The Nexus Between Employability Skills and Economic Well-being in the Context of China-Pakistan Economic Corridor

Adeel Ahmed* Waseem Barkat** Riaz Ahmed*** Shahzad Khalil**** Siraj Ahmed*****

Abstract

This research aims to assess the relevance and association of employability skills of university graduates and its impact on economic well-being in the context of China Pakistan Economic Corridor. This study analyzed students’ employability skills and governments’ and universities’ policy initiatives for skill development. The mixed methods approach used, conducted key informant interviews (n=7) from different stakeholders and a structured survey (n=241) from seven public sector universities students. This research also did an archrivals analysis of the available policy documents, annual reports, prospectus, and other relevant information. The findings of this research are valuable in terms of understanding the current government policies, higher institutions’ role in the development of skilled human resources and implementation of the standards. In addition, the study also found that the China-Pakistan Economic Corridor has huge potential to enhance the economic growth of Pakistan given that the development of skilled human resources is treated as a priority. In particular, this paper assessed and analyzed the supply and demand side of employability skills and its impact on economic well-being in the framework of China Pakistan Economic Corridor.

Keywords: Employability skills; economic well-being and CPEC; economic growth; economic corridor.

JEL Classification: J24

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1. Introduction

In today’s global knowledge-based economy higher education institutions are pressed to produce competitive and skilled human resources. The world reputed international forums and organizations; for instance; United Nations, International Labor Organization (ILO), World Bank, World Economic Forum and the others have demonstrated strong commitments and a great emphasis on higher education institutions to prepare the graduates’ employability skills for the world of work. It is in United Nations Sustainable Development Goals to impart quality education that inculcates valuable skills that would lead them to prosperity and economic uplift of nations. ILO (2021) reports that global economy requires employability skills that are instrumental to strong economy and organizations require key employability skills into university graduates for their particular jobs. Furthermore, UNESCO (2020) emphasized that, with growing population of global youths, countries would face significant challenges as the result of growing gap of skilled graduates’ requirement by employer. Further, it will ultimately result into persistent unemployment in the countries, underemployment and longer school to work transitions. In fact, proper skill-development in the youth of countries would be instrumental in the eradication of poverty, increase employability, enhance countries’ productivity, and raise the standards of living (World Bank, 2021).

Although this is a worldwide phenomenon, Pakistan is not an exception. The highest proportion of youth population faces significant developmental challenges. Pakistan possesses nearly 4 million youth reaching working age each year, and it has the world’s ninth largest labor force. Pakistan’s youth unemployment rate is higher than in several other South Asian countries (Ministry of Planning, Development & Special Initiatives, Report, 2020). According to World Bank (2020), every year millions of young people in Pakistan are failing to join the labor force due to a lack of job skills. Furthermore, according to the 2019 World Economic Forum Global Competitiveness Report, Pakistan has among of the lowest levels of human capital capabilities, placing it as 125th out of 141 nations (Schwab, 2019). According to ILO country representative, youth in Pakistan lack possibilities for skill development are more vulnerable to social stigmatization. (Dawn 2019). Based on the available data and an evaluation of the current situation, Pakistan needs to introduce aggressive policy changes to address the employability of young people in general and university graduates in particular.

In times of economic progress, higher education institutions play a more crucial and demanding role as actual change agents for the nation’s economic growth. A recent study showed that due to the lack of skilled workers from the local population, most jobs created through projects go to migrants rather than indigenous people, and particularly to skilled university graduates (Mccartney, 2022). The China Pakistan Economic Corridor (CPEC) has increased need for skilled labor in the context of economic development. Undoubtedly, the CPEC’s massive economic activity represents Pakistan and especially Balochistan’s best chance to break the cycle of low growth, unemployment, and poverty and better the lives of
its people in general. Pakistan should therefore concentrate on improving the pool of professionals, managers, executives, and technical workers rather than unskilled labor force in order to gain the most advantage (Wolf, 2020; Nizamudin et al., 2019, Ahmed et al., 2017).

Balochistan is the most under privileged and under developed province of the country. For many years the province had faced the natural disasters, menace of terrorism, ethnic and sectarian conflicts in the province which led the region among the poorest areas that is highest on poverty and lowest on human development index (e.g., in 2018 HDI of Balochistan was 04.77 that was lowest as compared to other provinces at 0.529, 0533, and 0.0567: KPK, Sindh and Punjab respectively).

