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A case study of Pakistan's exports in post covid-19 scenario

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ABSTRACT

Exports are vital for a country's growth, balancing demand and enhancing international competitiveness. A higher export ratio safeguards the economy, generates foreign exchange, and funds job-creating projects. As a result, export maximization has consistently been a top priority for Pakistan's governments, driving sustainable development and growth. A quantitative research method was used to examine the research questions. This research found the impact of COVID-19 on global trade, focusing on Pakistan's exports. Data from various authentic sources were analyzed, comparing export states before and after the pandemic. The study examined the effects of COVID-19 on Pakistan's economy and the government's efforts to support the industry and revive exports. Results show that while COVID-19 severely affected Pakistan's exports, government actions eventually helped boost industrial operations and export growth.

Keywords: *Export, Pakistan, Covid-19, Case study, Regression analysis, Global supply chain management*

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A case study of Pakistan's exports in post Covid-19 Scenario

1. Introduction

1.1 Background of the Study

Exports play a vital role in the growth and development of a country by balancing the demand side (Baloch & Rashid, 2022; Rashid et al., 2024b; c). The balance between imports and exports in the international market predicts the competitiveness of a country. An increased export ratio secures the country against the current account balance and debt crisis. Furthermore, it generates foreign exchange, balances the economy, and provides investment for future projects that create jobs in the country. Therefore, export maximization has always been the top priority of successive governments in Pakistan. Different studies have shown that exports are essential for sustainable development and growth in any country.

Pakistan's exports have steadily declined since 2014, resulting in a current account crisis. According to the State Bank of Pakistan, the recent decline in exports is attributed to global developments (Mahmood & Ahmed, 2017). If we study Pakistan's export performance in the international market, we will know that its export performance could be faster than that of other countries in the region. It led to less supply against more significant demand imports and therefore disturbed the balance of trade, ultimately resulting in the flow of national currency out of the country, thus consistently burdening the national exchequer with foreign debts for running government business and providing subsidies to local industries. Pakistan witnessed a downward trend in its exports-to-GDP ratio compared to the other regional countries. Pakistan recorded only 10.5% exports to the GDP ratio in 2014–15, which was lower than other developing countries.

As already discussed, the sustainable growth of GDP relies on the strong economy of a country because it provides the basis for a stable macroeconomic environment, possibly only through maximum exports vis-à-vis imports (Amjad et al., 2021). For the same reason, successive governments adopted economic liberalization and privatization strategies along with various incentive packages. Furthermore, the country's energy shortage increased from 2001 to 2005. However, our exports remained low compared to the other developing countries in the region or similar economic conditions. It highlights profound institutional and structural weaknesses, resulting in Pakistan's lacklustre export performance, and amplifies the need for addressing the productive capacity to boost exports (Mian & Sufi, 2014; Rashid et al., 2024d).

The naïve COVID-19 pandemic further exacerbated the already fragile supply conditions. This pandemic disturbed the international market and created several problems for developing countries such as Pakistan. The current balance in the country presents a dull picture of the economy, as the demand side has overloaded the supply side, and the equilibrium is far from what the government desires. These conditions in Pakistan demand serious reforms to be implemented in actual letter and spirit. The main objective of this study is to do a detailed analysis of Pakistan's exports in the post-COVID-19 scenario and to present a balanced view of an export-based market strategy to enhance the country's economic conditions. In international business, the supply side is critical in balancing trade; therefore, every country tries to maximize its exports. Due to the extraordinary importance of exports, this paper conducts a study to measure Pakistani exports in the post-COVID-19 scenario. It presents recommendations for enhancing the level of exports to support domestic manufacturers. After the pandemic, it will also analyze the relationship between COVID-19 and Pakistani exports. It will measure the devastating effects of COVID-19 on Pakistani exports and seek ways to improve them.

The economy of Pakistan has been under pressure because of rising imports and low exports. This economic situation worsened during the COVID-19 pandemic due to a worldwide trade crisis, further lowering exports to other countries. Against this backdrop, there is a need to study the impacts of COVID-19 on Pakistan's exports and economy and suggest measures to improve the economic

situation.

