


Impact of Environmental Factors on Supply Chain Practices in Textile Sector

 Shahnawaz Ansari ¹

 Mirza Hassan Baig ^{2*}

 Kifayat Ullah ³

 Muhammad Mudassir

 Khan ⁴

 Albash Akhtar ⁵

^{1,*2,3,4,5} Researcher, Department of Business Administration, Iqra University, Karachi, Pakistan

*Corresponding Author Email: mirzahassan105@gmail.com

Article History

Received: 01 September 2022

Revised: 14 September 2022

Accepted: 16 September 2022

Published: 20 September 2022

JEL Classification

L67

R41

D80

G14

ABSTRACT

In today's era, supply chain functions play a significant role in every business model, whether service-based or product based. Effective and efficient supply chain practices help the business grow, provide value to its buyers, and help make rational decisions that encompass the nation's economic, social, and environmental benefits. These supply chain functions can only be implemented and provide sustainable benefits if no direct or indirect disruption is inferred due to internal or external environmental factors. Our nation's textile manufacturers and exporters are the primary sources that propel the nation's economy. In short, the textile industries drive ninety per cent of the economy. Eventually, their supply chain practices are surrounded by many factors, which lead them to run or halt their operations. If we enlighten the past, a major global environmental factor, significant supply chain disruptions occur and especially strikes our country's primary economy-driven sector. It is a cross-sectional study. The present study was conducted in the urban areas of Karachi, Pakistan. Data collection will be through questionnaires and surveys. It is designed for information collection so it can use to determine the impact of this factor in significant supply chain functions, including procurement, warehousing, logistics, and import & export.

Keywords: Green supply chain, Textile, Procurement, Logistics, Warehouse, Import and Export, COVID.

Citation of this article:

Ansari, S., Baig, M. H., Khan, M. M., & Akhtar, A. (2022). Impact of Environmental Factors on Supply Chain Practices in Textile Sector. *South Asian Management Review*, 1(2), 1-13.

Impact of Environmental Factors on Supply Chain Practices in Textile Sector

1. Introduction

The study covers a thorough analysis of the problems that the textile industries have faced due to the environmental factors in their primary supply chain functions, including logistics, procurement, warehousing, import & export, along with the limitations, importance, hypothesis and background of the research (Bode et al., 2011). The environmental factors have a significant impact on national and international economies & Supply chains. It has a significant impact on various businesses. Depending on its impact, they have suffered varying losses due to the procedure (Shaheen, 2022). Furthermore, enterprises are currently confronted with several issues, including decreased demand from customers and other businesses, supply chain interruptions, cancelling of external demand disturbed the warehouse facilities, shortfalls of resources required in production, and transportation interruptions. As a result, businesses and nations severely impacted economic growth (Anwar, 2022). Considering the pandemic as a disruption, every nation's economy has a severe downfall. Each sector of the country, whether the manufacturing or service industry, is oppressed to adapt to this "New Normal". Pakistan's textile manufacturing industry is among the significant economy-driven sectors. It serves employment to millions of people who had to face a severe downfall because of a significant obstruction in their supply chain functions. Once this factor started its disruption in most nations around the world by March, sellers in China, Bangladesh, and India experienced significant order cancellations or delays. (Hashmi et al., 2021a). Due to sudden cancellations, Pakistan's textile manufacturers must fulfil these orders. Even clothing and textile Firms which have reopened their operations in China or South Korea they were always dealing with a slew of supply-chain issues, including a labour shortage, a scarcity of textile raw materials, and a significant increase in storage, shipping, and transportation costs (Baloch & Rashid, 2022; Lu, 2019). Unfortunately, Pakistan's textile sector cannot fulfil the demands of high dependency on China for cotton and chemicals.

The export-oriented textile industry is facing the worst liquidity crisis ever. Overseas contracts have already been rejected, and shipping has been halted, putting smaller businesses out of business. This is especially problematic during economic distress when logical changes are desperately needed to help industrial textile recover (Amjad, 2022). As a result, to safeguard our output cotton industry from the severe economic effects of this environmental factor which is having a negative influence on exports, extreme steps must be implemented. Due to the shortage and import of cotton into Pakistan this year, a reduction in exports and import duties is judged necessary, highlighting the shift to the polyester market (Rasheed, 2022). Pakistan is one of the countries where daily reported cases have been steadily decreasing. The issue with this factor will always pose an uncertainty, though, is that we can still do not know much more about it. What happens when there is a fifth wave in Pakistan? What would be the outcome of supply chain implications? This article briefly used an up-to-date general equilibrium model to estimate the impact of falling trade streams associated with market slowdowns (Amjad, 2022). All markets were assumed to be perfectly competitive, and prices were adjusted to ensure that all markets were in equilibrium.

1.3 Research Objectives and Research Questions

The main aim of this research is to determine the impact of the environmental factors on Pakistan's largest economy driven and serves employment to millions of people in our nation is Textile Industry, including their primary supply chain functions such as Logistics, Procurement, Warehousing, Import & Export and to determine the most critical supply chain disruptions faced by Pakistan's textile manufactures after the pandemic.