Therefore; in promoting the employability skills, the universities have to play a vital role in the economic development of the country and these institutes should be considered as catalyst for bringing change as whole (Suleman, 2018). Attracting skilled human resources, well-educated people, knowledge transfer, and contributing to the creation of new ideas is essential to maintaining the sustainable competitive advantages of established organizations (Klofsten et al.,2019). Further, it is argued that universities should produce relevant and practical skills which must fit employers’ demands (Mason et al., 2009).

The strategies and policies used in benchmarks universities for the development of employability skills are consultancy projects, short and extended work placements, live client briefs, enterprise weekends, guest speaker programs, simulations, games, group work presentations, debates, mock interviews and case studies (Andrew & Russell, 2012). Some skills development is needed outside of the curriculum activities i.e. extra-curricular activities.. Meanwhile it was revealed in the study that full-fledged employability skills needed stem from more out of the curriculum activities than the core curriculum. Further, the study suggested that consistent validity and academic review is needed for the development of effective employability skills. Similarly, the students’ awareness of employability skills needed for their professional growth are also required (Andrews & Russell, 2012).

However, CPEC has lit up a hope for the masses of Balochistan by initiating a huge investment in the region. Number of projects have been designed for Balochistan and more specifically for Gwadar city. The CEPC projects in Balochistan comprise free economic zones, infrastructure development, Gwadar port master plan, energy projects, power plant, Gwadar international airport, schools and expressways, and technical and vocational institute etc. Considering unemployment situation and lack of skilled human resource in the province, the people of Balochistan are in dire need of educational Institutions. For example, higher education institutes, vocational and technical training centers that inculcate basic required skills in the youth of province. An efficient federal as well provincial government policy is also required that would support and implement the skilled human capital policy in the region specifically with reference to CPEC. The government has to elevate the human capabilities of
the region so that they put their true effort to make economic gains for the country. Otherwise, these developments have no meaning for the people until they get benefits (i.e.; improved HDI) from the CPEC.

2. Understanding the Context

Developing nations have been attempting to make significant progress toward achieving the Sustainable Development Targets, while success varies greatly between proposed goals, countries, and regions. The focus of the rising economies is mostly on human capital development. Countries are preparing their workforces with the needs and employment requirements of today world in order to fulfill the prospective demands of a competitive environment. In the context of Pakistan, the employability skills gap has widened which is due to lack of collaboration among employers, graduates and educationist (Abbasi et al., 2018). Pakistan has a well-established higher education system that includes both private and public institutions. However, the system of these institutes and their offered programs’ relevance to the labor market have been heavily criticized. On this, the researchers argued that foreign talent is being introduced due to a shortage of local expertise, which is a serious danger to domestic graduates (Wolf, 2020; Green 2019; Aring, 2012). Undoubtedly, the development of graduates’ soft and hard skills, such as communication, problem-solving, critical thinking, technical, digital, emotional intelligence, and entrepreneurial abilities, is a responsibility of educational institutions (World Bank, 2019; Collet et al., 2015).

The difficulties in finding employment for graduates outweigh the valuable and necessary talents that universities provide, which provides them a pool of marketable abilities and increased productivity. In light of CPEC, Balochistan has neglected the development of competent people resources (Kanwal, 2020; Ahmed et al., 2017). This is regarded as a significant gap between Balochistan’s universities’ skill supply and the anticipated capabilities needed in the country’s prospective CPEC-related sectors (BTEVTA Report, 2016). According to a Chinese official, high-quality skills are lacking (Rathore et al., 2020, Wolf, 2020). Therefore, improving graduates’ skills for their future employment in a variety of businesses should be one of the key goals of Balochistan institutions. However, having a university degree is not enough; it must also contribute to economic progress. This poses a serious threat to graduates in the area (Wolf, 2020; Green 2019; Aring, 2012).

In fact, universities’ failure to provide students with relevant and complementary talents that give people a store of marketable skills will increase the problems with graduates’ employability. A comprehensive skills assessment and mapping is extremely required to find out current needed skills, employment opportunities and futuristic skills sets. Universities shall device a mechanism that what skills are demanded for CPEC project and how educational institutions would be able to supply the needed human resources (Khan & Ahmed, 2018). The main objectives of study are the analysis of archrivals/documents/strategic plans
of universities for assessment of skill-oriented programs and their relevance to CPEC in Balochistan. Further, to analyze the relevant employability skills (supply side) in the passing out graduates, to identify demand side relevant skills in the industries and to match the skills on both sides. Finally, to recommend the shortcomings of the skills to the relevant policy makers. Hence, it is need of the hour for the government, universities and other stakeholders to take corrective steps to develop skilled human resources for CPEC projects and assess their current availability in Balochistan.