1.2 Research Objectives

This research aims to determine the effects of the COVID-19 Corona pandemic on the supply chain, especially Pakistani exports. Through the researcher's analysis, we would gauge how much it disturbed the country's economy after limiting exports. Furthermore, the researcher would also bring forth some policy recommendations for handling the situation.

1.3 Research Questions

This research paper seeks the impacts of COVID-19 on Pakistan's exports and answers to the following questions:

a) What were Pakistan's export ratios post-COVID-19 and pre-COVID-19?
b) What was the impact on Pakistan's trade and exports noticed after COVID-19?
c) What government policies were required to increase exports, and how successful have these been?

2. Literary Review

2.1 Emergence of the Covid-19 Corona Virus

The emergence of the coronavirus (COVID-19) wreaked havoc at the international level and affected all and sundry. It devastated the global economy in several ways, differentiating itself through its impact on the real world. It grapples with developing and developed countries as they face severe market-specific damage due to a short supply of exports (Dhar et al., 2021; Rasheed & Rashid, 2023).

The COVID-19 outbreak is leaving no one behind. All industries, businesses, and services are on the verge of disaster as these institutions face supply chain disruption and decreased demand, ultimately creating a financial crisis. This situation happened suddenly, and no one was prepared to handle it (Rashid et al., 2024e). Governments around the globe have been imposing lockdowns to handle COVID-19; however, it further exacerbated the problems of industrial sectors as both imports and exports were halted, drastically leaving the production process in the doldrums. Industrial organizations and business sectors are continuously protesting against the lockdowns, and most claim that they cannot survive further (Shafi et al., 2020).

This pandemic is the worst in the region, as many external environmental crises have occurred in the past that damaged local industries, such as the 2005 Hurricane Katrina, the earthquake in Pakistan, and the Ebola outbreak (Shafi et al., 2020; Kim & Lee, 2020). The pandemic disturbed the global community's life cycle and living standards. Demands for some goods are increasing, thus creating business for some industrial sectors. On the other side, countries with low economic profiles are continuously facing severe economic conditions. The impacts are significant as they affected almost every segment of life and thus posed a severe threat to business continuity. The main reason for all these crises is the disturbance of the global supply chain, especially for medium-scale manufacturing enterprises (Rashid et al., 2024f, g).

Studies show that economic activities are adversely affected by natural calamities like earthquakes, floods, and other epidemic diseases. In addition, small and medium industries are volatile and, therefore, vulnerable to natural crises due to their smaller resources and revenue generation. Therefore, it is assumed that natural calamities affect the industrial sector directly or indirectly. The direct impacts include loss of human life and infrastructure. In contrast, the indirect effects are a disturbance of the supply chain and loss of inventories due to long storage, causing damages to road infrastructure and power supplies, damage to public infrastructure, communications,

road, and railway networks that increase production costs, and posing a high cost for supply of manufacturing goods to the market (Rashid & Rasheed, 2023; Rashid et al., 2023).

Data for the year 2019 from the World Trade Organization predicts that there has been a continuous increase in natural calamities between 1998 and 2017. The estimated economic losses for this period totalled $2.9 trillion for the disaster-affected countries. The United States was the most affected ($9945 billion) in disaster statistics; the other most affected countries were China, Japan, India, Pakistan, and Europe.

2.2 Effects of the COVID-19 Pandemic on the Global Economy

The pandemic is not restricted to a single region or country; its calamities are widely spread. The fatalities may be seen worldwide through lockdowns, restrictions on the movement of goods and humans, travel bans, and suspensions of road, rail, and air traffic, which slow down the global economy. The Code 19 crisis spread globally from February 21 to March 24, 2020, and the numbers are still increasing. The fear was that the COVID-19 pandemic would significantly hinder global GDP growth. A significant decline in the global GDP is recorded between 2.3% and 4.8% (Felipe & Fullwiler, 2020).

