

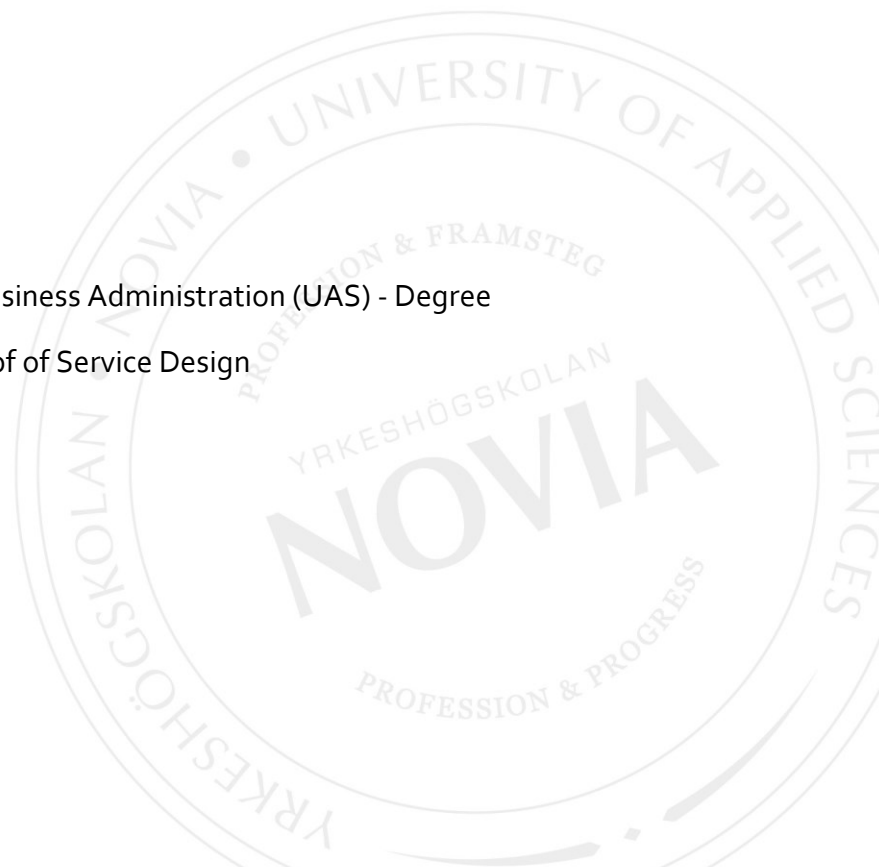
Covid-19 & The Ready Made Garments [RMG] Industry in Bangladesh – A Study on A Few Selected RMG Manufacturers

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Abstract

The covid-19 pandemic affected our lives and livelihoods at the same time. Renowned retail brands faltered and to save their own skin, some of the brands either cancelled or deferred a significant portion of the export order that were already in the production process. Bangladesh being the second largest RMG exporter but at the same time a least developed country with hardly any bargain power felt the brunt of the pandemic. As the orders were cancelled or deferred and factories were closed as per Government enforced lockdown, both RMG factory owners and RMG workers were staring into a void and without support from the Government it could have really been a mess. The RMG owners not being able to pay their workers, even for only a month being under lockdown, also seems quite astonishing. This urged me to research on what happened in that period – how the buyers backed off, so easily, without showing any empathy towards the suppliers or their workers.

The research was conducted by using the service design methods like SWOT analysis, expert interviews, surveys, benchmarking, focus group discussions, personas, role expectation mapping, service blueprints, prototyping, etc. Service design is a relatively new but a creative, innovative and at the same time a practical way of solving ambiguous problems.

My research findings indicate that even though Bangladesh is the second largest RMG exporter in the world, the RMG industry had not evolved much beyond cutting and sewing. Besides that, there are some other competitive disadvantages like low value addition, longer production lead-time, lack of product diversity, etc. All these translates into having very low margin for the owners and very low wages and benefits for the RMG workers. Even then, my research points out that RMG owners need to invest on skill development of workers, if they want to maintain current level of export – competitors are catching up fast. Moreover, they can at least arrange health insurance for their workers, which will be very helpful amid this kind of pandemic or personal emergencies.

