

Report on

**Supply Chain Risk Management: A Case on
Supertex Merchandising Company Limited**

By

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This report is submitted to the BRAC Institute of Governance and Development in partial
fulfillment of the requirements for the degree of
Masters in Procurement and Supply Chain Management (MPSM).

BRAC Institute of Governance and Development (BIGD)

BRAC University

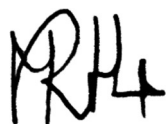
May 2023

Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Letter of Transmittal

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Subject: Report on Supply Chain Risk Management: A Case on Supertex Merchandising Company Limited

Dear Sir,

As per your instructions, I am delighted to present my Report on Supply Chain Risk Management at Supertex Merchandising Company Limited. I have put in my best efforts to compile the report with all the necessary information and recommendations presented in a concise and comprehensive manner.

Thank you for giving me this opportunity to work on this report.

Sincerely yours,



Mohd Rakib Hasan
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Non-Disclosure Agreement

This agreement is made and entered into by and between Supertex Merchandising Company Limited as the first party and the undersigned student at BRAC Institute of Governance and Development (BIGD), BRAC University as the second party. The first party allowed the second party to do practicum work and prepare a report on “Supply Chain Risk Management: A Case on Supertex Merchandising Company Limited” in partial fulfillment of the requirements for the degree of Masters of Procurement and Supply Management. The student has the opportunity to work closely with the officials of the organization and have access to official data and information. The student will not disclose any form of information to any party against the interests of Supertex Merchandising Company Limited.

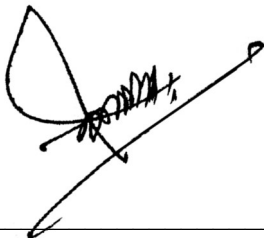
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Acknowledgment

I want to express my gratitude to the following individuals for their invaluable contribution in the preparation of this report.

I would like to first thank Mr. M A Hannan, Managing Director and Founder of Supertex Merchandising Company Ltd., for his unwavering support and guidance. His expertise has been instrumental in shaping report.

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Lastly, I want to express my sincere gratitude to my academic supervisor, Mohammad Sirajul Islam, for his guidance and mentorship. His continuous support has been invaluable in the successful completion of this report.

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Executive Summary

Bangladesh is one of the world's largest exporters of ready-made garments and plays a significant role in the country's economy. However, given the broad scope and complexity of the garments manufacturing supply chain, risks are quite prevalent. Without effective management, these risks can result in significant complications and losses. It should be noted that however that not risks are not always negative and can sometimes lead to significant rewards. The company in focus will be Ready-Made Garments manufacturer, Supertex Merchandising Company Limited. I joined the company in 2022 as an intern. Here I am learning the craft of management and my primary focus in this internship is Supply Chain Risk Management (SCRM).

The report provides an overview of the risk management strategies and the practicum objectives of the study were to assess the risk management practices in the supply chain of Supertex Merchandising Company Limited. The study found that supply chain risk management at Supertex involves risk identification, risk evaluation, risk mitigation and risk monitoring and reporting. The report also includes a brief case study of a risk taken by the company and a timeline of risk management practices.

Keywords: Risk; Risk Management; Supply Chain; Ready-Made Garments Manufacturer

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List of Acronyms

CNF - Cost and Freight

FOB - Freight on Board

L/C - Letter of Contract

PESTLE - Political, Economic, Sociological, Technological, Legal and Environmental

RMG - Ready-Made Garments

SCM - Supply Chain Management

SCRM - Supply Chain Risk Management

SWOT - Strengths, Weaknesses, Opportunities, and Threats

Chapter 1 – Introduction

1.1 Overview of Supertex Merchandising Company Limited

Supertex Merchandising Company Limited (Supertex). is a ready-made garments (RMG) manufacturer and exporter established in 1998. The company sources materials such as fabric, trims and accessories from various suppliers and uses them to produce high-quality garments for multiple fashion brands around the world.

Supertex specializes in producing garments for men, women, boys, girls, and infants, with a primary focus on woven outwears such as jackets and coats. At any given time, Supertex manufactures various garments for multiple buyers, catering to their specific requirements, technical specifications and preferences. Its customers include Ahold (Czech Republic), B-Style (Italy), Trussardi (Italy), John Richmond (Italy), S. Oliver – (Germany), Fynch Hatton (Germany), Kaiser (Germany) Tamurakoma (Japan), American Holic (Japan) and Brook Taverner (UK).

Company Mission Statement

Supertex's vision is to be a world-class clothing-sourcing solution for global customers. Supertex strives for excellent product quality, customer satisfaction, employee protection and organizational performance while keeping the earth safe and secure for future generations.

1.2 Practicum Objectives and Risk Management

As a garments manufacturer with a global and diverse supply chain, the company is susceptible to all types of risks. Risk is the probability of negative consequences occurring due to certain actions and decisions. Kaplan and Garrick (1981) used “risk = uncertainty + damage” to define risk. This is further emphasized by the study of March and Shapira where they conclude risk is

the degree of uncertainty or variability associated with a potential outcome of a particular choice (March & Shapira, 1987). Probability plays a critical role in determining uncertainty, possibility, likelihood, chance, and variability in any business operation, including Supertex. It is essential to note that probability can never be zero, and as such, every action and decision taken at Supertex carries some level of risk. Risks can cause a range of damages such as financial loss, environmental damage, harm to human lives, supply chain breakdown, and illegal actions. Therefore, it is crucial to identify, assess, and manage potential risks to mitigate the negative consequences of such events.

