

Chapter 18

The Impacts of the COVID-19 Outbreak on the Education Sector: Evidence From Pakistan

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ABSTRACT

The COVID-19 outbreak has prevented students from contributing towards the economic growth of Pakistan. It first disrupted the education system in China and later entered Pakistan to close all levels of educational institutions/sectors since the middle of March 2020. This study aims to highlight the COVID-19 outbreak's effects on educational sector in Pakistan. Pakistan's overall public sector expenditure as a percentage of GDP before the pandemic was already low as compared to regional level, but due to the pandemic, it has dropped down significantly. This study seeks to answer two important questions: (1) What are the impacts of COVID-19 outbreak on Pakistan? (2) Will the closure of educational institutions impact the economic growth of Pakistan? According to empirical and theoretical findings, the results show that the lack of school education for a long period of time will contribute towards unskilled human capital. The COVID-19 outbreak has impacted student learning activities, which may increase the drop-out rates, loss of mental health, and consequently, may impact the economic growth of Pakistan later.

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INTRODUCTION

The outbreak of Covid-19 in 2019 after the 1918 influenza pandemic has been recorded as the worst pandemic of the contemporary era. Surging in China and infecting every country has deeply impacted socioeconomic indicators worldwide. In one hand, the shock of the pandemic has seriously disrupted most advanced economies of the world such as the United States, China, India, Japan, and beyond and on the other hand, developing nations such as Pakistan especially has experienced this shock at the socioeconomic domain when it hit Karachi city an economic hub of the nation. The pandemic swept across the nation in few weeks where its effects were observed in the form of nationwide socioeconomic lockdown (Williams, 2021). This study is aimed at highlighting the effects of the pandemic in the form of Covid-19 on education and the economic growth of Pakistan. This study is unique as this approach provides a theoretical understanding of the pandemic effects on the nation. Also, the study has used various independent variables to highlight its impacts on the education and economic growth of Pakistan.

The study is divided into many sections. First, previous pandemics and the current Covid-19 have been highlighted. Second, the study has utilized different economics and social theories which is useful by providing an explanatory power to the current study. Third, a brief overview has shown the current education system in Pakistan as compared to the regional and international educational system of other countries. Fourth, the study has highlighted the impacts of education in Pakistan and the relationship of education with other indicators. The study has also examined the relationship of education with the economy as a major indicator. The concluding part of the study has examined the pandemic's causal relationship with the socioeconomic system of Pakistan. The current study is useful in many aspects by inviting further debates on the topic which would be useful for the policy formulation aiming at addressing issues related to social and economic indicators in regards to education.

AN OVERVIEW OF PANDEMICS

Human history has recorded numerous epidemics including smallpox, cholera, dengue, acquired immune deficiency syndrome (AIDS), influenza, respiratory infections severe acute respiratory syndrome (SARS), West Nile disease, and tuberculosis. The flu pandemic is an unpredictable but repetitive event that can have serious consequences for communities around the world. The flu epidemic has hit nearly three times every century since the 1500s, or almost every 10-50 years. In the 20th century, there were three pandemics called the "Spanish flu" in 1918-1919, the "Asian flu" in 1957-1958, and the "Hong Kong flu" in 1968-1969. (Covid-19 and Children, 2020). Each pandemic affected human life and economic development. Recently, the origin of this catastrophic Covid-19 outbreak (Cov-19OB) first froze social mobility in Wuhan city in Hubei Province of China and the rest of the world. In December 2019, patients were reported with clinical features resembling viral pneumonia (Huang et al., 2020). Chinese researchers named initially as nCoV, but the International Committee on Taxonomy of Virus called it as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). World Health Organization (WHO) on the same day named pneumonia as Covid-19. Later, WHO declared Covid-19 as the Sixth Public Health of Emergency Service (SPHEC) on January 30, 2020. China's bordering countries such as Pakistan with the first infected case was detected on February 26, 2020, in the city of Karachi, Sindh Province. The estimated population of Karachi is 204.65 million. The virus easily swept across the country and has

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currently become an epidemic (Abid, 2020). The total number of confirmed cases indicates in Figures 1 and 2 which shows that the virus multiplied more from April 2020 to July 2, 2020 (ZME Science, 2020).

