INVESTIGATING FACTORS AFFECTING STUDENTS' WORK READINESS FOR THE JOB MARKET

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Abstract

Worldwide research has indicated that recruiters are not satisfied with the skills and competencies that employees especially graduates come up with. Megatrends like globalization and technological advancements such as the fourth industrial revolution are reshaping the workplace environment. Skills that were thought of as most important before are not perceived as important in today's world. The unemployment rate among youth is also increasing in Pakistan. This scenario stresses stakeholders specifically, Higher Education Institutions (HEIs) to focus and investigate the factors that affect students' work readiness for the job market. It is proposed in this study that the factors that positively influence and enhance the students' work readiness are discipline-specific knowledge, emotional intelligence, self-efficacy, self-management skills, career development skills, and transferable generic skills. The investigation of the impact of these factors on students' work readiness is the aim of this study. The population of this study consists of students in the final year of Bachelors in Business Administration (BBA) in Sindh, Pakistan. The cluster sampling technique is used to draw the sample, while the calculated sample size is 377. Data is collected through self-administered survey questionnaires from the Higher Education Institutions, and analyzed using PLS-SEM. The results of this study show that, all the factors positively impact students' work readiness for the job market but career development skills impact negatively. It is recommended that students, Higher Education Institutions, and governments should focus on these determinants to enhance work readiness. Furthermore, it is directed for future research that these factors should be investigated in country contexts with mixed methodology. In addition, more research is directed to investigate the impact of career development skills on students' work readiness so that the picture would become clearer.

Keywords*:* Employability, Work-readiness, Work Preparedness, Disciplinary Subject Knowledge, Emotional Intelligence, Self-Efficacy, Self-Management

INTRODUCTION

Background of Study

Globalization, Technological advancements such as Industry 4.0, and Demographic changes are the megatrends that have had a profound impact on the world of work (OECD, 2017). These factors are transforming workplaces as well as job contents. There are other serious challenges associated with this, such as how organizations can find good employees who are appropriate for the job and the capacity and competency of graduates to find appropriate jobs. Additionally, the world economy is facing serious challenge of an increase in the unemployment rate, especially in developing countries like Pakistan. In this context, employability is considered to be very much of concern, for individuals who are looking for a job, for organizations that are looking for appropriate workers, and for society as a whole where the unemployment rate in youth is already increasing. Although, the recruitment of talented fresh graduates is considered a successful method to acquire talent by some employers, but research indicates that all

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employers are not happy with the preparedness of graduates for the work environment (Boden & Nedeva, 2010).

The changes in the workplace environment with their required skills also call for worldwide higher education institutions to produce graduates who are work-ready, highly skilled, and employable (Cranmer, 2006; Grotkowska et al., 2015; Mok et al., 2016; Smith et al., 2014; Watts, 2006). Skilled human resource is considered the backbone of the economy and is ready to solve future problems. In addition, the increasing rate of unemployment is also a contributing factor in the pressure to produce more work-ready graduates. The unemployment rate in youth (20 to 24 years) is 9.7 percent (World Bank, 2024), that shows a huge number of individuals seeking job. The pressure on higher education is increasing because employers show dissatisfaction with the skill set that is present in the market. The dissatisfaction is because of lack of skills that graduates possess. Mourshed et al. (2014) termed it as a global crisis. Efforts should be made by all the stakeholders through collaboration, and understanding to develop and enhance students' employability through reinforcing the contributing factors towards it. Global Monitoring reports that, in Pakistan, there is a huge skill gap in graduates which makes them incompetent in the current knowledge-based world of work (Shah et al., 2011). Skill gap create problems for individuals to find appropriate job, and make it difficult for employers to find appropriate employees. Skill development can play a key role in reducing poverty (Pakistan Economic Survey, 2022). Research divides these skills in two categories that are technical skills and non-technical skills as identified factors that contribute to making students' work ready.

Caballero and Walker (2010) describe work readiness as "the extent to which graduates are perceived to possess the attitudes and attributes that make them prepared or ready for success in the work environment". Most of the definitions of work readiness with different terminologies describe the same concept that emphasizes the possession of certain skills, knowledge, and attributes by graduates which makes them 'work ready' and successful in the work environment (Chetty, 2012). It means that individuals, who are 'work ready', possess foundational skills that are needed to be minimally qualified for specific work or occupation that is determined through job analysis (Work Readiness Standards and Benchmarks, 2013).

Problem Statement

Skill gap create problems for individuals to find appropriate job, and for the employers also to find an appropriate employee. Students go for professional education with the aim gain skills and professional knowledge, but in Pakistan, graduates are produced who are not well skilled, in fact poorly skilled, to find desired jobs in the current job market (Javaid & Hyder, 2009). Academies in Pakistan do not upgrade job related skills of students (Ansari & Wu, 2013). In Pakistan, situation is stressing governments and higher educational institutions to take measures to improve the policies. Graduates need to get sufficient skills to become more 'work ready', thrive in the job market and, make their career splendid. Other problems that are associated with unemployment would become more severe such as social problems, increased crime rate, lack of interest of investors due to unavailability of skilled labor and overall decrease in the country's GDP. This situation emphasizes the investigation of factors that affect students' work readiness so that measures can be taken to solve the problem, otherwise scenario of unemployment will worsen. Unemployed youth would be unable to contribute to the country's overall development.

Research Objectives

This study aims to achieve the main objective which is to assess the factors affecting students' work

readiness for the job market. Following are the research objectives of this research;

- To analyze the relationship between discipline-specific skills (Technical skills) and student's readiness for work.
- To analyze the relationship between emotional intelligence and students' readiness for work.
- To analyze the relationship between self-efficacy and students' readiness for work.
- To analyze the relationship between self-management skills and students' readiness for work.
- To analyze the relationship between career development skills and students' readiness for work.
- To analyze the relationship between transferable generic skills and students' readiness for work.

Contribution of the Research

The conceptualization about employability is not yet clear because of lack of agreement in literature there are different models describing different components of employability (Bennett et al., 1999; Bridgstock, 2009; Hillage & Pollard, 1998; Hinchliffe & Jolly, 2011; Law & Watts, 1977; Pool & Sewell, 2007; Yorke & Knight, 2004). Römgens et al., (2020) presented an integrated approach to employability. Authors integrated two streams of literature about emplyability those are research in higher education and research in workplace. By analyzing leading conceptualizations in higher education, six dimensions of employability are identified in this framework, that are integrated dimensions described in previous main conceptualizations of employability. In this study the concept of employability presented by Römgens et al. (2020) is empirically tested that is not empirically tested before. There is no such research done in Pakistan to identify and assess the factors that affect students' work readiness in the job market so this research will contribute to investigate the factors that affect students' work readiness in Pakistan. This will help all the stakeholders including students, faculty, higher education, and government to adjust their strategies and policies according to the need of the situation.