Supply Chain Risk Management (SCRM) is an identification and management process of risk in the supply chain through coordination among supply chain members and formulation of tools and strategies to combat said risk (Jüttner, et al., 2003; Hoa, et al., 2015; Sodhi & Son, 2012). My primary objectives in the practicum using SCRM will be highlighted in this report:

- 1) Identify risks in the supply chain from both micro and macro environments
- 2) Evaluate risks based on their likelihood and impact
- 3) Formulate and apply mitigation strategies to combat and reduce risks
- 4) Monitor and report risk strategies and their outcome
- 5) A case study where risks are taken and its outcome
- 6) 2022 Timeline of Risk at Supertex

Chapter 2 - Supertex Supply Chain

2.1 Supply Chain Network of Supertex

The Supply Chain consists of three segments namely supplier segment, manufacturing segment (Supertex) and Buyer Segment which are illustrated in Figure 1.

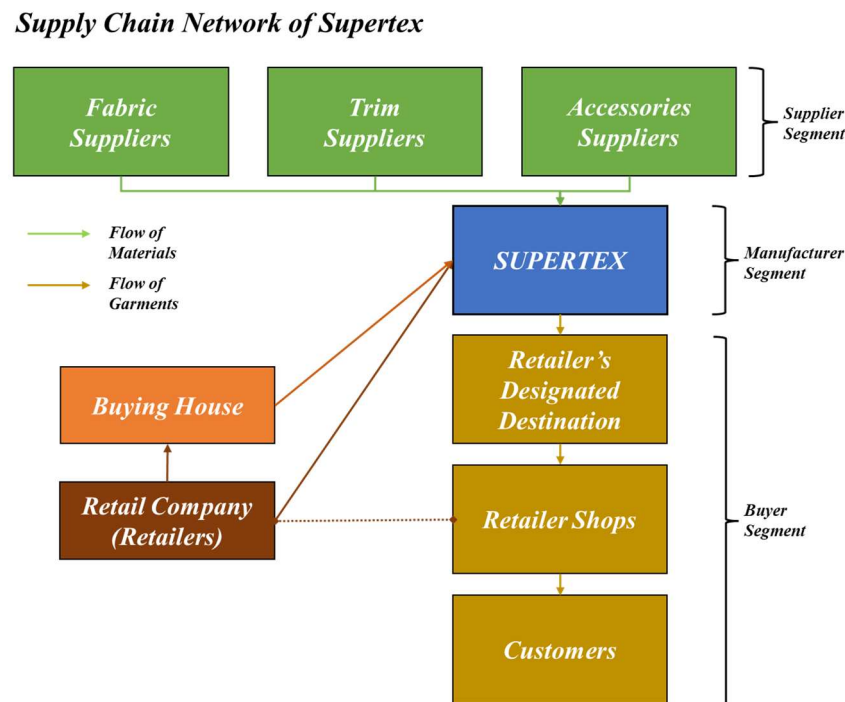


Figure 1 - Supply Chain Network of Supertex

Source: Author

2.1.1 Suppliers Segment

Since its foundation 25 years ago, Supertex has built a wide network of national and international suppliers who can provide a wide variety of fabrics, trims, and accessories required for its garments manufacturing. The company's supplier relationships are critical to its operations, and it has built a high level of trust and reliability. Supertex works closely with its buyers to ensure that all their requirements in terms of materials are met. Priorities are the quality, pricing, and timely shipment of supplies, and the company aims to work with its trusted suppliers whenever possible. However, there are some instances where buyers may nominate their own preferred suppliers, or they may choose to supply the raw materials themselves. In these cases, Supertex cannot work with its suppliers.

2.1.2 Manufacturing Segment - Supertex

Supertex has multiple different sections and people working together. The Managing Director is the owner of Supertex and sets the strategic direction of the company, controlling finances and operations, and leading and managing staff and employees. Managing Director also has the final say on any activities and decisions at the company. Figure 2 shows the operations workflow at Supertex.

