Socio-Economic Gains Of China Pakistan Economic Corridor (CPEC): Synthesizing The Effects In The Wake Of Global Pandemic

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Abstract
Economic ties between Pakistan and China were developed from 1959 through Shahrah e Korakoram and the instigation of CPEC project has efficiently enhanced the economic and strategic ties between neighboring countries. However, outbreak of COVID-19 has posed various questions regarding the future prospects of CPEC and its significance especially for Pakistan. In fact, Pakistan and China both have worked together to devise strategies to deal with the prevailing issues. Though Pakistan was also surrounded by issues associated with balance of payments and pressure was also raised from IMF and FATA. However, there are some blessings also for the country as COVID-19 might also give Pakistan unexpected economic relief which may not only benefit CPEC but also Pakistan’s economy. Therefore, to have realistic view regarding the impact of COVID-19 there is a need of thorough and proper research so as to have final stance regarding the issue. Though lack of authentic data regarding investment of CPEC as well as economic relief and COVID-19 are hindering in research and policy formulation, therefore, the focus of this study is towards the assessing of effect of COVID-19 on CPEC through the opinion of leading economists. The data was analyzed through SMART-PLS which indicated that COVID-19 is producing significant positive impacts economically and socially.

Keywords: CPEC (J11), COVID-19(E00), Pandemic and SMART-PLS (M54 & D91)

INTRODUCTION
CPEC is proposed and envisioned by the Chinese premier Li Keqiang as the junction of 21st century maritime Silk Road and Silk Road economic belt as major project of (BRI) Belt Road Initiative (Bhattacharjee, 2015). The project was initially launched in 2015 when 82% of Pakistan’s nation was in favor of China which is the top most level of support for China from any other nation (Rafiq, 2019). China promises to invest around $46 billion in different developmental projects of CPEC out of which $34 billion are separated for 17,000 megawatts of electricity. The remaining portion will be spent on improvement and up-gradation of transport infrastructure. Other than these benefits CPEC investment will also resulted in increase of 2% of overall GDP of Pakistan (Bhattacharjee, 2015). Thus, it is ideal to believe that project will not only improve economic ties between two countries but will also enhance their strategic relationship (Sultan, Omar & Imtiaz, 2019). The revenue generation from project will starts from $ 1.5 billion and will reach 5 billion in 2022 (Sultan, Anila & Soniya, 2019). Project will also connect most under developed & far-western region of China with deep sea port of Gwadar through Pakistan occupied Kashmir & the estimated date of compilation for CPEC is 2030 (Bhattacharjee, 2015).

STATEMENT OF PROBLEM
Outbreak of COVID-19 is creating massive hindrance in achievement of financial targets as parameters to achieve these targets seem to have negative slope. Hence every country needs to recalibrate its financial targets. Pakistan is also suffering from the same but the country is also suffering from several other economic constraints thus ability to provide relief to local public is also on the lower side as compared to other countries. In due course country might also face difficulties in paying debt to international donors (Jamal, 2020). On the other side CPEC is a route which is optimizing the association between Pakistan and China; hence effect of recent condition over progress of CPEC must be observed delicately. This statement has massive significance not only due to the economic ties between Pakistan and China but also due the fact that China is the country from where COVID-19 was initiated. Hence legitimate to believe that the impact of recent situation is significantly important for CPEC as well as for BRI (Mehdi, 2020).
On the other side some other measures are also be taken by both of the neighboring countries to boost CPEC effectively, major examples include Memorandum of Understanding (Mo Us) in the fields of healthcare, technology, agriculture and technology. Therefore operations of CPEC must remain unaffected & for that both of the neighboring countries are paying their full attention and concern to limit the spread of COVID-19 (Ali, 2020). Hence economist associated with leading newspapers and magazines are incorporated for analyzing the impact which will aid to policy generation as demanded by Mehdi (2020). Inclusions of these knowledgeable personnel with massive insights regarding the situation are required to conduct this study.