Moreover, the experts opined that the current wave of the pandemic may result in low direct investments at the global level. To provide a backup to the world economy, the world may need up to 2.5 trillion US dollars to meet the damages caused by this pandemic. This shows that this crisis has been worse than the 2008 crisis. As per the data of the International Labour Organization (2020), more than 25 million people worldwide lost their jobs, and there was a decrease of 3.4 trillion in labour income. Similarly, the lockdowns, either partial or complete, are influencing 81% of labour (almost 3 billion of the workforce of the whole world). Therefore, it may be called the worst world crisis since World War II. It is estimated that the US will lose three million jobs in the mid-summer of 2020 and similar trends will be experienced in Europe and the Middle East (Siddiqui et al., 2020). As per the ILO study, COVID-19 has a high effect on the housing, food, and automobile sectors, whereas its low impact on services and utility sectors such as defence, health, education, and public administration is comparatively lower.

The most profound effect of this pandemic, Corona, has to be noticed in developing countries, as it is tough for them to manage foreign exchange and implement restrictions for handling it. In this regard, countries with fragile health infrastructure, high dependency on trade and tourism, debt crises, and irregular capital flows. Moreover, it may increase to almost 11 million people living in poverty. It is hard to predict the exact impact; however, it is presumed that developing economies would suffer the most. As per the UNDP estimates, developing countries may suffer income losses of over 220 billion US dollars. Moreover, the World Bank has predicted that the South Asian countries may suffer the worst economic crisis in the last 40 years.

2.3 The Overall Covid-19 Corona Situation in Pakistan

Several natural disasters have been faced by Pakistan, which has severely affected the overall economy of the country. In 2010, the megaflood caused considerable losses to the country, about 4 billion US dollars. Similarly, the earthquakes in 2005 and 2008 and other natural disasters have affected the country year after year. It causes heavy damage to businesses and tiny enterprises, as they do not get to the post-disaster stages because of a lack of resources (Kalichman et al., 2020; Rashid et al., 2022a, b). Lack of government support is also a reason for small enterprises' financial decline and even bankruptcy, as they need the ability. The most affected enterprises working in Pakistan have to face political and economic instability and poverty rates. Though the initial outbreak of COVID-19 was reported on December 19 as pneumonia, it was later termed COVID-19. Pakistan recorded its first COVID-19 in February 2020; however, the cases were raised after the arrival of pilgrims from Iran. Besides this, the sudden announcement of the lockdown also compelled migrants to arrive in their hometowns, creating disorder and exasperating the situation, thus resulting in a chaotic situation.

Moreover, the recorded cases also hiked up in March 2020, as the recorded cases rose to 1078 from 75 and increased day by day in other parts of the country. A total of about 265,000 cases were confirmed in the coming few months, which resulted in about 5,600 deaths. The data below in Figure 1 shows the province-wise confirmed cases in Pakistan.