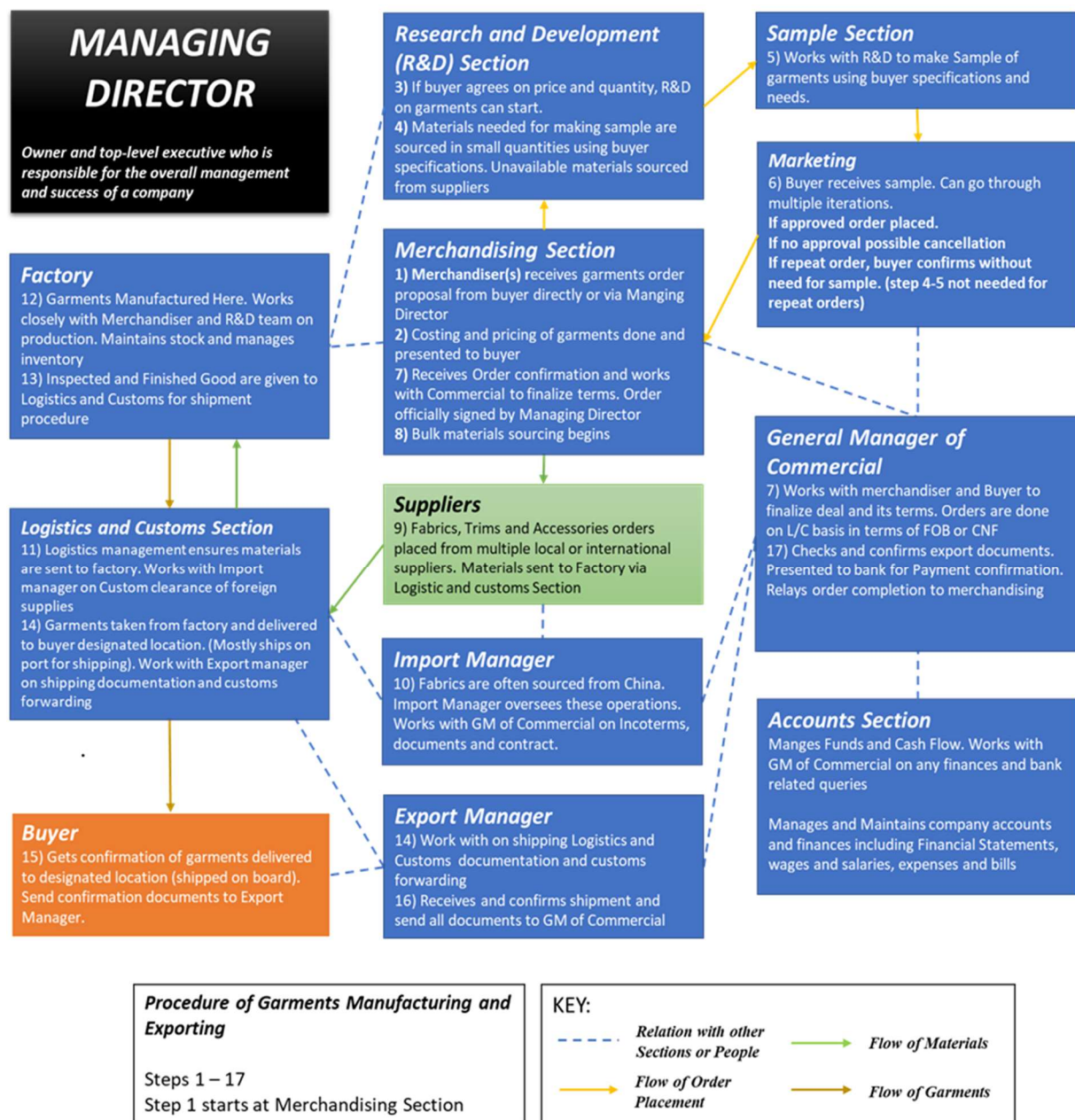


Figure 2 - Operation Workflow at Supertex.

Source: Author

Figure 3 shows the manufacturing process and input of materials at Supertex. All steps are done using the buyer's product specifications and technical breakdown. After packaging, the garment is fully ready to be delivered to the Retailer's designated location. Manufacturing is done at the factories owned and run by Supertex.

Manufacturing Process at Factory

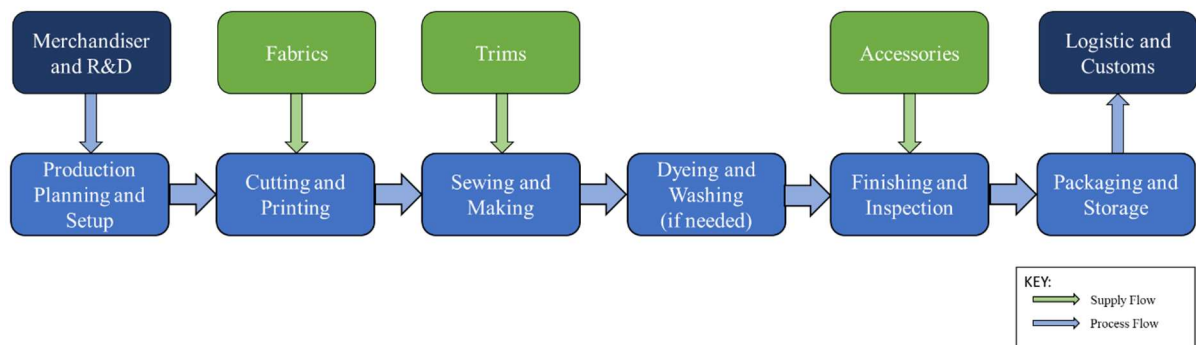


Figure 3 - Manufacturing Process and Input of Materials

Source: Author

2.1.3 Buyer Segment

The company's buyers are International Fashion Retail Companies or Brands. Orders can either come directly from the retailer or through a buying house representing the retailer. These buying houses can be from Bangladesh or a foreign country and they represent various fashion brands. Payment terms are agreed upon using a "Letter of Credit" (L/C) and mass production shipment is carried out using the FOB or CNF incoterm.

Chapter 3 – Findings and Observations on – Risk Management at Supertex

As mentioned in Chapter 1, I have done my practicum work on risk management in Supertex with particular focuses on risk identification, risk assessment and risk mitigation. The key findings of my practicum work are presented below.

3.1 Risk Identification

Risk identification is the first process in risk management, which involves identifying potential risks that may impact a project, organization, or business.

Data analysis is a valuable tool for identifying potential risks in the garments manufacturing industry. Steps for conducting data analysis for risk identification at Supertex are presented in Figure 3.

