Abstract: The restoration of the ancient Silk Road intends to reconnect China with Africa, the Middle East, and Europe through a railway network, airports, roads, seaports, and an optical fiber system. The Belt and Road Initiative (BRI) has three components. One Belt, One Road (OBOR) is based upon two parts of the BRI; the maritime Silk Road and the Silk Road economic belt. OBOR is based upon six economic corridors. The China-Pakistan Economic Corridor (CPEC) is the smartest corridor under OBOR, which passes only through Pakistan, and after completion, will provide a safe and cheap route for China to import oil and energy. CPEC is a multidimensional project under which much infrastructure development initiative has been started to improve the infrastructure and economic development of Pakistan. Infrastructure development is an essential requirement in economic growth, one which further leads to industrialization and is helpful in economic development. The present study was conducted in Pakistan and explored how infrastructure development under the CPEC is useful for the sustainable development of Pakistan, as well as which kind of infrastructure development projects have been included in the CPEC to improve the socio-economic paradigm of Pakistan. A sample of 500 respondents was selected through a multistage sampling technique from the two-node cities. A questionnaire survey was used to collect primary data. The results of the study show that the CPEC is a catalyst for Pakistan to improve its socio-economic conditions and to achieve sustainable development. The participants of the survey agreed that CPEC will improve the socio-economic paradigm of Pakistan and will be helpful in the achievement of sustainable development goals.

Keywords: belt and road; economic corridor; China-Pakistan economic corridor; infrastructure development; socio-economic development; sustainable development
Infrastructure, transportation, and economic zones are the main strategies for the development of the remote deprived areas of any country [1]. A railway system and road networks enhance the ways of shipping, which further improves the social and economic conditions of the region. A network of roads also provides easy access to the basic amenities of life, such as economic opportunity, health, education, and employment [2].

1.1. Belt and Road Initiative (BRI)

The Chinese Government’s Belt and Road Initiative (BRI) is based upon a historical paradigm. In 1800, a German traveler devised the term “Silk Road” to describe a trade route from China to Europe and camels used for the transportation of different goods. In this initiative, camels will be replaced with high-speed rails for the transportation of the goods. The BRI project opens a new paradigm of global diplomacy and economic connectivity with neighboring countries [3].

Components of Belt and Road Initiative

The Belt and Road initiative (BRI) is a worldwide project of the Chinese government to connect China with other countries of the world through the Silk Road Economic Belt (SREB), the Maritime Silk Road (MSR), and the Digital Silk Road (DSR) [4]. See Figure 1, which shows the components of The Belt and Road initiative (BRI).

![Figure 1. The components of The Belt and Road initiative (BRI).](image-url)

*Silk Road Economic Belt (SREB):* The SREB is based upon six economic corridors; the China-Mongolia-Russia Economic Corridor (CMREC), the New Eurasia Land Bridge Economic Corridor (NELBEC), China-Central Asia-West Asia Economic Corridor (CCWAEC), the China-Pakistan Economic Corridor (CPEC), the Bangladesh-China-India-Myanmar Economic Corridor, and the China–Indochina Peninsula Economic Corridor (CICPEC) [5].

*Maritime Silk Road (MSR):* The concept of the MSR emerged in the first visit of Chinese president Xi Jinping to Southeast Asia. The MSR is a comprehensive plan for the development of maritime infrastructure in different BRI participant countries. The Chinese Government is developing different ports and further connecting these ports with China under the MSR [6].

*Digital Silk Road (DSR):* The 13th five-year plan of “National Information” was published in 2016 by the State Council. The aim of the “National Information” was to build an “online Silk Road” to encourage domestic information technology companies to participate in the global digital world [7].

1.2. One Belt One Road (OBOR)

The land route of the BRI Silk Road Economic Belt (SREB) and the Maritime Silk Road (MSR) are together called One Belt, One Road. The SREB is based upon six land route economic corridors, as mentioned above, and the MSR based upon the sea route, which connects China with different seaports. The MSR is based upon the concept of the “String of Pearls,” which is derived from the geopolitical theory and strategic culture. The OBOR will connect China with 60 countries, and about 70% population of the world will be covered. China has started the construction of OBOR. It has three routes; the southern, the central and the northern. The CPEC is in the north route [8]. The One Belt One Road initiative (OBOR) is a global project of the Chinese government to connect China with
other countries of the world through the Silk Road Economic Belt (SREB) and the Maritime Silk Road (MSR) [4]. Furthermore, 65 countries have agreed to become part of the OBOR initiative. Moreover, the OBOR initiative’s main objective is to connect China with the Middle East, East Asia, Central Asia, South Asia, and different European countries through the SREB and the MSR [9]. Under OBOR, 65 countries of the world and many organizations have shown their interests in participating in this mega project. The importance of OBOR is increasing day by day, and 34 countries have a contract with China in this developmental project. Socio-economic development through OBOR is the priority of the participating countries in this initiative.

1.3. Economic Corridors under OBOR

The term “Economic Corridor” (EC) was first used in 1998 by the Asian Development Bank (ADB) was defined as a connection or network between two agents within a geographical territory that leads towards the market supply and demand sectors [10]. The SREB is based upon six economic corridors the China-Mongolia-Russia Economic Corridor (CMREC), the New Eurasia Land Bridge Economic Corridor (NELBEC), the China-Central Asia-West Asia Economic Corridor (CCWAEC), the China-Pakistan Economic Corridor (CPEC), the Bangladesh-China-India-Myanmar Economic Corridor and the China-Indochina Peninsula Economic Corridor (CICPEC). China’s National Development and Reform Committee (NDRC) announced the CPEC in March 2015 under the One Belt One Road initiative. The CPEC, which only passes through Pakistan, is considered the smartest component of OBOR [11]. Figure 2 presents the Economic Corridors under the One Belt One Road initiative.

![Figure 2. Economic Corridors under the One Belt One Road initiative](image)

In the whole world, different kinds of economic corridors strategies have been implemented for the achievement of economic development and strategic growth [13]. According to economic experts, economic corridors play a vital role in the improvement of economic growth and stability [14]. Pakistan is a developing country, and its economy is also considered an emerging economy in the world. It is expected that in the upcoming era, it will become an economic hub of the world.

1.4. China-Pakistan Economic Corridor (CPEC)

China and Pakistan built good relations soon after the emergence of China in 1949. Pakistan was the first Muslim country that accepted China. Pakistan and China have all-season good friendships and relations. Pakistan and China have historically had good ties from the military perspective, but now a new economic paradigm relationship is going to be established that concentrates more on economic, trade, energy, infrastructure, and investment cooperation [15]. After 1950, China and Pakistan built a friendly relationship. These cooperative relationships became stronger after 1960 because of the China-India war and the Pakistan–India war [16]. Moreover, Pakistan helped China to become a permanent member of the UN Security Council, which further boosted China’s relationship all over
the world. Additionally, Pakistan opened its air space for Chinese Airlines to make travelling easy for Chinese people. Pakistan and China have always had a good relationship, but in 1970, both countries extended their involvement in every sector, and China even supported Pakistan when the US imposed restrictions on Pakistan.

What is the CPEC?

