

Understanding the dynamics of transport infrastructural development under the China-Pakistan Economic Corridor: an analysis

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Abstract:

This paper broadly examines the transport infrastructure under China-Pakistan Economic Corridor (CPEC). A qualitative approach has been adopted to reach for authentic information based on primary and secondary data, like journal articles, newspapers, and reports. The data about transport development projects, their connectivity, budget, employment ratio and the construction companies are gathered for analysis. This paper aims to highlight Pakistan's economic growth due to road development and the benefits of road infrastructure for the growing economy of Pakistan from the perspective of regional countries. Further, its impact on employment, industry and tourism has been investigated optimistically. It also focused on the benefits of the inter-regional connectivity provided by CPEC, which have yet to materialize for Pakistan fully. The reasons are challenges and obstacles faced in implementing the various projects under CPEC, including delays in approvals and funding, security concerns and issues with local communities and land acquisition. Furthermore, there is a need for a comprehensive and coordinated framework in Pakistan to leverage the potential benefits of CPEC connectivity fully.

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1. Introduction

Economists argue that infrastructure development guarantees economic growth. On the one hand, it has enhanced productivity and reduced the cost of products. On the other hand, it has a practical effect on the income and prosperity of underprivileged people by reducing the costs to access markets and raising returns on existing assets (Jones & Romer, 2010; Khan et al., 2022). Investment in the infrastructure sector affects a country's absolute and comparative advantage by modifying the restrictions of factors endowment. It also encouraged intra and inter-regional corporations (Henckel & McKibbin, 2010). Transport infrastructure investment plays a substantial role in a growing economy in two ways, i.e., directly by reducing transport costs and indirectly by lowering inventories. Considering the example of China, since 1990, its investment drastically changes in highways. Within three years of the railroad's completion, east board trade increased by 40 percent, and east board trade costs decreased by 30 percent (Skorobogatova & Kuzmina-Merlino, 2017). It is also noticed that trade has expanded by about 75 percent since 1990 (Brooks & Ferrarini, 2010). Raw material inventories fell by 25 percent from 1998-2007 (Mehar, 2017).

The China-Pakistan Economic Corridor (CPEC) is one of the Belt Road Initiative (BRI) corridors, a multi-trillion-dollar project China initiated to enhance regional connectivity. Out of six corridors of BRI, CPEC is a bilateral project (Boni, 2019). CPEC was started in 2013 unofficially, but in 2015 an official agreement was signed between then-Prime Minister Nawaz Sharif and Chinese President Xi Jinping. In Pakistan's economy, only 25-30 percent of the Public Sector Development Program fund is used up for transport which is not satisfactory (Butt & Butt, 2015; Khatoon & Sakeena, 2022). CPEC is a major infrastructure development project that aims to connect China's western province of Xinjiang with the Pakistani deep-sea port of Gwadar via a network of highways, railways, and pipelines. The transport infrastructure component of the project is one of the most significant, as it seeks to improve Pakistan's connectivity with China and the rest of the world while also boosting the economic growth and development in the region (Abid & Ashfaq, 2015; Aslam & Tariq, 2021).

The transport infrastructure under CPEC includes the construction of new highways, such as the 392-km-long Multan-Sukkur Motorway and the 136-km-long Thakot-Raikot section of the Karakoram Highway. The project also involves upgrading existing roads and railways, including the Karachi-Peshawar railway line. In addition to the infrastructural project, the development of Gwadar deep seaport, Energy projects and free industrial zone are also part of CPEC. China initiated this project to open a new trade corridor between China, Pakistan and other regional countries. Overall, the CPEC project is expected to bring a huge transformative impact on regional prosperity (Ullah et al., 2021). Transport infrastructural projects under CPEC improve regional connectivity, open new trade and investment avenues, and increase economic growth. CPEC provides the shortest, safest alternate route to China from the Malacca Straits. It also gives China reliable access to Iran, Afghanistan and Central Asian Republics (CARs), gas and minerals hubs (Farooq, 2020). Transport infrastructure development under

CPEC may be examined using a different theoretical perspective, including economic, social, and political viewpoints.