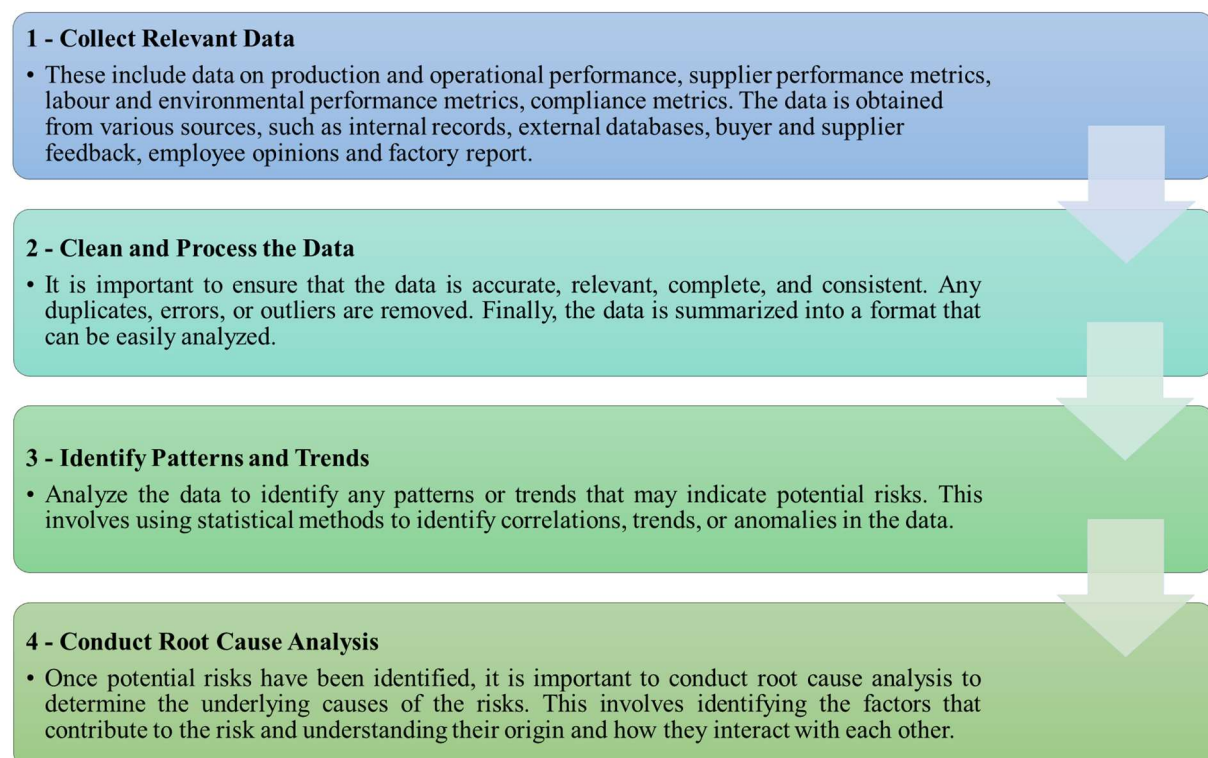


Figure 4 - Steps for Conducting Data Analysis

Source: Author

Tools such as SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis and PESTLE can be used to identify and highlight micro and macro problems and situations that can lead to risks from internal and external sources. (Appendix A and Appendix B).

Identified Risks

Using these analytical tools, the following key risks in Figure 4 were identified in Supertex's Supply Chain. Risks may arise in both the Micro Environment and Macro Environment, Micro risks come directly from within the supply chain and while macro risks originate outside the supply chain, but can have severe negative impacts on every aspect of it.

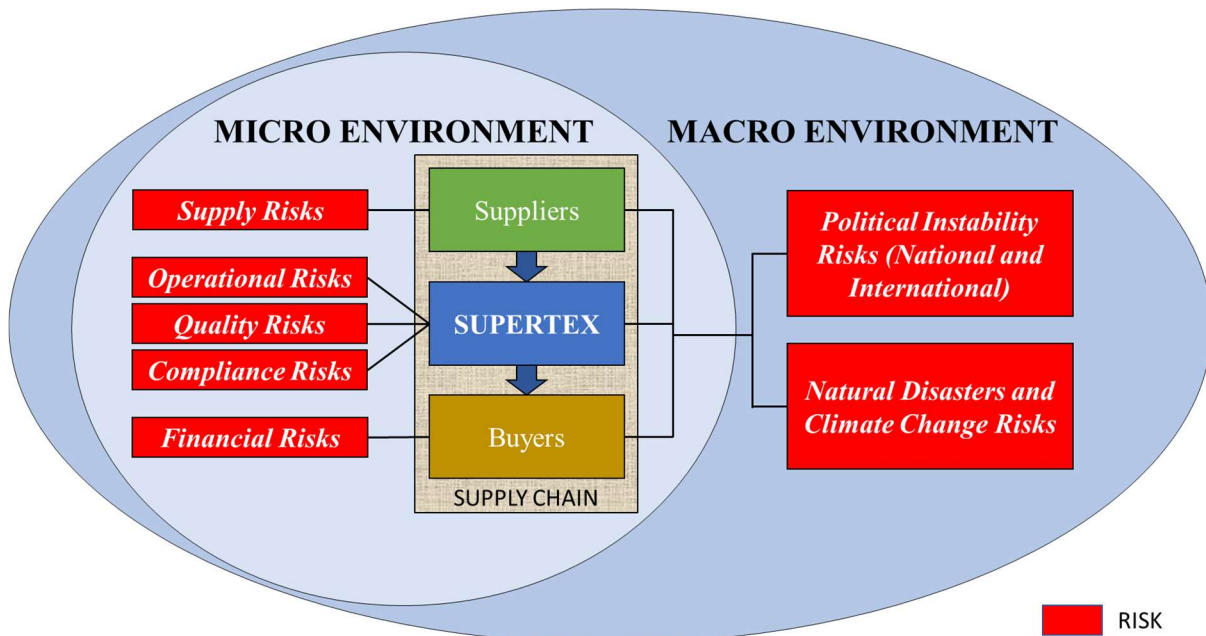


Figure 5 - Risks and Their Relation to Supertex's Supply Chain

Source: Author

The risks and their possible causes are described below:

1. **Supply Risks** – supply market instability, poor quality, supplier failure, supply distribution, supply transport disruption, length and complexity of supply chains and logistics.
2. **Operational Risks** – manufacturing issues, individual or collective errors and faults in different sections, management problems, transportation and delivery. health and safety issues, and illegal activities like fraud, bribery and theft.

