

## IMPACT OF COVID-19 ON FINANCIAL PERFORMANCE OF TEXTILE INDUSTRY: A COMPARATIVE ANALYSIS OF SELECTED SAARC ECONOMIES

Kamran Majeed<sup>\*1</sup>, Asif Shahzad<sup>2</sup>, Muhammad Ahmad<sup>3</sup>

<sup>\*1&2</sup> MPhil, Department of Economics and Business Management  
University of Veterinary and Animal Sciences, Lahore, Pakistan; <sup>3</sup> Department of Business Management,  
Lahore Leads University, Lahore, Pakistan

<sup>\*1</sup>kamran.majeed007@gmail.com <sup>2</sup>asif8pk7@gmail.com

Corresponding Author: \*

Received: 30 March, 2024

Revised: 30 April, 2024

Accepted: 18 May, 2024

Published: 31 May, 2024

### ABSTRACT

**Purpose-** The objective of this study is to investigate the impact of Covid-19 on financial performance of listed textile industry and to develop a comparative analysis of selected SAARC economies during the pandemic period.

**Design/methodology/approach-** This study uses pooled ordinary least squares regression & fixed and random effects models to examine the cross-sectional sample of 60 companies listed in stock exchanges of selected SAARC economies during 2011-2021 (N=660).

**Findings-** This study found that the early impact of Covid-19 has negative impact on economy of SAARC countries. But after early destruction of Covid-19 by adopting smart lockdown policies by Pakistan's Govt. the impact of Covid-19 changes into positively and as India's Govt. announced several relaxation measures in geographical areas designated as non-hotspot the impact also become positive but the long run impact in Bangladesh is negative.

**Research limitation/implications-** This study's result shows that those economies used smart policies and latest technologies in textile sector have positive impact of Covid-19 on financial performances. For future research, this study suggest that further study may be expanded in other sectors such as pharmaceutical and automobile etc and other economies.

**Originality/value-** This study focuses on enhancing the empirical knowledge of impact of Covid-19 on financial performance of textile industry in selected SAARC economies at micro level.

**Keywords:** Covid-19, Textile industry, financial performance, SAARC.

Paper type- Research paper

### INTRODUCTION

The textile industry is the world's second-biggest business, an indispensable piece of any nation's economy, and gives various work valuable open doors. China has an enormous textile industry, in terms of overall output as well as exports, in the globe. India is the world's 3rd biggest apparel producer After China and the United States. Pakistan positioned 8th in the Asian economy concerning of textile exports (Atkar *et al.*, 2021). SAARC countries such as Sri Lanka, Bangladesh Pakistan, and India have shown a critical growth in export in the textile sector in recent period. As a result, the South Asian region is becoming a popular destination for customers looking for apparel. This

may pose a threat to other exporting countries that export to major markets (Kuruppu, 2018). Textiles and garments are one of the most significant industrial sectors in terms of jobs creation and earning of foreign exchange. In this region, Approximately Fifty-five (55) million people are employed directly, while almost ninety (90) million are employed indirectly (Bhogal and Dave, 2021). India's textile sector has been around for millennia and is possibly the most well-established sector in the Indian economy. In Financial Year 2019, Indians export in textile sector remained at US Dollar 38.70 billion, and it is expected to further go up to US Dollar Eighty-Two (82) billion by for the financial

period 2021, which were up from US\$ Twenty-Two point Ninety-Five (22.95) billion in for financial period 2020 until November 2019. In the financial period 2018-19, this sector contributed (Two) 2% to India's Gross Domestic Product (GDP) and seven of industrial production in value terms to India's Gross Domestic Product (GDP), as well as employing over 45 million people for the financial period 2018-19, the textile business represented Fifteen percent of all export from India (Panigrahi *et al.*, 2020).

Pakistan is a labor-intensive emerging country. Pakistan's export incomes and employment are mostly derived from this sector. This sector produced more than 60% of export receipts and almost 8.5 percent of Gross Domestic Product in Pakistan. Pakistan's textile industry spans the whole value chain, from raw cotton to completed textiles, and it employs more than 40% of the country's semi-skilled and low-skilled workforce (Akhund and Abbas, 2021). Pakistan's textile industry played a vital role in the country's financial structure. The textile industry contributes 9.5 percent to GDP, 52 percent of total exports, and about 15 million people were employed in the industry (SECP, 2020). Several unfavorable circumstances, including worldwide market swings, political and economic instability, and most notably, devastating power outages, have severely harmed the financial performance and productivity of the textile business (Asif *et al.*, 2021). The major portion in the economy of Pakistan is dependent on this sector. The employment opportunities, foreign exchange earnings and industrial sector production are mostly produced by Textile industry in Pakistan. Around 40 percent of the modern labor force of Pakistan is employed in the textile sector, which generates almost 1/4<sup>th</sup> of total value-added in the manufacturing sector. Textile sector have maintained a proportion of almost 59 percent (10460.8 \$ Million) in national exports which shows an increasing trend from the previous year, despite seasonal and cyclical changes (PEC, 2020).