Figure 1. Total confirmed cases

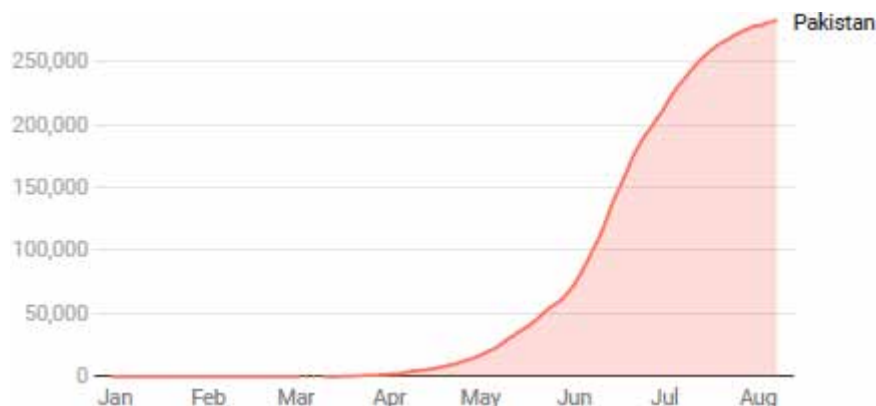
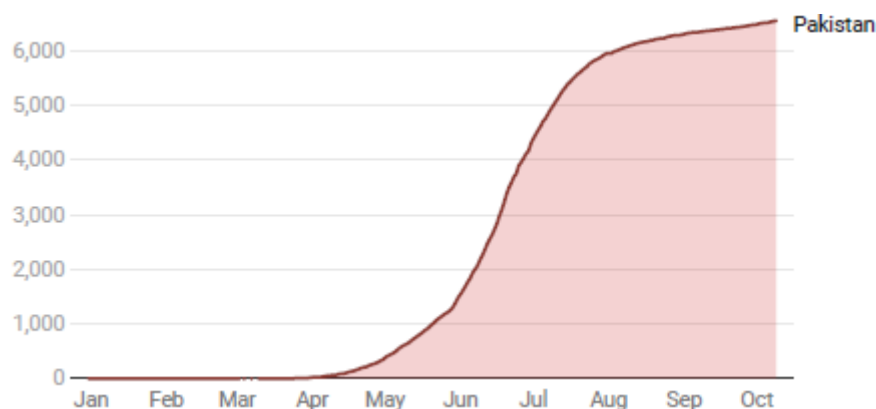


Figure 2. Total fatalities reported per day



Later, Covid-19 spread via traveling to other cities, and the same day another case was confirmed in Islamabad (Waris et al., 2020). According to fresh data, the total number of infected cases has crossed over 6,153, and 287,300 are the confirmed cases in August 2020 in Pakistan. With this, Pakistan was on the cusp of Cov-19OB in March 2020. This pushed the country to ban international flights in March 2020. This action made the Pakistani people not travel for unnecessary things. It was followed by a lockdown of all socio-economic activities in the country. The Prime Minister of Pakistan officially announced a lockdown of the country on March 22, 2020 (Srivastava et al., 2020). Lockdown has also closed all educational institutions worldwide including Pakistan. Cov-19OB has affected almost 46,803,407 enrolled students in Pakistan. Sector-wise enrollments comprise: pre-primary level 8,636,383, secondary level 13,357,618, and tertiary level 1,878,101 are out of their schools, colleges, and universities (Saeed, 2020).

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Education is the foundation of international progress; that is why its sustainability is so important to the growth and development of all nations. Education over the past several centuries had faced many challenges ranging from changes in the school curriculum to the closure of educational institutions due to student or staff protests, outbreaks, and/or instability in national administration where the Pakistani education system does not prefer. Pakistan's education system has been plagued by challenges such as curriculum changes that lead to educational challenges, student violence, and possible outbreaks of diseases that may / may not lead to school closures.

The Coronavirus epidemic has affected education systems around the world, leading to the widespread closure of schools in the affected countries. As of March 28, 2020, more than 1.7 billion students have been illiterate due to non-formal schools due to the epidemic. In addition, school closures due to COVID-19 highlighted various social and economic problems, including student debt (Mamun & Ullah, 2020), digital learning, food insecurity and homelessness, and access to child care, health care, and housing (Mustafa, 2020). The recent outbreak of infectious diseases has led to widespread school closures worldwide with varying degrees of activity. This study aims to explore the Covid-19 outbreak's impacts on education in Pakistan. First, the paper has highlighted education as the basic human capital mobilizer conceptually to understand its role towards economic growth (EG) of Pakistan. Second, the study has briefly explored the previous history of education. Finally, the current paper shows the Covid-19 outbreak's impacts on learners' physical and mental developments such as dropouts' issues, mental development such as mental stress, and other related issues.