From an economic viewpoint, the CPEC transport infrastructure intends to boost regional economic growth and development by increasing connections and facilitating the commerce industry. This concept is predicated on the notion that improved transportation infrastructure decreases transportation costs, leading to higher trade, investment, and economic activity. The construction of new highways, railway lines, and ports as part of CPEC will strengthen Pakistan's regional connectivity and make the country more appealing to global investors.

From a social standpoint, the CPEC transport infrastructure may be viewed through the lens of social inclusion and poverty alleviation. Improved transportation infrastructure may expand access to markets, services, and job possibilities, especially in remote areas. This paradigm is founded on the premise that improved the transport infrastructure may minimize social exclusion and contribute to poverty alleviation by improving access to economic opportunities and services.

From a political perspective, the CPEC transport infrastructure may be analyzed regarding geopolitical and strategic factors. The project is viewed as a means for China to increase its regional influence and gain access to new markets and resources. At the same time, Pakistan sees the project as a chance to develop ties with China, which can assist in balancing relations with India and other regional countries. Overall, the CPEC transport infrastructure project can be analyzed using a variety of theoretical frameworks, each offering a unique viewpoint on the project's possible influence on the region.

2. Literature review

In the 19th Century, international trade grew considerably, and the transport revolution of railways and seaports was one of the foremost reasons. The underdeveloped constituencies of the US, Australia and Canada allowed the export of their grown agricultural products through railways and focused on advancing the sea transport to enhance trade (Naomi et al, 2021; Rehman et al., 2018; Zhang, 2022). Transport cost has a three-way effect on price and trade volume. a) Price difference: in the global market, transport costs exist, e.g., the exporter country gets less price paid by the importer country. b) Reduce trade volume: the country will prefer only importing those goods with lower prices (including transport cost) than local products. Thus, it follows an indirect relation. c): Market flow pattern: transport cost significantly affects the market pattern of flowing goods (Ahmad et al., 2022).

In the CPEC project, many infrastructure projects like roads, railways, air, telecom, and port are under construction. The project is divided into two parts: the western and eastern routes. Five highways of this development project will connect through both routes, and thus, border links will be developed. The project aims to speed up economic growth by developing

economic cooperation and regional integration among South Asian countries (Mukhtar et al., 2022). In Pakistan, the road transport carries about 93 percent of the passenger traffic and 96 percent of inland load traffic, while the railways contribute only 6-7 percent. Thus a transport project like CPEC is genuinely a win-win model to lessen this burden on the longstanding road (Hassan, 2020). The transport infrastructure of CPEC has a positive role in eliminating poverty as it provides quick access to many living services: education quality, wellness, access to urban markets (Ullah et al., 2021).

The transport projects under CPEC have made the local farmers deliver their products in less time to a valuable market and buy seeds and fertilizers to improve their crop's yield and income. Especially in rural areas where the poverty rate is comparatively high, transport infrastructure plays a significant role (Gunasekera et al., 2008). The economic infrastructure mainly includes roads, railways, bridges, tunnels, water supply, sewers, electrical grids, and telecommunications. CPEC is the best well-turned-out project of the One Belt, One Road initiative, which connects China to Central Asia, West Asia and parts of South Asia (Jaleel et al., 2019). The transport infrastructure under CPEC has the potential to significantly improve Pakistan's connectivity with China and other countries in the region. The initiative has already resulted in constructing new highways and improving existing road and rail networks, thus reducing the travel times and transportation costs for products and people.