The results of the research showed that export orders received through sales contract puts the manufacturer in a vulnerable position as that does not involve any financial institution. I found out that the ordering process can be designed in such a manner that neither the buyer nor the seller can act whimsically - through which the other parties get impacted. As such an innovative ordering process platform has been designed with an aim to make the process more transparent and accountable, which will ensure compensation for the aggravated party – neither the importer nor the exporter will be dependent on other party's whim. If implemented, this may change the way business is done in the trillion dollar apparel industry.

Language: English

Key words: covid-19, readymade garments, Bangladesh

Table of contents

1	Introduction	1
1.1	Purpose	2
1.2	Research Questions	3
1.3	Research Methodology	4
1.4	Timeline of the Process.....	10
1.5	Frame of Reference.....	10
2	Background.....	12
2.1	History of Ready Made Garments Industry.....	13
2.2	Importance of RMG in Bangladesh	14
2.3	History of RMG in Bangladesh.....	15
2.4	Operational Process of the RMG Industry in Bangladesh.....	16
2.5	Salaries & Benefits of the BD RMG Workers	19
2.6	Covid-19 Impact on RMG Sector in Bangladesh.....	20
2.7	Steps Taken to Absorb the Shock.....	21
2.8	Covid-19 Impact on the World's Apparel Industry	23
3	Identifying the Problems – Discover.....	24
3.1	SWOT Analysis	24
3.2	Stakeholder Map.....	26
3.3	Expert Interviews.....	26
3.4	Brainstorming.....	29
3.5	Survey	31
3.6	Benchmarking.....	33
4	Analysis – Define	36
4.1	Focus Group Discussions.....	36
4.2	Personas.....	38
4.3	Affinity Diagram.....	41
4.4	Strategic Decision Making.....	42
5	Way Forward – Develop	45
5.1	Service Blueprint.....	45
5.1	Brainstorming.....	48
5.2	Role Expectation Mapping.....	50
6	Way Forward – Deliver	53
7	Conclusion.....	56

List of Figures

Figure 1: Double Diamond Design Process Model.....	4
Figure 2: Double Diamond Process Design Model (Buckley).....	5
Figure 3: Timeline of the Process.....	10
Figure 4: Frame of Reference.....	11
Figure 5: Bangladesh's Map.....	12
Figure 6: RMG Export in Comparison with Total Export of Bangladesh.....	14
Figure 7: Relationship amongst Retail Brands, RMG Factories & RMG Workers.....	17
Figure 8: Basic Supply Chain of Bangladeshi RMG Industries.....	18
Figure 9: Makeup of the price of a Zara Hoody.....	19
Figure 10: SWOT Analysis of Bangladesh's RMG Industries.....	25
Figure 11: Competitive Advantages of RMG's of Bangladesh.....	25
Figure 12: Stakeholder Map of a typical RMG Industry.....	26
Figure 13: Ways of Sourcing Export Orders.....	27
Figure 14: Types of Buyers – Existing or New.....	27
Figure 15: Forms of Export Order.....	28
Figure 16: Covid-19 Impact.....	29
Figure 17: Comparison of Worker's Salary during Covid-19 & Normal Period.....	31
Figure 18: Comparison of Normal Working Hour & COVID Period Working Hour.....	31
Figure 19: Monthly Minimum Wage of RMG Workers in 2019.....	33
Figure 20: Minimum Wage of RMG Workers as % of Local Living Wage in 2018-19... ..	34
Figure 21: Monthly Minimum Wage Levels in Bangladesh & Selected Neighbors in 2019.....	34
Figure 22: Word Cloud on replies of Focus Group.....	36
Figure 23: Affinity Diagram.....	41
Figure 24: Service Blueprint of buyer's interaction with different department of RMG Factories.....	47
Figure 25: Brainstorming results of finding a better ordering process.....	48
Figure 26: Expectation Maps of RMG Owners and RMG Workers.....	50
Figure 27: Visualization of the Ordering Process Platform.....	53
Figure 28: Day-wise detail activities of the Ordering Process Platform.....	54

List of Tables

Table 1: Development of Apparel Industry.....	13~14
Table 2: RMG's Contribution in Bangladesh Economy.....	15
Table 3: History of RMG in Bangladesh.....	15~16
Table 4: RMG Wage 2018.....	20
Table 5: Cancelled/Delayed Orders by Major Fashion Brands.....	21
Table 6: Iconic Retailers [Apparel] that fell into Pandemic Bankruptcy.....	23

