

## **A Need for Linking Universities Curriculum with China Pakistan Economic Corridor**

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### **Abstract**

*The purpose of the research paper is to emphasize the importance of curriculum alignment with CPEC. The research paper is based on secondary data i.e., research papers, reports. The results show that curriculum alignment is of utmost importance for the success of the mega project. Further empirical research studies are required to confirm the importance of curriculum refinement according to CPEC requirements. Federal and provincial governments along with Higher Education Commission of Pakistan should chalk out relevant and viable strategies and policies. This paper is focused on the importance of curriculum alignment of universities and vocational centers with CPEC.*

**Keywords:** human capital, CPEC, curriculum alignment

### **Introduction**

CPEC is one of the mega projects of both Pakistan and China which has the potential to turn the fate of not only both countries but the whole world as well. It is part of a wider vision of China, 'one belt one road' under which China will be connected with the whole world with rail and road. CPEC is mainly built to ensure China's accessibility to European, African and Middle Eastern markets. The project is primarily considered as an infrastructure-based project including energy, highways and railroads; however, a wider look reveals that it has multiple effects. Besides, it is a step towards trade openness which ultimately affects the economic growth of the developing country like Pakistan (Tahir, 2015). The development and infrastructure building is closely associated with human capital, especially when high-tech related projects are undertaken. The project is a long-term project with milestones spread over a period of 2030 which clearly implies that a continuous flow of required human capital is indispensable for catering the needs of the project. The economic corridor is not merely a trade route; however, it has a long-term repercussion on the human capital of the country. Limited research is available specifically on CPEC and human capital up to the knowledge of the researcher, however. The available literature on CPEC is mainly focused on opportunities and challenges, geo-strategic importance and

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economic implications of this trade route (Shah,2018; Irshad, Xin & Arshad, 2015; Waheed, 2017).

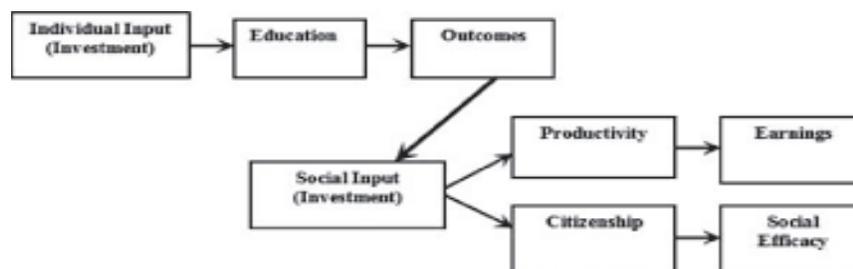
Although some researchers have highlighted the importance of human resource development for CPEC (Adeel, Anuar, Arshad, & Sohail, 2017) via professional and vocational trainings, however, the study has not shed light on the importance of education for the human capital. Hence, this paper aims to highlight the importance of education in the development and accumulation of stock of human capital for mega project CPEC. The research paper is segregated into three main portions. The first part comprised of relevant literature review, the second part comprised of secondary data, and the third part encompasses strategies as recommendations.

## **Literature review**

### *Human Capital and Education*

The concept of economic growth and human capital can be traced back in early 1960s (Schultz, 1961). It was stressed that investment in human capital imperative for massive economic growth. However, among other elements Schultz (1961) considered education as important for economic progress of a country. In his own words, “*from sociological preference of employers, but from real differences in productivity connected with one form of human investment, i.e., education* (Schultz, 1961). He identified five categories to be focused i.e., health, 2. On job trainings 3. Formally organized education 4. Adult educating programs, 5. Migration of individuals and families for job and careers. Some researchers compare factories and machines with teachers providing vocational trainings (Machlup, 1982). Burgess and Williamson (2016) were of the opinion that human capital can be formed if quality education be provided in schools. He further stated that quality education was associated with effective teaching, schools autonomy and accountability. Knowledge and theory application/ match, highlighted by research study, are considered integral for preparation of a stock of human capital. However, it is also focused that all this can be only possible if teachers are compensated and standard incentives may be given. Although, a school of thought is against the Human Capital Theory (HCT) and considered that education has no correlation with HC (Quintini, 2011; Tsang, 1987; Verhofstadt, De Witte, & Omey, 2007) however, their criticism has found no grounds to reject the importance human capital factor and have nothing concrete to present in place of HC. In the words of Ten (2014), “*It is true that each criticism is valuable*

*on its own, no matter where it comes from but the ambitious goal, replacing HCT, requires much more than that”.*



Source: Swanson and Holton (2001, p. 110)