3. China Pakistan Economic Corridor

Economic corridors are considered as blueprints for economic growth and development. The 62-billion-dollar mega project of CPEC opens new avenues of economic growth in the region. With the completion of CPEC it is estimated that the regional economies will grow up to $2.5 trillion and over millions of people will be benefited from giant project (Rathore et al., 2020; Hussain 2019; Ahmed et al., 2017). CPEC flagship project key areas include construction of an integrated transport system, information network infrastructure; Energy-related field projects, construction of economic zones and Gwadar city developments projects (Wolf, 2020). CPEC would create opportunities for the local community of employment and improve their living standards. To capitalize maximum benefits from the CPEC project, the local workforce is needed to be trained, specially the skilled labor force from Balochistan, where the baseline of project begins.

The analysts argued that CPEC is a game changer for the economic development of the region, and it would be a major platform for both bilateral and multilateral cooperation. It is a gateway which connects old Silk Road economic belt in north with the current millennium new maritime silk road in south (Javed & Ismail, 2021). It specifically ensures the growth of trade and economic activities within states in the region (Javed & Ismail, 2021). This corridor is a gateway between China and Middle East as well as Africa (Javed & Ismail, 2021). It is further argued that the project has the potentials of economic and industrial miracles same like the economic progress of Japan, South Korea, and ASEAN countries of 1980s (Malik, 2018).

CPEC would be instrumental in the economic upbringing, social well-being, and geo-politic importance of the region (Makhdoom et al., 2018). It would be helpful in generating several entrepreneurial opportunities for local communities of Pakistan. Particularly, accessibility of cities as well as local transports has a significant impact on positive attitude towards entrepreneurial activities, and in turn attitude towards entrepreneurial activities and latter had a positive relationship with intention towards CPEC project growth (Kanwal et al., 2019). It is not only strengthening global business opportunities and gateway for foreign firms but it is also helping in promoting business opportunities and economic growth within provinces of Pakistan (Javed & Ismail, 2021). The study also revealed that the project
strengthens the economy and business activities more than energy and another sector (Javed & Ismail, 2021).

China’s Consul General in Karachi Li Bijian in February 2020 interacted with Dawn news and elaborated that the lack of skilled workers in Pakistan is one of the biggest challenges for Chinese companies to invest in Pakistan. He further stated that they are also planning to start skill enhancing program for the local labor market in order to create employment opportunities for local youths. The indigenous firms are badly hit due to insufficient skilled labor, as a result, Chinese firms are more obvious to capture the market and it was also evident during the first phase of CPEC in Gwadar that out of 600 workers, China only hired 100 locals (Ul Hassan, 2020). In the light of above discussion, this research addressed to find out the answers of numerous research questions, such as (a) Does the government have any national policy for developing skilled human resources? (b) Do universities, technical and vocational institutes have any role in the development of competitive and skilled human resources? (c) Do programs curriculum/course contents fulfill the requirement of skills needed in CPEC ‘s project (d) Is there any mismatch between demand and supply of required skills? (e) Is there any collaboration between industry and academia regarding skilled human resources? (Ahmed et al., 2017)

3.1 Projects of CPEC in Balochistan

Under CPEC, the projects were initiated based on 1+4 model which includes CPEC plus infrastructural development, industrial development, energy projects, Gwadar international airport as well as the operationalization of Gwadar port. These projects will be executed in three terms: short-term, medium-term, and long-term and the tentative completion year is 2030. The following Table-1 exhibit the projects and the employment generation capacity of the mentioned project under China Pakistan Economic Corridor.

Table 1
CPEC Projects Balochistan

<table>
<thead>
<tr>
<th>Projects and Locations</th>
<th>Estimated Cost (US $ Million)</th>
<th>Total jobs created</th>
<th>Total local jobs created</th>
<th>Total jobs created during the construction phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1320MW China Hub Coal Power Project, Hub Balochistan</td>
<td>1912.2</td>
<td>1720</td>
<td>749</td>
<td>4200</td>
</tr>
<tr>
<td>Development of Port and Free Zone, Gwadar</td>
<td>300</td>
<td>120</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>Gwadar Smart Port City Master Plan</td>
<td>4</td>
<td>90</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Pak-China Technical and Vocational Institute at Gwadar</td>
<td>10</td>
<td>249</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Gwadar Eastbay Expressway</td>
<td>179</td>
<td>2000</td>
<td>1700</td>
<td></td>
</tr>
</tbody>
</table>