List of Abbreviations

ADB = Asian Development Bank

BGMEA = Bangladesh Garment Manufacturers and Exporters Association

CY = Calendar Year

FY = Financial Year

GDP = Gross Domestic Product

LC = Letter of Credit

LDC = Least Developed Country

SC = Sales Contract or Export Contract

USGBC = US Green Building Council's

LEED = Leadership in Energy and Environmental Design

WPPF = Workers' Profit Participation Fund

WWF = Workers' Welfare Fund

References

Appendix 1: Expert Interview Questions for RMG Owners

Appendix 2: Survey questions for RMG workers

Appendix 3: Focus Group Discussion questions for RMG Owners

Appendix 4: Visualization of the Ordering Process Platform

Appendix 5: Makeup of the Price of a Zara Hoody

1 Introduction

The ready-made garments (RMG) sector is by far the most important contributor to the economy of Bangladesh. It contributes about 85% of Bangladesh's total export, around 20% of the gross domestic product [GDP] directly employing about 4.0 million workers with more than 12.0 million workers dependent on the sector (Islam, Abbott, Haque, Gooch & Akhter, 2022). Bangladesh's market share in global RMG trading is around 6.5%, and the country consistently remained the second largest exporter after the People's Republic of China. Bangladesh primarily exports to the European Union (62%) and the United States of America and Canada (21%) (ADB Report, 2020). But due to the covid-19 outbreak, the RMG sector in Bangladesh is affected severely. It was estimated that Bangladeshi RMG workers had lost USD 501 million in wages in 3-months from March to May 2020 (The Financial Express, 11.08.2020). One of the major reasons of these factory shutdowns and subsequent loss of jobs was due to cancellation or suspension of export/purchase orders worth around USD 3.16 Billion (EURO 2.77 Billion), affecting 1,142 factories according to the Bangladesh Garment Manufacturers and Exporters Association (BGMEA). The drop in demand affected 2.26 million workers and more than 1.00 million workers at that time were fired or furloughed (might be temporarily) at that time. (ADB Report, 2020).

Given the circumstances on how such a huge volume of export orders were cancelled or deferred amidst one of the worst humanitarian crisis in recent past, points towards an obvious loophole in the overall ordering process. It was also quite shocking to see that many renowned international brands resorted to cancellation or deferment without showing any compassion towards those small and medium scale enterprises, which were their supplier probably for a long time, along with the millions of workers that were working in those factories. This unprecedented event meant that the factory owners were not in position to pay those workers their wages and they were forced to become more worried about putting food on the tables for their families than worrying about protecting them from pandemic.

Prior to moving to Finland for completion of the Master's Degree in Service Design, I was working in the Trade Service Division of a commercial bank in Bangladesh and as such I have worked with the RMG manufacturers, both the owners and their office staff for quite some time. I also witnessed the impact of covid-19 on Bangladesh's economy, especially the plight of people with low income like those of RMG workers, daily laborers, etc. I had the opportunity to observe RMGs business transactions both with the buyers/retail brands and

their suppliers and how it evolved over the years. On the other hand, RMG being by far the largest contributor in Bangladesh's export basket and likely to remain so for the coming years. So, if anything could be done to improve this sector, it is likely to have a significant positive impact on Bangladesh's economy and people in general. All these issues together prompted to look into the overall ordering process especially with emphasis on the fact how easily the buyers could pull themselves out from their responsibilities and to make an effort to find an alternative ordering mechanism, which can better protect these suppliers in the future and at the same time not bringing any significant disadvantage for the buyers other than taking away their right to do anything whimsically. At the same time, also to look into ways of taking care of these RMG workers more from any sorts of future uncertainties that may be caused by such events as pandemics, economic downturn, factory closure or if possible, even in case of personal accidents.