ANALYTICAL FRAMEWORK

Many theoretic and economic models have examined the impacts of education on the EG of a country. Developing countries such as Pakistan and others are spending on education to accelerate economic growth. Investment in education in the early childhood of the nation advances problem-solving skills, learning skills, communication skills, personal skills for self-management, and social skills (Patrinos, 2016). Previous studies have revealed the correlation between educational expenditure and economic growth. The high rate of enrollment in higher education leads towards the higher EG rate of a country. The investment in human capital has been tested in Pakistan, the United States (US), and other countries to determine the impact of education on economic growth. It has been revealed that it has a positive impact on the Gross Domestic Product (GDP) of a country. The countries with high enrollment in schools grow faster in terms of per capita income leading to more productivity in a country (Eric & Ludger, 2007). Bils & Klenow (2000) have worked to show the causality of educational spending and GDP. They have used the Granger causality model which has revealed positive impacts on the economy of a country to accelerate EG (Reza and Valeecha, 2012).

Prior models such as the neoclassical models have examined the contribution of education towards economic growth. In the 1960s, the empirical studies of Shultz and Denison revealed that the Western economies flourished with the increasing enrollment in schools, colleges, and universities. Other studies were conducted regarding the impacts of education on the national growth of a country such as period Gary Becker, Jacob Mincer (1955—75) have found that it increases earnings or estimated rate of returns (Teixeira, 2014). A survey was conducted to determine the impact of education on the EG of Ghana and Mexico in 1984. The results showed that a 1% increase was detected in Mexican national economic growth and 23% of Ghana (Ozturk, 2001).

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According to neoclassical growth theories, there are three mechanisms of education to impact EG. First, it develops and increases human capital inherent in the labor force which in turn enhances productivity. This leads to a high level of equilibrium of output. Second, according to endogenous growth theories, it creates innovative capability of the economy which leads to greater knowledge regarding technologies and products which promotes growth. Third, education helps to diffuse and transmit knowledge about new technologies produced in the developed world for the developing countries. Along with these theories, empirical studies have found that the indicator of education has affected the EG (Hanushek & Wobamann, 2010).

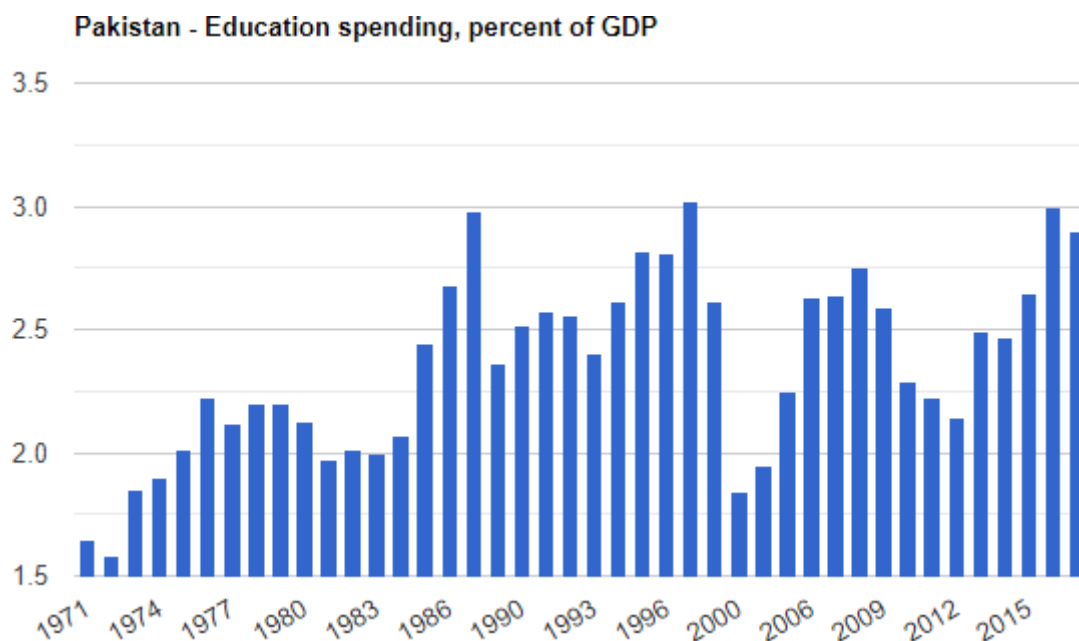
Education in Pakistan

In developing countries like Pakistan, the education sector is an international outlier in terms of gender gaps. According to the United Nations Education, Scientific, and Cultural Organization (UNESCO), the current situation has forced 190 countries to close their educational institutions including Pakistan and other countries across the world. The pandemic has impacted around 1.6 billion students that is a 91% student population worldwide. In order to keep the students safe, Pakistan has closed down all educational institutions since mid-March 2020 and implemented a social distancing policy to prevent the spread of the virus (Hazirullah, 2020). Before the outbreak of Covid-19, Pakistan has been reported by United Nations International Children's Emergency Fund (UNICEF) showing the major challenge of the world's second-highest number of out-of-school children where 22.8 million children aged 15-16 out of school which are comprising of 44 percent of the population in this age of group. This condition becomes more severe when children with age of 5-9 not attending schools. The record has shown that 5 million children comprising in this age of group. This situation doubles with age of 11.4 million adolescent between the age of 10-14 indicating that they are not receiving formal education. The severity of challenges for education sector in Pakistan exacerbated by many factors where among such factors are: gender, poor socio-economic condition and the geographic indicators (UNICEF, 2020). Pakistan as the record has shown facing extreme challenge to the education sector, however, with arrival of novel Coronavirus as an independent variable has pushed the country into another challenge.