After agriculture, Bangladesh's textiles and clothing industry employ the most people and the country is particularly reliant on the export of readymade clothes. Bangladesh's export basket is largely made up of textiles and apparel items. Textiles and apparel are important exports, particularly for low- and middle-income countries. These items were worth roughly US\$36.68 billion in the fiscal year 2017-18, accounting for around 89.65% of the country's total

exports. The majority of the export receipts (83.49 percent) came from Readymade Garments products such as woven garments and knitwear. Textile exports, on the other side, the value of textile exports was almost at 6.16 percent (Bhagal and Dave, 2021). As per report of the World Bank (2019) Bangladesh's gross domestic product (GDP) was \$286 billion in 2019 in which exports produced \$41 billion with textile and apparel sector surprisingly contribute around 84% (Maen Md. Khairul Akter, 2020). The garment industry in Sri Lanka employs around Four Lac people directly & earned 5.6 billion US Dollar in exports in the financial period 2019-20 (Kavindi B.G.H *et al.*, 2021).

In December 2019, a cluster of individuals with pneumonia of unclear cause was initially observed in Wuhan, China. The World Health Organization (WHO) has classified this sickness as a coronavirus disease-19 (COVID-19) (Islam *et al.*, 2020). However, because disease transmission and mortality, as well as the performance of government policies and firm strategy responses, are difficult to predict, the extent of that influence is unknown (Biswas *et al.*, 2021). The SAARC countries are not exempt from this transformation. COVID-19's lockdowns at national level to locked airspace and borders have caused unwelcome disturbance to the mechanics of most business, irrespective of their size or developmental phase. The construction of these obstacles, in specific, has put a burden on global supply systems.

Obtaining sufficient labor for manufacturing is a key difficulty for the textile industry. In certain circumstances, 50 percent or more of businesses have reached the point where they are no longer sustainable. Some, though, believe they will be able to recover until June. Fifty Eight percent of manufacturers are able convert their production towards Covid-19 reaction merchandises (patient outfits, facemasks, bed cloth, and towels). They will require support on obtaining apparatus, unrefined components, unfamiliar trade, preparing laborers, and so on (Panigrahi *et al.*, 2020).

The most important sources of earning foreign exchange in SAARC countries is the textile industry. Furthermore, there are numerous work prospects in the textile industry, which supports a huge number of families. COVID-19 has had important impact on the textile area and as a result, the textile sector is presently experiencing a difficult phase. A few organizations are not used to new innovation,

particularly with the huge providers and clients in the article of clothing area being situated outside of the country, the challenges in managing those nations, they required quick and accurate action for fixing of existing lockdown situation. The lockdown condition create crisis in whole nation of any country. As a result, the Textile sector's financial performance during the Covid-19 is seriously questioned (Kavindi B.G.H *et al.*, 2021).

The objective of this study is to take into account the fact that that the majority of investigators have working to measure the impact of this pandemic on macro-levels (Panigrahi *et al.*, 2020, Kavindi B.G.H *et al.*, 2021, Biswas *et al.*, 2021). The textile industry, in particular for the SAARC countries, was not included in these research. In addition, several research in the textile and supply chain fields have focused on the resilience component (Atayah *et al.*, 2021). Different studies have been disclosed to look into and assess the influence of COVID-19 on business, economy and other factors, but only a few of them (Cho and Saki, 2021, Majumdar *et al.*, 2020, Nguyen and Vu, 2021, Panigrahi *et al.*, 2020, Siraye, 2020) have focused on the Textile industry. Thus, by evaluating and measuring the effect of this Pandemic on the financial performance of listed in the stock exchanges Exporting Textile firms in the context of selected SAARC economies. The current work contributes to a better understanding and shines light on the micro-level, as well as providing empirical evidence to fill a knowledge hole in this sector. Hence, the results of this study are important to the operations of the textile industry and other industrial sectors, broadening the scope of the study's stakeholders to include – but not restricted to academic scholars, investors, policymakers, decision-makers, and the textile sector parties. Finally, other industries can also benefit from the textile industry's approach to functioning during the pandemic.

## **2. Theory and hypothesis development**

### **2.1 Theoretical Framework**

One of the theoretical approaches to strategic management that has had the most success is the resource-based view of the organization (RBV). It has acquired a domination rarely seen in any academic field, along with the five-forces paradigm. Additionally, after 30 years, RBV has guaranteed its place in the intellectual history of business strategy due to its dominance in both research and education

(Davis and DeWitt, 2021). Organizing Theory, however the majority of scholars agree that Jay Bernie is responsible for creating the contemporary RBV that the corporation uses. This theory suggests that Companies differ on a company-level or are heterogeneous, and some may be able to hold onto a competitive advantage (Utami, 2022). Understanding the sources of sustainable competitive advantage i.e. capital structure decision of company as leverage base or equity base and in this study leverage, liquidity, firm size, firm revenues have become an important area of research in textile industry strategic management. This theory helps in this study to look at internal factors and how they affect financial performance of textile sector of selected SAARC economies and helps to understand the actual drivers or characteristics of an organization's performance.