Keeping in view, this research study is based on the following questions:

Q1. To what extent do environmental factors effects Warehousing in the textile industry?

Q2. To what extent do environmental factors effects Procurement in the textile industry?

Q3. To what extent do environmental factors effects imports & exports in the textile industry?

Q4. To what extent do environmental factors effects Logistics in the textile industry?

2. Literature Review

The study enlightens the in-depth analysis of various supply chain functions in the Pakistan Textile Manufacturing industry along with the literature summary, and also determines the impact and disruptions on effective supply chain practices, including textile importing and exporting commodities, warehousing practices, textile logistics system and procurement. The textile industry plays a significant role in developing sustainable economic growth for our nation. It contributes more than 60% of export-based earnings and approximately 46% of the total manufacturing that can employ millions of people in Pakistan. The textile sector has proven itself a primary foreign exchange earner. It has a solid supply base for almost all artificial and natural yarns and fabrics, including cotton, rayon, and others, to the United States, United Kingdom, Germany, China, and the Netherlands. It seems to be a simple export process through a bird-eye-view, but the finished items that must be exported or sold must pass through many processes. There has always been the involvement of various departments, including, Spinning, Processing, Seizing, Warping, Loom shade, Pressing, folding, Stitching, Quality control, packaging and warehousing etc (Ali et al., 2018).

It starts by procuring the raw materials, including chemicals and cotton, mainly from China and local manufacturers. Pakistan's textile sector imports 1.49 billion of cotton from China since China has been a bulwark of exporting textile-related materials with its rapid growth over the last two decades. Our textile sector also imports textile-related instruments and machinery, specifically from Switzerland, Germany, China, Italy and Turkey. The process starts by sending the cotton to the spinning department to produce yarn and make it stronger by applying different chemicals in the processing department where yarn cones have been produced. The processed yarn is sent to the Sizing and Warping department, where warping machines convert these yarn cones into a beam, and we make multiple beams. These multiple beams have been sent to the Sizing machine, where the sizing machine converts these multiple beams into a single beam & applies the chemical as per requirement (Ali, 2022). A single beam has been sent to another department, where the beam has been converted to a loom and processed further to produce the cloth. The cloth has now been sent to the dyeing machine, where the colour and design process occurs. After the dyeing process, it is transmitted to the press department, where the cutting of clothes takes place and further processed to the Stitching department. The processed cloth has been stitched according to the requirement specifications and transferred the finished goods to the quality control, where the items have been checked from every aspect before being transmitted to the packaging department (Victory et al., 2022). After packaging the finished goods, all the items are shifted to the warehouse and stored in a controlled environment.

From production to export, all the primary supply chain practices are involved, including procurement, manufacturing, warehousing and logistics and these functions require a streamlined and well-maintained area. Whether in terms of environment, human resources, political intervention and others, a sudden breakdown happened in the form of a pandemic, and the textile sector needs to fight this imperceptible competitor (Alam, 2022). The first disease began in China's Wuhan, then spread throughout the realm, and is now recognized as one of the darkest periods in human history. Almost all of the world's major economies, including Asia, the United States, India, and several European countries, are on full or partial lockdown. The pandemic has shaken humankind as well as the economy of those countries, and supply chain disruptions have occurred due to the complete closure of borders (Victory et al., 2022). Because of the panic produced by this factor outbreak, orders for textile products from abroad and domestic sales have ground to a standstill. Due to the lockdown, all textile-associated factories were closed, and it is challenging to risk a wager while the ones might be allowed to open. Workers were strolling right here and there amid all kinds of confusion. The commercial enterprise network is scared due to coins' crunch, deliver chain disturbance and manpower-associated issues (Asif, 2022). All throughout the world, the garment industry has taken a beating. Because of large stockpiles,

stores were closed, and practically all purchasers were cancelling or postponing orders. They might also not be able to place an order in the coming months. The daily wage worker, who makes up 80% of the workers in garment factories, is out on the streets or at home. The worst-affected countries include India's primary export markets, Europe and the Middle East. It is difficult to predict when these nations will return to everyday living, and even if we do, when people will begin spending again, given that the lockout will result in job losses (Uddin, 2022).

Hence Pakistan's textile industry is the country's largest industrial sector, and it ranks as Asia's eighth most significant exporter of textile goods. Pakistan's textile industry contributes 8.5 per cent to the country's GDP. Furthermore, the sector employs roughly 45 per cent of the country's overall workforce and 38 per cent of the manufacturing workers. Pakistan is the world's fourth-largest cotton grower, with the third-largest significant input in Asia behind China and India, accounting for 5% of worldwide spinning capacity. There are currently 1,221 textile seed units, 442 spin units, 124 big spinning units, and 425 small spinning units. Since Pakistan's fabric and garment industry is facing the worst ever liquidity crisis. The export value of textiles in May 2020 was US\$751 million, a decrease of 37% compared with the export value of US\$1.19 billion in May last year. We need to take drastic actions to rescue our export-oriented textile business from the detrimental economic effects worldwide.