The closure of educational institutions associated with the slash to growth of Pakistani economy. According to Moody's projection Mogaji (2020), about overall EG of Pakistan, the growth rate of Pakistan was reduced by 2.9% in the mid of March 2020 and by the end of March 2020, the growth rate was further reduced to 2% from the 2.9%. The real GDP loss is now 3% in the mid of June 2020. The projection of both Moody's and Asian Development Bank (ADB) are in line with the growth estimation of Pakistan. The Pakistani authorities have projected loss to GDP by PKR 2.5 trillion due to many factors such as supply shocks, disruption foreign trade, and suspension of operations of service and manufacture industries in the third week of March 2020. The Planning Commission of Pakistan has declared that the Covid-10 infection would lead to a 0.8-1.3% loss in the GDP. This situation would bring the EG to fall from 3.3% to 2.5% (Sareen, 2020). In the education sector, Pakistan is spending less as compared to other countries as a percent of GDP. For example, out of 80 countries, the government spending on education is less as compared to 4.21% of other countries. In case of Pakistan the public expenditure on education was recorded 2.9% in the FY 2017. The detail of public spending on education percentage of GDP from 1971 to 2015 is shown in the Figure 3 (Pakistan: Education spending, percent of GDP, 2020).

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Figure 3. Pakistan-education spending, percent of GDP



The public expenditure on education as a percentage to GDP has declined continually in the region in the FY 2018 of Pakistan. According to economic survey of Pakistan for FY 2018-19, public expenditure on education was estimated 2.4% which was lowest in the region. The United Nations Development Program (UNDP) has reported that Pakistan has ranked 150th out of 189 countries with Human Development Indicator (HDI) value of 0.562. The educational indicators have shown that only Afghanistan lies behind in the region in this context. Other countries improved HDI as compared to Pakistan. The data provided by FY 2018-19 has shown an increase in expenditure on education since 2013-14. Although spending on education sector in Pakistan has increased since 2013-14, it is still the least in global context. In 2018-19, Pakistan spent only 2.4% in this sector which ranks it 150 out of 189. Moreover, Pakistan is at second last within the south Asian region which has spent on education sector (Amin, 2019).

However, the public expenditure on education to GDP has decreased in the current economic survey of Pakistan. Overall GDP growth of the country has estimated contracted by 0.38% against the revised projected target of 2.4% in the FY 2020. The loss to the GDP growth has come from many sectors performing negatively such as industry recorded -2.64%, service sector recorded -3.4%, transport and communication recorded -7.1% and manufacturing contracted by 22.9% for April-June 2020 (Editorial, 2020). The contraction to the GDP growth has significantly affected the budget for public spending on education in FY 2019-20. This loss to the GDP by over PKR 3 trillion has claimed by Advisor to the Prime Minister on Finance and Revenue Dr. Abdul Hafeez Shiekh due to the Covid-19 pandemic (Amin, 2019).

The reduction in the public expenditure for Education Affairs and Services in the federal budget has come down from PKR 97.155 billion to 77.362 billion in the 2019-20 revised allocation. The current has decreased by 20.5%. The current reduction has affected the higher education that is lowest percentage in the region. The budget for Higher Education Commission (HEC) under the Public Sector Development Program (PSDP) has declined from PKR 35.830 billion to PKR 28.64 billion in 2020. This was later

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revised downward to PKR 30.961 billion for 2019-20. However, HEC has demanded PKR 55 billion under the PSDP for 2019-20. The government allocation for Education Affairs and Service has declined from PKR 2.831 billion to PKR 77.262 for Pre-primary and Primary Education Affairs for 2019-20. The amount allocated in the 2018-19 budgets was PKR 10.120 billion. This amount was further distributed in total PKR 6.718 billion for Secondary Education Affairs and Services, the budget for Tertiary Education Affairs and Services has declined from 71.824 billion to PKR 65.233 billion in the 2019-20 (Amin, 2019).