The literature shows various issues and concerns associated with the transport infrastructure under CPEC. For example, there are concerns about the project's environmental impact, particularly about the construction of new roads and railways through ecologically sensitive areas. There are also concerns about the social and economic impact of the project, particularly concerning the displacement of local communities and the potential for Chinese companies to dominate the local economy. Despite these challenges, the study concludes that the transport infrastructure under CPEC can significantly boost economic growth and development in the region, particularly if it is accompanied by policies and programs that promote local economic development and social inclusion.

3. Research methodology

The methodology in this study is based on a descriptive research design. The study aims to explain the transport infrastructure built as part of CPEC, including roads, rail lines, and the expansion of the Gwadar port. The study also examines how transport infrastructure affects regional connections, economic growth and trade activities. Interviews with government officials, specialists and stakeholders involved in constructing the CPEC transport infrastructure project will be used to acquire primary data for this study. The interviews will be performed in person, over the phone, or by video conferencing, depending on the availability and location of the interviewers. Secondary data has been collected through a literature review of academic and non-academic sources, including reports, articles and other publications related to the transport infrastructure under CPEC.

The data collected through interviews and literature review has been analyzed using a thematic analysis approach. The data has been coded into themes and sub-themes, then analyzed to identify patterns, trends and relationships between different aspects of the transport infrastructure under CPEC. Ethical considerations for this study include obtaining informed consent from all interviewees, ensuring the confidentiality and anonymity of the participants, and maintaining objectivity and impartiality throughout the research process. Limitations of this study include the availability and accessibility of primary data sources, the potential bias of interviewees, and the limited scope of the study, which focuses only on the transport infrastructure under CPEC and does not examine other aspects of the project.

4. Analysis and findings

4.1. Funds for transport infrastructure under CPEC

The road for transportation comprises 96 percent of the national freight traffic in Pakistan, so investment in road projects will lift the flow of trade goods. The main objectives of transport infrastructure are to transform low-type roads (gravel) into high-type roads (paved), to increase road density and load capacity and rehabilitate highways and motorways. The national road network comprises 260,000 km, of which the high type of road constitutes 167,440 km and the low road type includes 0.33km. This development and up-gradation in transport infrastructure will reduce travel time by 50 percent and travel costs by 10 percent (Rehman et al., 2018). The CPEC transport projects mainly consist of reconstructing three independent routes and rebuilding the three railway lines—as a considerable re-establishment and up-gradation of Karakoram Highways. The alignment of three roadways in different parts of Pakistan is also a part of CPEC transport projects.

The original budget of CPEC was \$ 46 billion, which increased to \$ 62 billion by 2020, and its approximate expected budget to \$ 75 billion. Out of the original budget, \$ 13.58 billion was allocated for infrastructure, about 29 percent and 71 percent (\$ 34 billion) to be invested in Energy. Besides, 4 percent is assigned to Gwadar port, 8 percent to railway development and 13 percent to road link (Ali et al., 2020). Out of the total investment, approximately \$ 11 billion is allotted for the development of transport and logistics, of which \$ 6,100 million is for road projects, and \$ 3,690 million would be invested in railways (Jamal, 2016). From China's side, participants of funding are Chinese enterprises, either state-owned or private. Chinese public banks like the Export-Import Bank of China and China Development Bank are also financing. The funding is either transferred directly or through silk road funds. The Chinese companies which are participating in transport infrastructure are China Road and Bridge Corporation, China State Construction Engineering Corporation Limited, and China's Railway.

The international community is also optimistic about this project. The Asian Development Bank (ADB) has also granted Pakistan funds for technical assistance to support transport, especially in the transport sector. This project will provide sea access to landlocked countries

like Afghanistan, Central Asian Republics, and the western part of the People's Republic of China. The UK and ADB are co-financing Burhan-Havalian Expressway announced \$ 121.6 million and \$327 million for Hassanabdal–Havalian expressway project. However, Saudi Arabia and UAE are investing in the energy project, which shows that CPEC is providing an opportunity to the third country for investment (Aqeel, 2016). Overall, the funding for transport infrastructure under CPEC is a complex and multi-faceted process involving multiple sources of financing and a range of stakeholders. However, the project has continued to move forward, with significant progress on several key transport infrastructure projects.