The China-Pakistan Economic Corridor (CPEC) is the comprehensive planning of different types of infrastructure, transportation, energy production, and free economic zones in Pakistan [17]. Pakistan and China are good friends and support each other at both the national and international levels. They have shared geographic boundary lines and are connected through the Karakorum Highway (KKH) from Kashghar to Islamabad. Further, the highway is known as the Pakistan-China Friendship Highway and is continuously extending for transportation between both countries [18].

After the completion of the CPEC, Pakistan, and China relations will be stronger in both military and economic terms, which will further change the South Asia geopolitics [19]. The development of Gwadar Port, which allows China access to the Indian Ocean, is also the part of the CPEC project and is under the control of China. The presence of a Chinese naval facility at Gwadar Port will shift into a permanent presence in the Indian Ocean at some stage in the future [20]. The China-Pakistan Economic Corridor (CPEC) is a part of the One Belt One Road Initiative development project for the enhancement of Pakistan’s socio-economic development. Moreover, this project not only speeds up the co-operation between Pakistan and China but also plays an essential role in the development of the whole region. Further, the CPEC will provide another energy route to Uzbekistan, Kazakhstan, Azerbaijan, and Turkmenistan [21].

Approved Projects under the CPEC in Pakistan

CPEC projects will be executed in short term, mid-term and long-term phases by 2017, 2025, and 2030. The main focus of the CPEC projects is to fulfill the increasing demand for energy in Pakistan and China. According to the planning of the projects, 21,000 megawatts of energy will be produced, and in this context, power projects are to be implemented on an immediate basis in Pakistan [22]. China is going to the most significant foreign investment of 46 billion dollars in Pakistan under the CPEC projects, which will be about the 20% GDP of the economy of Pakistan [23]. Table 1 below, shows the division of projects under the CPEC in Pakistan.

<table>
<thead>
<tr>
<th>Projects</th>
<th>Cost (Million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Sector</td>
<td>33,728</td>
</tr>
<tr>
<td>Infrastructure and transportation</td>
<td>11,636</td>
</tr>
<tr>
<td>Port Development</td>
<td>792.6</td>
</tr>
<tr>
<td>Others (Optical Fiber)</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46,200.6</strong></td>
</tr>
</tbody>
</table>

The CPEC is not a single road construction project. It is a large project which includes regional interconnectivity, energy production, infrastructure construction, the establishment of industry, the improvement of agriculture, and poverty alleviation through the improvement of livelihood, education, and providing public health facilities. Moreover, the CPEC has three alignments that will pass in all provinces of Pakistan [25].

1.5. Sustainable Development through Infrastructure Led Development

Pakistan has a border with the biggest economy of the world; China. The Exclusive Economic Zones (EEZ) construction idea is similar to the notion of an economic corridor [26]. The construction of infrastructure and the installation of energy production unites the development of Gwadar Port,
and the establishment of special economic zones are the significant components of the CPEC [27]. The main objective of the CPEC is to play an important role all over Pakistan in socio-economic development [28]. In the year of 2014, Pakistani government signed a currency exchange agreement with the Chinese government; Pakistan was the first country that signed this agreement among South Asian countries. In the sectors of infrastructure, trade, ports, energy production, and telecommunication, China is the largest partner and investor of Pakistan. Furthermore, in the energy production sector of Pakistan, the Chinese government and the private sector of China have shown interest and ensured the 20 billion USD investments. The CPEC will make Pakistan a transit hub in South Asia [29]. Moreover, the construction of infrastructure to solve the energy shortage, poverty alleviation, prosperity, and peace problems in all provinces of Pakistan are the benefits of the CPEC. The Chinese investment under the CPEC project will play an essential role in the development of the improved health, education, and skills development of the country [30]. The CPEC has several beneficial functions for the nation of Pakistan. Currently, Pakistan is facing a severe energy shortage problem, an unstable economic situation, and an increasing rate of unemployment. Energy is an essential requirement for the industrial sector. The CPEC is a catalyst and will be helpful in the growth and stabilize the economy of Pakistan. Moreover, foreign direct investment will increase under the CPEC. After the completion of energy projects under the CPEC, Pakistan will be sufficient in the energy sector and have no more energy shortage problems. The CPEC will also create millions of jobs for the unemployed Pakistani youth. The areas of Khyber Pakhtunkhwa and Gilgit Baltistan are naturally stunning. It is expecting that with the completion of the CPEC, tourism will increase in these areas. Furthermore, the Chinese investment in the CPEC will also be a source to attract tourists from other countries of the world [31]. According to Sun Weidong, the ambassador of China in Pakistan, the construction of infrastructure, transportation, industrial and energy projects under the CPEC will be beneficial for socio-economic development across Pakistan in all provinces. The CPEC plan is not only to build a road but also a systematic plan to develop a network of roads, railways, and industries. Multidimensional infrastructure-led development leads towards sustainable development in Pakistan, as mentioned below in Figure 3.

Figure 3. Multidimensional infrastructure-led development leads towards sustainable development in Pakistan.
1.6. Theoretical Framework

Development theory is applicable in this study to describe the development of the mega project in the region. Furthermore, modernization and globalization are the two leading theories in the social world and international economies. Globalization is used to prescribe the spread of connectedness, production, technology, cultural exchange, and communication across the globe. In this context, the CPEC projects in Pakistan under OBOR will change the economic, social, and cultural position and living standards of the Pakistani people. Moreover, growth theories can explain the potential impact of OBOR on different social institutions of Pakistan.

1.6.1. Growth Theories

Growth theories and some early growth models were developed in the era of 1950–1960 [32]. Growth theories are based upon three following components;

I. Accumulation of Human Capital

Knowledge and technology play an essential role in the accumulation of human capital, which further plays a vital role in socio-economic development [33]. New technology and knowledge are transferring in Pakistan from China under OBOR, which will play an essential role in the transformation and accumulation of human capital.

II. Accumulation of Physical Capital

Physical capital refers to factories, infrastructure, and cities, which are considered the economic hub in the industrial sector [33]. Under OBOR, the China-Pakistan economic corridor is based upon different economic initiatives in Pakistan, such as special economic zones (SEZs), energy production units, and free trade agreements (FATs) between Pakistan and China, which will improve the economic situation of Pakistan and stabilize its economy.

III. Institution formation and Evolution

Institution formation is significant for sustainable development. The CPEC will transform the socio-cultural set up of Pakistan, especially in the economic sectors. Pakistan’s economy is facing a severe crisis due to an energy shortage. Different kind of reforms has been introduced in the economic area to attract investments and improve the economic situation.

1.6.2. Theory of Globalization

The globalization theory has emerged from various aspects of different socio-economic elements. In this scenario, the globalization paradigm is similar to word-system theory. Additionally, the most important feature of globalization theory is to focus on global culture and communication among different cultures. Globalization scholars claim that the social link is the most crucial factor in development among nations. Moreover, cultural transmission is increasing the flexible adaptability of technology to connect people across the world [34]. The main features of globalization theory are:

I. According to the theory, global communication systems re increasing day by day across the world among different nations at the state and people-to-people levels. The global communication system is providing and enhancing easy ways for all countries to interact with each other.

II. Global communication systems are present in developed countries and are spreading in less developed countries. In this context, developed and less developed nations can interact and communicate with each other by using new global technology.