THEORETICAL FRAMEWORK:
Study based on three variables COVID-19 (IV) affecting the world economy (DV) with special emphasize on CPEC (Mehdi, 2020) and unexpected economic relief as moderating variable as indicated by Jamal (2020).
RESEARCH QUESTIONS

RQ.1: How COVID-19 might affect progress of CPEC?
RQ.2: Is there any role of unexpected economic relief in the progress of CPEC?
RQ.3: Will China-Pakistan strategic and economical relationship continue after COVID-19?
RQ.4: How policies might be devised to diminish negative impact of COVID-19 from future prospects of CPEC?

LITERATURE REVIEW

Routes of the project are under dispute (Sultan & Omar et al., 2019), though CPEC will be massively beneficial for future prospects of the Pakistan (Mehdi, 2020). In fact, there is no question on significance of the project for both Pakistan and China. Thus, the spread of COVID-19 cannot be taken away from the future prospects of CPEC, especially when the origin of virus is China (Mehdi, 2020). For now, both of the neighboring countries look extremely conscious regarding the impact of COVID-19 on different projects of CPEC (Ali, 2020). However, some of the routes of CPEC are still found to be in severe dispute which also fosters the need of research on the topic (Sultan and Omar et al. 2019). Therefore, there is a requirement of effective policies and practices to deal with the issue and therefore research conducted in this regard must be in the reach of masses (Mehdi, 2020).

Hence, studies must not remain limited to academic circles & top political hierarchy and think tanks must take initiative to make research activities holistic to benefit masses (Mehdi, 2020). This requirement must be placed at top priority as the opponents of the project are now criticizing and blaming the project as major source behind outbreak of COVID-19 in Pakistan & this may further harm the situation if project continues (Ali, 2020). On the other side, Pakistan was under immense pressure due to issues of balance of payments and struggling to find opportunity that could aids country in getting out of this situation. Government tried several measures to deal with the prevailing condition for e.g. increase of tax rates and imposing of tax regime etc., but unable to control the crises. However, COVID-19 might also result in economic relief but there is a need of realization of this opportunity by the strategic and economic planners (Jamal, 2020).

This claim is valid as previously international monetary fund (IMF) was continuously intervening in financial decisions of Pakistan and also tried to influence financial transactions associated with CPEC. Similarly, financial action task force (FATF) was also trying to intervene in the financial policies of the country. In fact, they were also in opinion for summing up Pakistan’s case till mid 2020 which may result in blacklisting of the country. Though due to the outbreak of COVID-19, leverage granted to Pakistan might be extended till September 2020 (Jamal, 2020). Hence there is a definite need to investigative the impact of COVID-19 on the future prospects of CPEC especially when the situation may yield unexpected economic relief to Pakistan. However, up till now there is a severe lacking of studies on effect of pandemics on economic projects like CPEC. Therefore, research must consider Mehdi (2020) and Jamal (2020) that policy development is must
to deal with the burning issue of CPEC & therefore economic planners of Pakistan must understand this issue and possible implications. The problem became severely complex as of China, as location is responsible for the origination COVID-19 (Mehdi, 2020). On the other side government of Pakistan was under immense pressure from IMF which demanded major amendments in the procedure of financial decision making. Similarly, enormous pressure was imposed by Washington to disclose terms associated with the transactions linked to CPEC (Jamal, 2020).

Problems became further intense due to shortage of workers as workers left to China to celebrate New Year failed to return on time due to lockdown. In fact there is a minimum requirement of 100,000 workers and 15,000 engineers to manage work but it was impossible for China to relax the sanction at that time (Mehdi, 2020). Hence might result in downfall in the project although during these tough situations both countries helped each other and show brotherhood and solidarity (Mehdi, 2020). Due to which the most important ventures of CPEC i.e. Gwadar port remains operational even during COVID-19. Thus, the virus which harms shipping industry all over the globe in most drastic manner failed to harm the Gwadar port and shipping industry of Pakistan which ultimately produces extra ordinary positive impact of Pakistan’s economy (Ali, 2020).