LITERATURE REVIEW

Definitions and Conceptualization of Work Readiness

There are extensive terminologies that can be used to describe graduates being ready for work (Caballero & Walker,2010 Work readiness in graduate recruitment and selection: A review of current assessment methods). The terms work-ready, work readiness, employability, work preparedness, workforce ready, and workplace ready are interchangeable (Cavanagh et al., 2015).

According to Heijde and Heijden (2006), employability is "the continuous fulfilling, acquiring or creating of work through the optimal use of competences" in other words it is an individual's capacities that enable his or her potential for permanent acquisition and fulfillment of employment. According to Yorke "individual's employability is "a set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy" (Yorke, 2006)

Employability is a complex concept and there is no single agreed definition of employability. So, it is difficult to conclude what employability is. In recent decades employability is gained attention in research but still there no single definition of employability is agreed upon (Meager et al., 2001; Mcquaid & Lindsay, 2005; Yorke, 2006) however all of the above definitions describe the same concept that is they emphasize the possession of certain skills, knowledge and attributes by graduates which make them ready for and successful in the work environment (Chetty, 2012).

Theoretical Background

The main theoretical model that underpinned the work regarding employability is the DOTS model proposed by Law and Watts (1977). According to tis model, to enhance te prospects of students, four education tasks should be accomplished by each student that are opportunity awareness, self-awareness, decision learning and transition learning. Later on, Hillage and Pollard (1998) suggested that "employability is about work and the ability to be employed i.e. the ability to gain initial employment, the ability to maintain employment and made 'transitions' between jobs and roles within the same organization and the ability to obtain new employment if required, i.e. to be independent in the labour market by being willing and able to manage their own employment transitions between and within organizations" (Hillage & Pollard, 1998). In respect of individuals, there are four main elements of employability according to this framework which are assets, deployment, presentation, and context.

There are five distinguished elements of course provision in higher education identified in the model of course provision (Bennett et al., 1999). These elements are Disciplinary content knowledge, disciplinary skills (Core Skills), workplace awareness, workplace experience, and generic skills. Therefore, Yorke and Knight (2004) proposed another model named USEM model acronym of its four interrelated factors. Employability seems to be influenced by four interrelated components that are understanding, skills, efficacy and metacognition (Yorke & Knight, 2004). This is probably the most well-known model of employability. Pool and Sewell (2007) proposed another model named Career edge: the key to employability model. In the definition of employability, the authors incorporated an additional new element that is satisfaction that originates from the recognition. The authors given the definition of employability as "Employability is having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful" (Pool & Sewell, 2007). The five components of the model are degree subject knowledge, understanding and skills, generic skills, emotional intelligence, career development learning, and experience. The model "Career management for maximum employability" was proposed by Bridgstock (2009). In this model, authors proposed that employability is a continuous process in which individuals engage themselves in the processes like reflection, evaluation and decision making using self-management skills and skills of career building in addition to effective acquisition, expression and utilization of generic skills and domain specific skills in the work life.

Hinchliffe and Jolly (2011) developed the concept of 'graduate identity' to deepen the understanding of employability of graduates rather than proposing traditional models proposed before. A four stranded constructed idea of graduate identity was presented which entails that graduate identity consists of four components those are values, intellect, performance and engagement. According to authors graduate identity is all about potential, that is potential of graduate if he or she is likely to fulfill particular requirements of job and it is decided by employer.

Römgens et al. (2020) presented an integrated approach to employability in their research in which they integrated two streams of literature about employability that are research in higher education and research in learning at workplace. The literature about employability in higher education is reviewed and authors have analyzed four leading concepts of employability regarding higher education (Bridgstock, 2009; Hinchliffe & Jolly, 2011; Pool & Sewell, 2007; Yorke & Knight, 2004) and presented framework which consists of six components of employability. The six dimensions provided in this framework are integrated dimensions provided in previous models or frameworks. Because the aim of this study is to examine the work readiness or employability in students, so we will concern the six dimensions proposed in this framework. These six dimensions are disciplinary knowledge, emotional

intelligence, self-efficacy, self-management, career development skills, and transferable generic skills.

Disciplinary Subject Knowledge

Discipline specific skills are acquired through university curriculum. These skills are related to course work of students; those can be originated in specific discipline, domain or subject matter area. It is domain specific knowledge of students which enables them to be understanding and mastery in their specific field and help them to get a job. DSK was a vital component of all the prominent four frameworks (Bridgstock, 2009; Hinchliffe & Jolly, 2011; Pool & Sewell, 2007; Yorke & Knight, 2004). According to theoretical background DSK, also termed as technical skills, impact positively on students' work readiness. Therefore, it is assumed that

H1: Discipline specific skills have a significant positive impact on students' work readiness for the job market.

Emotional Regulation

Mainly Pool and Sewell (2007) addressed emotional intelligence as an important component to enhance the work readiness of students. Other models did not address this component with name emotional intelligence but put value to develop interpersonal relationship that is possible with more emotional regulation. So, the authors of this framework added emotional intelligence as an important dimension of employability. Individuals can become successful and more productive at what they do by developing their emotional intelligence. According to Arefnasab et al., (2012) there is a significant positive relationship between prblem solving strategies and EI. Emotional intelligence is found positively related to work readiness of graduates (Mashigo, 2014). Emotional intelligence is mentioned as an important skill for the future of work by world economic forum in the reports that they publish to provide updated required future skills (Schwab & Samans, The future of jobs, 2016; Schwab, 2018; Schwab & Zahidi, 2020) . On the basis of thoretical frameworks and empirical studies, it is assumed in this study that

H2: Emotional intelligence has a positive significance influence on students' work readiness.

Self-Efficacy

Self-efficacy, self-confidence and self-esteem play a vital role for the work readiness of students according to the frameworks (Pool & Sewell, 2007; Yorke & Knight, 2004). So, the authors of this framework derived self-efficacy in their framework as an important dimension of employability. "These elements are linked to the willingness to act, the motivation, the positive attitude towards problems, the development of positive relationships and lifelong learning" (Römgens et al., 2020). Employability is related to self efficacy that is individula's self confidence in their capabilities for obtaining employment (Cotzee & Oosthuizen, 2012). Career self efficacy is individual's judgement about their skills and capabilities about how they can perform in relation to career development and choices of careers.Individuals with high level of career self efficacy are comparatively more ambititious for their career life and carry positive attitude and able to visualize success.Individulas with low level of self efficacy do not hold ability to make decisions related to careers, which cause delay in career decision making (Betz, 1992). In refernce to the theories and empirical studies, it is assumed in this study that

H3: There is a significant positive impact of self efficacy on students'work readiness.

