mostly considered the responses from existing

students which left out individuals from other sectors like employees etc. So, it is recommended to increase sector limitations in future studies.

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