4.2. CPEC road projects

Road infrastructure provide mobility for efficient movement of people, goods and services and give easy access to land and various commercial and social activities (Meyer & Miller, 2001).

4.2.1. Orange line metro train-lahore

One of the completed projects of CPEC was inaugurated on 25 October 2020. This transport project lies in Lahore, Punjab. It is about 27.12 Km long, and the total cost of the Orange Line Metro Train is around \$1626 Million. It consists of 135 trains, of which 27 are operated. It started in Raiwand and terminated in Dera Gujran. It gives riding facilities to about 245,000 passengers daily. It created 2,000 jobs in Lahore for locals. The OLMT is the first electrical transit project operated in Pakistan; it uses 75 M.W. of electricity by consuming the electricity of 4 grid stations; the UET grid station and the Shahnoor grid station (Arshad, 2017).

4.2.2. Cross border optical fibre cable (Khunjrab-Rawalpindi)

Prime Minister inaugurated it in July 2018. Its length is 820 Km, located in Gilgit Baltistan, Khyber Pakhtunkhwa (KP) and Punjab. It created 1100 jobs and cost around \$44 Million. The cable connects Rawalpindi (Punjab) with Khunjrab (G.B.) at the Chinese border northwards to Urumqi in Xinjiang Autonomous Region (China). It is the only Information and Communication Technology project. It consists of two phases: Rawalpindi-Khunjrab. This project provides border connectivity to Pakistan and China with alternative and shorter contact to transit telecom traffic to Europe, the Middle East and Africa. This project helps cultivate Pakistan's telecom and ICT industry by providing 3G/4G services in the Northern areas; trading and tourism opportunities would also be created (Khan et al., 2018).

4.2.3. Pilot Project of Digital Terrestrial Multimedia Broadcast (DTMB)

This project was inaugurated in April 2015. DTMB is located in Murree (Cherat, Kala Shah Kaku) and costs around \$ 3878 million. It is one of the four terrestrials T.V. broadcast standards being used in the world established by China; the remaining belongs to the US, Europe and Japan. It shows that both countries are enthusiastically bringing advanced technology to deliver

many T.V. channels at high quality. This project is divided into four phases: Phase I (covering Islamabad and adjacent areas), Phase II (covering Karachi and Lahore), Phase III (covering heavily populated areas) and Phase IV (covering all of Pakistan, including isolated areas). This project is a landmark in the media communications cooperation between both countries as it will not only develop the T.V. industry by changing the revenue (Afzal & Naseem, 2018).

4.2.4. KKH Phase II (Havelian-Thakot Section)

Karakoram Highway phase-II was inaugurated in Nov 2019. The length calculated is 120 Km. It is situated in KP, and it is worth is about \$ 1,315 million. This project's total number of jobs is 5500, out of which 4835 are for locals. It starts in Havelian and ends in Thakot. It links the regions of Gilgit Baltistan and KP with Islamabad (Zia & Waqar, 2017). This major connecting project under CPEC includes 105 bridges and 6 tunnels, including 2 expressways and 4 highways. This project will help develop local economic conditions generally and specifically will provide training to many engineers. This highway has been awarded a bridge/tunnel award for its remarkable design and quality construction.

4.2.5. Peshawar-Karachi Motorway (Multan-Sukkur Section)

Peshawar-Karachi Motorway was inaugurated in November 2019. It is a 392 Km stretched motorway located in Punjab and Sindh and charged \$ 2,889 million. This project provides valuable employment opportunities, creating jobs 28000 that locals keep at 25620. It originates from Sukkar (Sindh) and connects to Multan (Punjab). The motorway can reduce commutation between two cities from 11 hours to less than 4 hours. This project is key to Pakistan's south-north transport route. This project Constructed 15 bridges, 50 wells and over 200 canals for villages. About 6,800 local farmers are engineered in operating equipment.