2.1. Importing and Exporting Commodities

Minimization of cost is the primary goal that needs to be accomplished by any manufacturer or services sector in order to obtain a sustainable competitive advantage over competitors. However, they had to maintain the quality of the product. Hence, it is not an easy process (maintaining quality with minimum cost). The same goes for textile manufacturers. They had to reasonably import or procure the best-in-class raw material and then produce the finished commodities efficiently (Ayaz, 2022). After the pandemic, our textile industry suffers a significant disturbance while importing raw materials from China. Pakistan's textile sector is required to proactively increase imported equipment from other countries because environmental factors have broken the buyer-seller relation worldwide and reduced the export flow. Globally the large importers are stuck in bankruptcy, or some stopped their companies due to the global pandemic, leaving Pakistani exporters without customers. Both demand and supply sides have been splitting the change in the external sector, and a currency crisis is appearing. Pakistan's fabric area was employed at the complete volume of their production level after the government implemented the new duties and taxes on the import of raw cotton in January 2020. On the other side, Pakistan started higher export orders from other countries, primarily for textiles, at that point when China was on the battlefield against the pandemic. The world textile material purchasers are diverted from China to Pakistan, and 70-80% of creation was disturbed (Ali et al., 2020).

Among Pakistan's main exports are textiles, cereals, leather-based products, surgical tools, chemicals, and other products. Moreover, over two-thirds of all fabric products are shipped to Western countries, making them the essential destination for finished goods from the fabric and cowhide industries. The demand for Pakistani textiles continues to diminish due to continued cutbacks and shutdowns (repercussions in supply-aspect and demand-aspect disruptions). Total exports in Pakistan may not fall entirely due to this strand, but they may fall due to a decrease in imports (Muzammil, 2022). These are then used to provide things for domestic consumption and distribution to the rest of the world. As a result, the drop in importation of such commodities will result in a distribution failure today.

2.2. Warehousing Practices

Warehousing is one of the primary supply chain functions that enable the manufacturer to store all the elements, whether produced or used in the production, that is, the raw material and also plays an essential role in streamlining the overall process. However, the warehousing function has its own cost,

including direct and indirect costs, and the manufacturer needs to bear all the costs related to the warehousing. The same goes for the textile manufacturers in our country during the pandemic, when all the territories were closed and even the giant textile suppliers in foreign nations, especially China, stopped their processes. It was challenging for Pakistani textile firms to import the raw materials and other textile-related machinery they needed to bear their warehousing cost, as more than 60% of the warehousing is outsourced. They had to suffer from its cost without storing anything in it (Hunaid et al., 2022).

2.3. Logistics

According to the data, it has a statistically unfavourable and significant influence on air freight (Lu, 2019). Furthermore, terrestrial traffic is economically significantly negative, whereas the effects on maritime freight are statistically minor. The policymakers should expand their support to improve Pakistan's textile sector's logistics and transportation performance. The main goal of logistics and transportation companies is to move, store, and move items efficiently using the proper routes. Nevertheless, it has been stated that this environmental factor epidemic has a significant and negative impact on established businesses. It is worth noting that the epidemic has highlighted the brittleness of affairs and activities in the textile industry and offered new obstacles.

Furthermore, the textile industry has difficulty controlling its supply chain across borders and enabling business and trade. As mentioned in the paper, the epidemic has interrupted supply and influenced supply and demand in many countries. Because of the underperformance of logistics management, trade opportunities are limited. In order to reduce the odds of prospective procurement hazards, the transportation businesses also performed several modes of transportation and logistics, such as transporting goods, warehousing, inventory management, and other multi-model transportation. Likewise, global manufacturers have used their routes and transportation techniques, which can be regarded as an essential part of delivering goods and services to customers. Based on the distinct roles and operations enterprises conduct for trade, there is a good bond between logistics and the economy, eventually increasing the economic returns. The Pakistan lockdown scenario's repercussions were noted to harm transportation and logistics. Furthermore, it was discovered that the notion of long-haul trucking has fallen under 15% for the year 2019. It had previously climbed by 92 per cent in February, which was a success element for Pakistan's logistics and transportation sector and a boon to a variety of other companies (Basit, 2022; Rashid et al., 2022).

2.4. Procurement

Textile Procurement implications are owing to our considered elements. Supplies are facing a shortage due to the closure of ports. Manufacturers are unable to produce their products due to uncertainty of the market and also unable to code the prices due to the unpredictability of the ports and labour storage. There is significant uncertainty in the market as we do not know what the will be the rate day after tomorrow. Bulk storage has become a massive issue as providers cannot produce the appropriate quantity at our desired rates. Fleece, rib, and jersey are all reaching new heights since they significantly impacted the production houses. The cost of plastic and other types of bags is high. Because the cards in the market are bleach cards, art cards, and craft cards from Sri Lanka, the problem is to tackle a sudden change in rates. The former rate was 210, but after one, the reel, which was 400 to 500 reels, made a difference. We will have to recycle waste if we do not have enough material. The other issue is that the material has become scarce in the market, and if we talk about the import, which was a Wonder C obligation, it would be delayed by two to three months. There was also a reduction in procurement and output.