III. In globalization, the cultural exchange factor plays an essential role in the socio-economic structure in every country [35]. From a cultural perspective, the CPEC has less impact on Pakistani culture than that of British culture because the CPEC is trade and economically oriented.
Cultural dissemination may occur in the construction sites when Pakistani and Chinese workers interact with each other and share cultural values.

1.6.3. Infrastructure-Led Development Theory

Infrastructure-led development theory, also called infrastructure-driven development, is based upon the critical characteristics of France’s Gaullist and Neo-Colbertist centralized economic planning, Neo-Keynesian economics in the United States, Singaporean and Chinese state capitalism, and Scandinavian social democracy [36,37]. According to this theory:

I. Nations’ resources are systematically and effectively utilized towards long term assets such as social infrastructure (educational institutes and hospitals), energy and transportation.

II. Growth is stimulated through technological innovation in those areas which are lagging in terms of the socio-economic perspective.

III. Social equity is promoted by providing equal opportunities for health care, education, and jobs.

IV. Investment in infrastructure development contributes to economic growth both at the local and global levels.

Based to this theory and the CPEC, the Chinese government is investing in different infrastructure projects such as railroads, roads, ports, telecommunications, industrial zones, educational sectors, and health sectors under the umbrella of the CPEC in Pakistan. The completion of these projects will be helpful in the long term socio-economic uplifting of Pakistan.

1.7. Statement of the Problem

The approach of the economic corridor is used to improve infrastructure and connectivity to increase economic growth. Further, in the economic corridor, investment and trade opportunities are provided to the public and private sectors, both of which improve the socio-economic condition of the people’s lives [38]. Pakistan is a developing country and faces many problems in terms of sustainable development. According to the report of [39], Pakistan was ranked 147 among 188 countries on the Human Development Index (HDI), which shows the lowest human development in Pakistan. Further, Pakistan also faces problems in the energy sector and cannot fulfill the energy needs of the industrial and household sectors. Like other developing countries, Pakistan is also facing the challenge of unemployment. All the socio-economic issues of Pakistan have a severe impact on its living standard. The consequences of the economic problems are the main reasons for the development of national infrastructure. The development of infrastructure will be helpful in socio-economic development, poverty alleviation, and improving the living standard of the people. Further, it is also beneficial in the reduction of the development gap between different regions [40]. The goal of sustainable development can be achieved only through a multidimensional development project. In a multifaceted project, both social and economic sectors are included. In this given paradigm, the CPEC is not only enhancing the economic development and growth but also boost the social development of Pakistan. Before the CPEC, Pakistan and China had a good relationship in terms of military and security, but with the construction of the CPEC, China will be the largest foreign investor in Pakistan in the field of trade and economy. The development of the Gwadar seaport is an essential component in the CPEC project. The construction of the Gwadar seaport will play a vital role in the socio-economic development of Pakistan. Gwadar seaport is situated in the Balochistan province, which is not a developed area—based on productivity, Balochistan is ranked 4th. Gwadar port will also play a vital role in the development of Balochistan and will help in the removal of the deprivation of the Baloch people. The present study was designed to explore public opinion regarding how infrastructure development under the CPEC in Pakistan leads towards sustainable development. This study aimed to investigate the people’s perception regarding the CPEC, its socio-economic impact on the study area, its impact on the culture of Pakistan, and how it will be helpful in the achievement of sustainable development in Pakistan. The infrastructure development under the CPEC will also reshape the landscape culture of Pakistan.
2. Materials and Methods

The research area for the present study was based in two cities of Pakistan. Both were selected through a simple random sampling technique. These are node cities and situated on the CPEC route in northern and southern Pakistan. A sample of 500 respondents was chosen from both cities through a multi-stage sampling technique. At the first stage, two-node cities were selected through simple random sampling technique. In the second stage, two tehsils were randomly chosen from each node city, and in the final step, a sample size of 500 respondents was selected through a simple random sampling technique from the four selected tehsils of both node cities. Figure 4 shows the node cities and situated on the CPEC route in northern and southern Pakistan.

![Node Cities Diagram]

Figure 4. The node cities and situated on the CPEC route in northern and southern Pakistan.

2.1. Data Collection Tool

A well-designed questionnaire was used in the present study to collect the primary data. According to [41], a survey is a data collection instrument that is designed according to the nature and objectives of the study. Furthermore, the collected data were analyzed through appropriate statistical techniques. In our questionnaire, both open-ended and close-ended questions were used. Our survey as divided into different sections according to the variables.

2.2. Data Analysis

Data analysis refers to the process of the gathering, modeling, and transformation of raw; this highlights the useful information and conclusion, and it supports the process of decision making according to the goal and objectives of the study [42]. In the present study, collected data were analyzed by using SPSS (Statistical Package for Social Sciences). Univariate and binary logistic regression analyses were performed.

Binary Logistic Regression Equation

\[
\ln \left( \frac{p}{1-p} \right) = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4
\]

\[X_1 + X_2 \ldots \ldots \ldots \ldots \ldots \ldots \ldots X_4\text{ (Predictor Variables)}\]
3. Results

3.1. Univariate Analysis

Table 2 shows that 14.0% of the respondents had knowledge that the CPEC is an economic project, 22.2% of them said that the CPEC is an energy project, 26.2% of them had awareness that the CPEC is an infrastructure development project, 20.8% of them said that the CPEC is a social development project, and 16.8% of the respondents thought that the CPEC is a project which had all aforementioned aspects. Reference [43] stated that the CPEC is a multidimensional project in Pakistan that will be helpful in urban and rural development. About 54% of survey respondents perceived that the CPEC is a rail and road route between Pakistan and China. Further, the majority of the respondents got information regarding the CPEC from electronic media, discussions, and political parties. Moreover, reference [44] assessed that the CPEC will uplift the social development of Pakistan through the implementation of different projects such as energy production, infrastructure development, and the establishment of new industries. These projects under the CPEC will produce new job opportunities for Pakistani youth and will be helpful in the poverty alleviation. Rural, remote areas will be connected with cities. Moreover, technical and vocational centers will also improve the social condition of Pakistani society by providing training about new modern technology which will transfer to Pakistan under the CPEC. According to [45], the CPEC project is based on the establishment of a railway network and the construction of roads, airports, an optical fiber network, energy production units, and a high-speed train between Peshawar and Karachi. All these components of the CPEC will reshape urban life and play a vital role in the urban development of Pakistan.

Table 2. Respondents’ knowledge about which kind of projects are included in the China–Pakistan Economic Corridor (CPEC).

<table>
<thead>
<tr>
<th>Type of Projects</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Projects</td>
<td>70</td>
<td>14.0</td>
</tr>
<tr>
<td>Energy Projects</td>
<td>111</td>
<td>22.2</td>
</tr>
<tr>
<td>Infrastructure Development Projects</td>
<td>131</td>
<td>26.2</td>
</tr>
<tr>
<td>Social Development Projects</td>
<td>104</td>
<td>20.8</td>
</tr>
<tr>
<td>All project</td>
<td>84</td>
<td>16.8</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.1.1. CPEC Project and Socio-Economic Development

Infrastructure projects in any society have drastic impacts in terms of socio-economic development. The China–Pakistan Economic Corridor is a multipurpose infrastructure project which will reshape the social and economic paradigm of Pakistani society. According to [46], through the CPEC, a high tech infrastructure will be built which will be helpful in the socio-economic development of Pakistan. In the CPEC project, the Gwadar seaport has a significant geo-strategic position. Moreover, the development of Gwadar will lead to the development of Balochistan. Many local habitants of Balochistan will be able to get employment and business opportunities under the CPEC and enhance their socio-economic conditions.