### **2.2 Hypothesis development**

Three performance indicators were selected as dependent variables. Return on total assets (ROA) as net income to total assets. Return on assets take a look at both the income statement performance and the assets that you need to run your business to get a holistic view of the basics of business performance. This is how profitable a company is based on asset investment, return on equity (ROE), net income to capital ratio, and how effectively managers use investor funds. Indicates whether or not. The higher the ROE, the more wealth the company will generate for its shareholders, and they can expect better from their investment. ROE is a better indicator of how a company is spending its capital to build a profitable business than a simple EPS. Earnings per share (EPS), on the other hand, is the company's net income divided by the number of issued common stock. Like other financial indicators, earnings per share are most valuable when compared to competitors, companies in the same industry, or long-term indicators.

As under discussed factors are used as independent variables of theoretical framework of this study. Leverage provides a complete picture of a company's capital structure so that bad debt risk can be identified (Prayoga and Almilia, 2013). A firm's leverage is proxied by debt to equity ratio (Zuhroh, 2019). Leverage is the Liability-to-Asset Ratio (DAR), which is the ratio used to measure the ratio of total liabilities to total assets. In other words, this metric is used to measure how much a company's assets are covered by its liabilities, or how much the

company's liabilities affect how the company's assets are funded (Nugraha *et al.*, 2020).

Liquidity is the ability of a company to meet its obligations. Fixed liquidity is indicated by the level of current assets, i.e. assets that can be easily converted into cash, such as: Cash, Securities, Loans, Stocks. Liquidity focuses on the company's ability to pay its current liabilities. In this case, the company has sufficient internal funds to cover its operating expenses. "A liquidity ratio is a ratio that measures the ability of a firm to pay its current debts or liabilities, i.e., the number of liquid assets held to pay all its current liabilities that come due. Liquidity The higher the number, the more liquid the bank is (Zuhroh, 2019). A company that can fulfill its financial obligations in a timely manner means that the company is in a "fluid" state and is able to accomplish its financial responsibilities in an immediate or short-term manner in a timely manner (Nugraha *et al.*, 2020). The ratio used to measure liquidity in this study is the current ratio of current assets divided by current liabilities.

Company size is a measure that classifies the size of a company based on various modes such as total assets, log size, stock market capitalization, and total sales. A company's balance sheet total and high turnover indicate the company's money turnover. The more total assets, the more capital the company invests. From these statements, it can be said that firm size is the number of assets held by the firm. (Zuhroh, 2019). Previous studies in finance have shown that company size can predict the future stock price (Omondi and Muturi, 2013). Large companies have a large market share and therefore have the opportunity to make more profits. Based on these circumstances, large companies are more profitable and competition is unlikely to be expected. In this study, we used the logarithm of total assets as a measure of firm size.

Measuring revenue is essential to determining a company's profitability. The most common profitability metric, win rate, is calculated by dividing net profit by sales. This indicator shows how much of each naira sold ends up in your bank account. Businesses that don't sell enough products will go bankrupt. (Okerekeoti, 2021). Revenue is the company's total revenue over time. Proceeds are used for non-cash assets such as: Inventory converted to cash or cash equivalents i.e. accounts receivables. Revenues vary from fiscal year to fiscal year and from fiscal quarter to quarter, but investors look at

revenue growth trends to measure a company's growth over a particular time period. In this study, the price of an item or service sold to a customer is recorded as revenue for the activity during the period of sale and delivery, regardless of how long the corresponding money was collected (Dalton and Penn, 1976).

The finding of (Panigrahi *et al.*, 2020) on Textile business meets inhabitants' most essential requirements and is of basic significance, developing step by step and working on the personal satisfaction of Indians. This industry, however is in danger because of this pandemic (Covid-19). (Majumdar *et al.*, 2020) showed that emerging economies of the world, specifically in SAARC economies depend on textile businesses as the section obstruction is low, technology is effectively sensible, and abilities can be rapidly obtained. The Quantum of Indian textile and clothing businesses is around to Two Hundred billion US Dollar, and it is expected that the yearly development rate will be 12% of CAGR which means about Three Hundred & Fifty billion US Dollar by 2024. In financial period 2018-19, the contribution of this sector was 3% to net household item of India's (GDP), Thirteen percent to mechanical generation, and Twelve percent to trade profit other than providing around Forty Five million directly jobs to workforce. (Song *et al.*, 2021) estimated the effect of this pandemic (COVID 19) on the cafe business in the United States; the review's discoveries uncovered that the pandemic has hurt liquidity and expanded functional dangers. According to (Cho and Saki, 2021) The apparel industry has been impacted more unfavorably than have different businesses, including transportation, diversion, and friendliness. Besides, the adverse consequence of COVID-19 on textile industry execution is greater than that of the 9/11 fear-monger assaults and the 2008 downturn.