4.2.6. Hakla-D. I. Khan Motorway

This motorway was completed and inaugurated in January 2022. It is about 293 km elongated and worth \$ 53,522 million. It has created approximately 6700 jobs. It connects D. I. Khan, KP to northern Punjab, Southern KP and Balochistan. The project comprises 11 interchanges, 26 bridges, 33 flyovers and 119 underpasses. This motorway will smoothen the shipping of agricultural goods to major markets and develop the less advanced areas of D. I. Khan.

4.2.7. Zhob-Quetta (Kuchlak) (N-50)

The project was started in March 2019 and is still in process. Its measurement is 305 km and costs \$8.233 million 66,833 million rupees. It is a basic link between KP (Mughal Kot to D. I. Khan) and Balochistan (Kuchlak to Zhob) (Hussain & Hussain, 2017). Objectives of this project include inter-provincial connectivity, access of the rural population to social markets, depreciation of transportation fares, and improving regional trade.

4.2.8. Khuzdar-Basima Road (N-30)

This road project is one of the in-process projects that has started in October 2019. It is 106 km long and worth 19.19 billion rupees (\$ 80 million). It is mainly located in the district of Khuzdar, Balochistan. This road project has created 600 employment opportunities. It will serve as a road to the socio-economic development for the backward areas like Saindak and Rekodiq projects.

4.2.9. Khoshab-Awaran Road Section (M-8)

This project though started earlier still needs to be completed. It is extended at a distance of 146 km, and expenditures are 26 billion rupees. It will expand Gawadar's connectivity with the Sindh province. This road route is one of the essential parts of CPEC as it will diminish the dependency on the Makran coastal Highway by linking Karachi directly with Iran, Karachi with Turbat, Awaran and Jhal Jao, and Awaran with Turbat (Southern Balochistan) (Rehman et al., 2018).

4.2.10. KKH Alternate Route Shandour- Chitral Road

A groundbreaking ceremony is done but still needs to be finished. It is 153 km long, and its worth is 16 billion rupees. It is located in Gilgit and Chitral. This project will lessen the rush on the lower tunnel, especially during winter, when the lower tunnel is blocked due to heavy snow, as it is an all-weather route. This road will start from Gilgit Baltistan and end in Chitral. Its objective is to link the adjoining areas, eventually enhancing tourism and providing locals with better communication and job opportunities.

4.2.11. Nokundi-Mashkhel Road

The construction work on it was started in May 2021 but is still in progress. Its length is 103 km and costs 7 billion rupees. It will generate approximately 4,000 job opportunities. This road project is in south Balochistan to uplift remote areas. The route will improve access to Iran and expand the link to Gwadar. It is a two-lane highway providing a traveling facility to 800 vehicles daily, potentially enhancing local and out-border trade.

4.2.12. Upgradation of D. I. Khan (Yarik)-Zhob, N-50 Phase-I

This upgradation project is stretched to 235 km, and its financial budget is \$ 195 million. The two-lane road will be upgraded to six lanes, thus linking KP (D.I. Khan) and Balochistan (Zhob). Besides, it will create a durable connection between Islamabad, D.I. Khan, and Zhob towards Karachi and Gwadar. NHA executes this project. It will initiate from Yarik, Indus Highway and ends at Sagu. Due to needing more funds, there is uncertainty about this project (Mehar, 2017).

4.2.13. Realignment of KKH Phase-I Thakot- Raikot Section

The project still needs to be inaugurated. It is about 250 km long and is located in Gilgit Baltistan and KP. It includes building dams like Pattan, Dasu and Diamer Basha on the Indus River. It will be taken into progress by both governments mutually for practicality and designing of the project; both sides' firms are consulted. The NHA of Pakistan has allotted National Engineering Services Pakistan responsibility to conduct a feasibility study and provide a complete design using government funding.