Self-Management

According to Bridgestock (2009), who originally proposed the concept of career self-management to enhance employability, "Career self-management is an ongoing process of engaging in reflective, evaluative and decision-making processes using skills for self-management and career building, based on certain underlying traits and dispositional factors, to effectively acquire, exhibit and use generic and discipline-specific skills in the world of work". Pool and Sewell (2007) added evaluation and reflection as moderators which can help to enhance employability. Metacognition which is part of USEM model (Yorke & Knight, 2004) is also part of self-management. Self-management, also named as self-discipline, self-control, will power, ego strength, effortful control, inhibit control or self-regulation, is "the ability to regulate one's emotions, thoughts, and behaviors in different situations" (Transforming Education, 2016). Managing stress, own motivation, delay of gratification, and setting and working for personal and academic goals is included in self-management of students. According to Sahely et al. (2023) practicing self-management on regular basis can enhance individuals' performance by making them more self-aware. It is found through field experiments that programs which are executed with the aim of development of self-management can bring attainment and achievement (Claro & Loeb, 2019). Students with well-developed concept of their goals regarding their career and a positive and realistic appraisal of abilities they possess reports themselves with higher level of employability than others (Omar et al., 2023). Theory advocates that self-management in individuals make them more work ready so it is assumed in this study that

H4: Self-management has a significant positive influence on students work readiness.

Career Development Skills

Career development skills relates to development of career building capacity. Authors of this framework have derived CDS from previous models in concrete concept or in some essence (Bridgstock, 2009; Hillage & Pollard 1998; Law & Watts, 1977; Pool & Sewell, 2007). These skills are about finding and utilizing information about careers, job markets, and the world of work and then making rational decisions about it to secure and maintain work, as well as exploring more career opportunities to get desired outcomes (Bridgstock, 2009). According to Bridgstock (2009), career-building skills include familiarity with one's industry, the ability to identify and choose the best opportunities effectively, know-how about how long to stick in a role, and the creation of social capital by building strategic professional and personal relationships. Graduates who grab more work exploration behaviors are more active in the job-searching process and experience more success. The theory advocates that the use of CDS can enhance the work readiness of individuals and some empirical research has supported that also so, it is assumed in this study that

H5: Career development skills have a significant positive impact on the work readiness of students.

Transferable Generic Skills

Transferable generic skills TGS are described in all the previous models as a very important component of employability. Recent research advocates that generic skills (soft skills) are most important predictor of work readiness (Hoque et al., 2023). Pool & Sewell published list of generic skills that can be helpful in workplace. Hinchliffe and Jolly (2011) described these skills as the basis for the performance of an individual. There are many generic skills that are related to students' work readiness in research. The list of these skills is given in Table 1.

World Economic Forum (WEF) in 2016 have given list of skills and competencies required to go

and throw in future job market. In 2018, WEF have revised the skills and competencies and provided another list, and in 2020 revised that list again and given new list of skills. These lists are extensively followed in research to assess their importance for students' work readiness and employability and proved to be essential. These skills are also included in Table 2.1. Complex problem solving, adaptability, leadership, creativity and innovation, and emotional intelligence are described as most important skills needed for the future (Youngman, 2017). Transferable generic skills are proved to be essential for gaining employment and delivering at workplace through empirical studies and extensive literature review. So, it is hypothesized in this study that

H6: Transferable generic skills have significant positive impact on students' work readiness.

Table 1

Generic Skills

Generic skills	**References**
Creativity, innovation	(Hecklau et al., 2017; Kipper, et al., 2021; Schwab & Samans, 2016; Schwab & Zahidi 2020; Youngman, 2017)
Adaptability	(Hecklau et al., 2017; Kipper et al., 2021; Youngman, 2017; Yousof et al., 2014)
Cooperation, Coordination, Teamwork	(Kipper, et al., 2021; Schwab & Samans, 2016; Yousof et al., 2014)
Communication skills	(Hecklau et al., 2017; Kipper, et al., 2021; Schwab & Zahidi 2020; Yousof et al., 2014)
Leadership skills	(Hecklau et al., 2017; Kipper, et al., 2021; Schwab & Samans, 2016; Schwab & Zahidi 2020; Youngman, 2017; Yousof et al., 2014)
Resilience Flexibility	(Hecklau et al., 2017; Kipper, et al., 2021; Schwab & Samans, 2016; Schwab & Zahidi, 2020)
Decision making	(Hecklau et al., 2017; Schwab & Samans, 2016)
Technological literacy	(Schwab & Zahidi 2020; Yousof et al., 2014)
Critical thinking	(Yousof et al., 2014; Schwab & Samans, 2016; Schwab & Zahidi 2020)
Problem solving	(Hecklau et al., 2017; Kipper et al., 2021; Schwab & Samans, 2016; Schwab & Zahidi, 2020; Youngman, 2017; Yousof et al., 2014)

To confirm the theoretical developments, a conceptual model is developed in this study that analyses the factors that affect students' work readiness for the job market and helps to evaluate the relationship between dependent and independent variables. The model is shown in Figure 1.

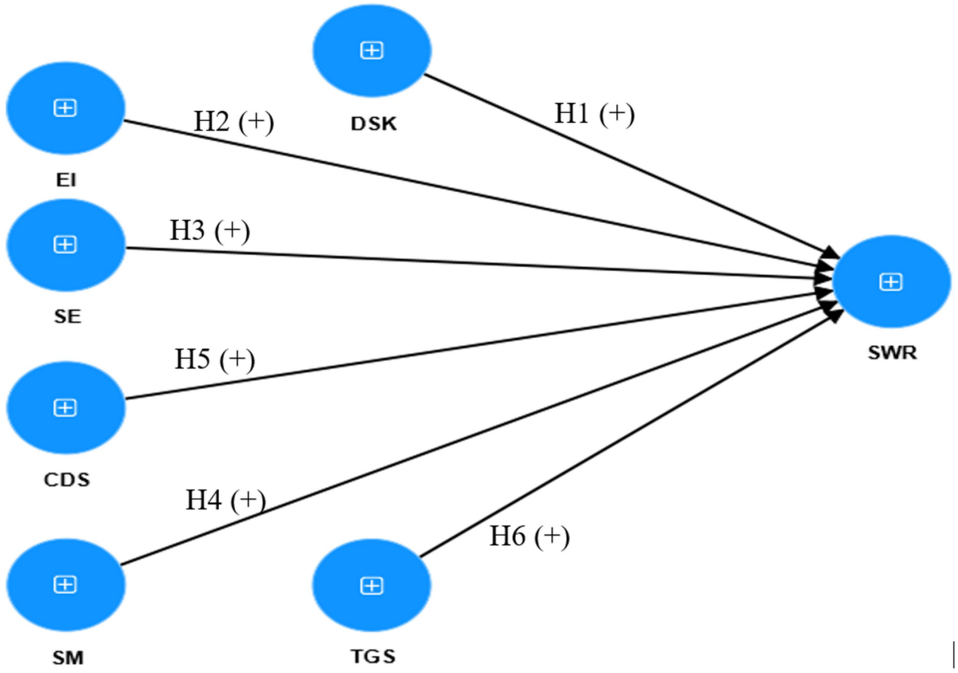

Figure 1: *Students' Work Readiness Conceptual Model*

Empirical Literature

A quantitative study is done in Bangladesh using questionnaires to collect data from 280 recent graduate students of two universities (Hossain et al., 2019). Relationship between student's technical skills and non-technical skills to employability is studied in this study and found that technical skills and non-technical skills are positively related to employability. In one more study, quantitative approach is used to investigate the impact of technical and non-technical skills on the student's work readiness under fourth industrial revolution (Ahmed et al., 2019). This study is performed on 200 final year bachelor students of a university in Malaysia and found that technical skills and non-technical skills are not related to student's readiness for work. In a report "Industry 4.0 implications for higher education commission" by European Union working life skills of future are identified as discipline specific competencies and transferable competencies (Clavert, 2017). In this study extensive literature is reviewed to identify the skills required to go and compete in the workplace of industry 4.0. In discipline specific competencies, engineering competencies, business competencies and design competencies are identified. In transferable skills, skills of problem solving, soft skills, system thinking, business thinking, and literacy of technology are identified as the skills for working in future workplace.