As a result, we had to induct other sources against it, where all of the documentation work was completed. Most industries are recovering, and it is critical to act on the lessons learned from the crisis and reform sourcing and procurement activities. The functions must structure their recovery and address some essential areas to emerge stronger. Improve the visibility of the supply network to detect threats and capacity challenges. Examine suppliers' financial health and dependability, and strengthen collaboration to find cost-cutting options. Restructure stock levels, and review category plans to align with comment supply chain planning. Monitor clients to determine if their requirements have changed (Haque et al., 2021).

2.5. Relevant Theory

2.5.1. Contingency theory

The research has relevance to the theory of contingency as it approaches the most appropriate management style that depends on the situation's context or decision (Rashid & Amirah, 2017; Rashid et al., 2019). In our research, the situation will be considered a pandemic which causes disruptions in significant supply chain functions of the textile sector, especially in the procurement of raw materials from China or other countries. Since the pandemic has risen, major suppliers like China have closed all their operations, primarily exporting textile-related materials. Pakistan textile exporters have a high dependency on China in procuring cotton & chemicals. However, Pakistan's textile manufacturing industries had a chance to increase their export because many importers were interested in placing textile-related orders with Pakistan's local textile manufacturers. Due to the closer of China, India & Bangladesh, local manufacturers could not fulfil the demands. On the other hand, they faced a labour shortage and raw materials, which tended to decrease their operations. As a result, the textile's procurement department needed to suffer with little or no raw material procurement, which led them to stop their production and eventually affected the export. Figure 1 illustrates the research framework.

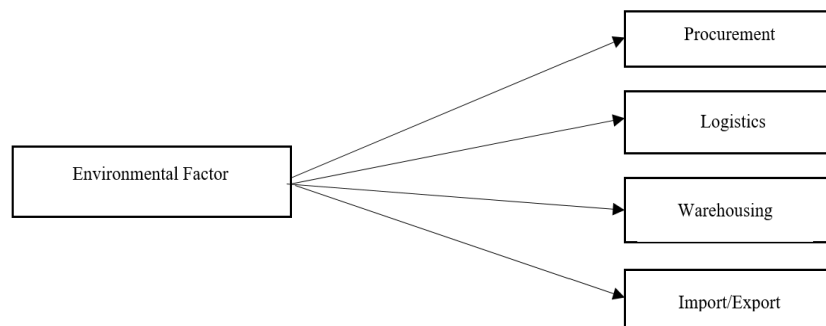


Figure 1: A research framework

2.6. Hypothesis

The following hypotheses were tested in this research:

H1: Environmental factors has a significant effect on procurement.

H2: Environmental factors have a significant effect on warehousing.

H3: Environmental factors have a significant effect on Import/Export.

H4: Environmental factors have a significant effect on Logistics.

3. Research Methodology

The research is based on quantitative design and enlightens the post-paradigm structure because of the empirical data (Rashid et al., 2021) and relies on data collection from a large population of textile manufacturers in Karachi. Further, explanatory research seeks fresh insight to expand, develop, build, or test a theory and complies with our research framework variables that depend upon a situation (Rashid et al., 2021). The quantitative research method is used along with questionnaires and surveys to determine our chosen population's responses. As the questions that have been asked from the respondents generally implies on their experiences of what situation they had faced during the environmental factors and what implications take place in order to deal with this situation, and afterwards what strategies will be adapted in order to run their functionalities in this new normal. Some probing questions have also been asked in order to grab quality-based answers and determine the overall thinking of the respondents. In order to obtain relevant answers from the respondents, we will prepare a questionnaire along with probing questions so respondents can determine their thinking and the strategies that have been implemented. In order to do so, the quantitative-based data collection method will be helpful and reliable. SPSS software is used to analyze the overall data as this software helps to find out accurate results and in order to minimize the chances of error. Statistical technique in this research is used to spot the result. The correlation model is also applied for finding the research's best result and measuring the relationship between the independent and dependent variables. These techniques & criteria provided the findings and inspected the data in a particular manner. This study was carried out in compliance with all of the study's ethical standards. This study ensures that no one's privacy is violated, and it does not contain any negative language or materials.

3.1. Sampling

Probability sampling will be used for prejudice when selecting a sample. Therefore, it is not used adequately to reflect the population, but it is also used as random where the population is very high. We will conduct questionnaires and surveys from different textile-based supply chain departments, including procurement, logistics, import/export and warehousing (Rashid, 2016; Rashid & Amirah, 2017). The research will investigate the environmental factor's impact on procurement, logistics, export/import and warehousing for different textile manufacturers. The research design gives us choices and methods to conduct secondary research. The research is deductive based on existing models and theories (Rashid et al., 2021; Hashmi & Mohd, 2020; Hashmi et al., 2020a, b). The research is the explanatory method. The data is collected through questionnaires and organizational surveys from middle to top-level textile supply chain industries and their management. The sample size was obtained randomly from 123 respondents from various textile (SMEs) in Karachi.