(Nazir *et al.*, 2021) findings revealed that revenue, leverage and firm size has significant impact on the financial performance of different sector business in Pakistan. (Atayah *et al.*, 2021) have been done various examination projects to examine the impact of this pandemic (COVID-19) on different organizations according to different points of view. Notwithstanding, research papers equivalent to the flow study, It examined how the COVID-19 pandemic affected the performance of textile firms, are much more scant. It's important that no endeavor had recently been made to check out at the monetary

exhibition of textile organizations directly following the COVID 19 episode. Thinking about the meaning of monetary dependability for textile organizations in supporting and taking care of market interest as well as chasing after financial scale and extension. Accordingly, the goal of this research is to investigate and analyze textile firms' economic performance throughout this pandemic, intending to gain a deeper understanding of COVID 19's severity on this specific sector in diverse contexts and economies. This study's fundamental goal is to recognize the impact of this pandemic on listed exporting Textile firms of selected SAARC economies and to the extent literature on textile by examining the interrelationship between the monetary exhibition of listed textile firms and the COVID-19 and think about the material firms' monetary execution of selected SAARC economy during the pandemic time frame. Thus, this study hypothesized that Covid-19 has a significant effect on financial performance. Thus, the hypothesis is given below:

H<sub>1</sub>: The Covid-19 has a significant effect on Financial Performance (ROA/ROE/EPS).

### 3. Research Method

#### 3.1 Data and sample size

The data set of this study consisted of 60 textile firms listed in Stock Exchanges in selected SAARC economies. The secondary data were collected for Pakistan from 30 Textile companies listed at Pakistan Stock Exchange, where as 30 Companies data collected from India listed at Mumbai Stock

Exchange and 10 companies from Bangladesh listed at Dhaka Stock Exchange for the period 2011 to 2021 to look at the pandemic effect on monetary execution.

#### 3.2 Variables

Table 1 shows the description of dependent and independent variables

#### 3.3 Research model

In this study uses pooled ordinary least squares regression & Fixed and Random effects models have been used to examine the impact of covid-19 on financial performance of textile industry of selected SAARC economies. The model is constructed as follows:

$$\text{Financial Performance} = \alpha_0 + \beta_1 \text{Lev}_{it} + \beta_2 \text{Liq}_{it} + \beta_3 \text{Rev}_{it} + \beta_4 \text{Size}_{it} + \beta_5 \text{Cov-19}_t + \varepsilon_{it}$$

(ROA<sub>it</sub> / ROE<sub>it</sub> / EPS<sub>it</sub>)

Where, i = Unit (firm), t = time (year), and Covid-19: It will be a dichotomous (dummy) variable, which indicates the year of Covid-19 where “1” = will covid period (2020 & 2021) and “0” otherwise. The financial performance of exporting listed Textile firms in selected SAARC economies have been analyzed separately and result has been discussed in detail.

#### 3.4 Statical technique

Statical test i.e. Descriptive analysis, correlation, ordinary least square, fixed and random effect models have been done on Eviews software and detail given in result section.

In this study uses pooled ordinary least squares regression & Fixed and Random effects models have been used to examine

**Table 1: Description of variables.**

Variable	Label	Measurement
<b>Dependent Variable:</b>		
Return on Assets	ROA	Ratio of total net income to total assets for firm.
Return on Equity	ROE	Ratio of total net income to total shareholders' equity for firm.
Earnings per Share	EPS	Net profit-preference dividend/avg. outstanding share.
<b>Independent Variables:</b>		
Leverage	LEV	Total debt divided by total assets for firm.
Liquidity	LIQ	Current assets divided by current liabilities for firm.
Revenue	REV	Firm's Revenue (Rupees).
Firm size	SIZE	Logarithm of total assets.
COVID	COV-19	It is a dichotomous variable, which indicates the year of COVID-19. Where “1” = are COVID period (the year 2020 & 2021) and “0” otherwise

**4. Findings of the study**

4.1 Descriptive analysis

Table 2 shows that total 660 observation has been taken. Leverage shows 34.1% of total assets and

average revenue of textile firms is 55.99%. This study has examined the impact of covid-19 on financial performance of textile industry with respect to Pakistan, India and Bangladesh.