Academic reputation, soft skills, job specific functional skills, problem solving skills and pre-graduate experience are the five categories which are subdivided in 17 employability factors (Hamilton et al., 2013). Interviews were performed from employers in two phases in first phase of interviews employers are asked to categorize the factors and in second phase employers are interviewed to analyze the relative importance given to these factors by the employers. The findings suggested that, to enhance fresh graduates' employability, programs and courses provided by university should focus on learning outcomes that can be brought by the development of soft-skills. It is also suggested that university graduates should highlight their soft-skills specifically problem-solving skills, when applying for jobs.

List of ten critical skills for the future of work for year 2020 and beyond (Schwab & Samans, The future of jobs, 2016) is published by "The World Economic Forum" in its report 'Future of Jobs Report'. A quantitative research approach is adopted and data is gathered through survey questionnaires from global employers (CHRO) and identified the skillsets for the future namely "complex problem solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence, judgment, and decision making, service orientation, negotiation, and cognitive flexibility" (Schwab & Samans, 2016). It is also emphsized in the report that these skills were considered as 'soft' skills in the past but should now considered being critical for career startups and towards career readiness for the future. Without any shadow of doubt, for the post Industry 4.0 era, soft skills will be considered as important as technical skills but will be considered as critical skills that will be needed not just to get start initially, but also to thrive later in workplace of future. WEF updated their report on the basis of surveys and according to survey in 2018, it was found that top ten skills required to work in future are "analytical thinking and innovation, active learning and learning strategies, complex problem-solving, critical thinking and analysis, systems analysis and evaluation, creativity, originality, and initiative, leadership and social influence, reasoning, problem-solving, and ideation, emotional intelligence, technology design and programming" (Schwab, 2018). In their report of 2020 they updated their report and according to which top 10 skills employers see as to be prominent up to 2025 are analytical thinking and innovation, active learning and learning strategies, complex problem-solving, critical thinking and analysis, systems analysis and evaluation, creativity, originality, and initiative, leadership and social influence, reasoning, problem-solving, and ideation, emotional intelligence, technology design and programming" (Schwab & Zahidi, 2020).

Critical thinking, communication skills, being initiative, developing professionalism, problem solving, self-awareness, self-management, social-responsibility, technological literacy and working effectively are the factors that make students readier for work (Mohamad et al., 2018). A quantitative study was performed and survey questionnaires were used to collect the data. The data was analyzed using PLS-SEM and found that all the factors identified, effect positively the students' employability, and three factors which highly contribute towards employability are working effectively, communication skills and using technology.

Research Gap

There is scarce seminal research available in the area of the investigation of determinants of students' readiness for job market and is with mixed results. There is disagreement gap as Ahmed et al. (2019) found that there is no relationship between the technical skills and non-technical skills to the students' readiness for the job market. Whereas Teng et al.(2019) and Hossain et al. (2019) in their study found that both soft skills and technical skills are positively related to employability for the employment market.

Most of the research is directed in country context (Hossain et al., 2019). There are some studies is the country context of Pakistan but these are not covering most important factors so, there is geographical gap. Nadeem et al. (2021) examined the perception of the stakeholders regarding the role of higher education institutions for enhancement of employability in Pakistan. Iqbal et al. (2023) examined the employability in Pakistan, but only investigated four of the generic skills including communication skills, teamwork, leadership skills and critical thinking as theme of qualitative study.

There is also Methodological Gap as most of the research to investigate determinants of students' readiness for the job market is done using qualitative methods, literature review or by interviews from employers to get their perspective. There is very scarce research available that use quantitative method to

get recent graduates' perspective as this can generate new insights.

METHODOLOGY

To examine the relationship between variables, explanatory (correlational) research is designed for this study. The quantitative research method was used to collect data. Quantitative research is often used to test existing theories (Creswell, 2002). In quantitative research, a survey research design is adopted to collect data from the sample. The target population of this study consists of all the final year students in Bachelor of Business Administration (BBA) in Sindh. The students in their final year are considered, who have almost completed their skills and knowledge learning program and are ready to go in the job market so that variables related to work readiness can be tested on them. The cluster sampling technique is used in this study. The cluster sampling technique is suitable for surveys of institutions (Ahmed, 2019). The sample size is calculated using the software Raosoft calculator online. To calculate sample size, it requires options to put margin of error, confidence level, population size, and response rate. The margin of error is 5% for this study. In social sciences, mostly 95% Confidence level is suggested so in Raosoft software 95% inserted in the option of confidence level, and response rate selected as 50% as suggested in the software. Putting all these values it gives the sample size for this study is 377.

Both the dependent and independent variables were measured through adopted measure scales to prepare the survey questionnaire. The questionnaires were self-administered. All the measures used a five-point Likert scale with anchors 1 = strongly disagree and 5 = strongly agree. One sub-measure of TGS is technological literacy that used six-point Likert scale in which 1 shows very poor at this and 6 shows very good at this. To check the reliability of scales a pilot study is done. Commonly Cronbach's alpha is used to test the reliability of the instruments. The data of 20 responses were entered in SPSS and the results shown good reliability of dependent variable and all the independent variables with value of Cronbach's alpha from 0.666 to 0.906.

Data was collected through administering questionnaire survey among final year BBA students form UoS, FUUAST, SZABIST and HiAST. 377 copies of questionnaires were distributed among the students in their classrooms from which 264 students have responded the questionnaire completely. 65 students returned the questionnaires not filled completely while 48 students returned the questionnaire empty. So, these responses were dropped. The response rate of survey is 70.02%.

The method of partial least square structural equation modeling (PLS-SEM) is considered to be appropriate to analyze the data for several reasons. First, in this method the model is created and the models shows the relationship between variables through linking them (Kock, 2015). Second, in this research the nature of the proposed model is explanatory and for explanatory research and theory testing PLS-SEM is an appropriate method (Hair et al., 2012). Third, through PLS-SEM research instruments can be assessed too with the conceptual model (Ringl et al., 2018) means through PLS-SEM both the structural model and measurement model can be assessed. Fourth, sample sizes of a wide range can easily be assessed through Smart PLS and structural model can be assessed with low biases while having sample size that is to be analyzed is 377.