3. **Quality Risks** – poor quality control, quality issues, customer dissatisfaction, delays, under shipment and materials/technical problems like colour, fabric composition, sizing, etc.
4. **Compliance Risks** – Health and Safety Standards, Building and Fire Safety, corporate social responsibility, Sustainability Goals and Actions, Environmental Regulations, Trade Regulations, morality, inequality and unethical acts like racism, sexism and harassment.
5. **Financial Risks** – buyers' inability to pay, interest rate, cash flow and liquidity, increasing costs, inflation, price fluctuations, profitability and viability.
6. **Political Instability Risks (National and International)** – strikes and protests, war, global trade policies, changes in labour laws and regulations, fluctuations in currency exchange rates, lack of government incentives, tax rates, import and export restrictions.
7. **Natural Disasters and Climate Change Risks** – Cyclones, earthquakes, floods, rising water levels and pollution.

3.2 Risk Evaluation

After the identification of risks, they must be evaluated to determine the likelihood of it occurring and the negative impacts the risks can have on the supply chain.

Operational Risks - These refer to loss resulting from inadequate or failed internal processes, people and systems or external events, primarily related to management, manufacturing, employees and service delivery operations. New employees are given training and education on the importance of operational management and how to identify and mitigate operational risks at the factories. With strong operations, the company can uphold strong quality manufacturing. The operation is managed very well at the company and chances of occurrence are low however operational breakdown can stall the entire manufacturing plans and processes.

Quality Risks – Customers of the company are premium buyers and hence the standard of quality has to be much higher than the competitors. Nearly 25 years of experience in garment manufacturing has helped Supertex refine their skills and expertise to achieve these high standards. Company culture has been built on quality and buyer satisfaction. Everyone understands the importance of quality at the company and is committed to identifying and addressing potential setbacks to quality. The Quality control team has to be extremely strong in identifying flaws in the garments and if possible, fixing them before packaging and shipment. They are placed around the production lines and finishing sections for inspection. A 5% overhead is maintained on production. This means some subpar quality outputs can be discarded and still maintain quantity targets. Quality risk is very low, with preventive steps in place to reduce its impact.

Financial Risks - arise internally from the financial structure of the business and externally from the financial transactions with other organizations. They impact the ability to generate revenue. Many steps are in place to prevent any catastrophic results including auditing, credit checking, strict terms, insurance and Letter of Credit (L/C)

Compliance Risks – arise from the need to ensure compliance with the law, regulations and policy framework and the potential for damage incurred by exposure to non-compliant or illegal activity by the organization or its supply chain. Compliance risk is the risk of revenue loss, legal or regulatory sanctions, harm to employees due to non-compliant building code and fire safety and damage to reputation due to the failure to comply with laws, regulations, or industry standards. Most compliance standards were left to expire during covid as detailed inspections and corrective action plans were not possible during that time. This meant an extremely high compliance risk likelihood. A compliance risk occurring would do numerous damage both legally and reputationally for the company. It is a priority to tackle this risk.

Supply Risks – As a manufacturer with no vertical integration, Supertex is fully reliant on the import of raw materials like fabrics and accessories from outside suppliers and any failure will greatly impact production plans and capacity. A notable example of supply failure is during the outbreak of Covid-19 when many fabric suppliers in China had to cease operations. This meant the supply of fabric stopped and production got stalled for over a month. Fortunately using strict health and safety rules supply resumed shortly after. Supertex has developed a well-established supplier network and relationship. The likelihood of a risk occurring is generally low from its trusted suppliers but the impact will be severe if a risk is to occur.

Political Instability Risks (National and International) - Political instability in Bangladesh can disrupt production and logistics, and make it difficult for brands and retailers to plan for the long term. International political conflicts like the Ukraine War and US-China trade tariffs also cause severe impacts on operational and supply costs. This risk is beyond the company's control and can have negative repercussions. The Ukraine War means no reliable trade with Russia due to instability and it also may affect the brand image of the company to European customers. Such risks are becoming more likely to occur with more civil and political unrest. The war also indirectly caused the dollar exchange rate and inflation to rise causing substantial financial effects, with the cost of materials now costing more. Due to the Russian gas disruption, there has also been an energy shortage in Bangladesh leading to constant power cut-offs which will stop production. Barrels of diesel fuel had to be bought for generators to keep operations running during power outages to keep operations running. Suppliers and customers were also affected by the war and political instability. Current risk likelihood is high with a high impact expected.

Natural Disasters and Climate Change Risks – This risk is almost entirely out of control. Floods and Cyclones will impact both import and export pipelines. With most goods being shipped through shipping containers, any natural ocean event like storms and bad weather can

ruin or even sink products. Air or land logistics can also be disrupted by natural disasters. These risks can occur anytime and disrupt logistics and transportation for everyone in the supply chain. With modern advancements in surveillance, weather reports transport and machinery, such risks do not pose much of a threat. Warnings can be placed in advance to avoid them and insurance policies reduce impact significantly. For climate change and sustainability contributions, Supertex has many policies and actions, with many environmental sustainability practices like using renewable fabrics, reducing waste, green energy usage, etc.

Risk Assessment Grid

Risks have two defining traits. The probability of a risk occurring is known as “likelihood” and the severity of the consequences of said risk can have is called “impact”. Likelihood and impact are highly dependent on the activities and actions of the company and can also be influenced by external factors. A Risk Assessment Grid based using the aforementioned evaluation of Likelihood and Impact is shown in Table 1.

LIKELIHOOD IMPACT	LOW	HIGH
	Quality Risks	Natural Disasters and Climate Change Risks
HIGH	- Financial Risks - Supply Risks - Operational Risks	- Compliance Risks - Political Instability Risks (National and International)

Table 1 - Risk Assessment Grid

3.3 Risk Mitigation

Once the risks are evaluated, appropriate risk mitigation strategies need to be developed and implemented to reduce the likelihood and impact of the risks if they are needed. The 4T of Risk Mitigation are - Treat, Tolerate, Terminate and Transfer. These four strategies provide a framework for managing risks within an organization.