Table-1: The basic information about infrastructure projects

Sr.	Project Name	Company	Length	Cost in US\$ (million)	Province	Progress
1.	KKH Phase II (Thalot Havelion Section)	CRBC, CCCC, NHA	120	1,366	Gilgit Baltistan & KP	Completed in 2020
2.	Peshawar Karachi Motorway (Multan-Sukkar Section)	EPC, EXIM	392	2,980	Punjab and Sindh	Completed in 2019
3	Khuzdar-Basima Road N-30 (110 km) Upgradation of D. I. Khan	TBD	110	80	Baluchistan	Feasibility Clear
4	KKH Thakot-Raikot N35 Remaining Portion	TBD	136	719.8	Gilgit	N/A
5	Upgradation of D. I. Khan (Yarik) Zhob, N-50 Phase-I	ECNEC	210	195	Khyber Pakhtunkhwa Balochistan	Land Acquisition
6	Faisalabad Multan Motorway (M4), Package II & III	N/A	309	N/A	Faisalabad, Multan	Completed by the end of 2019.
7	E-35 Expressway	N/A	110	N/A	Punjab, KP	N/A
8	Orange Line Metro Train, Lahore		27	1626		Completed on 25 th Oct. 2020
9	Hakla-D. I. Khan Motorway		297			Completed on 5 th January 2022
10	Zhob-Quetta (Kuchlak) (N-50)		305		Balochistan	Incomplete
11	Khuzdar-Basima Road (N-30)		106		Balochistan	Incomplete
12	Hoshab-Awaran Road Section (M-8)		146	26	Balochistan	Incomplete
13	KKH Alternate Route Shandur-Chitral Road		153	15	Khyber Pakhtunkhwa	Work started in April 2021
14	Nokundi-Mashkhel Road		103	7	Balochistan	Started on 20 th May 2021
15	Mirpur-Muzaffarabad-Mansehra Road		200		Azad Jammu and Kashmir, KP	PC-I under approval process
16	Mashkhel-Pangur Road		200		Balochistan	Design and feasibility are under process.

Source: <https://cpec.gov.pk/infrastructure>

4.3. Effect of transport infrastructure under CPEC

4.3.1. Employment

CPEC authority had claimed to create 700,000 employment opportunities for local Pakistanis by 2030. A recent study of Ministry of Planning, Development and Reforms of Pakistan revealed that CPEC could create 1.2 million indirect jobs in Pakistan. However, this project has employed about 75,000 people till now. The number of jobs was updated in 2020 and claimed to provide 2.3 million jobs. Pakistani citizens contributed 82.5 percent (40,000) of labour in CPEC, while Chinese labour made only 17.5 percent (7,000) (CPEC Info, 2020, August 10). According to Zia and Waqar (2017) the job creating transport infrastructure projects in the second phase are KKH (Phase-II), in which 76 percent of jobs were created for Pakistanis. In the Multan-Sukkar project, 91.5 percent of employment was provided to locals. In the Lahore-Multan section, 96 percent of job opportunities were provided to Pakistani people. Pakistani people participated in constructing the E-35 expressway, with 98 percent employed. Besides the upgradation of the D. I. Khan Motorway, the Faisalabad-Multan Motorway is also identified as a hub of job creation for locals.

4.3.2. Building material industry

The cement industry of Pakistan is making remarkable growth. In FY2020, it achieved overwhelming growth due to the transport infrastructure projects under CPEC, which raised the cement demand on a large scale. Due to the BRI project, China's demand for cement increased. China improved its cement production to meet the local and global needs for cement and became top-ranking (Asia) in exporting cement. When CPEC was initiated in Pakistan, the constructors faced a cement shortage. Before CPEC, Pakistan was producing about 23 M.T. of cement. However, CPEC World Bank still determined Pakistan's ability to increase cement production after the initiation. According to World Bank data, Pakistan needed to raise cement production by 3 M.T. to meet the project needs. Certain cement industries in Pakistan, like Bestway Cement and Flying Cement, are expanding their plants to increase cement production. As per the report, from 2017 to February 2018, the local production has risen from 26.3M.T. to 30.1 M.T., which is approximately 14 percent growth.