Table 3 shows that 13.2% of the respondents thought that the CPEC had a role in the improvement of Pakistan’s economy, 11.8% of them said that the CPEC had a role in fulfilling the energy needs of Pakistan, 22.0% of them thought that the CPEC had role in rural and urban development, 19.6% of them said that the CPEC had a role in social development of Pakistan, and 19.6% of the respondents thought that the CPEC had a role in all aforementioned indicators of progress. Reference [47] concluded that the CPEC is based upon the establishment of a railroad, a road (2700 km), and an oil and gas pipeline between China and Pakistan. The linkage between Pakistan and China will provide a cost-saving shipment and secure route to China for business and trade with the rest of the world. In the context of energy, reference [48] reported that the energy projects under the CPEC will help
solve the energy shortage issues and boost the economy of Pakistan. Further, the CPEC will also play an essential role in the socio-economic uplifting of Pakistan through the provision of employment opportunities to the local people, the overcoming of the energy shortage problem, the construction of new industries, the eradication of poverty, and improving living standards of the Pakistani nation. Business opportunities under the CPEC will enhance the income level of ordinary people. All the aforementioned impact of the CPEC on Pakistani society will lead towards sustainable development in Pakistan. Moreover, [49] reported that the CPEC under the BRI will provide various kinds of opportunities and benefits for Pakistan, from socio-economic development to improved security across the country. In short, the CPEC will improve governance in Pakistan, be helpful in the eradication of poverty, and attract foreign investment.

Table 3. Distribution of the respondents according to their opinion about which kind of role the CPEC plays in the socio-economic development of Pakistan.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Pakistan’s Economy</td>
<td>66</td>
<td>13.2</td>
</tr>
<tr>
<td>Fulfill Energy Needs</td>
<td>59</td>
<td>11.8</td>
</tr>
<tr>
<td>Rural and Urban Development</td>
<td>110</td>
<td>22.0</td>
</tr>
<tr>
<td>Social Development</td>
<td>126</td>
<td>25.2</td>
</tr>
<tr>
<td>All</td>
<td>98</td>
<td>19.6</td>
</tr>
<tr>
<td>NA</td>
<td>41</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 4 shows that around one-third 34.6% of the respondents thought that under the CPEC, the construction of infrastructure is going to be held in their area for rural development; 36.4% of them thought that under the CPEC, rural electrification is going to be held in their area for rural development; 10.6% and 12.8% of the respondents thought that under the CPEC, improving the agricultural sector and increasing and improving irrigation system, respectively, are going to be held in their area for rural development. Under the CPEC project, [50] said the CPEC will enhance and speed up cargo container movement in Pakistan and China. Practical and increased transportation will also solve the problems that farmers face during the post-harvest season of the crops. The CPEC will improve the infrastructure and transportation system in rural areas of Pakistan, and farmers will be able to get more profits from their crops. Furthermore, [51] found that most of the population of Pakistan is living in rural areas, and about 42.3% of people are involved in agriculture sector labor. The CPEC project will become a source of competition among Pakistani farmers, which will further lead towards new advance technology and innovation.

Table 4. Distribution of the respondents according to their thinking about which kind of measures will be held in their area for rural development under the CPEC.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction of Infrastructure</td>
<td>173</td>
<td>34.6</td>
</tr>
<tr>
<td>Rural Electrification</td>
<td>182</td>
<td>36.4</td>
</tr>
<tr>
<td>Improving agricultural sector</td>
<td>53</td>
<td>10.6</td>
</tr>
<tr>
<td>Increasing and improved irrigation system</td>
<td>64</td>
<td>12.8</td>
</tr>
<tr>
<td>NA</td>
<td>28</td>
<td>5.6</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Moreover, reference [52] stated that under the CPEC project, both China and Pakistan cooperate in agriculture fields such as demonstration of mechanization, livestock, the processing of agricultural products, the improvement of production technology, and poultry breeding. Further, the development of rural infrastructure will also play an essential role in the transportation of farm products to markets. Moreover, reference [53] reported that the CPEC will enhance and improve regional connectivity,
which reduces transportation costs. In the northern areas of Pakistan, good quality fruits and vegetables are produced but cannot be exported due to the non-availability of transportation infrastructure. In this context, northern areas will connect with airports through the CPEC, which will further be helpful in the export of agricultural products and fruits.

Table 5 shows 5.2%, 21.0%, 16.2%, and 21.4% of the respondents had thought that the CPEC project will provided gender equality, gender equity, social justice, and poverty reduction, respectively, in the life of the common man. Reference [54] argued that the CPEC project will be helpful in the economic development of Pakistan. Further, the CPEC will also beneficial in overcoming the rising issue of unemployment in Pakistan. Moreover, the CPEC will also have an impact on the lives of ordinary people and will improve the standard of basic amenities of life and poverty reduction.

Table 5. Distribution of the respondents according to their thinking about the CPEC project at the societal level in the life.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Equality</td>
<td>26</td>
<td>5.2</td>
</tr>
<tr>
<td>Gender Equity</td>
<td>105</td>
<td>21.0</td>
</tr>
<tr>
<td>Social Justice</td>
<td>81</td>
<td>16.2</td>
</tr>
<tr>
<td>Poverty Reduction</td>
<td>107</td>
<td>21.4</td>
</tr>
<tr>
<td>All</td>
<td>70</td>
<td>14.0</td>
</tr>
<tr>
<td>NA</td>
<td>111</td>
<td>22.2</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 6 indicates that 21.4% of the respondents said that the CPEC will improve the primary education system, 19.8% of them said that the CPEC will improve health facilities, 31.6% observed that the CPEC will establish the installation of water purification plants, and 20.4% of them noticed that all of the above discussed initiatives have started under CPEC projects for the social development of their area. Reference [55] reported that the CPEC will attract foreign investment in the country. It will have a significant impact on the life of the common man, and, according to the Chinese Ambassador Sun Weidong, the successful completion of the CPEC will be helpful in the provision of better education, health, and job facilities. References [56] stated that the Gwadar city will upgrade technical, vocational, and educational (universities) institutes. Further, the up-gradation of hospitals and supply of pure water will also be included in the Gwadar city development project. After the accomplishment of the Gwadar development project, Gwadar will become an important port city.