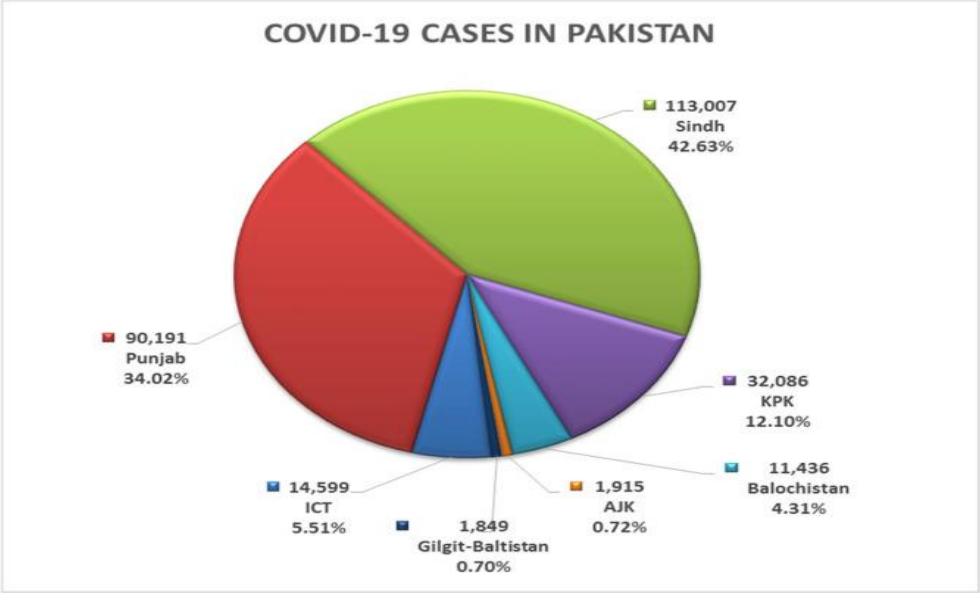

Figure 1: Province-wise Confirmed Cases of COVID-19 in Pakistan

Though Pakistan's export-to-GDP ratio is lower than 10%, the number of workers in the industry is far greater than estimated. Therefore, their contribution to the overall economy is expected to be greater than stated. Jobs in the economy are multiplied by specific sectors related to exports. The decline in export activity will further aggravate the employment crisis in Pakistan. All destinations ranked among the top 10 destinations of Pakistan's exports are USA, UK and China at the top. About 50% of Pakistan's exports are destined for countries most affected by this pandemic, like China, the USA, the UK, France, Italy, Spain, and Germany. About 40% of Pakistan's exports were to European countries, and 9% were directed to China. It concludes that the effects of Pandemic Corona have significant implications for Pakistan's exports, as its primary customers are struggling to deal with this pandemic.

2.4 Conceptual Model of Study

Figure 2 below represents the conceptual framework.

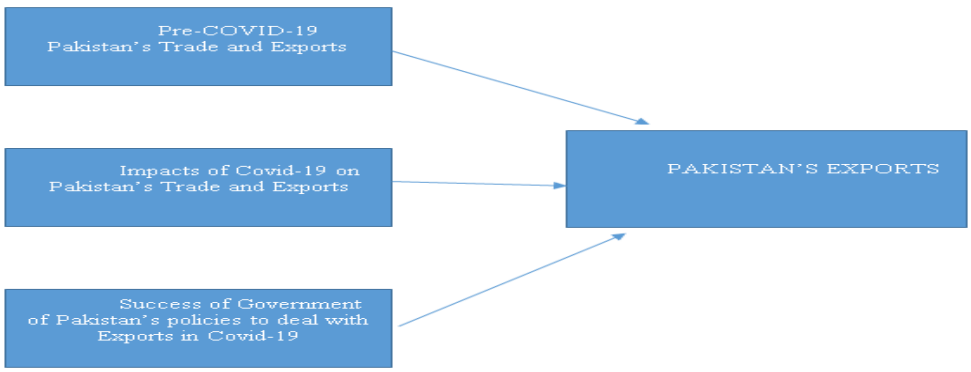

Figure 2: Conceptual Framework

3. Methodology and Data Analysis

3.1 Research Method

This research adopted a quantitative approach to study the effects of COVID-19 on the supply chain of the Pakistani economy (Rasheed et al., 2023; Rasheed et al., 2023a, b; Khan et al., 2023a, b). The researcher studied different available literature, policy documents, and related research (Rashid et al., 2021). Data is collected from primary sources (Hashmi et al., 2021a, b; Rashid & Rasheed, 2024; Rashid et al., 2024a) such as trade and industrial development corporations, the Ministry of Trade and Commerce, etc. To make this study more reliable, I collected data from different enterprises of all sizes, from micro to medium, working in Pakistan (Hashmi et al., 2020a, b). The data was collected for two consecutive years of the pre- and post-COVID-19 period to measure the overall effect on the economy. The export trends for these years have been measured, and the results have been elaborated accordingly. A single-equation model is used to empirically investigate the pre- and post-COVID-19 scenarios to seek better policy initiatives for handling them with the minimum loss to government revenue (Amirah et al., 2024). Its basis is GDP per capita (constant 2010 US$) (Tt), where GDP (Yt) is a dependent variable and dependent variables are exports.

$$Y = a + lg\ exp$$

GDP is a dependent variable; therefore, we take all other variables constant.