3.2. Procedure of Data Collection

To investigate the relationship between post environmental factors intention with Logistics, Procurement, Warehousing, Import & Export. Data will be gathered through interviews and surveys from different textile supply chain departments, mainly procurement and logistics. The dependent and independent variables will measure by one tool at a particular time. Group of interest will be compared to the general public who are not involved in geographical location would be the place where we are living. The data source will be gathered from the interviews consisting of relevant questions, which will ensure that respondents understand study items that will satisfy the legitimacy of the interviews and survey.

4. Results and Findings

4.1. Demographic Attributes

The profile description of the various methods was used to examine the data. The first step is the evaluation of the respondent's profile. A sample size of 123 respondents was used in this survey. The size includes both males, 69.7%, and females, 30.3% genders. The age group of respondents are

classified as 620.3% are 25 – 30, 25.4 % are aged between 31 – 40, 10.7% are aged between 41 – 50 and 0.8% are aged between 51 – 60.

4.2. Reliability Test

To verify model uniformity, the reliability test was carried out. The collected data was analyzed by SPSS Software and found to be 0.890, more significant than 0.60. Therefore, the variables are reliable enough and fulfilling the test assumptions (Rashid et al., 2021; Khan et al., 2022a, b, c; Agha et al., 2021; Haque et al., 2021; Das et al., 2021; Alrazehi et al., 2021)

4.3. Hypothesis Testing

ANOVA stands for analysis of variance that helps to find out if survey or experiment results are significant or not. In ANOVA analysis, an F value is used to determine whether or not the model is fit. The value of F should be close to 1, which means that the model is significant. In our research, four variables are analyzed to check the overall fitness. Table 1 illustrates the hypotheses results.

Table 1: Hypotheses results

Model		Sum of Squares	df	Mean Square	F	Sig.
H1	Regression	14.734	1	14.734	30.610	.000 ^b
	Residual	56.318	117	.481		
	Total	71.053	118			

a. Dependent Variable: Procurement

b. Predictors: (Constant), Environmental factor (COVID)

Model		Sum of Squares	df	Mean Square	F	Sig.
H2	Regression	20.153	1	20.153	65.707	.000 ^b
	Residual	36.805	120	.307		
	Total	56.957	121			

a. Dependent Variable: Warehousing

b. Predictors: (Constant), Environmental factor (COVID)

Model		Sum of Squares	df	Mean Square	F	Sig.
H3	Regression	25.753	1	25.753	68.430	.000 ^b
	Residual	45.538	121	.376		
	Total	71.291	122			

a. Dependent Variable: Import-Export

b. Predictors: (Constant), Environmental factor (COVID)

Model		Sum of Squares	df	Mean Square	F	Sig.
H4	Regression	35.062	1	35.062	117.181	.000 ^b
	Residual	36.204	121	.299		
	Total	71.266	122			

a. Dependent Variable: Logistics

b. Predictors: (Constant), Environmental factor (COVID)

In the first hypothesis, the value of F stats is 30.6, showing the model is of good fit and significant at a 1 % significance level. For the second hypothesis, the value of F stats is 65.7, showing the model is of good fit and significant at a 1 % significance level. The third hypothesis analysis states that the value of F stats is 68.4, showing the model is of good fit and significant at a 1 % significance level. In the last hypothesis, the value of F stats is 117.1, showing the model is of good fit and significant at a 1 % significance level.

The coefficients describe the mathematical relationship between the independent and dependent variables. The linear regression results show that the model is significant at a 0.001 or 1% significance level. Therefore, there is a positive relationship between the independent variable and procurement. Results of linear regression show that one unit change in the independent variable can change in procurement by only significantly .532 times. For the second hypothesis, there is a positive relationship

between the independent variable and warehousing. Results of linear regression show that one unit change in the independent variable can change in warehousing by only significantly .626 times. In the third hypothesis analysis, there is also a positive relationship between the independent variable and import and export. The linear regression results show that one unit change in the independent variable can change import and export by only significantly .699 times. While analyzing the final hypothesis, there is also a positive relationship between the factor and logistics. Results of linear regression show that one unit change in environmental factor can change Logistics by only significantly .816 times. Table 2 illustrates the coefficients results.

Table 2: Coefficients results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
H1 (Constant)	1.016	.286		3.557	.001
Environmental factor (COVID)	.532	.096	.455	5.533	.000
a. Dependent Variable: Procurement					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
H2 (Constant)	1.048	.228		4.598	.000
Environmental factor (COVID)	.626	.077	.595	8.106	.000
a. Dependent Variable: Warehousing					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
H3 (Constant)	.612	.250		2.447	.016
Environmental factor (COVID)	.699	.085	.601	8.272	.000
a. Dependent Variable: Import-Export					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
H4 (Constant)	.304	.223		1.362	.176
Environmental factor (COVID)	.816	.075	.701	10.825	.000
a. Dependent Variable: Logistics					

It is used to determine the strength of the relationship between the model and the dependent variable and provides detail about the characteristics of the model. In our research environmental factor is considered the primary independent variable and acts as a constant while Procurement, Warehousing, Import-Export and Logistics are considered dependent variables. Table 3 illustrates the model summary results.