The method of PLS SEM enables to handle very complex models (Ringle et al., 2018) with many constructs and indicators and in case of this study, there are 7 constructs and 89 initial indicators. Structural equation modelling is considered appropriate to study perceived employability in prior studies as well (Álvarez-González et al., 2017).

DATA ANALYSIS AND INTERPRETATION

Descriptive Statistics of the Sample

The sample comprised of 377 students from institutes of Karachi and Hyderabad. The sample comprised of 155(58.71%) males and 109(41.28%) females. There are 45(17.04%) participants from FUUAST, 14(5.30%) students from HiAST, 92(34.85%) students from IBA University of Sindh Jamshoro and 113(42.80%) participants from SZABIST.

From all the students, 13(5%) students think that the job skills that they get from their university are very much adequate while 58(22.3%) students think that these are much adequate. 107(41.2%) think that they get some job skills from their university, while 58 (22.3%) students perceive it as little adequate and, 20(7.7%) students think that the job skills they get from their institute are very little adequate. 8 students have not responded to this question. These results show that, most of the students (41.2%) perceive that they get some job skills and only very few students (5%) perceive that the skills they get are very much adequate. While equal number of students perceives that they get little adequate and much adequate job skills.

When the students were asked that how they rate the employment potential of their degree? They responded that 4(1.5%) students perceive the employment potential of their degree as very poor, 13(5%) students perceive that as just poor, 76(29.2%) students perceive the employment potential of their degree as fair, 125(48.1%) students perceive it as good and 38(14.6%) students perceive that employment potential of their degree is very good.

The Evaluation of Measurement Model

To evaluate the PLS-SEM results, first step comprises of examining the measurement model. In this study measurement model assessed and properties of constructs analyzed using the guidelines to test reliability, convergent validity and discriminant validity of measurement model (Barclay & Smith,1995; Fornell & Larker, 1981; Hair et al., 2019; Henseler, 2017).

To measure latent variables, observable measures (indicators) are used. The measurement model explains the type of relationship between the latent constructs and its indicators. The relationship between the underlying construct and its indicators can be reflective or formative. Coltman et al. (2008) distincted the reflective and formative models on the basis of nature of construct, direction of casuality between items and latent construct, charachteristics of items used to measure the construct. When the nature of construct is that the latent construct exists and not depends on the measures used, it is reflective. In reflective measurement, the direction of relationship between latent construct and items is that, the causality (effect) is from construct to measuring items. In this study the nature of measurement model is reflective. The scale used in business and other methodological text about scale development, reflective approach to measurement is used most often. “For example, examining papers in the journal of international business studies and journal of marketing for 2006 reveals that nearly 95% of constructs with multiple items assume reflectivity without apparent consideration of an alternative formulation” (Coltman et al., 2008).

To evaluate the measurement model, the relevant criteria is different for formative and reflective constructs. When all the required criteria are met by the measurement model then the assessment of structural model should be done (Hair et al., 2017). There are several rules of thumb in PLS-SEM that serves as guidelines in the process of evaluation of measurement model results (Chin, 1998; Chin & Dibbern, 2010; Hair et al., 2017; Henseler, 2017; Tenenhaus et al., 2005). These rules are the guidelines

that help to interpret the results.

In reflective measurement assessment, the first step involves the assessment of factor loadings. Factor loadings indicate that how well an item represents the underlying construct. In PLS-SEM, factors those have value of outer loading above 0.708 are suggested to be retained as a factor in construct however indicators must be removed if the value of outer loading is below 0.40 (Hair et al., 2011; Hair et al., 2017). There are several factors/items those have factor loading value less than 0.4 and to be deleted because these items do not represent well the construct. The factors that are to be deleted are EI1, EI3, EI7, EI9, SE1, SM7, SWR6, TSCCT1, TSTL4, and TSTL7, and their values are shown in bold in Table 2

Table 2
Factor Loadings

Factor	Loadings	Factor	Loadings	Factor	Loadings
CDS1	0.762	SE8	0.723	TSCCT3	0.733
CDS10	0.709	SM1	0.707	TSCI1	0.715
CDS2	0.731	SM2	0.732	TSCI2	0.702
CDS3	0.770	SM3	0.774	TSCI3	0.749
CDS4	0.710	SM4	0.794	TSCI4	0.746
CDS5	0.662	SM5	0.531	TSCI5	0.670
CDS6	0.703	SM6	0.756	TSCT1	0.727
CDS7	0.709	SM7	**0.397**	TSCT2	0.635
CDS8	0.715	SM8	0.721	TSCT3	0.693
CDS9	0.728	SM9	0.772	TSCT4	0.698
DSK1	0.739	SM10	0.645	TSL1	0.706
DSK2	0.714	SM11	0.748	TSL2	0.770
DSK3	0.712	SWR1	0.702	TSL3	0.752
DSK4	0.757	SWR2	0.676	TSPS1	0.679
DSK5	0.707	SWR3	0.737	TSPS2	0.702
EI1	**0.395**	SWR4	0.691	TSPS3	0.712
EI2	0.694	SWR5	0.770	TSRF1	0.609
EI3	**0.395**	SWR6	**0.068**	TSRF2	0.796
EI5	0.725	SWR7	0.733	TSRF3	0.619
EI6	0.715	SWR8	0.786	TSRF4	0.711
EI7	**0.137**	SWR9	0.693	TSTL1	0.728
EI8	0.722	SWR10	0.724	TSTL2	0.721
EI9	**-0.018**	SWR11	0.693	TSTL3	0.762
SE1	**0.201**	TSA1	0.681	TSTL4	**0.383**
SE2	0.640	TSA2	0.738	TSTL5	0.712
SE3	0.759	TSA3	0.675	TSTL6	0.749
SE4	0.785	TSC1	0.784	TSTL7	**0.360**
SE5	0.656	TSC2	0.665		
SE6	0.703	TSCCT1	**0.282**		
SE7	0.754	TSCCT2	0.665		

In second step, internal consistency reliability is assessed to check that how well a test can deliver

the consistent results. Internal consistency reliability can be assessed through the measure of Cronabach's alpha. The value of Cronabach's alpha lies between 0 to 1. The rule of thumb for its values' acceptability is that α value of 0.6 to 0.7 = acceptable, 0.8 or greater = good level, greater than 0.95 = problematic, and an indication of redundancy (Hullin et al., 2001). According to the results of this study, that are shown in Table 3, the value of α of all the indicators have α value between the range of 0.6 to 0.95, hence the measuring instrument is reliable and will give consistent results, and the model is correct. Internal consistency can also be assessed through composite reliability (rho_a) measure. Hair et al. (2019) described composite reliability (rho_c) as a more precise measure as compared to Composite reliability (rho_a) have same thresholds as Cronbach's apha but it provides higher values than Cronbach's aplha. The values of composite reliability (rho_a) are shown in Table 3 indicating that the indicators have reliability values within suggested threshold and model is correct and reliable.