Table 6. Distribution of the respondents according to their thinking about which kind of initiatives have started under CPEC projects for the social development of their area.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve primary education system</td>
<td>107</td>
<td>21.4</td>
</tr>
<tr>
<td>Improve health facilities</td>
<td>99</td>
<td>19.8</td>
</tr>
<tr>
<td>Installation of water purification plants</td>
<td>158</td>
<td>31.6</td>
</tr>
<tr>
<td>All</td>
<td>102</td>
<td>20.4</td>
</tr>
<tr>
<td>No response/No knowledge</td>
<td>34</td>
<td>6.8</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 7 indicates that 8.0% of the respondents said that the CPEC will establish new industries and economic zones, 20.2% of them thought that the CPEC will increase electricity production, 14.4% said that the CPEC will help gather natural resources for industries, 33.2% of them thought that the CPEC will help with rising estate activity, 18.8% of them thought that the CPEC project will encourage a shift from an agrarian society to a logistics hub, and the remaining respondents 5.4% told that all above discussed development through the CPEC will be helpful in economic development. In the scenario of new industries and special economic zones, the CPEC is a commercially centered
project by the Chinese government in Pakistan. Many SEZs and industrial estates will be constructed under this project, which will further create many jobs for the local habitants. According to the chairman of Gwadar Port Authority, 40,000 job opportunities will be produced under the Gwadar port development. Reference [57] argued that Kashghar was declared a vital transit hub that was located on the ancient silk route (ASR), and further, it is an entry point between Pakistan and China. The Chinese government is going to build SEZs in Kashghar and Gwadar, and these will play an essential role in the development of the Xinjiang province. Both SEZs will be connected through rail and road networks. The interconnectedness of both SEZs will bring socio-economic development and improve the geo-strategic position of the region. Currently, Pakistan is also facing a shortage of electricity. Reference [58] reported that in 2014, the Chinese government declared that they will provide finance for those Chinese companies who will participate in the construction of infrastructure and energy production units in Pakistan under the CPEC project. About 33.8 USD billion is being invested in the energy sector of Pakistan by different Chinese companies. Energy production through the wind, solar, hydro, and coal are included in the CPEC, and after completion, 10,400 MW energy will be added in the national power system of Pakistan. Pakistan is rich in mineral resources, but due to a lack of technology, these resources are still unused. Reference [59] stated that according to the plan of the Pakistani government, 21 mineral extraction and processing zones will be established under the CPEC project in all provinces. Baluchistan is very rich in mineral resources, and the government of Baluchistan is going to develop the mineral extraction and processing zones in various parts of the province such as Khuzdar (antimony, chromite) Qila Saifullah (chromite, antimony) Chaghi (chromite) Reko Diq (gold) Saindak (gold, silver) Lasbela (manganese) Kalat (iron ore) Muslim Bagh (chromite) and Gwadar (oil refinery) under the CPEC project with different Chinese companies. The construction and real estate sector of Pakistan is growing and playing an essential role in the urbanization process of remote areas. Reference [60] estimated that the real estate sector is increasing due to the CPEC project, and, as such, the prices of property are rising. In Gwadar, the costs of property have increased about 70.0%. Further, the government of Balochistan has introduced a housing project in Gwadar with modern facilities that also increased real estate activity in the area. Moreover, the real estate sector has contributing to the economic development of Balochistan. Reference [61] stated that across Pakistan, the prices of land have increased due to the different routes of the CPEC. In Gwadar, many private real estate developer companies and builders have launched new housing projects along the CPEC route.

Table 7. Distribution of the respondents regarding how the CPEC is helpful in economic development.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establish New industries and Economic Zones</td>
<td>40</td>
<td>8.0</td>
</tr>
<tr>
<td>Increase in Electricity Production</td>
<td>101</td>
<td>20.2</td>
</tr>
<tr>
<td>Inventions of Natural Resources for Industries</td>
<td>72</td>
<td>14.4</td>
</tr>
<tr>
<td>Rising Estate Activity</td>
<td>166</td>
<td>33.2</td>
</tr>
<tr>
<td>Shift from agrarian society to logistic hub</td>
<td>94</td>
<td>18.8</td>
</tr>
<tr>
<td>All</td>
<td>27</td>
<td>5.4</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 8 shows that 42.6% of the respondents expect enhancement in GDP growth, 16.8% of them expected improvement in gross national product (GDP), 23.8% of the estimated increase in foreign direct investment (FDI) and 16.8% of them expect growth in all aforementioned ways of development of Pakistan’s economy through CPEC projects. Reference [62] argued that the CPEC will improve the GDP of Pakistan, and in the coming next three years, the growth of the GDP will be at least 1.5%. From 2016 to 2018, the impact of investment on the economic sector of Pakistan was 2.0%. Further, it has also been estimated that the GDP growth rate will be 6.0% each year. Moreover, the CPEC will attract private sectors to do business in Pakistan, and about 0.5% will improve the GDP through private investment. Further, reference [63] estimated that about 50.0% of total FDI will come in Pakistan through China under the CPEC. This estimation has also been recognized by official Chinese reports.
statistics. The FDI received from China in the year of 2015–2016 was about 593.9 million USD, which is higher (131.3%) than that of the year 2014–2015.

Table 8. The respondent distribution according to their thinking of in which dimension the CPEC will improve Pakistan’s economy.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance GDP growth</td>
<td>213</td>
<td>42.6</td>
</tr>
<tr>
<td>Improve GNP</td>
<td>84</td>
<td>16.8</td>
</tr>
<tr>
<td>Increase FDI</td>
<td>119</td>
<td>23.8</td>
</tr>
<tr>
<td>All</td>
<td>84</td>
<td>16.8</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 9 depicts that a significant majority (92.4%) of the respondents thought that free economic zones and industrial parks will be helpful in the alleviation of absolute poverty, whereas only 3.4% of the respondents were replied negatively and 4.2% had no knowledge about this opinion. Further, Reference [58] found that about 60.0% of the people of Pakistan belong to the 30 years age group. They do not have employment and worry about the future. The projects under the CPEC, such as transportation, trade, and construction, can create thousands of new job opportunities for the unemployed people of Pakistan. As soon as the CPEC is operational, industrial and economic zones on the route of the corridor will also produce new employment opportunities. Moreover, reference [64] reported that under the CPEC project, special economic zones are going to be established in remote areas of Pakistan, and this will be helpful in poverty reduction, employment opportunities and the development of underdeveloped regions. Moreover, special economic zones will also enhance the connectivity of different areas and improve the transportation system.

Table 9. Distribution of the respondents according to their thinking that free economic zones and industrial parks will be helpful in the alleviation of absolute poverty.

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>462</td>
<td>92.4</td>
</tr>
<tr>
<td>No</td>
<td>17</td>
<td>3.4</td>
</tr>
<tr>
<td>Do not know</td>
<td>21</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.1.2. Influences of CPEC projects on the Culture of Pakistan

China and Pakistan are different in cultural paradigms, and the people of both countries speak a different language. It is essential for the people of both countries to learn each other’s language and to enhance people-to-people contact. When they speak each other’s languages, they can deeply understand the feelings of each other and strengthen cooperation. According to reference [65], the process of cultural assimilation will be held, thus allowing for the emergence of new common cultural values in both societies. Moreover, cultural assimilation will also encourage people-to-people contact in both countries. For the effective implementation of the CPEC, both country’s governments need to pay special attention to the cultural dimension.