**Table: 2 Descriptive Test**

	LEV	LIQ	REV	SIZE	ROA	ROE	EPS	COV
Mean	0.341	1.446	55.998	1.422	0.046	2.573	17.780	0.182
Median	0.316	1.192	16.710	1.391	0.039	0.598	5.110	0.000
Maximum	11.277	7.450	864.245	2.039	3.420	154.036	616.900	1.000
Minimum	0.000	0.027	0.029	0.870	-1.593	-11.356	-76.690	0.000
Std. Dev.	0.486	0.943	104.214	0.220	0.165	8.048	49.056	0.386
Skewness	17.821	2.308	3.613	0.304	11.415	11.503	5.894	1.650
Kurtosis	393.105	10.189	18.733	3.008	282.017	197.606	51.219	3.722
Jarque-Bera	4219930	2007	8243	10	2155228	1056025	67760	314
Sum	225	954	36959	938	30	1698	11735	120
Sum Sq. Dev.	156	585	7157055	32	18	42688	1585866	98
Observations	660	660	660	660	660	660	660	660

**Table: 3 Correlation Test**

	ROA	ROE	EPS	LEV	LIQ	REV	SIZE	COVID
ROA	1.000	0.779	0.338	-0.116	0.240	0.028	-0.006	0.046
ROE	0.779	1.000	0.675	-0.053	0.288	-0.024	0.007	0.131
EPS	0.338	0.675	1.000	-0.093	0.334	0.027	0.056	0.096
Leverage	-0.116	-0.053	-0.093	1.000	-0.170	-0.004	-0.008	-0.027
Liquidity	0.240	0.288	0.334	-0.170	1.000	-0.046	-0.034	0.089
Revenue	0.028	-0.024	0.027	-0.004	-0.046	1.000	0.759	0.095
Size	-0.006	0.007	0.056	-0.008	-0.034	0.759	1.000	0.100
Covid	0.046	0.131	0.096	-0.027	0.089	0.095	0.100	1.000

Table 3 shows the estimated correlation matrix, where ROA and ROE has negative relationship with Leverage, Revenue and size, while EPS has significant positive correlation with covid, size and

revenue. The above results in correlation table overall shows that covid-19 has significant positive impact on financial performance of textile industry with respect to Pakistan, India and Bangladesh.

**Table: 4 Ordinary Least Square Model**

Variable	Pakistan	India	Bangladesh
<b>Model 1: Dependent Variable: Return of assets (ROA)</b>			
Leverage	-0.0635 (0.0237)	-0.027 (0.1748)	0.015 (0.5085)
Liquidity	0.0391 (0)	0.031 (0.0326)	0.027 (0)
Revenue	0.0000 (0.5062)	0.001 (0.434)	0.012 (0)
Size	0.0659 (0.0811)	-0.287 (0.1233)	-0.181 (0)
Covid	0.0134 (0.23)	0.026 (0.5011)	-0.021 (0.0267)
C	-0.1076 (0.0449)	0.389 (0.0968)	0.174 (0)
R-squared	0.2755	0.050	0.398
Adjusted R-squared	0.2620	0.032	0.369
F-statistic	20.4568	2.828	13.744
Durbin-Watson stat	1.257	2.009	0.667
<b>Model 2: Dependent Variable: Return of equity (ROE)</b>			
Leverage	2.511 (0.1543)	-0.516 (0.574)	0.383 0.000
Liquidity	4.216 (0)	1.190 (0.0699)	0.075 0.001
Revenue	-0.004 (0.2765)	0.006 (0.9405)	0.045 0.000
Size	1.750 (0.4607)	-5.818 (0.4917)	-0.564 0.000
Covid	1.640 (0.0196)	4.059 (0.0205)	-0.102 0.008

C	-7.040 (0.0371)	9.708 (0.3624)	0.399 0.015
R-squared	0.388	0.048	0.313
Adjusted R-squared	0.377	0.030	0.280
F-statistic	34.099	2.687	9.477
Durbin-Watson stat	0.908	1.067	0.886
<b>Model 3: Dependent Variable: Earning per share (EPS)</b>			
Leverage	25.003 (0.1562)	-5.517 (0.1892)	6.970 (0.016)
Liquidity	42.105 (0)	4.800 (0.1098)	1.207 (0.0761)
Revenue	-0.038 (0.2649)	1.140 (0.0028)	0.898 (0.0022)
Size	17.740 (0.4548)	-132.68 (0.0007)	-15.366 (0.0009)
Covid	16.462 (0.0192)	8.768 (0.272)	-1.664 (0.1496)
C	-70.673 (0.0365)	179.122 (0.0003)	14.228 (0.0045)
R-squared	0.387	0.072	0.168
Adjusted R-squared	0.376	0.055	0.128
F-statistic	34.003	4.179	4.202
Durbin-Watson stat	0.907	0.38037	1.106

Table 4 the pooled OLS model shows the estimated results between covid-19 and financial performance (ROA/ROE/EPS) of textile industry of Pakistan, India and Bangladesh. The significant impact of leverage, liquidity and size on ROA with respect to Pakistan, liquidity with respect to India and all independent variables shown significant impact with respect to Bangladesh in model 1. The feature of liquidity and firm size are more considerable in

Indian firms than both others. The significant impact of liquidity and covid on ROE with respect to Pakistan and India, where as all independent variable have shown significant impact with respect to Bangladesh in model 2. Whereas, the significant impact of liquidity and covid on EPS with respect to Pakistan, revenue, and size with respect to India, all independent variable except covid have shown significant impact with respect to Bangladesh.