Henseler et al. (2015) proposed composite reliability (rho_c) as an alternative that provides approximately exact construct's reliability measure. It has also the same threshold value as Cronbach's alpha and composite reliability (rho_a). The values of composite reliability (rho_c) of indicators are shown in Table 3, these values are within the suggested range showing that the model is correct and reliable.

The third step in the process of evaluation of measurment model is assessment of the convergent validity of each variable's construct. The criteria of convergent validity is met when the value of AVE is acceptable. The acceptable value of AVE is 0.50 or higher, it indicates that atleast 50 percent variances of items are explained by construct. The values of AVE of each construct are shown in Table 3 indicating that all the constructs have AVE value more than 0.5 threshold.

Table 3
Internal Consistency Reliablity

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
CDS	0.844	0.849	0.840	0.518
DSK	0.714	0.732	0.716	0.543
EI	0.647	0.652	0.646	0.509
SE	0.802	0.816	0.801	0.516
SM	0.849	0.851	0.846	0.519
SWR	0.841	0.846	0.840	0.514
TGS	0.927	0.929	0.925	0.507

In the fourth step of measurement model evaluation, discriminant validity is assessed. Discriminant validity explains that in a structural model, how much a construct is distinct from other constructs. Discriminant validity can be assessed through the Fornell_Larker criterion approach. The values of squared root of AVE (diagonal values) and construct correlation (non-diagonal values) are shown in Table 4 indicating that squared root values of each construct are higher than the squared inter-construct correlation. So, according to Fornell and Larker criterion the measurment model is valid.

Table 4
Fornells Larker's Criterion

	CDS	DSK	EI	SE	SM	SWR	TGS
CDS	0.761						
DSK	0.611	0.736					
EI	0.716	0.710	0.713				
SE	0.728	0.614	0.614	0.718			
SM	0.720	0.616	0.561	0.610	0.720		
SWR	0.631	0.584	0.665	0.682	0.652	0.716	
TGS	0.591	0.654	0.694	0.679	0.597	0.590	0.712

Discriminant validity of measuement model can also be checked through assessement of HTMT ratio. According to Henseler (2017) HTMT ratio should be smaller than one, while the threshold value of 0.85 is also suggested for the assessment of HTMT (Kline, 2011). Table 5 shows the values of HTMT ratio of this study, indicates that all the values of HTMT in this study are less than 0.85 suggesting that the factors have enough discriminant validity, Hence the model is adequate in terms of discriminant validity according to the guidelines from (Fornell & Larker, 1981; Henseler et al., 2015).

Table 5
Discriminant Validity - HTMT Ratio

Indicators	CDS	DSK	EI	SE	SM	SWR	TGS
CDS							
DSK	0.608						
EI	0.711	0.816					
SE	0.726	0.618	0.721				
SM	0.814	0.618	0.828	0.821			
SWR	0.617	0.805	0.762	0.672	0.644		
TGS	0.816	0.648	0.793	0.786	0.833	0.719	

In this study data is collected through survey questionnaires. The survey is self-administered and same method is applied to measure different constructs, there is possibility of having common method bias (CMB) in the construct. In PLS-SEM research method, full collinearity tests are proved to be successful for identification of common method bias CMB. Diamantopoulos and Siguaw (2006) proposed variance inflation factor (VIF) as a criteria for full collinearity test, according to them if the value of VIF is above 5, it indicates the probability of collinearity issue between the constructs, but collinearity issues also occur if value VIF is between 3-5 and VIF value should be lower or equal to 3 ideally. The values of VIF in our study are shown in Table 6 indicating that all items of constructs have VIF value less than the threshold value of 3. These values indicate that there is no multi collinearity issue among the construct items and that the measurement model is free from common method bias CMB.

Table 6
Variance Inflation Factor VIF

Indicators	VIF	Indicator	VIF	Indicator	VIF
CDS1	1.658	SM3	1.950	TSCI2	1.878
CDS10	1.633	SM4	1.533	TSCI3	1.815
CDS2	1.480	SM5	1.218	TSCI4	1.655
CDS3	1.683	SM6	1.620	TSCI5	1.692
CDS4	1.578	SM8	1.598	TSCT1	2.130
CDS5	1.452	SM9	1.532	TSCT2	2.190
CDS6	1.474	SWR1	1.548	TSCT3	1.905
CDS7	1.536	SWR10	1.475	TSCT4	1.835
CDS8	1.323	SWR11	1.455	TSL1	2.204
CDS9	1.472	SWR2	1.765	TSL2	2.062
DSK1	1.297	SWR3	1.483	TSL3	1.852
DSK2	1.440	SWR4	1.593	TSPS1	1.958
DSK3	1.273	SWR5	1.413	TSPS2	1.803
DSK4	1.489	SWR7	1.347	TSPS3	1.417
DSK5	1.236	SWR8	1.476	TSRF1	1.809
EI2	1.158	SWR9	1.627	TSRF2	1.613
EI5	1.262	TSA2	2.006	TSRF3	1.697
EI6	1.301	TSA3	1.836	TSRF4	1.924
EI8	1.229	TSC1	1.947	TSTL1	2.648
SM1	1.501	TSC2	1.896	TSTL2	2.662
SM10	1.575	TSCCT2	1.947	TSTL3	2.361
SM11	1.433	TSCCT3	1.998	TSTL6	1.501
SM2	1.705	TSCI1	2.041		

The Evaluation of Structural Model

According to Hair et al. (2019) if the model has no issue in terms of multicollinearity then the value of R square of dependent variable should be examined. R^2 measures the explanatory power of the model, in other words, R^2 is predictive power. The model those have higher value of R^2 indicates higher explanatory power. Table 7 shows the value of R^2 and adjusted R^2. According to the results the value of R^2 is 0.736, which can be considered as a good value that entails that 73.7% variation in the student's work readiness (dependent variable) is explained by the independent variables. Adjusted R^2 is a measure for linear models that is a corrected goodness of fit. According to results, its value is 0.730 which shows good model accuracy or goodness of fit.

Table 7
R square statistics

Indicator	R-square	R-square adjusted
SWR	0.737	0.730

Before casual path assessment it is required to measure the model fit. "Fit refers to the ability of a model to reproduce the data". Henseler et al. (2014) Introduced Standardized Root Mean Square Residual

(SRMR) as a measure for goodness of fit for PLS-SEM which helps to avoid model misspecification. According to the rule of thumb for model fit, the value of SRMR less than 0.08 indicates that model fits well. Table 8 shows the model fit summary indicating that value of SRMR is 0.067 which is less than the threshold value of 0.08 indicating that the model is well fit. NFI represents incremental fit measure of model. It is used to measure goodness of fit of statistical model. Number of parameters or variables of a model does not affect the value of NFI. Value of NFI ranges from 0 to 1, value of NFI close to 0 indicate poor fitness of model while value of NFI close to 1 represent perfect fit of model. The value of NFI of estimated model is 0.829 indicating that model has medium goodness of fit.