Table 31: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
H1	.455 ^a	.207	.201	.69380
H2	.595 ^a	.354	.348	.55381
H3	.601 ^a	.361	.356	.61347
H4	.701 ^a	.492	.488	.54700

a. Predictors: (Constant), Environmental factor

If we look at the first hypothesis H1, which refers to the procurement variable, The value of R square shows that change in environmental factors brings a 20.7% change in outcome variable procurement. Similarly, for the second hypothesis H2, the value of R square shows that the change of environmental factor brings a 35.4% change in outcome variable warehousing. If we move on to the third variable, the value of R square indicates that the change of environmental factor brings a 36 % change in the outcome variable import and exports. In the last hypothesis analysis, the value of R square shows that change in environmental factors brings a 49.2% change in outcome variable logistics.

5. Conclusion

The study's leading element is to analyze the influence of different procurement strategies and techniques on the long-term viability of the supply chain process. Today, sustainability is captivating more consciousness at local and global levels, pushing concern about ways to incorporate sustainability into corporate strategy and operations. Sustainable supply chain management might well be a practical approach for businesses to adopt, from being receptive to trash and pollution reduction as well as other long-term solutions activities to show up proactive in respect of taking complete responsibility for their products. And their results from raw material acquisition to ultimate disposal from sustainability perspectives. Operational effectiveness has a consequence on the quality of results, Import, Export, Warehouse & logistic in the Textile industry. The management of the supply chain has evolved into a matter of contention due to ruthlessness. The motive of a chain of supplies management is to enhance an organization's operational efficiency. The chain of supplies further assists in operational convenience and frugality. The precaution we discuss above would impulsively make a remarkable contribution to the organization's overall performance & which will grow our country.

5.1. Discussion

The study's hypothesis shows that procurement strategies significantly impact the viability of supply chains. This hypothesis is accepted as a value of 0.000 in the co-efficient table by implementing sustainability in our procurement process and sourcing of raw materials. It reduces the risk of production shortfall. Operational effectiveness significantly affects the material's quality and environmental health. Cost reduction benefits and increased productivity can be found. It also improves energy efficiency. Environmental control of purchasing and the supply chain is now remarkably commonplace in the middle of larger companies. It is also increasingly used as a corporate practice after covid1-19. To participate in future planning initiatives with all the business partners, like an alliance with vendors to eliminate waste of time in dispatching the raw (Import & Export), logistic and warehousing as well. To build evaluation criteria with vendors, use of grading system for suppliers on their performance, design questionnaire for supplier evaluation, to set the standard of environmental process in the selection of strategic business partner, evaluation criteria should also apply in the buying process.

5.2. Implications

Research Implications recommend how the discoveries may be vital for arrangement, practices, hypothesis, and consequent inquiry. Research implications inquire about suggestions are the conclusions simply drawn from the output and clarify how the discoveries may be vital for policy, practice, or hypothesis. In any case, the suggestions should be substantiated by proof, the study's parameters should be clarified, and the impediments taken under consideration to dodge over-generalization of output. Once the study is conducted and we draw conclusions, we will be able to state the "Research Implications". That implies simply communicating how the study can influence prospects within the subject region of investigation and the approaches or controls that could be impacted since the pondering. Otherwise, hypothesize how the results can affect either hypothesizing a specific point beneath consideration or the possible angles of the same. The investigative implications are continuously upheld by solid factual noteworthiness and relationships from research, keeping in sight the study's inadequacy. The prompt activities that have to be executed to illuminate a specific address, what ought to be redressed & what ought to be dodged to unravel an issue, what is the possibility of your proposed approach, and explanations approximately the type and timing of an evaluation plan that would be used to determine the viability of the proposed strategy. Once more, what you think about these suggestions should be emphatically upheld. There is plenty of work to be done to establish global supply chain sustainability parameters. This procedure requires us — the manufacturers, the suppliers, and governments — to examine sustainability in a wide-ranging. It should also highlight the necessity of examining the whole supply chain rather than individual components. The only way to set sustainability in motion is by pushing managers to recognize a better approach.

5.3. Limitations and Recommendations

This study has some limitations, like other research studies. It has a time limitation as it was completed in a short span of time. Second, the study was self-contained and with no additional funds engaged in the research work. We have specifically targeted the textile industry of Karachi. It has Geographical constraints, and the research was conducted only in one city, i.e., Karachi, Pakistan. The research was conducted on the Impact of Environmental Factors on Supply Chain practices in the textile Sector. Further research may also be conducted by using different variables. This can be done in different regions of Pakistan and outside Pakistan. Different areas of the supply chain process for sustainability impact can be focused on highlighting other significant issues and improving and enhancing research possibilities for further learning and awareness. There is still much work to be done in developing global supply chain sustainability. Future research can be characterized as efficient thinking about conceivable future occasions and circumstances. It is distinctive from determining in a way that the previous includes a forward orientation and looks ahead, or maybe that in reverse, and isn't as numerical as estimating. There is a vast extent of strategies accessible that can be utilized to conduct prospect considers. The nature of decision-making utilizing the output of prospects can be drawn closer from four elective points of view; 1). Values point of view categorizes forecasted results of occasions and events as great or terrible. Appropriately, the esteem viewpoint tends to be exceedingly subjective due to esteem differences among individuals. 2). Rational viewpoint relates to determining an elective among choice choices guided by the degree to which each elective meets specific criteria. 3). Judgment heuristics is related to a propensity towards hazard taking and depending on instinct when locked in in choice making. Future research might use different approaches to investigate biases in standard methods. As the majority in the world enlarges and the availability of resources reduces or minimizes, many firms or companies come to understand that the process of supply chains must also be re-designed in the current scenario to deal with any disaster in future.