Source: Cpec.gov.pk
3.2 **Employability Skills and higher education institutions**

The researchers emphasize that employability is a complex notion and distinguishes between elements that are significant for job access and those that prepare the graduates for employment. McQuaid and Lindsay (2005) provide a holistic approach to understanding employability and the interaction of individual and contextual factors. The extant of literature demonstrates a great emphasis on higher education institutions to prepare the graduates’ employability skills for the world of work. In promoting the employability skills, the universities have played a vital role in the economic development of the country and these institutes are considered as catalysts for bringing change as a whole (Suleman, 2018). They are carrying out their role as catalyst for development through attracting skilled human resource, well-educated people, facilitating knowledge transfer, and contributing to the creation of new ventures, as well as to maintaining the competitiveness of established organizations (Klofsten, 2019). Furthermore, it is argued that universities should produce relevant and practical skills which must fit employers’ demands (Mason et al., 2009).

Researchers, Olivier et al. (2014) identified employers’ perspective of skills; for instance, foundation skills, adaptive capacity, learn autonomously, develop new ideas, and innovate; team working and interpersonal skills. Suleman (2018) highlighted the need of generic skills in the context of university curricula. More recently Klofsten (2019) stressed integrating entrepreneurial skills in the university curriculum and such universities are now seeking ways to interact with public and private sector partners and communities to contribute and to make a societal impact (Wakkee et al., 2019). The university can contribute to sustainable development by empowering entrepreneurial scholars as agents of change.

Latest research conducted in this field has focused on changes in the university paradigm as such, on the commercialization of knowledge or on the creation of spin-offs (Mascarenhas et al., 2017) while often linking this to the regional economic development (Bramwell & Wolfe, 2008; Galvão et al., 2018; Trequattrini et al., 2018; Tripl et al., 2015).

![Figure 1: Employability Skills Framework Suleman (2017)](image)
Similarly, a number of studies investigated employer perception or satisfaction with graduate skills and found different results. For instance; Cheong et al. (2016) identified values and personality, willing to learn, openness, analytical and critical thinking are the key expectations of employers. In other study, Teijeriio et al. (2013) found that graduates’ ability to learn, motivation to work and problem-solving skills are prioritized by employers. Moore and Morton (2017) who interviewed twenty supervisors of fresh hired graduates found that communication and writing skills were the focus of employers.

This study discovered the abilities that are predicted to boost graduates’ employability in Balochistan. Empirical studies typically focus on either broad or narrow disciplines within higher education, as well as a few specific professions or industries.

There are several qualitative and quantitative studies that may be used with little or big samples. In short, some talents are present in practically all subjects. This is especially true for communication skills, technical skills, collaboration, and cognitive talents such as learning capacity and analytical thinking. Teijeiro et al. (2013) and Velasco (2012) argued that employers emphasize on human characteristics such as work motivation or hard labor, excitement, devotion, and ethical awareness. However, in certain cases, we discover a difficult conundrum incorporating broader social and economic inequities that influence equal possibilities to acquire work or receive a matching position for certain graduating students.

Furthermore, it is evident that developing countries need to adopt the World Bank basic conceptual framework known as Skills Toward Employment and Productivity (STEP) that can assist policymakers, analysts, and researchers in thinking through the creation of systems that transmit skills eventually boosting productivity and growth. The figure-1 depicts that initiatives may drive the preparation of diagnostic work on skills, and then the formulation of policies across sectors to create productive employment and support economic growth by bringing together what is known about the aspects of a successful skills development plan. The structure is organized around five interconnected stages.

There is increasing demand of development of employability skills in higher education institutions and this is emergent field of research now a days (Asonitou, 2014). However, Educators as well as policy makers both favor the need of high skilled education system for the better employability of graduates and prosperous economy but still there are hurdles in the proper implementations of this program, and the reasons for this are still to be explored. Similarly, there is high role of government in implementing skilled-based curriculum in the state (Asonitou, 2014).
3.3 **Theoretical Foundation**

Theoretically, study objectives are supported by the human capital theory. The theory posits that investing in human resources in terms of education, skills and training can lead to increased economic growth, productivity, higher wages and greater job opportunities (Becker, 1993). It also implies that the mismatch between the skills required for the jobs available in the economy can be addressed by investing in the human capital of individuals.