1.1 Purpose

The covid-19 pandemic had a devastating impact all over the world and Bangladesh was no exception. Being one of the largest contributors to the economy of Bangladesh, RMG sector had its fair share. But much of the complications were caused by external factors, such as cancellation or deferment of orders by the importers, top retailers or fashion brands in global apparel industry. They were refusing to pay for the works that were in process, later when they started to place new orders they demanded lower prices or discounts for the orders that were earlier deferred. The early reports, in particular, have highlighted that the impact of the covid-19 and the cancellations of orders by retailers, many of which are based in the UK or have operations in the UK market, have led to factory closures and job losses, leaving around 2.8 million workers facing poverty and hunger. (IHRB & Chowdhury Center for Bangladesh, 2021)

The covid-19 related disturbance in the RMG sector had a deleterious impact on both workers and owners. Industry functions got interrupted by lockdowns and on top of that factory owners had to bear the costs of covid-19 mitigation measures. But the turmoil caused by buyers terminating orders or not recompensing for orders in process or buyers asking for discounts, when they started to place new orders further complicated the condition. These instances of cancellation or postponement of export/purchase orders by the global brands, against which RMG manufactures has either started manufacturing or has procured raw

materials or in some cases shipments made, was an unparalleled event. It showed the vulnerability of the ordering process and how imprisoned the manufacturers are to the whim of those global brands/importers and highlighted the fact that these suppliers actually having no legal protection as such. However, at the same time, it also needs to be pointed out that the retail brands were also facing an economic downturn in their country of operation and many international brands filed for bankruptcy and protection under the applicable law in their country. While, it has also been observed that, many of the buyers that cancelled/deferred huge amounts of export order was not in such severe condition, but even then they took those steps as preemptive measure by either cancelling or deferring orders.

Keeping these issues in mind, the idea is to design an ordering process, which will make all parties accountable and not be vulnerable to other parties' whim without increasing the cost of doing business. Besides that, specific focus to be given on RMG exporters of Bangladesh on increasing their value addition or service offering, thereby ensuring better working condition and employment benefits for the workers. The study will be conducted through focusing on a few medium to small sized RMG industries and their workers, which might in the long run be scalable for the whole industry.

1.2 Research Questions

The research questions stated below were developed keeping the above mentioned issues as well as the research objective in mind:

- What is the current practice of securing export orders from international brand/buyers? What form do they receive the export orders?
- What kinds of features/aspects should there be in an ideal ordering mechanism from the perspective of an RMG supplier? Whether those could be incorporated to design an innovative ordering process which could better protect both the importer and exporter, without increasing the cost of doing business?
- What is the existing level of value addition and what steps can the RMGs in Bangladesh take to increase their value addition and/or product offering?
- What steps can be taken to mitigate the sufferings of RMG workers, especially for any future pandemic or calamities or unforeseen incidents even in their personal life?

1.3 Research Methodology

Service design is a new concept, which teaches us how to make a process user-friendly. It is a creative, innovative and at the same time a practical way of solving ambiguous problems. It uses a human centric iterative way of developing a service or even a product or improve an existing one to make them more useful, usable, and desirable for clients, as well as, making them more effective and efficient. On the other hand, service design is a holistic approach to understand connections between people, things and systems. The problems were approached and solved through iterations. (Stickdorn, Hormess, Lawrence & Schneider 2018, 24-27)

The relationship between a RMG factory owner and the retail brand is not just that of a onetime buyer and seller. It is often developed over a period of time going through different processes and generally lasts for a long period of time. Plainly speaking, the export order is just a contract between 2-parties. But one being significantly stronger than the other means that the terms of the contract is heavily swayed towards the stronger of them. Over the years it got transformed in such a way, that the weaker one kept loosing grounds and their legal rights under the prevailing system is very minimal. By using service design methods we will be able to not only identify the underlying problem of the ordering process, but also understand the relationship between different parties along with their wants/needs and ultimately design a better process, which will be able to deliver the needs of all the parties. The Double Diamond Design Process Model (Design Council UK, 2019) was used for this thesis.