References

- Agha, A. A., Rashid, A., Rasheed, R., Khan, S., & Khan, U. (2021). Antecedents of Customer Loyalty at Telecomm Sector. *Turkish Online Journal of Qualitative Inquiry*, 12(9), 1352-1374.
- Alam, M. (2022). Supply Chain Management Practices and Organizational Performance in Manufacturing Industry. *South Asian Journal of Social Review*, 1(1), 42-52.
- Ali, A., Ahmed, M., & Hassan, N. (2020). Socioeconomic impact of environmental factors pandemic Evidence from rural mountain community in Pakistan. *Journal of Public Affairs*, e2355, 1-9. doihttps://doi.org/10.1002/pa.2355
- Ali, S. B. (2022). Industrial Revolution 4.0 and Supply Chain Digitization. *South Asian Journal of Social Review*, 1(1), 21-41.
- Ali, Y., Rasheed, Z., Muhammad, N., & Yousaf, S. (2018). Energy optimization in the wake of China Pakistan Economic Corridor (CPEC). *Journal of Control and Decision*, 5(2), 129-147. doi10.1080/23307706.2017.1353929
- Alrazehi, H. A. A. W., Amirah, N. A., Emam, A. S., & Hashmi, A. R. (2021). Proposed model for entrepreneurship, organizational culture and job satisfaction towards organizational performance in International Bank of Yemen. *International Journal of Management and Human Science*, 5(1), 1-9.
- Amjad, S. (2022). Role of Logistical Practices in Quality Service Delivery at Supermarkets: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics*, 1(1), 39-56.
- Anwar, M. F. A. (2022). The Influence of Inter-Organizational System Use and Supply Chain Capabilities on Supply Chain Performance. *South Asian Journal of Operations and Logistics*, 1(1), 20-38
- Asif, K. (2022). The Impact of Procurement Strategies on Supply Chain Sustainability in the Pharmaceutical Industry. *South Asian Journal of Social Review*, 1(1), 53-64.

- Ayaz, J. (2022). Relationship between Green Supply Chain Management, Supply Chain Quality Integration, and Environmental Performance. *South Asian Management Review, 1(1)*, 22-38.
- Baloch, N. & Rashid, A. (2022). Supply Chain Networks, Complexity, and Optimization in Developing Economies: A Systematic Literature Review and Meta-Analysis. *South Asian Journal of Operations and Logistics, 1(1)*, 1-13.
- Basit, A. (2022). The Influence of Green Supply Chain Management on Sustainable Performance. *South Asian Management Review, 1(1)*, 49-66.
- Bode, C., Wagner, S. M., Petersen, K. J., & Ellram, L. M. (2011). Understanding responses to supply chain disruptions Insights from information processing and resource dependence perspectives. *Academy of Management Journal, 54(4)*, 833–856.
- Das, S., Ghani, M., Rashid, A., Rasheed, R., Manthar, S., & Ahmed, S. (2021). How customer satisfaction and loyalty can be affected by employee's perceived emotional competence: The mediating role of rapport. *International Journal of Management, 12(3)*, 1268-1277. DOI: 10.34218/IJM.12.3.2021.119.
- Haque, I., Rashid, A., & Ahmed, S. Z. (2021). The Role of Automobile Sector in Global Business: Case of Pakistan. *Pakistan Journal of International Affairs. 4(2)*, 363-383.
- Hashmi, A. R., & Mohd, A. T. (2020). The effect of disruptive factors on inventory control as a mediator and organizational performance in Health Department of Punjab, Pakistan. *International Journal of Sustainable Development & World Policy, 9(2)*, 122-134. DOI: 10.18488/journal.26.2020.92.122.134.
- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2020a). Mediating effect of integrated systems on the relationship between supply chain management practices and public healthcare performance: Structural Equation Modeling. *International Journal of Management and Sustainability, 9(3)*, 148-160. DOI: 10.18488/journal.11.2020.93.148.160.
- Hashmi, A. R., Amirah, N. A., & Yusof, Y. (2021a). Organizational performance with disruptive factors and inventory control as a mediator in public healthcare of Punjab, Pakistan. *Management Science Letters, 11(1)*, 77-86. DOI: 10.5267/j.msl.2020.8.028.
- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2020b). Exploring the dimensions using exploratory factor analysis of disruptive factors and inventory control. *The Economics and Finance Letters, 7(2)*, 247-254. DOI: 10.18488/journal.29.2020.72.247.254.
- Hashmi, A. R., Amirah, N. A., Yusof, Y., & Zaliha, T. N. (2021b). Mediation of inventory control practices in proficiency and organizational performance: State-funded hospital perspective. *Uncertain Supply Chain Management. 9(1)*, 89-98. DOI: 10.5267/j.uscm.2020.11.006.
- Hunaid, M., Bhurgri, A. A., & Shaikh, A. (2022). Supply Chain Visibility in Leading Organizations of the Shipping Industry. *South Asian Journal of Social Review, 1(1)*, 8-20.
- Khan, S. K., Ahmed, S., & Rashid, A. (2021). Influence of social media on purchase intention and customer loyalty of generation Y with the mediating effect of conviction: a case of Pakistan. *Pakistan Journal of International Affairs. 4(2)*, 526-548.
- Khan, S., Benham, A., Rashid, A., Rasheed, R., & Huma, Z. (2022c). Effect of leadership styles on employees' performance by considering psychological capital as mediator: evidence from airlines industry in emerging economy. *World Journal of Entrepreneurship, Management and Sustainable Development, 18(8)*. <https://wasdlibrary.org/publications/journals/wjemsd/>
- Khan, S., Rasheed., R., & Rashid, A., Abbas, Q., & Mahboob, F. (2022b). The Effect of Demographic Characteristics on Job Performance: An Empirical Study from Pakistan. *Journal of Asian Finance, Economics and Business, 9(2)*, 283-294. doi.org/10.13106/jafeb.2022.vol9.no2.0283
- Khan, S., Rashid, A., Rasheed, R., & Amirah, N. A. (2022a). Designing a knowledge-based system (KBS) to study consumer purchase intention: the impact of digital influencers in Pakistan. *Kybernetes, 51(1)*. <https://doi.org/10.1108/K-06-2021-0497>