**Table: 5 Fixed Effect Model**

Variable	Pakistan	Bangladesh
<i>Dependent Variable:</i>	<i>Earning Per Share (EPS)</i>	<i>Return on Assets (ROA)</i>
Leverage	-18.147 (0.4695)	-0.025 (0.4109)
Liquidity	19.435 (0)	0.011 (0.0828)
Revenue	0.007 (0.9118)	0.009 (0.0088)
Size	82.179 (0.2201)	-0.353 (0.0002)
Covid	13.467 (0.0522)	-0.011 (0.2078)
C	-134.685 (0.1737)	0.416 (0.0001)
R-squared	0.606	0.594
Adjusted R-squared	0.559	0.534
F-statistic	12.976	9.913
Durbin-Watson stat	1.420	0.874

Table 5 the fixed effect model shows the estimated results between covid-19 and financial performance (ROA) of textile industry of Pakistan and Bangladesh. The significant impact of liquidity and

covid have shown on EPS with respect to Pakistan, liquidity, revenue, size and covid have shown significant impact on ROA with respect to Bangladesh.

**Table: 6 Random Effect Model**

Variable	Pakistan	India	Bangladesh
<b>Model 1: Dependent Variable: Return of equity (ROE)</b>			
Leverage	-13.262 (0.1806)	32.579 (0.1071)	1.234 (0.0072)
Liquidity	-1.789 (0.476)	-0.530 (0.5684)	0.154 (0.2378)
Revenue	1.949 (0)	1.797 (0.0355)	0.034 (0.1909)
Size	0.001 (0.9181)	0.090 (0.5211)	0.053 (0.0005)

Covid	8.086 (0.2279)	-24.402 (0.128)	-1.180 (0.0037)
C	1.356 (0.0507)	4.591 (0.0082)	-0.078 (0.0412)
R-squared	0.605	0.237	0.491
Adjusted R-squared	0.559	0.147	0.416
F-statistic	12.954	2.630	6.553
Durbin-Watson stat	1.421	1.334	1.037
Hausman test $\chi^2$	(1)	(1)	(0.3323)
<b>Model 2: Dependent Variable: Return of assets (ROA)</b>			
Leverage	0.470 (0.0061)	1.087 (0.025)	
Liquidity	-0.139 (0.0014)	-0.035 (0.1195)	
Revenue	0.036 (0)	0.047 (0.0216)	
Size	0.000 (0.0077)	0.002 (0.4926)	
Covid	-0.302 (0.0092)	-0.829 (0.0311)	
C	0.022 (0.0706)	0.045 (0.2737)	
R-squared	0.454	0.097	
Adjusted R-squared	0.390	-0.010	
F-statistic	7.036	0.906	
Durbin-Watson stat	1.681	2.109	
Hausman test $\chi^2$	(1)	(1)	
<b>Model 3: Dependent Variable: Earning per share (EPS)</b>			
Leverage		3.603 (0.9523)	33.185 (0.0172)
Liquidity		-1.144 (0.6798)	3.667 (0.3553)
Revenue		2.843 (0.2637)	0.856 (0.281)
Size		1.411 (0.0009)	0.758 (0.0915)
Covid		-5.257 (0.9124)	-30.022 (0.0146)
C		2.468 (0.6314)	-0.699 (0.5436)
R-squared		0.684	0.386
Adjusted R-squared		0.646	0.295
F-statistic		18.252	4.259
Durbin-Watson stat		1.094	1.502

Hausman test  $\chi^2$  (1) (0.7494)

Table 6 the random effect model shows the estimated results between covid-19 and financial performance (ROA/ROE/EPS) of textile industry of Pakistan, India and Bangladesh. The significant impact of all independent variable on ROA have shown with respect to Pakistan, revenue and covid shows

significant impact on ROA with respect to India. The significant impact of revenue on ROE with respect to India, whereas leverage, size and covid have shown significant impact with respect to Bangladesh. The significant impact of size on EPS have shown with respect to India and leverage, size and covid have shown significant impact with respect to Bangladesh.