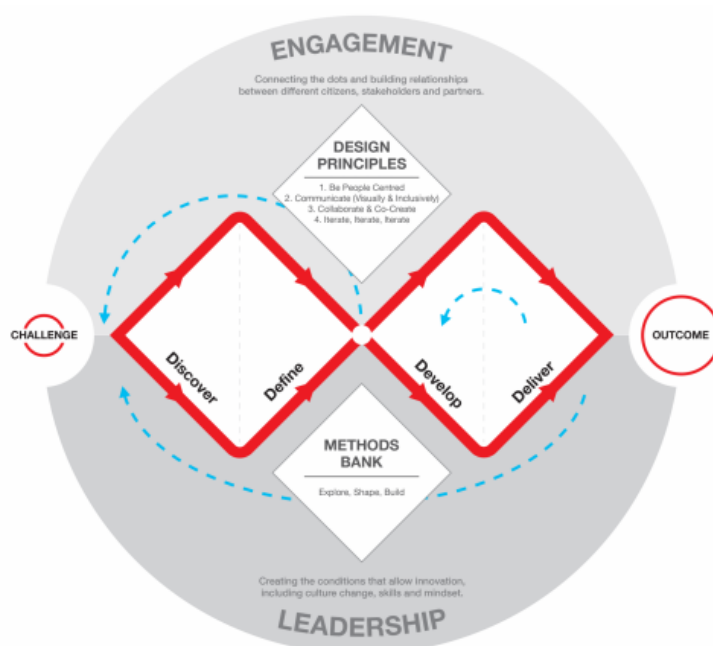


Figure 1: Double Diamond Design Process Model (Design Council UK, 2019)

According to Design Council UK, 2019:

Double Diamond clearly conveys a design process to designers and non-designers alike. The two diamonds represent a process of exploring an issue more widely or deeply (divergent thinking) and then taking focused action (convergent thinking).

Discover. The first diamond helps people understand, rather than simply assume, what the problem is. It involves speaking to and spending time with people who are affected by the issues.

Define. The insight gathered from the discovery phase can help you to define the challenge in a different way.

Develop. The second diamond encourages people to give different answers to the clearly defined problem, seeking inspiration from elsewhere and co-designing with a range of different people.

Deliver. Delivery involves testing out different solutions at small-scale, rejecting those that will not work and improving the ones that will.

This is not a linear process as the arrows on the diagram show. Many of the organizations we support learn something more about the underlying problems which can send them back to the beginning. Making and testing very early stage ideas can be part of discovery. And in an ever-changing and digital world, no idea is ever 'finished'. We are constantly getting feedback on how products and services are working and iteratively improving them.

The following figure also a double diamond design model better describes each steps/process and what is generally done in each steps:

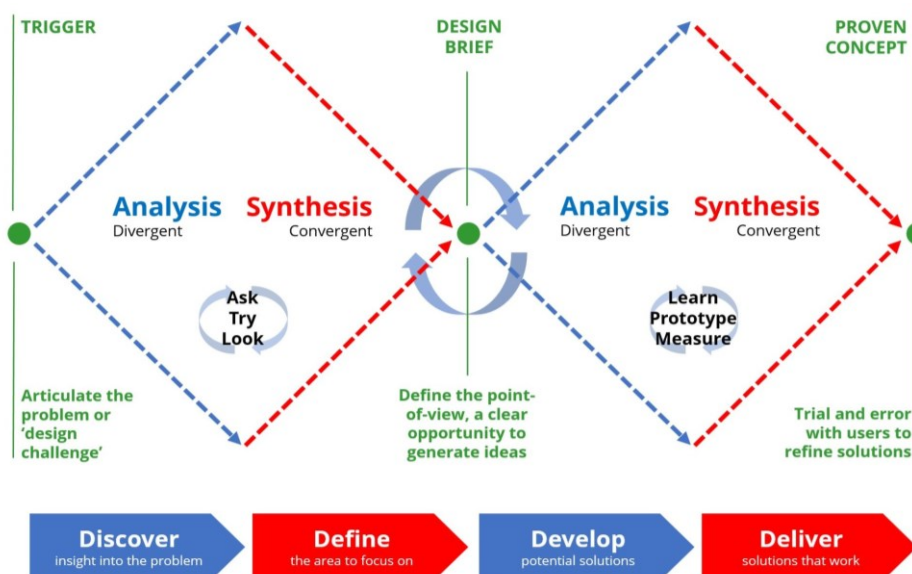


Figure 2: Double Diamond Process Design Model (Buckley, 2018)

Discover: As has been mentioned above, the discovering process is not merely assuming the problem rather it is more about understanding the underlying problems by discussing with the people affected by the issues.