### *Human Capital and Economic Growth*

Human capital is considered as an important factor for economic growth. Education and training an important aspect of human capital have a positive impact on national income (Wilson & Briscoe ,2004). In a study conducted in Nigeria found that investment in education and training at secondary and higher level positively affect the economic growth, however, capital expenses in terms of education has no significant affect (Kanayo, 2013). Using Pooled Least Squared Model having data from 2002-2012 Pelinescu (2015) found that a positive association between GDP and innovation of human capital which is already assessed by economic theory. Based on East and South Asian countries (x,y) found that higher education affect significantly the economic growth of the countries. This clearly implies that mega project CPEC can only be beneficial for Pakistan if heavy investment is undertaken in tertiary level education (Siddiqui & Rehman, 2016)

### *Human Capital and CPEC*

CPEC a billion-dollar game changer is estimated create 0.7 million jobs including Chinese interpreters, engineers and other related fields (The News, 4<sup>th</sup> April 2018). This project is an international standard project of engineering and technology which requires a stock of human capital (Kazmi, Ali & Ali, 2017). The project comprised of USD45.69 billion commercial loans in different sectors of energy and infrastructure (Ahmad, 2017). However, this investment alone does not guarantee the rise in economic growth of the country (Ijaz, 2018) However, creation of awareness is utmost important among the local

Pakistanis, regarding this mega project, to learn new skills and technology (Liaqat et al., 2018). Pakistan unless reaps the fruit of speak in terms of economic growth if its education quality and training is not brought to international standard which can only be possible if private sector is encouraged (Ijaz, 2018).

#### *Aligning curriculum with industry*

In order to meet the labor demand of the thriving industry, in the aftermath of CPEC, drastic changes should be undertaken to align the curriculum in higher education institutions with industry by including (1) cognitive reasoning skills, (2) problem-solving skills, (3) "soft" behavioral skills, (4) positive cognitive styles, and (5) specific occupational preparation (Carnevale & Desrochers, 2002). Although, higher education commission of Pakistan in the light of federal government of Pakistan's vision 2025 is working on it still it is imperative to devise an action plan specifically caters the requirement of CPEC. Here, it is pertinent to mention that Chinese language should be made compulsory to learn specifically by engineers, in all public private sectors. Pakistan Engineering Council has taken a right direction in this regard by signing the Washington Accord on 21<sup>st</sup> June 2017 (pec.org.pk). However, all these efforts should be in true essence of outcome based learning education system.

#### *Gaps in literature*

The literature on CPEC is scarce, however, the available literature is mainly focused on geo-political importance (Chaziza, 2016), benefits (Ahmar, 2014), legal aspects (Qureshi, 2015), unfavorable aspects (Shah, 2018) economic cooperation between china and Pakistan (Irshad, Xin & Arshad, 2015), potential threats and risks associated to the project (Waheed, 2017). However, the importance of education as an integral part of human capital, in CPEC is sufficiently encompassed. Besides, literature is deficient in the alignment of curriculum with the CPEC related industry. Hence, this paper is an effort to fill that gap in CPEC related literature.

#### *Conclusion and recommendations*

CPEC is a mega project which has a short and long term socio and economic implications on national economic growth. A continuous flow of human capital can lead to the success of this game changer. As education is an integral part of the human capital hence, it should be

altered according to the requirements of the project. The curriculum of engineering universities (civil, mechanical, electrical) and other disciplines like architecture, business administration etc all should be redesigned.

#### *Recommendations*

1. Federal and provincial governments should allocate at least 4 % of its annual budget to the higher education. A major portion this budget should be directed to applied/market based research and innovation. Here, it is pertinent to mention that such allocation of funds should not be limited to public sector educational institutions rather private sector universities should also be allowed and encouraged to utilize and avail this fund.
2. Universities should be encouraged for registering patents and commercialization of those patents this would help the universities to generate their own funds. In order to ensure the culture of patents a large percentage of assessment score should be given to patents, innovation and skilled development.
3. State of the art vocational training centers should be established by the Government. In this regard vocational training institutes' curriculums should be revised and modernized.
4. Chinese trainers and instructors should be hired or proper MOUs should be signed among the vocational institutes and universities on the basis of reciprocity. Here the example of Pakistan Engineering Council efforts regarding signing Washington Accord is worth mentioning

#### *Future Direction*

More empirical studies and thorough investigation should be conducted to find ways for linking curriculum of the Degree Awarding Institutes, universities and vocational training centers to the CPEC projects for reaping the benefits of the "Game Changer".

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