- Lu, S. (2019). *Regional Comprehensive Economic Partnership (RCEP) Impact on the Integration of Textile and Apparel Supply Chain in the Asia-Pacific Region*. In B. Shen, Q. Gu, & Y. Yang (Eds.), *Fashion Supply Chain Management in Asia Concepts, Models, and Cases* (pp. 21-41). Singapore Springer Singapore.
- Muzammil, M. (2022). Evaluating the Factors to Improve the Organizational Performance. *South Asian Management Review, 1(1)*, 39-48.
- Rasheed, T. (2022). Supply Chain Sustainability Through Green Practices in Manufacturing: A Case Study from Pakistan. *South Asian Journal of Operations and Logistics, 1(1)*, 57-71
- Rashid, A. & Rasheed, R. (2022). A Paradigm for Measuring Sustainable Performance Through Big Data Analytics–Artificial Intelligence in Manufacturing Firms. *Available at SSRN 4087758*.
- Rashid, A. (2016). Impact of inventory management in downstream chains on customer satisfaction at manufacturing firms. *International Journal of Management, IT and Engineering, 6(6)*, 1-19.
- Rashid, A., & Amirah, N. A. (2017). Relationship between poor documentation and efficient inventory control at Provincial Ministry of Health, Lahore. *American Journal of Innovative Research and Applied Sciences, 5(6)*, 420-423.
- Rashid, A., Ali, S. B., Rasheed, R., Amirah, N. A. & Ngah, A. H. (2022). A paradigm of blockchain and supply chain performance: a mediated model using structural equation modeling. *Kybernetes, Vol. ahead-of-print No. ahead-of-print*. <https://doi.org/10.1108/K-04-2022-0543>
- Rashid, A., Amirah, N. A., & Yusof, Y. (2019). Statistical approach in exploring factors of documentation process and hospital performance: a preliminary study. *American Journal of Innovative Research and Applied Sciences, 9(4)*, 306-310.
- Rashid, A., Amirah, N. A., Yusof, Y., & Mohd, A. T. (2020). Analysis of demographic factors on perceptions of inventory managers towards healthcare performance. *The Economics and Finance Letters, 7(2)*, 289-294. DOI: 10.18488/journal.29.2020.72.289.294
- Rashid, A., Rasheed, R., Amirah, N. A., Yusof, Y., Khan, S., & Agha, A., A. (2021). A Quantitative Perspective of Systematic Research: Easy and Step-by-Step Initial Guidelines. *Turkish Online Journal of Qualitative Inquiry, 12(9)*, 2874-2883.
- Shaheen, S. (2022). Quality management and operational performance: a case study from Pakistan. *South Asian Journal of Operations and Logistics, 1(1)*, 14-19.
- Uddin, S. Q. (2022). Supply Chain Integration, Flexibility, and Operational Performance. *South Asian Management Review, 1(1)*, 1-21.
- Victory, G. O., Lizzie, O. A. & Olaitan, A. A. (2022). Climate-Smart Agricultural Practices at Oyo State-Nigeria. *South Asian Journal of Social Review, 1(1)*, 1-7.