Table 8
Model Fit Summary

Indicators	Estimated model
SRMR	0.067
NFI	0.829

F square is the effect size and inform about "how the removal of a certain predictor construct affects an endogenous construct's R^2 value" (Hair et al., 2019, p.11). The results in Table 9 are showing that CDS has the smallest effect on students' work readiness with value of F square 0.020 and DSK have value of F square is 0.289 showing the strongest effect size. While EI, SE, SM and TGS have value of F square 0.120, 0.127, 0.122, 0.270 showing medium effect size.

Path Evaluation

The purpose of this study is to assess the factors affecting SWR, means to examine the relationship between SWR which is dependent variable in this study and independent variables that are DSK, EI, SE, SM, CDS, and TGS. In smart PLS, the values of path coefficients (β) show the causing effect of variables. The values of path coefficient are shown in Table 9. The findings show that DSK, EI, SE, SM, and TGS has a significant positive impact on SWR supporting H1, H2, H3, H4, and H6. H5 is rejected by this study because the path coefficient value shows negative impact of CDS on SWR.

Table 9
Results of the Structural Model

	F square	Path coefficients (β)	T statistics	P values	Hypotheses
DSK -> SWR	0.289	0.500	4.402	0.000	HI supported
EI -> SWR	0.120	0.125	3.143	0.004	H2 supported
SE -> SWR	0.127	0.188	3.234	0.020	H3 supported
SM -> SWR	0.122	0.135	3.043	0.009	H4 supported
CDS -> SWR	0.020	-0.039	1.966	0.049	H5 not supported
TGS -> SWR	0.270	0.304	3.999	0.000	H6 supported

DISCUSSIONS AND CONCLUSIONS

This research aimed to identify the factors those affect students' work readiness for the job market. Identification of these factors can make significant contribution for the improvement of work readiness of students. The objective of this study was to investigate the empirical relationship between DSK, EI, SE,

SM, CDS, TGS and SWR. PLS-SEM was used for the assessment of relationships between dependent variable (SWR) and independent variable (DSK, EI, SE, SM, CDS, and TGS).

To achieve the objectives of the study, this research asked six research questions to determine the factors those affect the work readiness of students. To answer these questions research hypotheses were formed regarding each of the factors identified. First question was that what the impact of DSK on SWR is. From the review of literature, the hypothesis H1 formed to answer this question was that there is a positive and significant impact of DSK on SWR. The findings of this study ($\beta = 0.500$, $p = 0.000$) also supports H1. The findings of this study contradict with the findings of the study of Ahmed et al. (2019) that is, technical skills are not related to students' work readiness while most of the research support discipline specific skills as an important determinant of students' work readiness. Discipline specific competencies are identified as an important determinant among future working life skills of students (Clavert, 2017). Technical skills are one of the four main types of skills required at workplace (Hecklau et al., 2017).

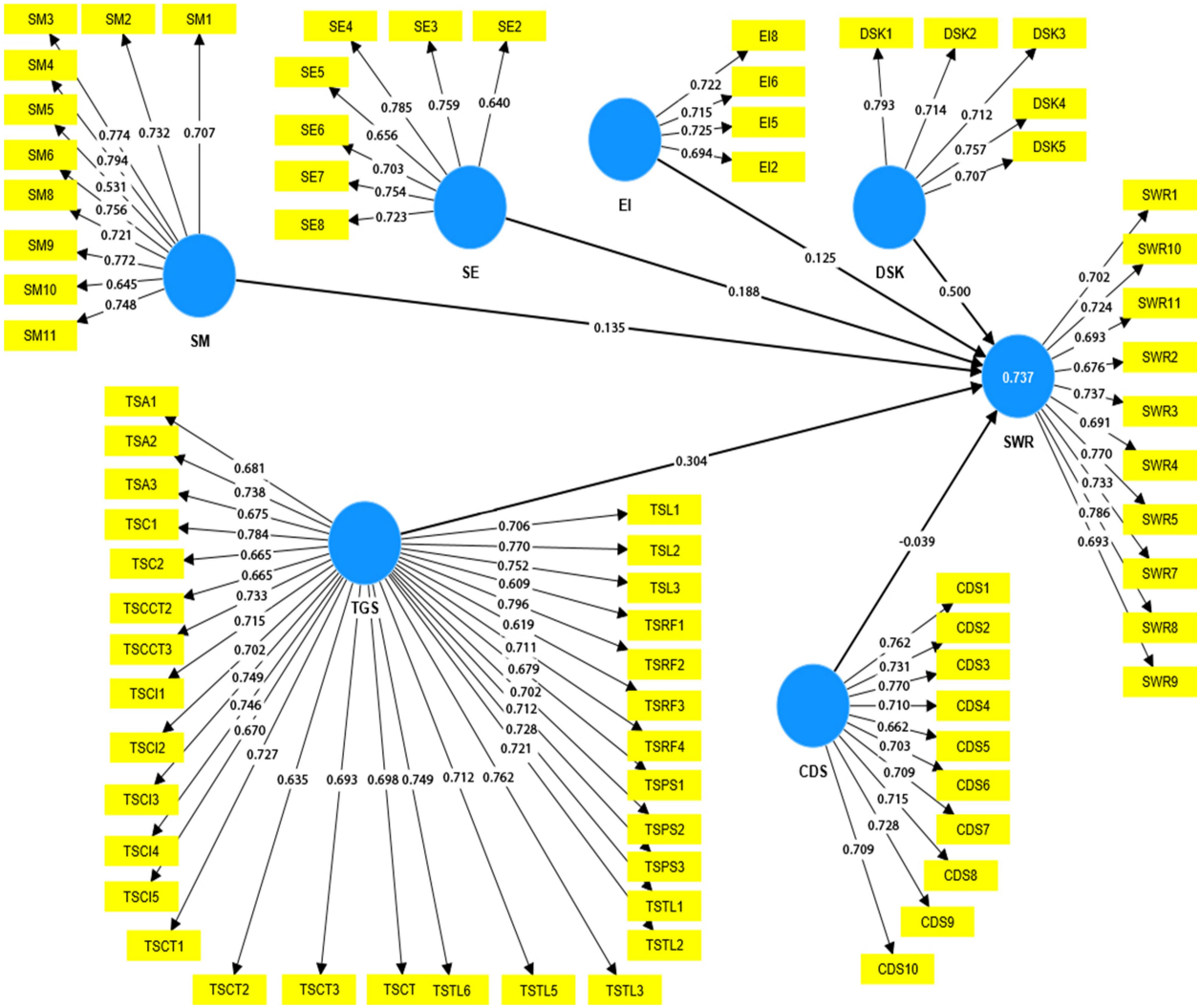

Figure 2: Final conceptual model showing the values of factor loadings, path coefficients and R-square.