**RESEARCH HYPOTHESES**

**H1A:** There is a significant relationship between outbreak of COVID-19 and future prospects of CPEC

**H2A:** There is a significant relationship between unexpected economic relief and future prospects of CPEC

**H3A:** Unexpected Economic Relief does not moderate the relationship between outbreak of COVID-19 & future prospects of CPEC

**RESEARCH MODEL**

![Research Model Diagram](http://www.webology.org)
RESEARCH METHODOLOGY:
Research Methodology refers to the general logic and theoretical perspectives used in the any study while methods are the tools and strategies which are used for analysis and interpretation.
In the case of quantitative studies researcher assume that methodology is supplemented with philosophical assumptions and the reality which researchers is trying to uncover is objective and tangible in nature (Long, 2014). Therefore, the methodology of this study has been divided into two parts i.e. research design and sampling design.

Research Design
Study uses ontology as the philosophy which is helpful in conceptualizing the nature of reality and also in giving meaning to the result. Hence the philosophy can be used to check what we perceive about the nature or realities that are really vibrant or not? (Kivunja & Kuyini, 2017). The philosophical stance used is constructivism as the study is based on the opinion of different economist and writers. Hence it is appropriate to declare that it follows the perception of economists and the perception is made by experiences of respondents. Hence, constructivism is legitimate to be used (Creswell & Creswell, 2017 & Creswell & Clark, 2017). Method which has been incorporated is deductive as this study aids in development of proper framework and conceptual framework prior then testing and analysis.

Moreover, through using this method research can integrate new theory with the available literature, ideas and knowledge (Pathirage, Amaratunga & Haigh, 2008). Research instrument used is a combination of adapted and self-administrative questions as there was severe lacking of quantitative studies on COVID-19 through primary data. However, measures to gauge perception regarding CPEC and its investment were available. Although to legitimize questionnaire it was passed through pilot testing and the time horizon associated with was cross-sectional (Saunders, Lewis & Thornhill, 2009 & Sekaran & Bougie, 2017). On the other hand, study takes the reference of Saad Xinping Ijaz (2019) that data must also be taken from those locations which are not directly related with CPEC. However, data collection from residents might not yield appropriate results as one of the major objectives of this study is to visualize the impact of extra-ordinary economic relief. Therefore, it is not proper to include residents in population to conclude on these sorts of objectives effectively. Thus, to conclude more vividly on the topic study takes the reference of economists working in news and information industry. This might aid in deep analysis which may provide more authentic and accurate picture than the picture provides by the opinion of local residents of areas under CPEC.
Quota sampling has been to collect data as this method has a definite edge over random sampling where response rate is slow and might also increase cost of sampling (Yang & Banamah, 2014). Although the target population was busy in and not in the state to provide proper time. Thus, the decision to incorporate quota sampling became more reasonable as it is able to produce similar results as from wider population (Taherdoost, 2016).
Sampling Design:
The sample size for the study was 170 respondents as only those economists were selected which have interest in CPEC and have experience of editing or publishing news on CPEC. Moreover, sample size is based on 10-rule by Hair Ringle and Sarstedt (2011) that sample size might be obtained by arrows linked with any latent variable in the construct by ten (10). Furthermore, study has three variable and each variable has five elements therefore the sample is appropriate enough for analysis but the formulation of questionnaire was not easy as the data as well as parameters are not available for devising closed ended questionnaire. Therefore, study also incorporates indication given by WHO and parameters of Yan et al (2020) regarding spread of H1N1. Similarly, there was no parameters available to device questions on unexpected economic relief therefore points indicated by Jamal (2020) are used for generating questions associated with moderating variable. Moreover, indication of to Saad et al (2019) and Sultan and Omar et al (2019) has also been incorporated to device questions on CPEC and investment associated with CPEC.