Such investment has a direct and indirect impact on all stake holders at large (i.e. organizations, communities, and societies; (Nafukho et al., 2004; Swanson & Holton, 2001). According to Drucker (1999) and Porter (1998), human capital not only influences the economic growth, but also increases national competitiveness. Moreover, human capital is considered the single most strategic component of development, and several economies in the world have identified that development comes through the development of people (Ahmed et al., 2017). In summary, the theory argues that individuals who invest in their own human capital, such as through education and training, will see a return on that investment in the form of higher wages and greater job.

3.4 **Research Design**

For accomplishing the research objectives, we collected both qualitative and quantitative data. This research used a mixed method of embedded design. Because current research needed preliminary explorations whereby researchers did not have adequate resources to place equal priority on both types of data so the researchers combined the collection and analysis of both quantitative and qualitative data within a traditional quantitative research design or qualitative research design (Creswell ,2014). A structured survey from seven public sector universities students i.e. University of Balochistan (UOB), University of Turbat (UOT), University of Makran (UOM), Balochistan University of Information Technology, Engineering and Management Sciences (BUITEMS), Lasbela University of Agriculture, Water and Marine Sciences (LUAWMS), University of Loralai (UOL), and University of Gwadar (UOG) was conducted. These public sector universities would be true representative of the population as there are only nine public sector universities in the province. The survey was conducted by using simple skill assessment framework. For example, questions related to their skills were asked; “I have good oral communication skills and I am good at solving problems”. Furthermore, the five-point Likert response scale was employed in this study that is 1: strongly disagree to 5: strongly agree.

A Convenient sampling was employed; a total of 241 responses were used for data analysis. As this technique is likely to be effective in addressing simple and basic research questions and hypotheses in the early stages of study development or in preliminary studies, hence, with limitations the convenience samples are not generalizable and do not apply to the
broader areas of research where scientific patterns are desired when generalizable results are not necessarily would apply to the larger population. (Saunders et al., 2007). Furthermore, we have conducted Key Informant Interviews (KII) from different stakeholders. The key informants are selected based on their positions with at least 10 years of experience at policy level i.e.; (For academic institutions Deans/HoDs/Registrars and Governmental organizations/ authorities; Directors/Deputy Directors/Managers/Dy. Managers). Seven keys informants’ interviews were conducted that included representatives from, Department of Industry Government of Balochistan, National Vocational and Technical Education Commission, Universities, Gwadar development Authority, Small and Medium Enterprise Development Authority, Industrial Development Authority and Export Processing Zone Authority. The interview protocol was consisted of different questions such as, do graduates possess the competency and or ability to contribute in Balochistan and CPEC? Are the policies in place for developing skilled human resources? Moreover, the NVIVO software was used for qualitative analysis. For quantitative part SPSS was employed for simple descriptive statistics analysis of population characteristics.

3.5 Analysis of Qualitative Data

For this preliminary study, we conducted semi-structured interviews, and thematic analysis interviews of academicians, policy makers and executive’s responses were conducted. Each interview’s recordings were listened carefully, transcripts were initially read several times and notes were written (Miles et al., 2014). The data was organized and managed using NVIVO under the themes identified and codes were assigned to each of the descriptions under five broad themes that align with the study research questions. For instance; themes are: 1) discussing their definition of employability skills 2) Balochistan and CPEC needs 3) Universities’ focus 4) industry demands 5) curricula and education. Furthermore, the whole interviews were broken into codes and categories for detailed understanding. The codes were reviewed and re-reviewed in the NVIVO database and were reduced and combined to narrow the number of codes. The refinement process allowed for the development of codes that best described the academics, executives, and policy makers’ understanding of created themes:

3.6 Employability skills

To prepare future graduates for work readiness, the academicians state that they want to give students the opportunity to enhance their work readiness, through the practice and demonstration of employability skills. Nevertheless, they also expressed that it is not feasible to assess how well the academic role contributes to the acquisition of some employability skills, such as presentation and collaboration skills. On other hand executive and policy makers also stressed the need of skills in the graduates which are essential for the market. For the purpose of analysis and interpretations, the code and themes of ‘employability skills’ were inferred and assigned to the following quote;
My understanding of employability skills is that a graduate whenever graduates from the university he or she should be ready to take the lead as well as shall be capable of understanding at least the primary requirements of any job.

Working with industries and having vast experience of industrial linkages, in my humble opinion, employability skills mean that a student whenever graduates from the university must understand the basics of their subject and what sort of things do organizations demand. Students must polish their skills to fit and survive in that particular industry.

Furthermore, the respondents have given their valuable thoughts on all created themes. That are to great extent reflective of the practical or real issues on the subject area which they have critically analyzed and evaluated: the prevailing situation of the graduate skills, industry demands, and the role of universities for bridging that gap in future.