The Chinese government recognized the growth in cement production, which is an endorsement of CPEC infrastructure projects. "The Pakistan cement industry enjoys rapid growth. Driven by strong domestic demand for infrastructure construction, and from the export market, the industry's advantage can be increased gradually" (Wang, 2017). The cement industry of Pakistan contributed 5.3 percent to the total economy. The overall size of this sector is Rs. 345 million, and thus contributed 0.85 percent to the national GDP in FY2020. The local cement reports recorded in FY2020 were 40 M.T. In FY2020, the government also announced construction packages worth Rs. 100 billion, increasing investment in the private sector and encouraging cement demand (Hadi et al., 2018).

4.3.3. Tourism

Road and Railway connectivity between China and Pakistan and the road access to the underdeveloped historical and worth-seeing northern areas would significantly affect the tourism sector. Pakistan is a hub of ancient civilization places, historical mosques, buildings, and mountains and valleys. The spectacular range of Himalaya mountains and its valleys in Azad and Jammu Kashmir are overwhelming to the eyes. Even Azad and Jammu Kashmir's government plans to make a tourism corridor in the valley. The lush green mountains and transparent blue flowing rivers of Gilgit Baltistan are not beyond the sight of international tourists paying high airfares to reach these places. The mountaineer worldwide and country-wide are desperately trying to climb the highest peak of K2. In 2017 about 2.5 tourists visited Gilgit Baltistan, and the number of domestic and international tourists is increasing. The peaceful Northern areas of KP., like Swat, Naran, Kaghan and Dosai, attract Chinese Businessmen to invest in these regions (Manzoor & Wei, 2018).

The regions of China are bordered by Pakistan, like Xinjiang province, a historical and cultural place in China; people will get easy and cheap access to these regions. Especially Pakistani Businessman who brings goods from Urumqi, a place beyond Xinjiang and goods from all over Central Asia reach here. Urumqi is a worth exploring region as all Halal food is an available and reliable place for the survival of Pakistani. Bus service is operated from Gilgit Baltistan to China to provide affordable access to the China border.

4.3.4. Privileges of local contractors vis-à-vis Chinese contractors

China Pakistan Economic Corridor is a mutual economic development venture of both countries. Though this project is accomplished in Pakistan, a strong perception is found that majorly CPEC project contracts are given to foreign investors, negatively affecting the local businesses and employment rate in Pakistan. A recent observation revealed a very different opinion from various business associations around Pakistan. The overseas investor's Chamber of Commerce and Industry raised its voice from the Pakistan side and called for a "more level playing field for all stakeholders in CPEC." The president of the Pakistan Business Council, Mr. Ehsan Malik, expressed his thoughts in the same way; "incentives under CPEC need to result in a net increase... simply getting Chinese industry to move and giving them incentives at the expense of present business will not benefit the country." Some reasons, though, are found behind the successful grabbing of projects by foreign investors are:

- Local constructors are not experienced in executing high-worth projects, like more than Rs. 6 billion. In a mega project like CPEC, this is the average size of most projects, preventing local firms from bidding.
- Technicians in Pakistan need to be more skilled to meet the CPEC project's needs. Thus, Chinese contractors on their own have to arrange technical labour like machine operators and fitters from China.

- The rigorous attitude of Chinese companies towards Pakistani constructors is also a hurdle. A well-known economist unveiled that Chinese companies have a “take it or leave it” attitude and are unprepared for bargaining.

The CCP recommended that all authorities shall divide the large projects into prime sizes to facilitate the local contractors (Majid, 2017).