STATISTICAL TESTING AND ANALYSIS
The study is based on parameters which were not used previously hence the purpose of the study is theory building rather than generalization. Therefore, according to Hair Hult Ringle and Sarstedt (2016) and Hair Sarstedt Ringle and Gudergan (2017) use of SMART PLS is legitimate for statistical analysis. The model is reflective model as purpose is to gauge the effect of COVID-19 on future prospects of CPEC. The criterion has been assessed through Afthanorhan (2014) which also describes the way to analyze formative & reflective models through descriptive and inferential analyses.

Table 1 indicates outer loading range of variables used in the construct used to measure effect of COVID-19 on future prospects of CPEC. Afthanorhan (2014) indicated researcher is free to include variables in measurement model though any element which yields value of 0.5 or lesser must always be deleted. Study also revealed that 0.60 or above must be the least acceptable value outer loadings for any element. Though their inclusion became more potent with increase of value (Khan, Sarstedt, Shiau, Hair, Ringle & Fritze, 2019). Table 1 indicates that value of outer loading for any case is more than 0.60 thus none of these elements could be deleted.

**Outer Loadings**

**Table 1: Outer Loading**

<table>
<thead>
<tr>
<th></th>
<th>Future Prospects of CPEC</th>
<th>Moderating Effect 1</th>
<th>Outbreak of COVID-19</th>
<th>Unexpected Economic Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-COV1</td>
<td></td>
<td></td>
<td>0.868</td>
<td></td>
</tr>
<tr>
<td>O-COV2</td>
<td></td>
<td></td>
<td>0.883</td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Predictive Accuracy

Table 2 is used to highlight predictive accuracy for the model through the relationship of independent and dependent variable. The purpose of this tool is to indicate predictive variance of independent variable through ordinary least square (Benitez, Henseler, Castillo & Schuberth, 2020). However, the interpretation of the tool is same as the multiple regression (Andreev, Heart, Moaz & Pliskin, 2009) and the minimum value required for indicating relationship between IV and DV is 0.26 (Cheah, Memon, Chuah, Ting & Ramayah, 2018). Though, value of R-Square for this study is 0.659 which is bit lesser than the value required for substantial relationship, i.e. 0.75 or above. Thus in accordance with Henseler Ringle and Sinkovics (2009) and Hair Ringle and Sarstedt (2013) model found to be moderate fit.
**Figure 1** highlighting p-values to highlight confirmatory factor analysis (CFA) for the model of covid-19 on future prospects of CPEC

**Construct Reliability and Validity**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Prospects of CPEC</td>
<td>0.882</td>
<td>0.884</td>
<td>0.915</td>
<td>0.685</td>
</tr>
<tr>
<td>Moderating Effect 1</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Outbreak of COVID-19</td>
<td>0.948</td>
<td>0.949</td>
<td>0.960</td>
<td>0.828</td>
</tr>
<tr>
<td>Unexpected Economic Relief</td>
<td>0.870</td>
<td>0.873</td>
<td>0.907</td>
<td>0.662</td>
</tr>
</tbody>
</table>

**Table 3:** Construct Reliability Convergent Validity
Table 3 reflecting Convergent Validity through composite reliability & AVE, as among three elements of convergent validity i.e. factor loading, composite reliability and AVE (Ab Hamid, Sami & Sidek, 2017), above mentioned two are most important (Sijtsma, 2009). Table is also indicating Construct Reliability through Cronbach’s alpha (α), Dillon-Goldstein’s rho & composite reliability. However, α is treated as lower tier reliability evaluator (Sijtsma, 2009 a&b) and rho is better predictor than α (Ravand & Baghaei, 2016).