METHODOLOGY

This research led to a systematic review of the literature, which discussed in more detail the subject of research in the field. The advantage of systematic literature reviews is that it allows researchers to report on the most relevant subjects and to apply critical evaluations of these sources. As Dochy (2006) argues, the procedure aims to reduce bias and increase the strength of the study. This study focuses on education sector by looking at the general views submitted by previous researchers, with the aim of proposing an appropriate theoretical framework. This means that this systematic review of literature should have focused on topics most closely related to the field. For this we studied the available books, journal articles, newspaper articles and news channels which enlightened me about many aspects of the Covid-19 pandemic. The present study is based on observation. Additionally, secondary sources were utilized to analyze and interpret to know what other researchers have examined.

Impacts of Covid-19 Outbreak

Apart from reduction of public expenditure on education that is caused by shrinking of EG, the closure of educational institute due to current Covid-19 pandemic has adverse impacts on social and economic costs particularly for the most vulnerable and marginalized girls and boys of the community in Pakistan. This leads to exacerbate the existing disparities in the education system and other aspects of their lives. According to UNESCO, the learning is interrupted which affects children and youth. They are deprived to grow and develop. Under privileged students are facing disproportionate disadvantages and have fewer opportunities beyond their schools. The longer school closure caused other adverse impacts such as dropout rates, increased exposure to violence and exploitation, social isolation, decreasing human mental development, high economic costs for the parents and other adverse impacts (UNESCO, 2020).

Student Dropout Rate in Pakistan

Student dropout rate is an adverse effect of many factors but the most important one in Pakistan is due to poverty. Low socioeconomic status leads to poverty. It has a large, pervasive, and persistent influence on an education of children in a family. Although other factors such as culture also contribute to dropout rate from schools, colleges and universities in Pakistan, however, the most striking is the cause of poverty before the pandemic and the current situation will trigger to the worst situation. Pakistan is the second highest in the world after Nigeria with 5.5 million children out of schools and with more illiterate adults after India and China (UNESCO, 2020). Moreover, Pakistan is among 21 countries with learning crisis due to number of indices such as enrollment, dropout rates, performance, and literacy (Ahmed et al, 2014). Poverty has triggered both the national level financing education and as well as

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the international level to ensure more enrollment and less dropout rate from the school in Pakistan. According to UNESCO, one out of four children will not be completing primary school by 2030 (Ahmed, 2019). Poverty has hit hard girl education in Pakistan amid the pandemic.

Impact on Girl Education

Findings have shown that women literacy rate contributes towards economic growth and economic development of a country. In this regard, an efficient educational system affects advancement of a society positively when everyone has equal access to education in that country (Parveen, 2008). Despite revelation of these findings in some countries like Pakistan human capital is not supported by economic development and economic growth. History has shown that Pakistan has recorded adequate GDP growth rate, however, the indices such as human development has been a neglected indicator (Husain, Qasim, & Sheikh, 2003). Women comprising half of population in Pakistan; however, experts have found that it has faced major discrimination in the form of women empowerment through education (Hasani, 2013). By empowering women in the form of education it would not only reduce educational discrimination but also would lead to more economic growth of Pakistan.

Girl education is an independent variable positively affecting poverty in a nation which leads to poverty reduction. Examples include in the African and Middle Eastern countries. In these countries socioeconomic positions have become more stable of women and other affects have observed in the form of reduction in the fertility rate (Dauda, 2012). In the case of Pakistan, studies conducted have revealed so far that there is a long U-shaped relationship female labor force and economic development. The outcome of this relationship has caused more female labor force participation in the market and more economic development (Mujahid & Zafar, 2012). The Table 1 below provides the detail of correlation of female education (Hassan, & Rafaz, 2017).

Table 1. Correlation of education

	Female Education	Labor Force	GDP	Education Expenditure
Female Education	1.000			
Labor Force	0.398	1.000		
GDP	0.454	0.962	1.000	
Education Expenditure	-0.06	0.198	0.373	1.000

These variables in the table such as female education female, labor force, GDP and educational expenditure have correlation. Regarding female education has affected their participation the market place positively in the form of providing labor force and overall economic growth in the country. In one hand, the above data has revealed that the more a female labor force participation in the market the more it has affected economic growth positively, however, the data has revealed it has negative impacts on the economic growth as regards to less expenditure on their education in any country. The correlation of female education has negatively affected besides negligible allocation of fund to women education in Pakistan the other independent variable has also negatively affected by the outbreak of Covid-19 girls'

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education in Pakistan. Additional detail of gender inequalities is highlighted below as Figure 4 (UN Women Pakistan, 2020).