Table 10 represents the selected community’s thinking about the influences of CPEC projects on the culture of Pakistan. Around 2.0% of the respondents strongly agreed that the CPEC will change the lifestyle of the Pakistani community, 88.3% of them agreed, 5.4% of them had no opinion, 2.9% disagreed, and 1.5% of the respondents strongly disagreed. More than one-third (34.6%) of the respondents strongly agreed, 53.1% of them agreed that the CPEC project is promoting the Chinese language in Pakistan, 9.2% of them had no opinion, 2.3% disagreed, and 0.8% of them strongly disagreed. Further, reference [66] reported that English is the dominant language in Pakistan to get a good job. In this scenario, Urdu, which is the national language of Pakistan, is losing its importance.
Currently, the Chinese language is being introduced in Pakistan by educational institutes, which will further decrease the importance of the Urdu language. The CPEC is attracting many Chinese companies for business in Pakistan, and getting jobs in these companies is based upon Chinese language proficiency. In short, the CPEC will also promote the Chinese language in Pakistan. Moreover, it has been stated that both countries are taking steps to remove language barriers among the people of both countries. In this scenario, language centers are being established for the teaching of Chinese and Urdu. In Pakistan, Chinese language learning centers have been established in the Peshawar University, COMSATS Islamabad, GCU Lahore, and NUML Islamabad. In 2012, President Zardari announced the introduction of a Chinese language course at primary school levels in Sindh. Further, Chinese language institutes also host different kinds of Chinese cultural festivals. Moreover, these institutes also have launched radio stations for the Chinese language in Lahore (FM 95) and Islamabad (FM 104.6). Only 3.5% of the respondents strongly agreed that the CPEC project will encourage transformation of social customs, norms, and beliefs on the society in Pakistan, 3.8% of them agreed, 3.8% of them had no opinion, 63.1% disagreed, and 25.8% of them strongly disagreed. Only 1.7% of the respondents strongly agreed that inter-culture communication will be promoted through the CPEC project in Pakistan, 54.4% of them agreed, 11.9% of them had no opinion, 30.6% disagreed and 1.5% of them strongly disagreed. A great majority (93.3%) of the respondents strongly agreed that technological growth and innovation will be promoted through the CPEC project in Pakistan, 2.5% of them agreed, 3.8% of them had no opinion, and 0.4% disagreed. In this context, reference [62] conducted a study on the social impacts of technological development under the CPEC. The results of the study revealed that the establishment of information technology parks and industrial parks under the CPEC are creating different kinds of opportunities for the local people of Pakistan, such as labor utilization, resource management, and business activities. Different research institutes like China–Pakistan Joint Cotton Bio-Tech Laboratory, China–Pakistan Joint Marine Research Center, and the Pak–China Science, Technology, Commerce, and Logistic Park are being established under the agreement of Economic and Technical Co-operation between China and Pakistan. Only 0.8% of the respondents strongly agreed that through CPEC project cross-cultural marriages in Pakistan, 28.8% of them agreed, 11.5% of them had no opinion, 52.9% disagreed, and 6.0% of them strongly disagreed. Reference [67] reported that Pakistan has a complex and multicultural society in which the concept of arranged marriages is found. However, at present, a new trend of marriage is prevailing in Pakistani society—internet marriage. In this trend, many Pakistani and Chinese are marrying each other. It is a cultural impact of the CPEC on both societies, and this kind of marriage is referred to as a ‘CPEC marriage.’ Around 31.0% of the respondents strongly agreed that exchange education programs will be established through the CPEC project in Pakistan, 55.8% of them agreed, 10.6% of them had no opinion, 2.7% disagreed. Almost 40.0% of the respondents strongly agreed that the CPEC project will introduce Chinese cultural courses in the universities through Confucius institutes in Pakistan, 53.1% of them agreed, 3.8% of them had no opinion, 2.7% disagreed, and 0.8% of them strongly disagreed. Reference [68] studied that the CPEC project will also have an impact on the education sector of Pakistan. Different educational and training institutes are going to be established in Gwadar under the CPEC project. Furthermore, both countries’ education sectors are also working to open universities on the route of the CPEC. Moreover, the Chinese government has also introduced a scholarship scheme under the CPEC project through which Pakistani students can get the chance to study in different universities in China. In different universities of Pakistan, the Confucius Institutes have been opened and are offering courses regarding Chinese culture and language. Reference [69] stated that the Yema Group of Companies is interested in building a cultural park in China for the display of cultural products and lifestyles of both countries. Moreover, they also visited the Gilgit Baltistan region for the discovery of business and tourism opportunities. The Pakistan Technical and Vocational Training Authority (TEVTA) is not only offering different technical education courses but is also offering Chinese language courses for Pakistani youth to induct unemployed youth in various projects under the CPEC. Furthermore, the first University of Technical and Vocational Education (UTVE) in Pakistan is going to
be established with the collaboration of the Tianjin University of Technology and Education of China. Only 0.8% of the respondents strongly agreed that there will be changes in food pattern due to the CPEC project in Pakistan, 29.4% of them agreed, 5.2% of them had no opinion, 32.1% disagreed, and 32.5% of them strongly disagreed. About 22.5% of the respondents strongly agreed that the CPEC will increase contact between both countries people, 69.8% of them agreed, 7.3% of them had no opinion, and 0.4% disagreed. Around 22.0% of the respondents strongly agreed that transmission of materialistic culture will occur due to the CPEC project in Pakistan, 32.7% of them agreed, 11.0% of them had no opinion, 32.5% disagreed, and 2.1% of them strongly disagreed. A major proportion 46.5% of the respondents strongly agreed that landscape culture is changing due to the CPEC project in Pakistan, 43.3% of them agreed, 9.6% of them had no opinion, and 0.6% disagreed with this opinion. About 14.4% of the respondents strongly agreed that TV channels are broadcasting Chinese content due to the CPEC project in Pakistan, 77.7% of them agreed, 5.4% of them had no opinion, and 2.5% disagreed with this opinion.

Table 10. Distribution of the respondents according to their thinking regarding the extent of the influence of CPEC projects on the culture of Pakistan. (*N=480).

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree f%</td>
<td>Disagree f%</td>
<td>No Opinion f%</td>
<td>Agree f%</td>
<td>Strongly Agree f%</td>
<td></td>
</tr>
<tr>
<td>It changes life style</td>
<td>14.2</td>
<td>29.4</td>
<td>5.2</td>
<td>32.5</td>
<td>32.1</td>
</tr>
<tr>
<td>It is promoting Chinese language</td>
<td>1.5</td>
<td>2.3</td>
<td>9.2</td>
<td>54.4</td>
<td>19.9</td>
</tr>
<tr>
<td>Transformation of social customs, norms and beliefs of the society</td>
<td>1.5</td>
<td>30.6</td>
<td>11.9</td>
<td>54.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Inter-cultural communication and innovation</td>
<td>1.5</td>
<td>30.6</td>
<td>11.9</td>
<td>54.4</td>
<td>1.7</td>
</tr>
<tr>
<td>Cross-cultural marriages</td>
<td>6.0</td>
<td>52.9</td>
<td>11.5</td>
<td>28.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Exchange education programs</td>
<td>0.0</td>
<td>2.7</td>
<td>10.6</td>
<td>55.8</td>
<td>30.8</td>
</tr>
<tr>
<td>Introducing Chinese Cultural Courses in the Universities through Confucius Institutes</td>
<td>0.0</td>
<td>2.7</td>
<td>10.6</td>
<td>55.8</td>
<td>30.8</td>
</tr>
<tr>
<td>Changes in food pattern</td>
<td>32.5</td>
<td>32.1</td>
<td>5.2</td>
<td>29.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Increase contact between both countries people</td>
<td>0.0</td>
<td>2.4</td>
<td>7.3</td>
<td>69.8</td>
<td>10.8</td>
</tr>
<tr>
<td>Transmission of Materialistic Culture</td>
<td>2.1</td>
<td>32.5</td>
<td>11.0</td>
<td>32.7</td>
<td>4.8</td>
</tr>
<tr>
<td>Changes in landscape culture</td>
<td>0.0</td>
<td>0.6</td>
<td>9.6</td>
<td>43.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Broadcasting of Chinese Content on Television Channel</td>
<td>0.0</td>
<td>2.5</td>
<td>5.4</td>
<td>77.7</td>
<td>14.4</td>
</tr>
</tbody>
</table>

* 480 respondents thought that CPEC projects had influenced the culture of Pakistan.