The analysis of secondary data collected from different sources shows that for the year 2019, the estimated GDP of Pakistan was 38.6 trillion PKR, and the growth rate was calculated at about 3.3%. However, the Planning Commission of Pakistan calculated an economic loss of about 10%, 1.1 trillion PKR in FY2021. The analysis shows a continuous decrease in GDP, as predicted by the below figure 3.

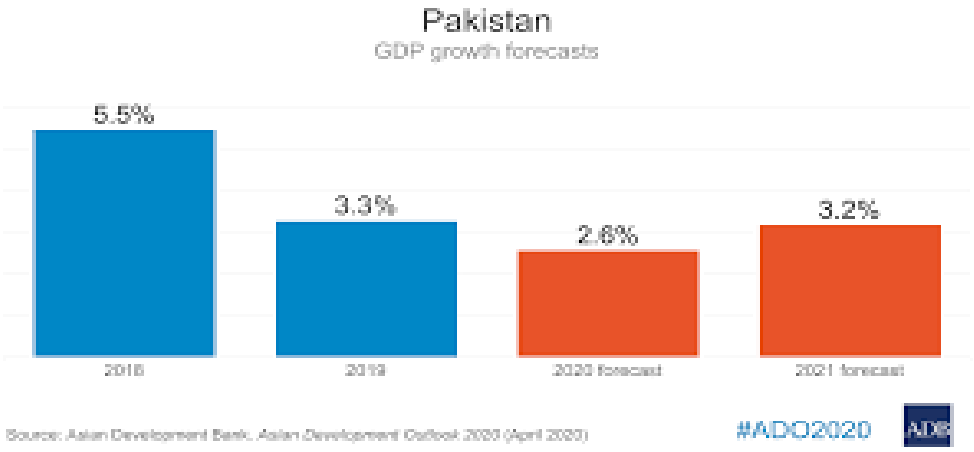

Figure 3: GDP Growth Factors

The available data shows that Pakistan exports are mainly destined for five trading partners: China, the USA, the UK, Japan, and Germany. Four were severely hit among these countries, drastically affecting exports, mainly from Pakistan. According to the World Bank, the export decline is expected to be 50% if the pandemic continues for the next few years. The below figure 4 witnesses to this scenario:

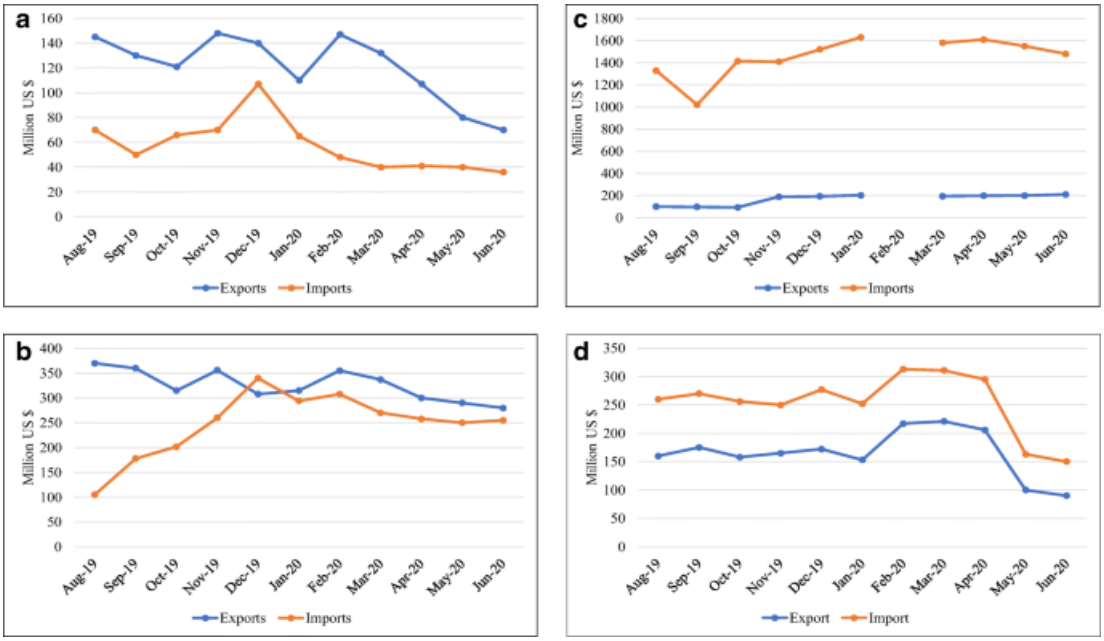

Figure 4: Scenario

Pakistan's major exports include Textile items like towels, bedsheets and leather products. Apparel counts for about a quarter of the total exports; other textile exports are about 17%; grain products are 10%; and leather products are about 3%. All other exports include surgical instruments and ethanol.

3.2 Impacts of Covid-19 on Pakistan's Exports

Pakistan suffered a decline in its exports from 2013 to 2016, from 25 billion US dollars in 2013 to 20.5 billion US dollars in 2016. It grew to 23.8 billion US dollars in 2019 at a rate of 5.1%. The most significant increase was in the garments and grain sectors, at 8.2% and 11.3%, respectively. However, a sharp decline in exports has been reported since the start of the Corona pandemic in March 2020. Exports fell to 9960 million US dollars in April 2020, 54% below the previous year. Mostly, textiles and ready-made garments had negative impacts. However, surgical instruments and leather products, like gloves, showed a positive growth rate monthly. Pakistan reported a significant decline in its exports between 2013 and 2016. Exports fell from 25 25.1 billion in 2013 to 20 20.5 billion in 2016. Exports have been growing for a year since then, reaching—8 23.8 billion in 2019, an increase of 5.1 per cent. However, the most significant increase was in garment and grain exports at 8.2 per cent and 11.3 per cent, respectively. Figures published by the Pakistan Bureau of Statistics (PBS) (2021) reveal a sharp export contraction since March 2020.

Exports fell to 9,960 million in April 2020, down 54 per cent from April 2019. Exports of net wear, bed wear, and ready-made garments also negatively impacted March 2020. However, exports of surgical instruments and instruments and some leather products (such as gloves) showed a positive growth rate in March 2020, month-on-month, as well as year-on-year. The countries affected by this pandemic import about 50% of the global trade in apparel and other textile items from the rest of the world. They have a 43% share of imports of leather products and a 15% share of grain. However, China imports just 5% of global trade in apparel and other textile products. Its import share in grain is just 6%, and that of other products is 11.5%, as it mainly relies on its industries. It is also clear that Pakistan exports only a portion of these affected nations.

3.3 Government of Pakistan's Policies

Pakistan's government has concentrated efforts to achieve a possible market share and

increase its exports to fill the gap that has created demands across the world market. In particular, in textile exports, the government has waived certain taxes and the cost of gas and electricity, which has also helped the textile industry increase its production levels and exports. It also resulted in the creation of new jobs and sped up the textile business and industry. Further, it has focused on other industries that have the potential to increase their export share, like automobiles and parts, electronics, communications items, cement, and other engineering products.

3.4 Policy Recommendations

Pakistan is expected to focus on low-cost products with little market value, as policymakers have not been able to create high-end products. Therefore, the destination markets are likely to give little priority to restoring demand for Pakistani exports over other high-value and essential commodities that make up a large percentage of total imports. In addition to essential items for health care and vital household use, various textiles and textured products may be delayed due to increased buyer demand. However, the destination markets do not produce low-cost products in their countries and mainly rely on imports; therefore, it may create a good opportunity for exporters in Pakistan to increase their exports. Therefore, some exporters may find it easier to restore their export sales through product diversification or better export strategies to improve potential trade relations.