The second question which was considered in this study is, what is the impact of EI on SWR? The hypothesis (H2) formed with help of the literature was, EI has a positive and significant influence on SWR and the result of this study ($\beta = 0.125$, $p = 0.004$) supports H2. Empirical literature supports emotional intelligence as an important determinant of work readiness also. Emotional intelligence is found positively related to work readiness of graduates (Mashigo, 2014). Emotional intelligence has a significant positive relationship to problem solving skills, which are very important to work well at any environment (Arefnasab et al., 2012). Moreover, in the consecutive reports published by World Economic Forum (WEF) about future of work, emotional intelligence is mentioned as one of the top ten skills required in the future workplace (Schwab & Samans, 2016; Schwab, 2018; Schwab & Zahidi, 2020).

The third research question in this study was, what is the impact of SE on SWR? With the support of literature, the hypothesis (H3) was formed that is there is a significant positive impact of EI on SWR. The findings of this research ($\beta = 0.188$, $p = 0.020$) support (H3). The studies also suggest that the individuals with higher level of self-efficacy turns to be more work ready such as self-efficacy in individuals helps individuals to obtain employment (Cotzee & Oosthuizen, 2012). High level of self-efficacy in individuals brings more positive attitude and ambitions for their career life that makes success visible (Bandura, 1993).

The fourth research question considered to be answered in this study was what is the impact of SM on SWR for the job market? Hypothesis H4 was formed in this study was, there is a significant positive impact of SM on SWR. The findings ($\beta = 0.135$, $p = 0.009$) support this hypothesis as well. Students having clear concepts of goals regarding their career and realistic appraisal of their abilities they possess, reports themselves with higher level of employability than others (Scoupe et al., 2023). It is found that the programs that are designed with the aim of developing self-management bring attainment and achievement in individuals (Claro & Loeb, 2019). Practicing self-management can enhance individuals' performance hence make them more successful (wheeler et al., 2020). Individuals' perception and appraisal of themselves regarding their values, abilities interest and goals, aptitudes, and abilities that is self-management helps individuals to develop their discipline specific skills and generic skills that ultimately prosper work readiness (Bridgstock, 2009).

Fifth research question that is to be answered in this study was, what is the impact of CDS on SWR? Considering the literature, hypothesis H5 formed to answer the research question was that there is a significant positive influence of CDS on SWR. The findings ($\beta = -0.039$, $p = 0.049$) do not support this hypothesis. According to findings of this study, career development skills have a negative impact on the work readiness of students and the results are shown to be significant. In contrast, Werbel (2000) found that graduates who possess work exploration behaviors are more active in the job searching process and experience success. There can be some factors which contributed in the results to be not supporting hypothesis such as final year students are considered as graduates and all other skills (factors) are being developed throughout the course work of students or may be already present in the students, like self-efficacy, emotional intelligence or self-management skills. But career development skills are the skills that students need when their graduation is completed. So, it is possible that students do not consider these skills as necessary nor acquire them unless they complete their higher education.

The last research question is what is the impact of TGS on SWR? Hypothesis H6 formed to validate the relationship between TGS and students' work readiness is, there is a significant positive impact of transferrable generic skills on students work readiness. The findings of this study support this hypothesis. There is a vast amount of literature available that advocate the role of generic skills for the success of employment or students' work readiness. Adaptability, resilience and flexibility, leadership

skills, communication, creativity and innovation, critical thinking, decision making, problem solving, cooperation coordination and teamwork, conflict solving negotiation and technological literacy are the skills that are ranked as most important in most of the studies (Hecklau et al., 2017; Yousof et al., 2014; Kipper et al., 2021; Schwab & Samans, 2016; Grzybowska & Lupicka, 2017; Youngman, 2017; Schwab & Zahidi 2020).

Recommendations

There are several recommendations for the stakeholders of employability such as students, universities and higher education institutions. Students should take responsibility and instead of just relying on universities they should come forward to enhance their work readiness. There are many sources who publish updated reports regarding future skills requirements. Nowadays because of internet and easy access to technology, it is possible for everyone to acquire the skills they want as there are several even free online courses and lectures available online to enhance the skills of interest and students can access online courses from any part of the world to enhance their desired skills. Universities should provide training sessions for teachers so that teachers know the techniques through which skills other than discipline specific skills can be buildout in academic training of students. Teachers should be aware of how EI, SE, SM, CDS and TGS can be enhanced in students through different activities corresponding with the discipline specific skills development of students. Universities should encourage work integrated learning opportunities such as internships, co-op programs, and project-based courses to provide students with practical experience and help them to develop the skills required by the employers. Universities should continuously adapt their courses and incorporate the skills required by the workplace requirements while keeping mark the incorporation of the up-to-date skills requirement as the skills required are continuously being updated. For this purpose, universities can form partnerships with employers to gain insight into the skills required by the job market and provide students with access to the real-world projects, mentorships and networking opportunities. The development of a culture of lifelong learning by providing continuing education and professional development opportunities can be a very good initiative.

Governments should support the enhancement of work readiness for students in many ways such as governments can invest in education by providing funding for higher education institutions to expand their programs and facilities, and to support research that promotes innovation and economic growth. Governments should establish apprenticeship program that provide students with opportunities to gain practical experience and learn on the job, while earning a wage. Government should provide tax incentives for organization those invest in trainings at universities and make collaboration with universities to enhance the employability of students.

Limitations

This study has number of limitations such as the data that is collected is through the self-reporting measuring instruments. Students are reporting their skills on their self-perception which can be considered to have invalid answers based on social desirability bias. In this study input-based approach to employability is considered which focuses on the factors those are related to individuals such as skills and competencies of individuals to assess employability. But there is another approach, which is output based approach which focuses on external factors such as economic conditions, labour market demands, and family environment. Another limitation of this study is that study population in this research consists of all the students in final year of BBA from Sindh and therefore the findings of this study are bound to Pakistani context only. Population of this study consists of business students only so the generalization of

this study may not be applied to other domains of professional education.

Future Directions

The future research is directed to test these variables in other geographic contexts. It is suggested that comparative studies in terms of countries can introduce a useful insight in the literature. The comparative study on employability can be done between developed and developing countries as well. In addition, it is suggested to compare the work readiness between different domains of the professional education. The future research is also directed to expand the scope of the study and include external factors such as labour market conditions as well so that a clear picture can be drawn.

Contribution of Authors

Sadia Saeed is the main author who prepared this research article solely, for the academic purpose. As a scholar, she was responsible for all the work including study conception, questionnaire design, data collection, data input, and data analysis, interpretation of data and preparation of manuscript. Saima Kamran Pathan as a main research supervisor guided in the whole process and helped in developing the concepts, questionnaire design, and manuscript preparation. Nizamuddinn Channa as a research co-supervisor guided in the whole process especially in data analysis.

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