- A. SWOT Analysis:** Kenton (2022) describes the SWOT [strengths, weakness, opportunities & threats] analysis as a framework to evaluate a company's competitive position and to develop strategic planning and it assesses internal and external factors, as well as current and future potential. It is to be noted here that, the method can be used also for any industry, any product, any country and any person even. Doing the SWOT analysis of the RMG industries in Bangladesh, will provide a clear understanding of its comparative advantage and disadvantage and clarity regarding the competitive advantages of the industry as a whole.
- B.** Savina (w.y) defines **Stakeholder Mapping** as a visual process of laying out all the stakeholders of a product, project, or idea on one map, which allows to get a visual representation of all the people, who can influence the project and how they are connected. As our main idea is to design an ordering process for the apparel industry, which will ensure transparency and accountability of both the buyer and supplier, it is imperative to know all the stakeholders of the business and how each one of them interacts with the other.
- C.** Flick (2021, 201) referring to Bogner and Menz (2009) tells that **Expert Interviews** can be employed with different aims and distinguished three aims such as theory-generating, explorative and systematizing. They mentioned that, explorative expert interviews are used for exploring and finding an orientation in a new area, for understanding the field for which a study is planned, for developing a thematic structure and to generate hypotheses. It helps to identify the existing process, practices and what are the loopholes of those processes or practices. On the other hand, Interview is a qualitative research method that relies on asking questions to collect data (George, 2022). It seemed to be the most appropriate method to understand the dynamics of the RMG business from owners of the different RMG factories – to understand the existing practices and impact of covid-19 on their business.
- D. Surveys** are used as a tool by researchers to gain a greater understanding about individual or group perspectives relative to a particular concept or topic of interest. A survey typically consists of a set of structured questions, where each question is designed to obtain a specific piece of information. (Mills, 2021). Surveys amongst the RMG Workers

were conducted mainly to understand the sufferings of the workers plight during the covid-19 pandemic.

- E. Brainstorming** is an individual or group method for generating ideas, increasing creative efficacy, or finding solutions to problems (Wilson, 2013). Brainstorming is one of the best methods to generate new ideas and when one has to think something out of the ordinary. The owners of the RMG factories were asked to generate ideas on an ordering process/platform/mechanism, which will provide security for both the buyers and supplier, meaning neither the buyer nor the supplier can back-off from their deliverables without compensating for the losses caused by their action or non-action. But it was moderated, so that they don't divert away from the main topic hugely and ideas were also introduced to broaden their thinking process.
- F. Benchmarking** is the process of measuring key business metrics and practices by comparing them with similar products or services (Harper, 2019). To put simply, benchmarking mainly compares one set of data with the other data having similar qualities. To understand where Bangladeshi RMG workers stand in comparison with the RMG workers of other countries, benchmarking was used and was mainly done through desk research. It needs to be noted here that, benchmarking allows to see whether there is scope of development.
- G. Desk Research:** Went through different articles and reports published during pandemic and in recent days, which actually provided the much needed insight into the events that unfolded during that period of time and after. Moreover, to understand the wages and salaries earned by RMG workers in Bangladesh and whether it is the right wage or not, desk research seemed to be the right way to go.

Define:

- A. Focus Group Discussion:** According to Prasad and Garcia (2017):

“Focus group discussions are a predetermined semi-structured interview led by a skilled moderator. The moderator asks broad questions to elicit responses and generate discussion among the participants. The moderator’s goal is to generate the maximum amount of discussion and opinions within a given time period.”

A focus group discussion is best in finding reasons and that's why focus group discussion amongst the RMG factory owners will provide us the understanding on why orders were cancelled and what the loopholes in existing ordering mechanism were. On the other hand, whether current contribution margins are enough to bear their operational expenses and ways to improve contribution margin in the future was also discussed with the RMG factory owners.

B. Personas: According to Unmade, personas are a great tool to characterize a target audience to come up with better product decisions. The process of creating personas develop empathy with the customer or potential customers (Unmade, 2017). I have created hypothetical personas of three RMG workers on the basis of my discussion with them regarding their experience during pandemic and what else RMG owners could do for them in the future.