**Table: 7 Quantile Regression (Median) Model**

Variable	Pakistan	India	Bangladesh
<b>Model 1: Dependent Variable: Return of assets (ROA)</b>			
Leverage	-0.064 (0.0038)	0.000 (0.9477)	-0.003 (0.9429)
Liquidity	0.035 (0)	0.026 (0)	0.018 (0.0044)
Revenue	0.000 (0.4131)	0.002 (0.0001)	0.006 (0.0219)
Size	0.047 (0.0859)	-0.325 (0)	-0.127 (0.0007)
Covid	0.000 (0.9525)	-0.005 (0.5971)	-0.025 (0.0241)
C	-0.065 (0.1145)	0.422 (0)	0.146 (0.0002)
R-squared	0.1673	0.152	0.197
Adjusted R-squared	0.1519	0.137	0.159
<b>Model 2: Dependent Variable: Return of assets (ROE)</b>			
Leverage	-0.344 (0.2946)	0.00 (0.9845)	0.094 (0.4328)
Liquidity	1.434 (0)	0.74 (0)	0.023 (0.1278)
Revenue	0.000 (0.669)	0.05 (0.058)	0.014 (0.0144)



Size	1.118 (0.001)	-6.98 (0.0099)	-0.272 (0.0006)
Covid	0.101 (0.5132)	0.54 (0.3954)	-0.047 (0.0688)
C	-2.766 (0)	9.43 (0.0063)	0.289 (0.0024)
R-squared	0.167	0.07	0.108
Adjusted R-squared	0.151	0.06	0.065
<b>Model 3: Dependent Variable: Return of assets (EPS)</b>			
Leverage	-3.720 (0.2343)	-0.961 (0.1429)	4.280 (0.188)
Liquidity	13.241 (0)	5.341 (0.0001)	0.730 (0.1265)
Revenue	0.001 (0.8391)	0.166 (0.1609)	0.492 (0.0101)
Size	11.561 (0.0007)	-27.663 (0.0537)	-4.829 (0.0546)
Covid	0.131 (0.9269)	-3.654 (0.1266)	-1.300 (0.0595)
C	-26.759 (0)	38.810 (0.0283)	3.404 (0.1221)
R-squared	0.164	0.049	0.088
Adjusted R-squared	0.149	0.031	0.044

Table 7 show the quantile regression (median) model to support and verify the results of pool ordinary least square. The effect of covid-19 on financial performance of textile industry of Pakistan and India have shown positive impact and with respect to Bangladesh the impact of covid has negative.

### 5 Conclusion and recommendations

The study seeks to identify the financial performance of textile sector in the selected SAARC economies. The COVID-19 crisis in a globalized context its cross-sectoral connections, influences, and possibly a coping strategy. In SAARC economies textile sector is badly affected by this Pandemic (COVID-19) in earlier phase. During the financial year 2019-2020 exports has been reduced in SAARC economies specifically in 4<sup>th</sup> quarter. Moreover, this pandemic exposes the lack of technologies in textile sector in SAARC region and also the policies of Government to handle the such critical situations. The hypothesis with respect to Pakistan and Bangladesh has been accepted while with respect to India rejected.

The results shows that the there is significant positive impact of Covid-19 on Financial Performance (ROA/ROE/EPS) with respect to Pakistan. This positive impact of Covid-19 in Pakistan due to different strategies/policies adopted by the Government i.e constitution of NCOC (National Command & Operation Centre), smart & micro-Lockdown policies, production of PPE's relaxation in covid restrictions for industrial and production sectors, facilitate different industry for payment of utility bills and provision of loans on easy terms. There is non-significant positive impact of Covid-19 on Financial Performance (ROA/ROE/EPS) with respect to India. This positive impact of Covid-19 in

India due to different measures adopted by the Indian Government some of these are Announcement of several relaxation measures in geographical areas designated as non-hotspot, with effect from April 20, 2020, announcement of 20 trillion rupees stimulus package, equivalent to 10% of India's GDP, extension in Rebate of State and Central Taxes and Levies program, permission of inter-state movement of stranded people, including migrant workers etc. There is significant negative impact of Covid-19 on Financial Performance (ROA/ROE/EPS) with respect to Bangladesh because of closure of most of the production industries, there was 25% of factories report experiencing a shortage of raw materials due to delayed or cancelled material shipments from within Bangladesh, lack of technologies in industrial sector. Prior to COVID-19, 58.2% of factories reported plans to make investments to increase automation in 2020. Among these factories, 38% report delaying and a further 26% report decreasing investments due to COVID-19.

Textile industries should use the latest technologies and Government should make the policies to handle the situation faced during this Covid-19 Pandemic for future unforeseen situations. The findings of this study shows that Pakistan's policy responses to Covid-19, may be adopted by other countries. Because these policies not only survived the economy of country and also admired by the World Health Organization. Government should also take quick measures in any Pandemic situation to save the economy and life of people because all stakeholder (Investors, consumers etc.) closely depended on the policies adopted by the Governments. For future research, this study suggest that further study may be

expanded in other sectors such as pharmaceutical and automobile etc and other economies.