Heterotrait-Monotrait Ratio

<table>
<thead>
<tr>
<th></th>
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<th>Moderating Effect 1</th>
<th>Outbreak of COVID-19</th>
<th>Unexpected Economic Relief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Prospects of CPEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderating Effect 1</td>
<td>0.147</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outbreak of COVID-19</td>
<td>0.748</td>
<td>0.140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unexpected Economic Relief</td>
<td>0.787</td>
<td>0.411</td>
<td>0.533</td>
<td></td>
</tr>
</tbody>
</table>

Table 4: Discriminant Validity via Heterotrait-Monotrait Ratio (HTMT)

Table 4 indicating discriminant validity through Heterotrait-Monotrait Ratio (HTMT), the discriminant validity is used to highlight lack of correlation among variables of same construct (Cheung & Lee, 2010). The maximum acceptable value for correlation between two variables is 0.85 and any higher value is not significant in terms of HTMT ratio (Hair Jr. et al., 2017). However, the table 4 indicating maximum value as 0.787 and therefore significantly assuring HTMT ratio.

Path-Coefficient

|                               | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|-------------------------------|---------------------|-----------------|-----------------------------|---------------------------|----------|
| Moderating Effect 1 -> Future Prospects of CPEC | 0.015               | 0.015           | 0.024                       | 0.617                     | 0.538    |
| Outbreak of COVID-19 -> Future Prospects of CPEC | -0.454              | -0.454          | 0.062                       | 7.344                     | 0.000    |
| Unexpected Economic Relief -> Future Prospects of CPEC | 0.483               | 0.482           | 0.057                       | 8.435                     | 0.000    |

Table 5: Total Effects through Path Coefficient

Table 5 and figure 2 are used to show impact of COVID-19 on the future prospects of CPEC. The relationship has been highlighted through inferential statistics which is treated as one of the primer parts of reflective-measurement models (Hair, Risher, Sarstedt & Ringle, 2019). Table uses t-
values (Duarte & Amaro, 2018) as well as p-values (Kock & Hadaya, 2018) for indicating relationship. The minimum acceptable value for t-statistics required for relationship is 1.97 (Hair et al., 2011) and any higher value is the determinant of better relationship (Duarte & Amaro, 2018). On the other hand, maximum p-value required is 0.05 (Kock & Hadaya, 2018). Hence, in the light of these two parameters of inferential statistics, COVID-19 is producing negative impact on the future prospects of CPEC. Similarly, unexpected economic relief during COVID-19 might also affect future prospects of COVID-19 as highlighted through the opinion of leading economists. Although, moderation of unexpected economic relief could not reduce the negative effect of COVID-19 from the project (CPEC).

Figure 2 highlighting t-values in order to highlight path analysis for model developed to determine effect of COVID-19 on future prospects of CPEC

CONCLUSION AND DISCUSSION
Findings of the study are consistent with Mehdi (2020) as the virus resulted in strict lockdowns in China as well as in Pakistan thus caused delay in various projects. Thus, also followed teh indications of Daye (2020), as COVID-19 will produce negative impact of progress of CPEC. Findings also indicated that virus will also provide some economic relief to Pakistan from IMF and FATF (Jamal, 2020).
Similarly, continuity in operations of Gwadar during COVID-19 might also provide edge to the Pakistan’s economy. The statement seems to be valid as COVID-19 is a nightmare for shipping industry all over the globe but continuity of operations at Gwadar will definitely produce positive effect on Gwadar which will also reflected upon country’s economy. Although the point mentioned by Jamal (2020) was not proved by the survey as unexpected economic relief might not be able diminish the negative impacts of COVID-19 from CPEC.

AREA FOR FUTURE RESEARCH
Study has been done through opinion of leading economists so to predict the policy development as demanded by Mehdi (2020). Although the study might be done more effectively through using qualitative approach and phenomenological design to grasp detailed perspective of the situation. Although to achieve this purpose data collection would be bit difficult as opinion of general public, economist or researchers might not be found appropriate and interviews from top dignitaries of CPEC will be required to understand the real impact.

REFERENCES


http://www.webology.org