- **Treat:** take immediate actions to reduce the impact and/or likelihood of a risk. This can include implementing controls, strategies or tools to manage the risk.
- **Tolerate:** accept the risk and its consequences should it occur. This is appropriate when the cost of treating the risk is greater than its potential benefits. Another scenario to tolerate is when the likelihood or impact of the risk is low and has little to no consequences
- **Terminate:** eliminate the risk by stopping the activity or procedures that may cause it
- **Transfer:** transfer the risk to a third party, such as banks (through L/C), insurance companies, third-party logistics, etc.

Operational Risks – Despite having well-managed operations at Supertex, operational breakdowns can still pose high risks to workflow and manufacturing. Mitigation Strategies for operational risks used by Supertex:

- **Process Improvement:** Continuously improving operational processes to reduce the likelihood of errors, defects, and other operational issues.
- **Control Measures:** Implementing control measures such as quality control procedures, regular equipment maintenance, and contingency planning.
- **Insurance:** Purchase insurance to transfer the impacts of operational risks to an insurance and use claim to get financial returns should risk occur.

Quality Risks – With strong company value and commitment to quality excellence, the impact and likelihood of this risk are low at Supertex. Risks in this area are tolerated but high vigilance is still advised.

Financial Risks – Financial Risks are extremely damaging if not managed properly. Mitigation strategies in place:

- **Cash Flow Management** – Effective cash flow management helps mitigate financial risks by ensuring that the business has enough cash to meet its financial obligations. This is achieved by implementing efficient invoicing and payment processes, negotiating favorable payment terms with suppliers, and maintaining adequate cash reserves. This a “treat strategy” for risk.
- **Using Letter of Credit (L/C)** – A letter of credit is a financial instrument used to mitigate risk in international trade. It is a letter from a bank guaranteeing that a buyer’s payment to a seller will be received on time and for the correct amount. If the buyer is unable to make payment on the purchase, the bank is required to cover the full or remaining amount of the purchase. This makes L/C a risk “transfer strategy” where the bank takes the risk of the buyer’s inability to pay.
- **Using Credit Rating** - Credit ratings are used as a tool for financial risk management because they provide an independent assessment of the creditworthiness of an entity. Buyers or Suppliers with bad credit should be avoided. A risk “terminate strategy”.

Using these methods, financial risk has been managed and greatly reduced at Supertex.

Compliance Risk – Managing compliance risk requires a systematic approach that involves identifying, assessing, and mitigating potential compliance risks. There is a high chance of occurrence with high impact. This was one of my main focuses of risk management during my practicum. With compliance standards expired, full audits and certifications were also needed. A compliance risk mitigation cycle is used to manage this risk. Figure 6 shows the cycle.

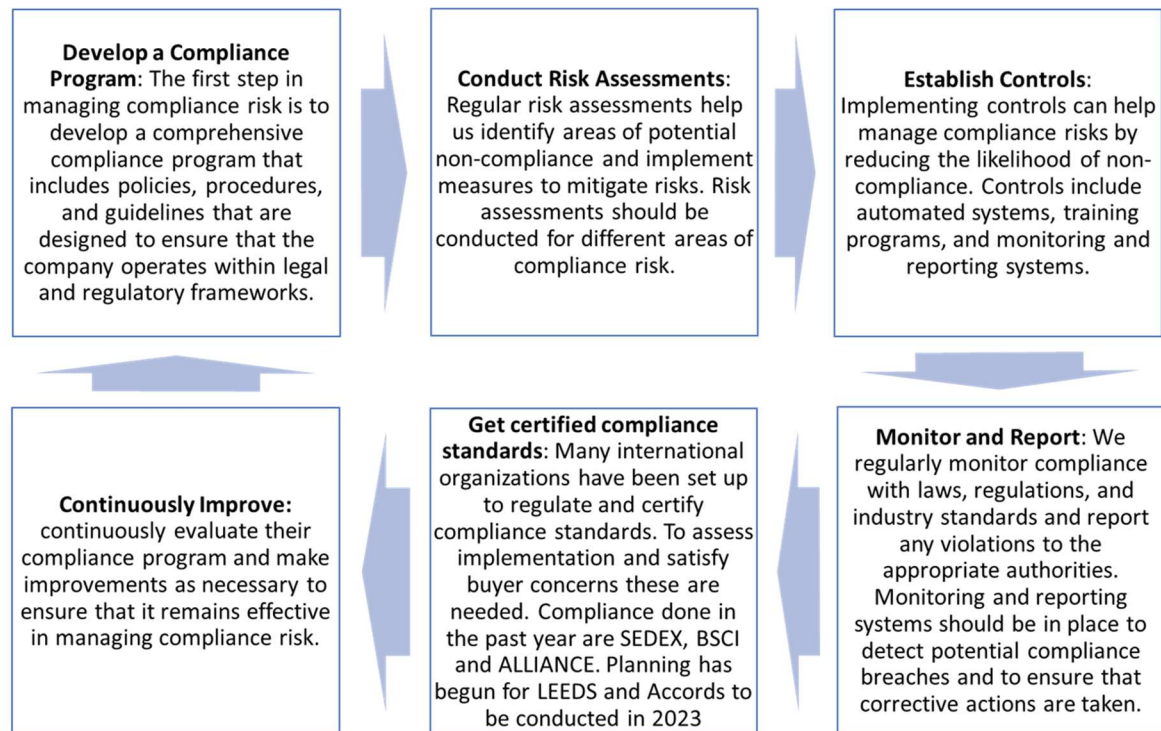


Figure 6 - Compliance Risk Mitigation Cycle

Source: Author

Supply Risks – Supertex has excellent relationships with suppliers and has trust in them to deliver quality and well-priced materials on time. However, most suppliers are from China and relying on one region is not ideal. Diversifying suppliers is being considered and Local suppliers are being explored. Currently, the position is to tolerate the risk.