4. Results Analysis

The information collected in this study was processed and inspected using Microsoft Office Excel and IBM Statistical Package for Social Sciences Statistics (SPSS) (Alrazehi et al., 2021; Rashid & Amirah, 2017; Rashid et al., 2019). The data analysis method used descriptive and inferential statistics (Agha et al., 2021; Das et al., 2021; Haque et al., 2021; Rashid, 2016).

4.1 Demographic Factors of Respondents

For analysis of the demographic variables, which include gender (male or female), age, employment status (full-time, part-time, unemployed), and educational status (graduate, postgraduate) (Hashmi & Mohd, 2020; Khan et al., 2021; 2022; Rashid et al., 2020). As you can see in Figure 5 in this study, the total number of respondents was 149, of which 115 (77.5%) were male and 34 (22.5%) were female. 69 (46.5%) of the respondents were between the ages of 21 and 25; 33 (22.5%) were between the ages of 26 and 30; 19 (12.5%) respondents were between the ages of 31 and 35; 11 (7.3%) respondents were between the ages of 36 and 40; and 7 (4%) respondents were above 40 years of age. 42 (39%) of the total respondents were graduates, and 107 (61%) were postgraduates; this showed a healthy image of literacy among the respondents. 134 (87%) respondents were full-time employed; 15 (13%) were part-time.

Demographic Data	Respondents Data	% Of Total
Gender		
Male	115	**77.15%**
Female	34	**22.85%**
	149	
Age		
21-25 Years	69	**46.50%**
26-30 Years	33	**22.50%**
31-35 Years	19	**12.50%**
36-40 Years	11	**7.3%**
40+ Years	7	**4.00%**
	149	
Education		
Graduation	42	**39.00%**
Masters	107	**61.00%**

Figure 5: Demographic Factors of Respondents' Data

4.2 Descriptive Statistic

Figure 6 below shows the descriptive statistics of the data.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Gender	149	1	2	1.30	.458	.210
Age	149	1	3	1.36	.594	.352
Education	149	2	3	2.54	.500	.250
Work Experience	149	1	3	1.42	.594	.353
PCE	149	1	5	3.40	1.115	1.242
PCE	149	1	5	3.58	1.060	1.124
PCE	149	1	5	3.28	1.132	1.282
ICW	149	1	5	3.61	1.064	1.131
ICW	149	1	5	3.63	.903	.816
ICW	149	1	5	3.52	1.088	1.184
ICP	149	1	5	3.31	1.144	1.309
ICP	149	1	5	3.34	.997	.995
ICP	149	2	5	3.44	.918	.842
PE	149	1	5	3.45	1.062	1.128
PE	149	1	5	3.79	1.042	1.085
PE	149	1	5	3.64	1.192	1.420
PE	149	1	5	3.55	.948	.898
PE	149	1	5	3.62	1.017	1.033
Valid N (listwise)	149					

Figure 6: Descriptive Statistic

4.3 Reliability

Case Processing Summary

		N	%
Cases	Valid	149	100.0
	Excluded[a]	0	.0
	Total	149	100.0

a. Listwise deletion based on all variables in the procedure.

Figure 7: Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.757	18

Figure 8: Reliability Statistics

Individual Reliabilities

Variable: PCET

Reliability Statistics

Cronbach's Alpha	N of Items
.829	21

Figure 9: Reliability Statistic of PCET

Variable: ICWT

Reliability Statistics

Cronbach's Alpha	N of Items
.825	21

Figure 10: Reliability Statistic of ICWT

Variable: ICPT

Reliability Statistics

Cronbach's Alpha	N of Items
.825	21

Figure 11: Reliability Statistic of ICPT

Variable: PET

Reliability Statistics

Cronbach's Alpha	N of Items
.823	21

Figure 12: Reliability Statistic of PET

The reliability analysis was conducted to find out the internal consistency of each factor, which shows the reliability of all factors. Figures 7 and 8 show that Cronbach's alpha value is 757, more significant than 0.7, and all item's reliability from Figures 9, 10, 11 and 12 is also greater than 0.7. All independent variables for each item are reliable.