3.2. Multivariate Analysis

Binary Logistic Model

A logistic model was used to analyze the impact of the CPEC in the study area. According to the findings, the value of the Cox and Snell R Square was 0.401. The value of Cox and Snell R Square states that a 40% variation in a model can be explained by the given variables, as the rest of the variations are defined by other variables. The value of Nagelkerke R Square was 0.926%. This value states that 93% variations in the given model are justified due to given variables, whereas the rest of all changes in the model can be explained by other variables. These measures are also known as pseudo R², and the results cannot be tested in an inferential framework [70]; hence, they are not a good measure of goodness of fit [71]. On the other hand, the result of the Hosmer and Lemeshow (H–L) test is non-significant. The value of −2 LL was 27.442. This value shows that the set of independent variables in the proposed model is significant in improving the model’s estimation fit. In our research, the Hosmer and Lemeshow test yielded an χ² of 383.64 (p = 0.000), which was highly significant. The hypothesis of a model suitable for information was justified [72]. Table 11 presents the model summary Binary Logistic Model.
In our research, the Hosmer and Lemeshow test yielded an \( \chi^2 \) of 256.185 (\( p = 0.000 \)), which was highly significant. The value of this test suggests that the model was to fit the data well because the importance of this model is highly vital. In other words, the hypothesis of a kind model suitable for information was justified [72]. Table 12 shows the Hosmer and Lemeshow test.

### Table 12. Hosmer and Lemeshow Test.

| Chi-square | 256.185 |
| Df        | 4       |
| Significance | 0.000  |

Given the base rates of the two decision options, 8.2% (41/500) had not observed/no knowledge of any development through the CPEC in the study area, and 91.8% has witnessed development through the CPEC. Tables 13 and 14 illustrate the classifications and association of the CPEC and its predictors using logistics regression observed and predicted values.

### Table 13. Classification Table.

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CPEC</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>37</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>457</td>
</tr>
</tbody>
</table>

**Overall Percentage** 98.8

*a* The cut value is 0.500.

### Table 14. Association of the CPEC and its predictors using logistics regression.

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Wald</th>
<th>P-value</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty Alleviation</td>
<td>6.415 **</td>
<td>15.941</td>
<td>0.000</td>
</tr>
<tr>
<td>Economic development</td>
<td>0.202 **</td>
<td>14.273</td>
<td>0.000</td>
</tr>
<tr>
<td>Cultural influence</td>
<td>1.336 NS</td>
<td>0.965</td>
<td>0.326</td>
</tr>
<tr>
<td>Socio-economic impact</td>
<td>2.938 *</td>
<td>6.373</td>
<td>0.012 *</td>
</tr>
<tr>
<td>Constant</td>
<td>-17.534 **</td>
<td>14.528</td>
<td>0.000 **</td>
</tr>
</tbody>
</table>

Hosmer and Lemeshow Test: (chi-square value = 256.185, \( p \)-value = 0.000)

Model of the CPEC:

\[
\ln \left( \frac{P}{1-P} \right) = -17.534 + 6.415PA + 0.202ED + 1.336CI + 2.938SEI
\]

where \( p = \) probability

Note: NS = non-significant, * = significant (5%), ** = highly-significant (1%).

Poverty alleviation: It is clear from the above table that the CPEC has an association with poverty alleviation in the study area. The positive sign shows that if poverty alleviation levels increase, then the respondents’ thinking about development through the CPEC will increase in the study area, while the \( p \)-value indicates that poverty alleviation has a highly significant relationship with respondents’ thinking about development through the CPEC project in the study area.
Economic development: It is clear from the above table that the CPEC project contributes to economic development in the study area. The odds ratio of economic development of 1.223 can be explained by the fact that for every one-unit increase in economic development, there is a 1.223-times chance that an increase in the respondents’ thinking about development through the CPEC is improved. The positive sign shows that the CPEC project has had a positive impact on economic growth in the study area. The p-value indicates a significant relationship between the variables.

Cultural influence: It is clear from the above table that the CPEC project contributes to culture in the study area. The odds ratio of cultural influence of 3.804 can be explained by the fact that for every one-unit increase in the cultural impact, there is 3.80-times chance that an increase in the respondents’ thinking about development through the CPEC is improved. The p-value indicates a significant relationship between the variables.

Socio-economic development: It is clear from the above table that the CPEC project contributes to socio-economic development in the study area. The odds ratio of socio-economic impact of 0.53 can be explained by the fact that for every one-unit increase in the socio-economic development, there is a 0.53-times chance that an increase in the respondents’ thinking about development through the CPEC is improved. The positive sign shows that the CPEC project has had a positive impact on socio-economic development in the study area. The p-value indicates a significant relationship between the variables.

4. Discussions

The Chinese government initiative of OBOR is based upon the construction of roads, bridges, railway lines, seaports, oil and gas pipelines, special economic and trade zones and dry ports. Further, OBOR is an interconnected project, and China is establishing and promoting socio-economic development in the developing countries of the Central Asian Republics (CARs), Asia, and Africa. Infrastructure development leads towards multidimensional development, which is further helpful in the achievement of sustainable development goals. The CPEC is also a multifaceted infrastructure and economic development project in Pakistan under the umbrella of OBOR. Figure 5 demonstrates the development process of CPEC as below:

![Figure 5. The development process of CPEC.](image)

4.1. Energy Infrastructure Development

Under the CPEC investment, about 34 billion USD is going to be invested in the energy sector of Pakistan through the development and installment of electric power generating resources through coal and gas [73]. Moreover, about 2.5 billion USD has also been allocated for the construction of liquefied natural gas (LNG) pipelines. The liquefied natural gas (LNG) will be transported from Iran to Balochistan (Gwadar) and Sindh (Nawabshah) to fulfill the energy requirement of both provinces [74].
Further, a projected gas and oil pipeline between Pakistan and Iran will also satisfy the energy needs of both China and Pakistan. The suggested gas and oil pipeline under the CPEC project can transform into China, Pakistan, and Iran oil and gas pipelines [17]. The components of energy projects under the CPEC will have a significant impact on the economy of Pakistan. These energy projects will fulfill the needs of energy to the industrial sector of Pakistan and improve economic conditions [21]. The GDP growth of Pakistan has been shifted down about 2%–2.5% due to the shortage of energy in the industrial sector [75]. The electric power projects will be executed in all over Pakistan on a priority basis to fulfill the lack of electricity in Pakistan. The completion of the power projects under CPEC is expected to produce about 21,000 MGW of electric power [76].