Figure 4. Gender inequalities



Poverty and Gender Gap

Previous empirical and theoretical studies have revealed that low socioeconomic condition disrupts education in all countries including Pakistan. Economic crisis that is emerging out of Covid-19 pandemic in Pakistan may result in increased poverty (Shah et al, 2019). Gender gap has been associated with the problems of sustainable development of Pakistan. Women play pivotal role in the development of economy. However, the current situation has not only triggered the global gender discrimination but also in Pakistan, according to UNESCO, the school closure will hit hard girls and will lead to dropout rate particularly adolescent girls disproportionately to entrench the gender gap further (UNESCO, 2020). According to UNDP, gender gap has widened during the outbreak of previous attack of infectious diseases such as Ebola in Sierra Leone (UNESCO, 2020). Many studies indicate adverse effects of COVID-19 on low-income countries including Pakistan (UNESCO, 2020).

Impact on Democracy

The adverse effects of declining economic growth of Pakistan due to Covid-19 may generate and exacerbate issues associated with democracy, terrorism, economic growth, leadership, conflicts. Education is a soul of democracy. Democracy is crucial for Pakistan for its economic development which will impact the education sector. As Franklin Roosevelt has said in a message for American Education week on September 27, 1938, “Democracy cannot succeed unless those who express their choice are prepared to choose wisely” (Davis, 2021). The guardian of democracy is education. In this sense, education prepares citizens to choose wisely and freely (Kominiak, 2019). Lack of education in Pakistan has created terrorists’ groups in Pakistan which has jeopardized the national and international security of people. The lack of access to education to every child in Pakistan has not promoted the economic growth. The existing studies have identified that education is a key to economic development (Quddus, 2018).

Impacts on Children’s Parents

The pandemic has also negatively affected the physical and mental health of Pakistanis. Many of the labour migrants from the Middle East have returned to Pakistan amid the Pandemic. There are reports that many migrants from the UAE have come to Pakistan without pay (Turak, 2020). The UNDP has warned that socioeconomic impacts are far more than a health crisis. Socioeconomic impacts will increase poverty and inequalities in the most affected countries. This will escalate and jeopardize lives

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and livelihoods in years to come (UNDP, 2020). People believe that lower SE ranking in the society impacts family relationships. What if Covid-19 exacerbates and lowers the economic ranking of Pakistani families? Mental stress and turbulent family relationship are the natural outcomes of joblessness. Lower socioeconomic prevents you in pro-social behaviors to work voluntarily and help others and thus build lack of moral development.

According to UNICEF, an estimated 22.8 million Pakistani kids between 6-16 years of age are out of schools in Pakistan. This has ranked Pakistan as the world's second largest number of out-Of-School Children (OOSC). The OOSC makes 44% of total population of Pakistan. Children of age 5-9 comprising 5 million are not enrolled in school and it becomes double after primary school age. This makes 11.4 million adolescents between the age 10-14 not receiving formal educations in Pakistan (UNICEF, 2020). The dropout rate is based on many factors but the most seminal is the economic ranking of a family which determines school enrollment of their children. The arrival of novel Corona virus has severed this situation because many daily wages worker, private jobs keepers are out from their work places that would make the parents unable to impart the right of education to their children. In this context by highlighting another independent variable where its study needs here would help us in income loss due to pandemic which has caused income inequalities particularly the most marginalized.

Income Loss due to Covid-19

It has been estimated that 930,000 children drop-out rate expected both at the primary and secondary educational level. The previous discussion has shown that about 22 million children are not attending schools in Pakistan and this would be representing an increase by 4.2 percent. A record where various barriers have already affected children in Pakistan out of schools, but the current pandemic affecting a family income level may exacerbate the drop-out rate alarmingly. The estimated drop-out rate is based on income elasticity of education for multifarious socioeconomic quintiles. This situation is based on Pakistan's growth estimates in June 2020 which were estimated to be -4.4 percent (World Bank Predicts Sharpest Decline of Remittances in Recent History, 2020). It is argued that income is only one aspect impacting education (Field, 2010). In case of Pakistan the Covid-19 pandemic have affected its national economic growth so far estimated by various sources. The report released by UK-based Economic Intelligence Unit (EIU) has highlighted the impacts of pandemic on the GDP of Pakistan to contract by 1.6% in the fiscal year 2020-21 and will grow in the next fiscal year 2020-21 by 2.9%. The negative impacts of pandemic on the balance of payments will be supplemented with the help of International Monetary Fund (IMF), multilateral and bilateral donors. With this, the currency of the country will be depreciated against the US dollar by 17.7 from an annual average of RS160.8: US\$1 in 2020 to RS1768.5:US\$1 in 2024. As the current pandemic has global ramification this will slow down the overseas worker's remittance with a sharp decline. The employment will further plummet to 11.8% in 2020-21 and thus will be continued to go further down to 9.4% in 2021-22. The increase in unemployment will stay the same in the 2021-23. However, there will be decrease in the unemployment up to 8.4% during 2023-24. (Mustafa, 2020). To reduce the adverse economic impacts of Covid-19 on the economy and other social adverse effects the government has approached towards IMF along with other donors for financial support in the middle of 2020.