### References

- AKHUAND, A. & ABBAS, S. 2021. Modeling determinants of competitiveness: a case of textile sector of Pakistan. *J. Text. Inst.*, 1-10.
- ASIF, R., ASLAM, R. & ABID, H. 2021. An Investigation into the Impact of Power Outage on Working Capital Management in Textile Sector of Pakistan. *J. Account. Emerg. Econ.*, 7, 833-848.
- ATAYAH, O. F., DHIAF, M. M., NAJAF, K. & FREDERICO, G. F. 2021. Impact of COVID-19 on financial performance of logistics firms: evidence from G-20 countries. *J. Glob. Oper. Strateg. Sourc.*, 15, 172-196.
- ATKAR, A., PABBA, M., SEKHAR, S. C. & SRIDHAR, S. 2021. Current limitations and challenges in the global textile sector. *FNF&T*. Elsevier.
- BHOGAL, B. & DAVE, D. G. 2021. An Overview of Textile And Clothing Industry In Economic Growth of India and Bangladesh. *Int. J. Manag.*, 12, 875-882.
- BISWAS, T., MONDAL, M., BHATTACHARYA, S., SARKAR, M., DHARA, B., MITRA, A. K. & CHANDRA, A. 2021. Covid-19 and the South Asian Countries: factors ruling the pandemic. *J. Public Health*.
- CHO, B. & SAKI, Z. 2021. Firm performance under the COVID-19 pandemic: The case of the US textile and apparel industry. *J. Text. Inst.*, 113, 1637-1647.
- DALTON, J. A. & PENN, D. W. 1976. The concentration-profitability relationship: Is there a critical concentration ratio? *J Ind Econ.*, 133-142.
- DAVIS, G. F. & DEWITT, T. 2021. Organization theory and the resource-based view of the firm: The great divide. *J. Manag.*, 47, 1684-1697.
- ISLAM, M. T., TALUKDER, A. K., SIDDIQUI, M. N. & ISLAM, T. 2020. Tackling the pandemic COVID-19: The Bangladesh perspective. *J Public Health Res.*
- KAVINDI B.G.H, PRIYASATH G.D, PERERA L.S.A, ANURADHA R.P.S, WELIGODAPOLA H. W. M.C & K.N.P, K. 2021. The Effect of The Covid 19 On Overall Firm Performance in Sri Lankan Apparel Companies. *IJBEL*, 24.
- KURUPPU, R. 2018. South Asian Textile and Clothing Trade and Advances in Digitalization. *JTSFT*, 513.
- MAEEN MD. KHAIRUL AKTER 2020. Bangladesh Garments and Textile Industry. *J. Text. Foc.*
- MAJUMDAR, A., SHAW, M. & SINHA, S. K. 2020. COVID-19 debunks the myth of socially sustainable supply chain: A case of the clothing industry in South Asian countries. *Sustain. Prod. Consum.*, 24, 150-155.
- NAZIR, A., AZAM, M. & KHALID, M. U. 2021. Debt financing and firm performance: empirical evidence from the Pakistan Stock Exchange. *AJAR*, 6, 324-334.
- NGUYEN, H.-K. & VU, M.-N. 2021. Assess the impact of the COVID-19 pandemic and propose solutions for sustainable development for textile enterprises: An integrated data envelopment analysis-binary logistic model approach. *J. Risk Financ. Manag.*, 14, 465.
- NUGRAHA, N. M., SULASTRI, L., NUGRAHA, D., PUSPITASARI, D. & PUTRA, R. 2020. Effect of Leverage and Liquidity on Financial Performance of Companies in the Property and Real Estate Sub Sector in Indonesia. *J. Archaeol. Egypt/Egyptol.*, 17, 3675-3688.
- OKEREKEOTI, C. U. 2021. Effect of Revenue Growth and Financial Performance of Quoted Manufacturing Firms in Nigeria. *AJBED*.
- OMONDI, M. M. & MUTURI, W. 2013. Factors affecting the financial performance of listed companies at the Nairobi Securities Exchange in Kenya. *Res. J. Finance Account.*, 4, 99-104.
- PANIGRAHI, C., ASHUTOSH, K., MEHTA, S., PASRICHA, S. J. J. O. M. R. & ANALYSIS 2020. Impact of coronavirus outbreak on Indian textile sector. *JMRA*, 7, 76-83.
- PEC 2020. Economic Survey of Pakistan. *F.D. GOP*.
- PRAYOGA, E. B. & ALMILIA, L. S. 2013. Pengaruh struktur kepemilikan dan ukuran perusahaan terhadap pengungkapan manajemen risiko. *Jurnal Akun. dan Keuan.*, 4.
- SECP 2020. Annual Report for FY2019-202. *SECP*.
- SIRAYE 2020. COVID-19 and The Garment and Textile Sector In Ethiopia. *ILO*.
- SONG, H. J., YEON, J. & LEE, S. 2021. Impact of the COVID-19 pandemic: Evidence from the US restaurant industry. *Int. J. Hosp. Manag.*, 92, 102702.
- UTAMI, H. A. 2022. Resource-Based Theory *Theory Hub Book*.
- ZUHROH, I. 2019. The Effects of Liquidity, Firm Size, and Profitability on the Firm Value with Mediating Leverage. *Sust. and Socio Econ. Grow.*