5. Discussion

By observing the most employment opportunities for Chinese and Pakistani, though the ratio of jobs provided to Pakistani is higher than the Chinese, primarily low-scale jobs like labour are provided to Pakistani mostly to the uneducated people, and the opportunities for the graduates are too less. The cement industry is significantly growing, but in comparison, the growth in the steel industry, which is also a significant need for transport development, needs to be improved, and Pakistan is still importing China. As the local contractors are more aware of the characteristics of land and location, the CPEC officials and project companies should show mindfulness to their opinion and advice to make this project sustainable and successful both in terms of the durability of the project and economic development of the country. The successful completion of this project is a challenge; financial issues, especially from Pakistan, are a huge hurdle in its delay, and sometimes security problems need to allow them to get done with it peacefully.

This study mainly consists of optimistic views about the CPEC rather than pessimistic though some problematic issues related to the transport infrastructure are highlighted. Due to geopolitical tensions and economic differences among the neighbouring countries, regional integration and cooperation are impossible during the Pakistan-India conflicts, Afghan war and China-India border conflicts (Ali et al., 2022; Waseem & Sajjad, 2022). However, projects like CPEC could bring a drastic change as it promotes national and global interest. Though many studies have been done on CPEC and its Energy, communication and financial infrastructure development, this study is primarily about the transport infrastructure, a current update about its major projects, and its impacts on different economic sectors. CPEC is an economic project envisioned as a large-scale transportation grid with immense regional, intra-regional, strategic, and economic significance. Both the transport and logistics sectors will get developed through this mega project.

On the one hand, the underdeveloped areas of Pakistan are getting advanced. On the other hand, reducing traveling time and cost is a major contribution to on-road trade. Due to the development in the transport infrastructure, Private and foreign investors will be attracted to investment. Due to the reduction in travel costs and time, the Pakistani industry is growing due to the need for domestic building materials. Most of the outlying areas are getting developed for the tourists. Investment in infrastructure increases employment and boosts aggregate demand. As this project is practiced in Pakistan, many expectations are linked to this project

as local contractors are complaining about not getting enough part in mega projects. So, after an inclusive study, the gap in the project can be filled, but the project's fulfilment will be a millennium of economic growth.

6. Conclusion

The CPEC is a major infrastructure development project to improve connectivity between China and Pakistan. One of the key objectives of CPEC is to create a modern and efficient transport infrastructure network that can facilitate the movement of goods and people between the two countries. However, despite the significant investments in transport infrastructure under CPEC, Pakistan has yet to benefit from this connectivity fully. One of the main reasons for this is the need for a comprehensive framework to fully leverage the potential benefits of CPEC connectivity. While CPEC has enabled inter-regional connection, there needs to be more attention on building the policies and strategies required to attract investment, boost trade and economic growth, and provide job opportunities. It is only possible to utilize the CPEC-developed transport infrastructure with a clear framework effectively.

Furthermore, implementation issues and constraints have slowed Pakistan's realization of the benefits of CPEC. Delays in permissions and funding, security concerns, and challenges with local communities and property acquisition are among them. These obstacles have hindered the development of key CPEC projects, preventing Pakistan from fully exploiting the project's transport infrastructure benefits. There may be a need for more capacity and experience within Pakistan to utilize the CPEC-developed transport infrastructure properly. Pakistan may need to build institutional and human capacity to properly manage and operate the CPEC-developed transport infrastructure.

In conclusion, while CPEC has provided connectivity for inter-regional cooperation, Pakistan has yet to benefit from this connectivity fully. To fully leverage the potential benefits of the transport infrastructure developed under CPEC, there is a need for a comprehensive framework that can attract investment, promote trade and economic growth, and create employment opportunities. Additionally, implementation challenges and obstacles must be addressed, and capacity and expertise must be built to manage and operate the transport infrastructure developed under CPEC effectively.

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