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Economic Indicators	IMF	IMF	IMF	World	Bank	ADB	ADB
	FY20(Pre-Covid-1)	FY20 (Post-Covid-19)	FY21	FY (Post-Covid-19)	FY21	FY(Pre-Covid-19)	FY21(Post-Covid-19)
Real GDP Growth Rate (%)	2.4	-1.5	2.0	-1.3	0.9	2.6	3.2
Inflation (%)	11.8	11.3	8.0	11.8	9.5	11.5	8.3
Fiscal Deficit (% of GDP)	-7.2	-9.2	-6.5	-9.5	-8.7	-8.0	-
Export Growth(%)	5.6	-2.1	-4.7	-19.7	-5.3	-	-
Imports Growth (%)	-8.8	-16.0	3.0	-26.3	-7.7	-	-
Remittance Growth (%)	3.4	-4.8	-1.5	-6.5	-6.0	-	-
Current Account Deficit (%) of GDP	-2.2	-1.7	-2.4	-1.9	-2.0	-2.8	-2.4
Debt (%) of GDP	84.6	89.8	87.8	90.6	91.8	-	-

Pakistan had already been struggling to make the current account and fiscal deficit stable, but the pandemic has exacerbated the vulnerabilities to its economy. IMF while observing the impacts on the economy has suggested to Pakistan to continue fiscal consolidation. The country has already high and unsustainable debt to hit 90% of the total value of national economy. Due to the increasing of burden of public health crisis Pakistan's took decision to seek debt relief from the G20 countries for the stability of fiscal and current account deficit. On the other side, IMF has asked to freeze salaries of government employees. The ministry of finance of the country has considered to abolish 67,000 vacant posts every one year due the current pandemic. Moreover, to squeeze current expenditure a ban on purchase of vehicles had also been under discussion (Rana, 2020). International donors such as IMF has conditioned its financial support for Pakistan in some areas in order to keep the economy of Pakistan on track.

Since the government decision to apply lock down in the country, the GDP has shown downward trend. For example, the stock market's benchmark KSE-100 Index plunged down by over 25% in March 2020. The forex reserves of the country slumped 12% from \$12.8 billion to \$11.2 billion in March and it has further decreased by USD72.90 million in August 2020. Major reason behind the slump is the panic selling of debt and equities. According the State Bank of Pakistan (SBP), the policy rate has decreased by 2% which has led to a total of about \$1.5 billion leaving Pakistani Market Treasury Bills (MTBs) and Pakistani Investment Bonds (PIBs) (World Bank, 2020). According to the World Bank data the remittance has also declined from 23% to \$17 billion in 2020 with a total of \$22.5 billion in 2019 (World Bank, 2020). Lockdown of Pakistan has its own adverse impacts on the economic growth of Pakistan. The weak economy has no capacity to absorb the shock of the anemic.

According to UN Conference on Trade and Development (UNCTAD) estimates Pakistan is placed among hard-hit countries by the global pandemic of Corona virus, causing \$2-3 trillion financing deficit in 170 developing countries (Salik, 2020). The Covid-19 has caused to shrink the faltering economy of Pakistan leading to contract the GDP finally. It has far-reaching ramification for other social indicators such as education and health. Bothe education and health are a form of human capital. Without advancing human capital a country will remain less developed (Lonska &Mietule, 2015). Developing country such as Pakistan fall below many countries in South Asia in the education sector the current pandemic has further worsen the situation. It is predicted on the bases of previous research that Pakistan will face

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barrage of social implication due to its economic fall in the short and long-run if not managed through timely rigorous states polices, the social consequences will be thorny for the people of Pakistan. Table 2 below shows the estimations of leading world financial organization of the Covid-19 impacts on the economy of Pakistan (News Desk, 2020).

CONCLUSION AND RECOMMENDATIONS

The researchers, policy makers and practitioners are of opinion that an active role of government is indispensable in balancing between the conflicting objectives of saving lives and saving economy. For this purpose, the government needs to enforce smart lock down and allocate more resources to provide better medical facilities to the masses. Furthermore, the responsibility lies with the government to assure the continuous supply of essential services, provision of financial aid to those who lost their jobs, prevent the disruption of economy. The developing countries like Pakistan are prone to demand and supply shocks and these shocks have exerted adverse impact on the development process of the economy. Covid-19 outbreak has impacted learning system of Pakistan at all level with additional social and economic consequences. Empirical and theoretical studies have identified that education is a human development indicator that has contributed towards accelerating economic growth of Pakistan. In the midst of the epidemic where students do not go to school, most learning centers turn to e-learning which includes regular communication with teachers in the classroom to the visual classroom using the internet and technology such as phones, computers and tablets. The study revealed that most families in Pakistan do not have access to the internet, which has led to the suspension of the Ministry of Education in Pakistan because most students do not have internet access. Those who have access to the Internet also complain about the high cost of data access to full access to this service and improve their home reading. Some respondents argued that the online learning presented by the Department and other schools is very effective but accessibility has been a problem because you will need technological devices such as smart phones or computers and the internet to be able to access them. This made studying at home during the epidemic a challenge for them.