Workforce in Balochistan defiantly lack skills. Because there is gap between industry and academia. In context to CPEC they need high technical workforce but our employees’ skills are limited and very conventional which do not fulfil their requirements. For example, they need employees for cargo, logistic management, hotel management, cold storage management etc.

I feel that inconsistent policies and industry-based curriculum is missing from the universities for developing skilled workers

Being an academician, no doubt our role is very critical for developing the future minds of the country. We are putting our efforts at large to have better graduates with skills, however couldn’t create that impact which is needed. That is not because of an individual ‘s responsibility but it is dependent on a bunch of factors.

I think we should focus on artificial intelligence, robotics and various engineering sectors. Medical sciences should also be in our priorities.

On the other hand, there is better job opportunity for conventional jobs. But, we have to focus on high-tech because it’s the need of time, that’s why it will be our main focus in days ahead.

Similarly, the analysis of the themes and quotes of the experts from academia, government and industry on ‘Balochistan and CPEC’ shows that:

Compared with other provinces, Balochistan has lower employability ratio and the reason may be the lack of industries. Instead of conventional training such as beautician, press making, we are more focused on High-tech training, such as cyber security. Currently, 1600 people are being trained for conventional skills and 3000 for high-tech. we offer more
than three hundred high-tech courses. As a matter of fact, there are lack of opportunities for high-tech jobs and the once we trained people for high-tech, they could only start freelancing.

Workforce in Balochistan defiantly lack skills. Because there is gap between industry and academia. In context to CPEC they need high technical workforce but our employees’ skills are limited and very conventional which do not fulfil their requirements. For example, they need employees for cargo, logistic management, hotel management, cold storage management etc.

Although universities are producing relevant graduates but still in the context of CPEC we lack skilled or qualified human resources. Even if several policies at the government level have been implemented, there has been no major change thus far. In the case of CPEC, a lot of projects in various industries have been initiated, plainly requiring specialized or skilled labor. We cannot yet say that Balochistan has an adequate pool of competent workers. There are numerous approaches to bridge these gaps, but correct policy and implementation are required in order to produce qualified graduates. From the analysis it is clear that from the point of view of the respondents, on one side, universities aim to give skill to their pupils but lack those programs which are more demanding in time of CPEC. One of the respondents emphasized the promotion of skills that are helpful for the graduates’ employability. Moreover, they have highlighted that;

The province of Balochistan has been neglected for developing human resources. Today the province has only ten universities that are fulfilling the demand of the industry in particular in CPEC. On the one hand we may notice that there is a skills deficit in our province and that the gap has been extremely big for a long time.

New economic zones are being established and I am also responsible for correspondence and coordination with various authorities for the said zones. Currently two economic zones are approved. One of them is Hub special economic zones which consist of 406 acres and the other one is Bostan special economic zone in Pishin district. In total four economic zones in Pakistan are being run under the umbrella of CPEC and Bostan special economic zone is one of them.

In the case CPEC, the province needs skilled graduates as number of CPEC projects are initiated in Balochistan. So on the emergency basis the government and the universities need to develop such policies that strengthen the employability skills of the people of Balochistan.

Graduated students’ skills are very conventional which do not fulfill our requirements. Because the universities are still focusing on old curricula that’s why companies have to bear extra cost for capacity building. They were asked to revise the curricula which should fulfil today’s business demands.
4. **Industry and Universities**

The universities may conduct survey in special economic zones and should check which skilled are required and based on their survey they should train the skilled labors. The industrial department is also providing training such as carpet waving, tailoring, handicraft, but these are household and outdated skills which do not fulfill industrial requirements. I will quote one example; all industries use boiler in Balochistan but we have a minute number of boiler engineers in Balochistan. Finally, I believe that for industrial and academia linkages there should be a special task force or steering committee to seriously look after this matter.

Universities must assess and revamp present learning frameworks so that we can have a sufficient number of skilled graduates for CPEC who would have an influence on the general growth of the country.

As I mentioned that there is a tough environment in which the fittest will survive, no doubt universities are trying their best to produce quality graduates but still number of things are missing. One thing I have observed when universities design their program that are not that much effective from which students can easily get jobs, for instance, 6 or 8 weeks of internships are important but I have observed that neither the universities take it seriously nor the students. That’s why they lack practical experiences.