Political Instability Risk (National and International) – Recent political situations like the Ukraine War are out of the company’s control. In many cases, the local government cannot even tackle international risks like war. Unfortunately, these risks have to be tolerated.

Natural Disasters and Climate Change Risks – These can occur at any time. Necessary precautions and safety protocols are already in place. Low impact, so tolerate strategy taken.

3.4 Monitoring and Reporting

Regular and timely reports on the status and progress of risk mitigation efforts are necessary to judge their effectiveness. Similar to how data was used to identify risks, new data should be monitored and used to analyze any trends, patterns, or areas for improvement of the mitigation strategies. Key monitoring mechanisms are regular site visits, supplier audits, and third-party certifications to ensure compliance with standards and regulations. The analysis should also be used in identifying any new or emerging risks that may impact the supply chain.

These reports are distributed to management, staff and employees, stakeholders, including customers, suppliers, and internal management teams.

3.5 Risks at Supertex in 2022

3.5.1 Taking Risks on a Contract

In March 2022, a lucrative offer from a buying house in Europe, representing a premium retail company, was received. To maintain confidentiality, the buying house and retailer will be referred to as **Buyer A**. The primary products were quilted down jackets, which were to be produced on a large scale. The final offer was extremely favorable and presented an opportunity to expand the business in Europe, establish long-term goals and work with Buyer A.

However, instead of the usual L/C contract agreement, Buyer A proposed a contract using telegraphic transfer, where 30% of the payment would be made in advance, and the remaining 70% would be paid after the goods were shipped. This was deemed very risky by Supertex, as there was no assurance of the 70% payment after shipment, particularly since Buyer A had a poor credit rating of CCC. Additionally, the recent Russia-Ukraine war caused destabilization of the dollar and euro currency and high inflation, increasing the risk of the contract. Chances

of the war escalating to a global threat with most European countries involved were not out of the realm of possibility which could majorly impact Buyer A.

At the manufacturer segment, the quality needed to be very high for Buyer A. Fabrics and finished goods had to meet or surpass their expectations. New quilting machinery was needed to make the garments within the timeframe and maintain quality. This added to operational costs and risk due to the volume of orders and needing specialized training and efficient usage of the machinery. These had low risk but still had to be considered.

In summary, there was:

- High Financial Risks
- High Political Risks.
- Low Quality Risks
- Low Operation Risks

Despite the risks, the decision was made to accept the contract. The profit was significant, and there was the possibility of establishing a good supply relationship with Buyer A. The low supply risk and compliance risk further supported the decision. The contract was signed in April, with the initial 30% payment made in May. Full production began in June and continued until September. The timeline of Risk Likelihood during this contract is shown in Figure 7.

Results:

Quality Risk and Operational Risks did not occur. Everything went off perfectly fine and Retailer A delighted with the quality of the garments.

Political and financial risks had slight impacts, causing some delays in payments. However, when the final shipments were made in October, the entire amount was paid soon after.

The contract resulted in a healthy profit, and new agreements have already been signed with Buyer A for 2023. All parties are optimistic about a long and fruitful partnership.