It is also said that learning is best achieved by using the right teaching materials with the right intention during the process. There is no doubt that it is true that many families in Pakistan do not have the resources to help their children learn and even if they are available, it is not enough to include education. This has made learning some concepts, especially those that are not considered very difficult for students in this time of school closure and closure. However, students' dropout and enrollments rate are policy issues since Pakistan's independence. The major cause behind fewer enrollments and more dropout rate is poverty at the state and the family level. This has not created skilled people and hence the economic growth rate have downward trajectory. Additional social consequences of disruption in education among learners in Pakistan may create interrupted learning, poor nutrition, stress on teachers, parents are not prepared for distance learning, challenges of distance learning, health related issue among students, high economic costs, increased dropout rates, increased exposure to violence and exploitation, social isolation and it may have students' assessment issues. Pakistan was already among the poorest countries at regional and global level to impart standard education. The future export strategies should protect the interest of exporters through a sufficient stimulus package. The formulation and implementation of bold, consistent and proper government policies is the key to take Pakistan economy away from the

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future losses of Covid-19 pandemic. The proper utilization of existing resources may assist the revival of educations sector of the country.

Table 3. Sources of data

Publishers	Links
Google Scholar	https://scholar.google.com/
SAGE	https://journals.sagepub.com/
American Economic Association	https://www.aeaweb.org/
Elsevier	https://www.elsevier.com/
Taylor and Francis	https://www.tandfonline.com/

Table 4. List of abbreviations

Cov-19OB	Covid-19 Outbreak
EG	Economic Growth
AIDS	Acquired immunodeficiency syndrome
SARS	severe acute respiratory syndrome
WHO	World Health Organization
SPHEC	sixth public health of emergency service
GDP	Gross Domestic Product
UNESCO	United Nations Education, Scientific and Cultural Organization
ADB	Asian Development Bank
UNDP	United Nations Development Program
HDI	Human Development Indicator
HEC	Higher Education Commission
PSDP	Public Sector Development Program
UNICEF	United Nations International Children's Emergency Fund
OOSC	out-Of-School Children
EIU	Economic Intelligence Unit
IMF	International Monetary Fund
MTBs	Market Treasury Bills
PIBs	Pakistani Investment Bonds
UNCTAD	Conference on Trade and Development

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*The Impacts of the COVID-19 Outbreak on the Education Sector***KEY TERMS AND DEFINITIONS**

COVID-19 Outbreak (Cov-19OB): It is also known as the coronavirus pandemic, is an ongoing pandemic of coronavirus disease 2019 (COVID-19) caused by (SARS-CoV-2).

Economic Growth (EG): Economic growth is the increase in the production of economic goods and services, compared to one period to another. It can be measured by design or actual terms (set of monetary values).

Gross Domestic Product (GDP): It is the total value or market value of all completed goods and services produced within national borders over a period of time. As a comprehensive measure of a complete domestic product, it serves as a complete credit card for the economic life of a particular country.

Higher Education Commission (HEC): A legal entity established by the government of Pakistan. Its main functions are funding, administration, control, and accreditation of higher education institutions in the country. The commission is responsible for developing higher education policy and quality assurance to meet international standards and to provide accredited educational qualifications, development of new institutions and promotion of existing institutions in Pakistan.

Human Development Indicator (HDI): It is integrated indicator of lifetime statistics, education (literacy rate, total enrollment at various levels and attendance), and individual indicators, which are used to rank countries into four categories of people.

International Monetary Fund (IMF): The international financial institution, based in Washington, DC, with 190 countries working to promote global financial cohesion, safeguard financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce global poverty while from time to time depending on the World Bank for its resources.

United Nations Education, Scientific, and Cultural Organization (UNESCO): It was born on 16 November 1945. UNESCO has 195 members and 8 Joint Members and is governed by the General Conference and the Executive Board. The Secretariat, headed by the Director-General, implements the decisions of the two organizations. The organization has more than 50 offices worldwide and is headquartered in Paris.

United Nations International Children's Emergency Fund (UNICEF): Promotes the rights and well-being of all children. In partnership with its partners, it is working in 190 countries and territories to translate this commitment into action, with a special focus on reaching the most vulnerable and marginalized children, to the benefit of all children, everywhere.

World Health Organization (WHO): The United Nations special public body dedicated to public health worldwide.