In a nutshell, the analysis of the data reveals that till to date the supply side of skills in Balochistan lacks in quality as well as quantity which requires some major education policy reforms in shape of new programs, curricula, and practical exposures which would be the demand of the industry for skilled human resources aimed to the execution of the projects under CPEC. Furthermore, the findings of this study show that universities shall provide an environment of learning in which the students learn not only academic course contents but also skills relevant to theoretical application that can eventually reflect in their practical life. However, there are a number of challenges in our educational system that necessitate some significant reforms for creating skilled graduates that further contribute in the development of the country in general and province of Balochistan in particular.

4.1 **Descriptive Findings**

Based on the study scope and objectives, in the third phase of data analysis; we have analyzed quantitative data on skills assessment of enrolled final year students in different public sector universities of Balochistan. The respondents were asked questions based on simple skill assessment framework. The questions related to general employment skills were that to what extent they feel confident that they have possessed the skills which are needed for performing job in their respective fields, etc. From the descriptive analysis it was found that employability skills are critical component for universities graduates’ readiness, and inferred
that how these skills could be embedded into instructional practices. For instance, Table-5 depicts that the students’ responses of questions 6, 12, and 13 show highest mean values 4.50, 4.37 and 4.37 respectively. It shows that students are confident and good at solving problems, are confident to use information and communications technology, and they are satisfied with their quantitative abilities. On other hand, the lowest mean was reported 3.48, although the value is low but above the mid-point. For example, relatively it depicts that lesser students work well independently. Furthermore, the demographic information and universities distributions are depicted in Table 2, 3 and 4.

Table 2

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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<tr>
<td>Valid</td>
<td>Male</td>
<td>194</td>
<td>80.5</td>
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<td></td>
<td>Female</td>
<td>47</td>
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<td>Total</td>
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Table 3

<table>
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<th>Gender wise Distribution</th>
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<tr>
<td>Universities</td>
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Table 4

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*Descriptive Statistics*

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**Valid N (list wise)** 241

5. **Implications and Recommendations**

This study’s finding has both theoretical and practical implications. Theoretically, this study’s argument is supported by the human capital theory. The theory has several implications for economic well-being and employment. For instance, the theory supports the idea that investment in education and training can lead to higher wages and greater economic mobility. Therefore, policies that promote education and training can help to reduce poverty and income inequality. Secondly, the theory suggests that employers will invest in human capital by offering training and development programs, as it will increase their productivity and competitiveness. Thirdly, the theory also implies that the mismatch between the skills required for the jobs available in the economy will lead to unemployment and underemployment, which can be addressed by investing in the human capital of individuals. Furthermore, the findings of this research are valuable in terms of practice having an understanding about the existing policy commitments for employability skills and execution of standards for skills development at the universities. After in-depth document analysis, semi-structured interviews and surveys, this study serves as a baseline study for universities, governments,
and CPEC-related projects. This would help to design programs which help to prepare such policies that would be helpful for solving the existing and future problems of the province. In addition, the findings reveal that academicians, policy experts and decision makers in the government need a platform whereby they could connect and propose a comprehensive scientific framework about emerging and innovative skills for the success of CPEC. More specifically; the stakeholders shall recommend the universities to rethink of their curricula and programs and further devise a proper mechanism for skilled oriented initiatives in their respective universities.

Although these research outcomes are preliminary but it obtained substantial data on grounded realities about graduates’ ‘employability skills and industry demand which would have a great impact on promoting economic well-being of the people of Balochistan. For instance; that could decrease unemployment and reducing the poverty, maximizing the income, and improving the living standard of the local marginalized community. The study is also important in identification of skills gaps in students at par with industry requirements in particular to CPEC related business activities which are demanding higher level of required skills. This research will also help to understand the skill demands of industries those are directly involved in CPEC. For instance; energy sector, ports and shipping, infrastructure, service & tourism, maritime sectors etc.

Furthermore, it is recommended that the universities should emphasize to embed new modern and necessary skill-sets to their graduates so that they better fill CPEC and other industries job requirement. In this regard, Higher Education Commission should introduce a policy for skill development program in curriculum as an explicit policy that requires preparation and coordinated efforts to have an impact on the students’ learning process. It is also highly recommended that besides the teaching of employability skills, universities must have a proper mechanism for career guidance, counselling and placement sections to guide and encourage students towards suitable career choices and opportunities. Form the findings it revealed that students do not take internships very seriously which enable the students to gain practical knowledge and work experiences during their studies.