4.2. Transportation Infrastructure Development

The transportation and infrastructure development of Pakistan is the second component of the CPEC and has been allocated about 12 billion USD from the 46 billion USD CPEC investment. Infrastructure plays a vital role in the development of any country. Under the CPEC project, China is also constructing new infrastructure and upgrading the already existed transportation system in Pakistan [22]. The Industrial Commercial Bank of China (ICBC), China Exim Bank, and the China Development Bank (CDB) are the finance providing agencies in transportation and infrastructure development projects [77]. The construction of new and the up-gradation of the existing railway and high way networks will be included all over Pakistan according to the CPEC routes. A motorway about 1100 km long will be constructed to connect Karachi with Lahore, and this motorway will play an important role in internal connection and economic growth [78]. Further, Karakorum Highway (KKH) will be extended to the other cities of Pakistan [79]. A railway network between Peshawar and Karachi will also be constructed [80].

4.3. Special Economic Zones

In the process of industrialization, SEZs and industrial clusters play a vital role. In different cities of Pakistan, SEZs have been proposed under the CPEC project, which will further speed up the industrialization process in Pakistan [81]. Many SEZs are going to be developed under the CPEC project in Pakistan, and the Chinese government has also built an exclusive economic zone in the historical city of Xinjiang named Kashghar. Kashghar is located near the border area between Pakistan and China. Moreover, Kashghar will play an essential role in the full operationalization of the CPEC in Pakistan [82]. The Special Economic Zone (SEZ) approach is considered an effective way to enhance economic development and trade within a country. In 47 states, according to the observation of the International Labor Organization (ILO), 176 special economic zones were established in the year 1986. Further, the network of special economic zones increased in 2006, and now 3500 SEZs are working in 130 countries [83]. In China, at the provincial level, 750 special economic zones have been established, and these SEZs contribute to national GDP—imports about 22%, exports about 60%, and FDI about 46% [84]. Before the SEZ strategy, industrial estates were established in Pakistan to enhance economic growth, but these could not get satisfactory results [85].

China is going to establish the first SEZ in Gwadar, and it is expected that the cost of shipping will significantly decrease [86]. Habib Bank Limited Pakistan (HBL) and the Industrial and Commercial Bank of China (ICBC) are providing funds for the establishment of SEZs in Balochistan and Punjab. The SEZs will be declared tax free for ten years by the government of Pakistan [87]. According to the Ministry of Planning, Development and Reforms, 27 SEZs have been planned under the flagship of the CPEC to enhance the local economic condition and trade. Through the suggested SEZs turnover will be about 1 trillion Rs with 2,000,000 job opportunities.

4.4. Economic Development

Reference [88] stated that both Pakistan and China have many expectations from the CPEC project. The CPEC will have a significant role in the enhancement of Pakistan’s economic situation, and further,
it will improve infrastructure and social development. However, the CPEC will also increase the trade of China with Pakistan and the other counties of the world because the CPEC will provide a safe and cost-saving shipment route to China. Reference [89] assessed that China is rising as a world economic power, and this wise has been playing a vital role in the strengthening of the Pakistan and China relationship. The economic relationship between both countries is going to mature, and the CPEC will further improve the socio-economic relationship of both countries and promote cooperation in various segments such as the construction of infrastructure, the building of power and energy production units (both strategic and digital). Reference [90] reported that the CPEC under the BRI will provide the various kinds of opportunities and benefits for Pakistan from socio-economic development to improved security across the country. In short, the CPEC will improve governance in Pakistan, be helpful in the eradication of poverty, and attract foreign investment.

4.5. Poverty Alleviation and Social Development

Reference [91] said that the local people of Pakistan on different routes of the CPEC will get many opportunities for employment and business, which will further enhance their income level. Moreover, in rural areas of Pakistan, the CPEC will create drastic changes and bring infrastructural development and prosperity. Reference [44] assessed that the CPEC will uplift the social development of Pakistan through the implementation of different projects such as energy production, infrastructure development, and the establishment of new industries. These projects under the CPEC will produce new job opportunities for Pakistani youth and will be helpful in poverty alleviation. Rural, remote areas will connect with cities. Moreover, technical and vocational centers will also improve the social condition of the Pakistani society by providing training about new modern technology that will transfer to Pakistan under the CPEC.

4.6. Sustainable Development

Sustainable Development Goals (SDGs) have become of central focus worldwide due to their favorable outcomes in health, environment, sustainability, quality of life, and economic development [92]. The necessary facilities of life such as health, education, transportation, market, and banking can be easily accessed through the CPEC in remote areas of Pakistan. Health and education are significant factors in sustainable development, and improvement in these two factors lead to a better standard of living. The results of the binary logistic regression showed that CPEC will be helpful in the socio-economic development in the study area, and socio-economic development is the ladder towards sustainable development in Pakistan. According to globalization theory, cultural exchange and communication, technology transfer, and interconnectedness are going to increase in the region under the BRI. Under the CPEC, the transformation of human capital knowledge and technology will play a vital role in the development of Pakistan. Physical capital is expected to improve the urban sector by industrialization, which will further stabilize the economy of Pakistan. Infrastructure-led development is the foundation of socio-economic development. Natural resources and social infrastructure are planned to be effectively used under the CPEC. The results of this study are supported by growth theories, globalization, and infrastructure-led development theories. Pakistan has introduced many institutional reforms in the industrial sector to improve domestic economic growth. Additionally, the CPEC has become a source of FDI, which will play a catalyst role in the stabilization of the shaking economy of Pakistan. The CPEC is a multidimensional project under the umbrella of the BRI, which is the leading development process in Pakistan for sustainable development. The development of infrastructure will be helpful in socio-economic development, poverty alleviation, and improving the living standard of people. Further, it will also be helpful in the reduction of the development gap between different regions. The goal of sustainable development can be achieved only through a multidimensional development project.
5. Conclusions

Chinese investment under the CPEC mainly consists of infrastructure development, energy production, and social development. These sectors directly contribute towards the GDP, provide employment opportunities, and increase socio-economic development. This study has explained the impact of CPEC investment on the GDP growth, energy production, infrastructure development, and employment provision of Pakistan. The Chinese investment under the CPEC is worth $62 billion, out of which more than $20 billion has already been spent under different projects. This investment has directly contributed to Pakistan’s economy at around 8% of the total GDP of Pakistan. This investment has brought a stimulus to the GDP growth of Pakistan. The projects under the CPEC, such as transportation, trade, and construction, can create thousands of new job opportunities for the unemployed people of Pakistan. As soon as the CPEC is operational, industrial, and economic zones on the route of the corridor will also produce new employment opportunities. The CPEC will have a positive impact on economic development by creating jobs and business opportunities for local people. Cultural transmission is also happening under the CPEC through language and educational exchange programs. Rural areas will connect with cities after the development of rural infrastructure. Rural development is a vital aspect of sustainable development. The CPEC has become an initiative for sustainable development in Pakistan.

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