3.5.2 Timeline of Risk in 2022

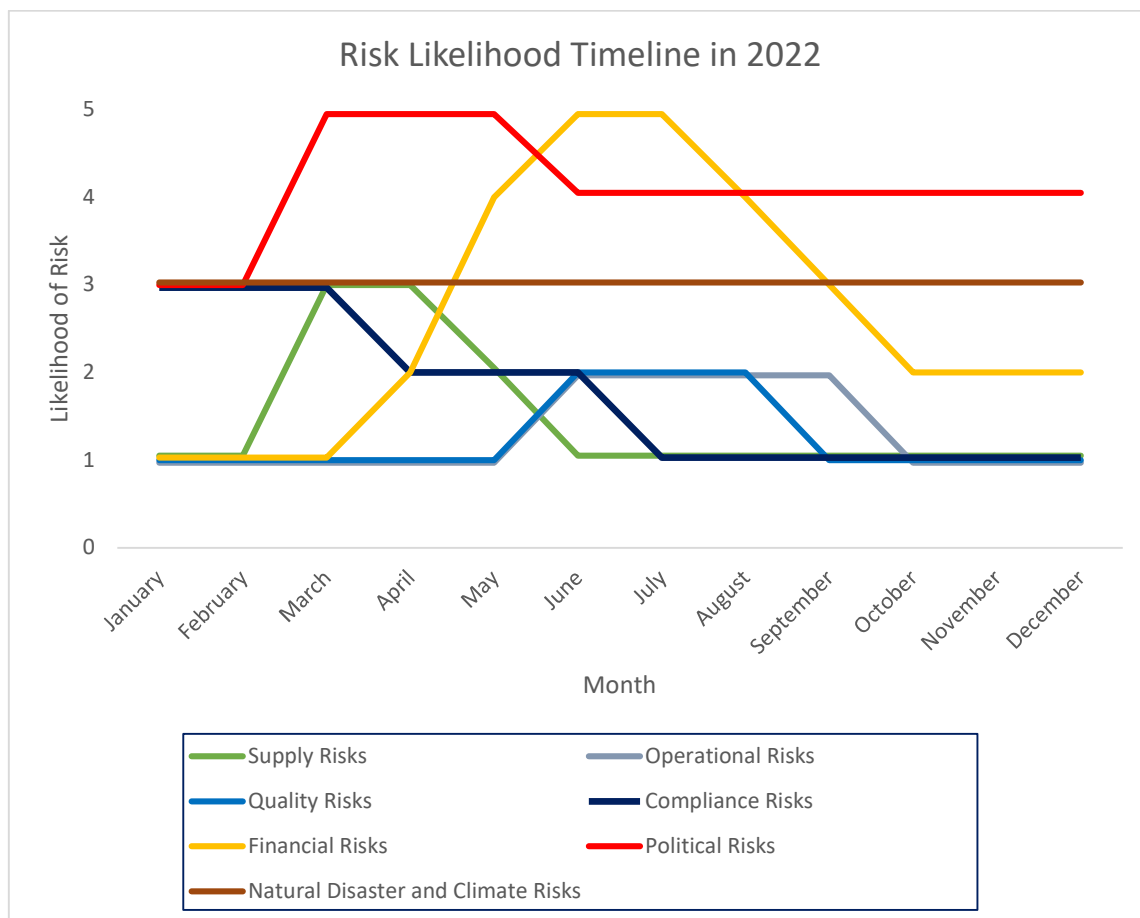


Figure 7 - 2022 Risk Likelihood Timeline

Source: Author

In Figure 7, the likelihood of risk is rated on a scale of 1 to 5. 1 represents the least likelihood and 5 represents the highest likelihood. As shown, likelihood of risk is very dynamic and can change due a various circumstance.

Key Events in 2022:

- **Supply Risks** - Covid surge in China during March increased supplier risk of Chinese supplies. Recovered quickly with no impact.
- **Operational Risks** - Production in June with new machinery, the likelihood of operational risk increased. No risk occurred that impacted operations with returning to low levels in October.

- **Quality Risks** – new garments production for Retailer A started in June. Quality standards were of utmost importance to make a great first impression and satisfy the customer. Quality was maintained to a high standard and pleased both new and old customers.
- **Financial Risks** – The contract with Buyer A had high financial risk. With the highest during production and inventory of products. Slowly decreased as Buyer A made the payment on goods. Other customers had no payment issues. Due to increasing inflations and costs, financial risk has not gone down to 1.
- **Compliance Risks** – Lacking or expired compliance at the start of the year. Necessary compliances were conducted and renewed resulting in a lowered likelihood of risk. Attaining official compliance meant standards were met.
- **Political Risks** – Large risk increase from March when the Ukraine War started. Has reduced slightly but remains high with anything possible given the situation and tensions in Europe. Caused impacts on Currency rates and Energy levels in Bangladesh which affected us.
- **Natural Disasters and Climate Change Risks** - Remained constant. No harm was caused by it.

Chapter 4 – Conclusion and Recommendation

Supertex's supply chain involves managing risks in various areas. The company considers the likelihood and potential impact of these risks when making key strategic decisions. While Supertex may take calculated risks for lucrative opportunities, it also puts in place measures to minimize risks.

There are thousands of garment manufacturers in Bangladesh like Supertex. It is recommended that they take necessary steps and action to manage risks. Employing a dedicated risk manager can greatly help in developing effective risk identification, evaluation, and mitigation strategies. It is also vital to prioritize compliance with industry standards and regulations. Improving supply chain transparency with both buyers and suppliers through better communication and collaboration can also help identify and mitigate potential risks for all parties involved.

Overall, Supertex's supply chain risk management process is comprehensive, and the company is committed to delivering high-quality garments to its buyers while effectively managing any potential risks.

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Appendices

Appendix A – SWOT Analysis of Supertex



Figure 8 - SWOT Analysis

Appendix B - PESTLE Analysis

Political:

- **Stable government:** The government of Bangladesh has been relatively stable over the past decade, which has helped to create a favorable business environment.
- **Trade agreements:** Bangladesh has preferential trade agreements with several countries, which can reduce tariffs and increase demand for its products.
- **International Politics:** International conflicts like international war, restrictions and trade relations can indirectly affect Bangladesh and its garments manufacturers.

Economic:

- **Economic growth:** Bangladesh has experienced strong economic growth over the past decade, which has increased the purchasing power of its population and companies.
- **Currency exchange rates:** Fluctuations in currency exchange rates can impact the cost of raw materials and machinery needed for garment manufacturers. The recent Dollar exchange rate has resulted in a very sharp increase in the price of raw materials.
- **Infrastructure:** The country's infrastructure, including transportation and energy, is still developing. This can impact the ability of manufacturers to access reliable sources of energy. With gas and fuel shortages and increased prices, the cost of energy has increased and availability has decreased with frequent power outages that can halt productions.

Social:

- **Population growth:** The population of Bangladesh is growing rapidly.
- **Education:** The education level of the population is relatively low, which can impact the availability of skilled staff, employees and workers.

Technological:

- **Technological innovation:** Technological innovation and progress can increase productivity and efficiency while reducing costs in the RMG manufacturers.
- **Access to technology:** Ease of access to new technology is still limited of Bangladesh, which can impact the ability of manufacturers stay competitive with other countries. Foreign markets like China have much faster access to homemade and innovative garment technology allowing them to have competitive advantages.

Legal:

- Compliance regulations: Garment manufacturers in Bangladesh must comply with strict labour and environmental regulations. Multiple new rules and regulations on building and worker safety are present in Bangladesh.
- Environmental regulations: Garment manufacturers must adhere to environmental regulations to minimize the impact of their operations on the environment.

Environmental

- Bangladesh is vulnerable to natural disasters such as floods and cyclones.
- Climate change is a growing concern, with rising sea levels and changing weather patterns.
- Deforestation, water pollution, and air pollution are environmental issues that also impact the country.