Since the CPEC projects are under the support of the Chinese government and the government of Pakistan and universities need to engage and have fruitful agreement for the universities of Balochistan eventually that will inevitably have an impact on the local students. For instance, the Chinese government shall award scholarships for the students of Balochistan in those disciplines that are not being offered in public universities of Balochistan. In a nutshell, policymakers and higher education institutions should therefore take steps on immediate basis to address social processes in order to develop graduate employability effectively in the province.
6. Conclusion

This preliminary study could not fully answer our research questions about the skills that make a graduate more employable in the market specifically in the context of CPEC. However, based on the available literature examined herein, interviews from relevant persons, and understanding of students’ perception indeed the research outcomes are helpful to reach a point of argument where we can claim the limitations of our higher education system are greater than strengths which demands a significant policy reforms for better future of graduates. In fact, developing robust policies towards the teaching of employability skills should be a top priority for higher education institutes. This will enable universities to produce graduates who can respond to today’s market demands and would be accommodated in the future technological and industrial revolution.

Acknowledgment
The researchers are thankful to the Government of Balochistan and University of Turbat for the support and funding this research under UOTRF. Ref/UoT/ORIC/2021-52

References


Appendix

Semi-structural interview questions
Interview protocol: Semi-structured interviews.
Project: An examination of the extent that academics integrate employability skills in their students
Date of interview
Time of interview
Place
Interviewer
Interviewee:
Position of interviewee:
Project Description

Proposed Questions
1. What is your understanding of employability skills?
2. What is the general situation of skilled worker in the Province/District/City? Any link with the current development?
   (Probe: ask to explain a little more if information is insufficient)
3. What type of skills required here (province/district/CPEC etc.?)
   (Prompt: give some examples and ask some more types of skills)
4. What skills do you think your students should possess upon the completion of your subject?
5. Any Specific reason of unskilled people besides education?
6. What would you describe as your role in preparing future graduates with required employability skills?
7. What do you know about the university’s direction with regard to the integration of employability skills within curriculum?
8. To what extent is the integration of employability skills integrated at the program level of your faculty?
9. What do you think is the best way to prepare students with a broad range of skills that will prepare them for employment in the workplace?
   • What is the purpose of lectures/tutorials/workshops/e-learning delivery?
   • What is the purpose of assessment?
   • Room that you teach from – is it conducive to the practice/learning of employability skills?
10. Have you made any recent changes to your curriculum that seeks to include employability skills? If yes, in what ways? If not, why not?
11. Do you see the need to make changes to your curriculum in the future? Why/Why not?
12. What are the major hurdles in creation of skilled worker?
   (Probe: Why do you think that these are the hurdles? How can we remove these hurdles?)
13. What are the current skills-set required for the people?
   (Probe: How these skills-set be can be created as well as expanded? and sustained?)
14. What are the future requirement for skills-set?
   (Prompt: extract source by specifying existing projects by government, other)
15. Which specific area/industry/sector/company can help more in creating more skills?
   (Probe: Name of them. Why? How much? Which option is better and why?)
16. What different types of skills are required to the people of Baluchistan especially in CPEC project?
   (Probe: How to develop each skill that is mentioned, what infrastructure is required to grab them? Any partnership is possible? Whether government can help? If yes how?)
17. Can you give any further suggestions to improve the overall skills requirement in the Baluchistan?
18. What else can we do to improve the skills employability in the Province?
**NVIVO QUALITATIVE OUTPUTS**

**Text Search Query - Results Preview**

and medium size businesses, and  
bridge these gaps, but correct  
but there is no such  
education. Our main purpose is  
growth of the country. As per  
government  
of Baluchistan. As per  
organization's functions, objectives, scope?  
our work as academics or  

**policy**  

implementation are required in  
in government level so far  
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Principal Investigator: Could you  
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Principal Investigator: Could you  
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regarding technical education. We  

**employability**  

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are being trained for conventional  
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Balochistan? Apart from vocational / technical  
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of those students who  

COO BEEF: As universities  

TTC DG: Actually we  

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shortage in our labor force  
should we focus? COO BEEF:  

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(Demand side) are providing  
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demands: students must polish  
rather they should develop  
their  

these are household and outdated  
They replied that graduated students  
those skilled people who have  
vocational / technical skills, what others  
Based on your experience  
focusing the skilled graduates  
further help the  

industry  

in that particular  

What  

workforce in Baluchistan defiantly lack  

How much do you think is take on  

people from Balochistan have learned  
province we may find that  
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in that particular  

What  

workforce in Baluchistan defiantly lack  

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Being an academician no doubt  
For me the idea of  

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Without a question, our work  
Working with industries and having  
and 3000 for high-tech  

are required  
very conventional which does  
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do not have certificates.  

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deficit in our province and  

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