4.4 Correlation

Figure 13 below shows the correlation of data; this is significant at 0.01.

Correlations

		PCET	ICWT	ICPT	PET
PCET	Pearson Correlation	1	.272**	.409**	.270**
	Sig. (2-tailed)		.001	.000	.001
	N	149	149	149	149
ICWT	Pearson Correlation	.272**	1	.361**	.427**
	Sig. (2-tailed)	.001		.000	.000
	N	149	149	149	149
ICPT	Pearson Correlation	.409**	.361**	1	.455**
	Sig. (2-tailed)	.000	.000		.000
	N	149	149	149	149
PET	Pearson Correlation	.270**	.427**	.455**	1
	Sig. (2-tailed)	.001	.000	.000	
	N	149	149	149	149

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 13: Correlation

4.5 Regression

Figure 14 below shows the regression of data.

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	ICPT, ICWT, PCET[b]	.	Enter

a. Dependent Variable: PET
b. All requested variables entered.

Figure 14: Regression

4.6 Model Summary, ANOVA and Coefficients

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537[a]	.289	.274	.61699

a. Predictors: (Constant), ICPT, ICWT, PCET

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.421	3	7.474	19.632	.000[b]
	Residual	55.198	145	.381		
	Total	77.618	148			

a. Dependent Variable: PET
b. Predictors: (Constant), ICPT, ICWT, PCET

Figure 15: Model Summary and ANOVA

Figure 15 shows the R-value, which is 537 in the above table, showing muscular strength between the independent and dependent variables. R shows the accuracy or regression, and its value shows that independent variables explain 28.9% of the dependable variable. The adjusted R square shows the unbiased accuracy of the regression. We have 27.4% unbiased accuracy in the regression.

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	1.391	.310		4.485	.000
	PCET	.055	.075	.057	.737	.462
	ICWT	.263	.068	.293	3.865	.000
	ICPT	.324	.080	.326	4.068	.000

a. Dependent Variable: PET

Figure 16: Coefficients

From the sig values in the above figures 15 and 16, it has been interpreted that all the variables have significance. All Sig values are less than 0.05, meaning all variables are statistically significant.

5. Discussion, Limitations, and Future Research

5.1 Discussion

This research was conducted to assess how COVID-19 has affected the overall world trade and, in particular, the exports of Pakistan to the rest of the world. This study was prepared based on facts and figures, considering the data from various authentic sources. In this study, we initially got the different export states in the pre-COVID-19 timeframe and then the overall effects that COVID-19 had on world trade and exports. Then, COVID-19 impacts in Pakistan in general and on exports in particular were analyzed. The Government of Pakistan took specific necessary steps and issued various guidelines to the industry, which helped the industrialists restart their operations and meet export demands. In the last part of the study, comprehensive research was carried out to study the different impacts on Pakistan's exports. A questionnaire was issued to 150 individuals from different fields, age groups, and experience groups to get their feedback. Based on the data, all the independent and dependent variables were studied, and their impacts on each other, and the reliability of the data

was verified. Results have found that COVID-19 greatly impacted the whole world in all aspects of life, including trade and business. Further, Pakistan's exports were significantly affected by COVID-19 due to the lockdown situation and other vital factors. However, after the initial wave, the government of Pakistan made a policy. It took many positive steps, which resulted in the revival of the industry and increased exports to the rest of the world.

5.2 Limitations and Future Research Direction

During the study, all efforts were made to make it as reliable as possible, but due to my far-off location and inaccessibility to sources, it wasn't easy to complete within the timeframe and make it more accurate. The sample size, with all my efforts, was 149, which should have been more, probably 200 or more. Further, I was unable to consult my teacher or other colleagues from time to time for necessary guidance and corrections to the study. However, efforts were made to make it an acceptable study.

For any study of this type, the time period and scope may be further enhanced by adding other factors directly impacting Pakistan's economy and exports. Moreover, the number of respondents may be increased to 200 or more.

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