C. Affinity Diagram: An affinity diagram is a collection of large amounts of data that is organized into groups or themes based on their relationships. The affinity diagram is helpful in making sense of insights gathered during research, as well as organizing ideas generated during ideation sessions. (Siang & Dam, 2022). As the research is about solving the underlying loopholes of the existing ordering process, understanding the reasons behind low value addition and the state of the RMG workers wages and benefits, I have used affinity diagram to stack them in orderly manner and to organize the thoughts.

D. Strategic Decision Making is a combination of strategic foresight and strategic design. Buehring and Bishop (2019) referring to Vecchiato defined strategic foresight as:

“Strategic foresight is about scanning the environment for new events and drivers of change, and then applying appropriate techniques to anticipate the evolution of change, their consequences on the organization, and the responses, or decisions, most suitable in dealing with uncertainty.”

On the other hand, Buehring and Bishop (2019) referring to Holland & Lam defined strategic design as:

“Strategic design is the application of future-oriented design principles to create visions in collaboration across disciplines to drive and implement an organization's strategic goals.”

Now a days in this ever changing complex world, strategic decision making is becoming much more of a useful tool than traditional forecasting and planning. Buehring and Bishop (2019) argue that integrating strategic forecasting and strategic design is quite critical for anticipating inbound changes from external environment, and identifying opportunities to influence the future through outbound action is important. Traditional forecasting and planning generally works in the existing system and looks for incremental change within a short period of time (1-3 years). Whereas, strategic decision making works on the existing system and looks for transformational change within a medium term (5-10 years). Strategic decision making will help us to see through the problems in this ever changing competitive dynamics of business realities. After the affinity diagram, through which I organized the findings of the research done so far and did a little more research on the key themes and gain a strategic viewpoint on what might or might not work.

Develop: Groups of RMG manufacturers/owners and RMG workers were formed and they were allowed to discuss amongst themselves to identify the probable and acceptable solution of the key problem areas.

A. Service Blueprints: According to Gibbons (2017)-

“A service blueprint is a diagram that visualizes the relationships between different service components — people, props (physical or digital evidence), and processes — that are directly tied to touch points in a specific customer journey. Blueprinting is an ideal approach to experiences that are omni-channel, involve multiple touch points, or require a cross functional effort.”

I used service blueprints to understand how the buyers interact with the RMG factories, mainly with the different departments, and how this ordering process that I want to design will work with different external and internal parties; especially as my aim is to design a process that will be transparent and make all parties accountable.

B. Brainstorming: I used the brainstorming at the beginning of this stage again to ideate an innovative ordering process, which will have no bias towards the buyer or the supplier, meaning it will be transparent and accountability fixing will be easier.

C. Role Expectation Mapping: Expectation Mapping gathers impressions about a service or initiative from participants to identify and reconcile differences between their

expectations and service delivery. To define the needs of the key stakeholders namely RMG owner and the RMG worker, role expectation mapping was used. Role expectation mapping is a series of workshop that explores, clarifies and establishes which expectations members of a group, team or project have on each other. (Janlén, 2014).

Deliver: Prototype of an interactive platform to be used by all parties like buyers/importers/brand, RMG manufacturer/supplier and raw material suppliers has been developed. However, as preparing the actual software/program/app will be the job of an expert programmers and significant investment will also be required testing could not be done. However, the prototype that has been developed more or less clarifies the underlying principles and as such, it will not be much difficult to prepare a working prototype.

1.4 Timeline of the Process

The thesis was completed in the following manner:

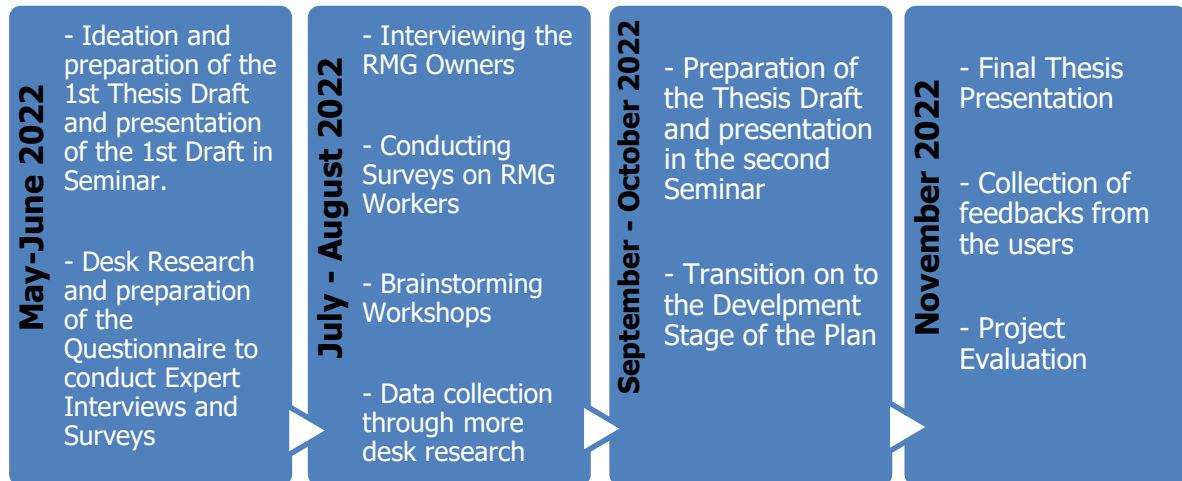


Figure 3: Timeline of the Process

1.5 Frame of Reference

The aim of the research was to find the loopholes in the underlying contracts that govern each of the transaction between the buyer/importer/brand and seller/manufacturer/exporter and/or forms the basis of contractual relationship amongst the two parties. On the other hand, RMG workers being in the bottom of the pyramid suffer most from the mishandling of both

the buyer and factory. The impact that covid-19 had on these parties and their responses towards the crisis is analyzed to understand the concerning issues with an aim to design/develop a better process or basis of relationship as shown in the figure below:

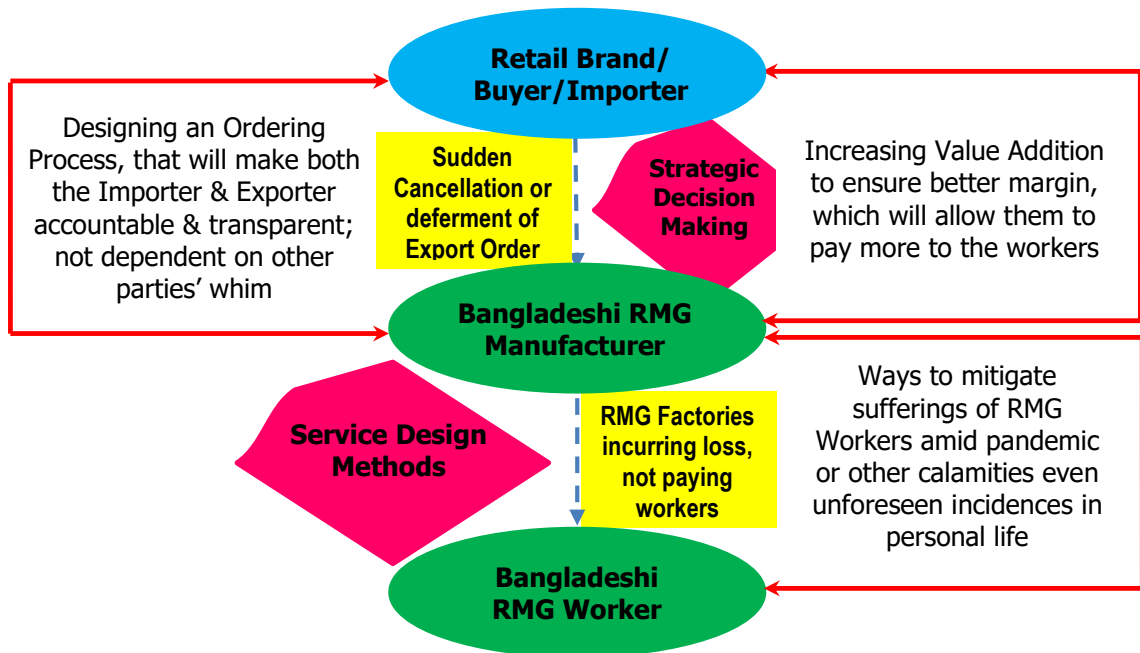
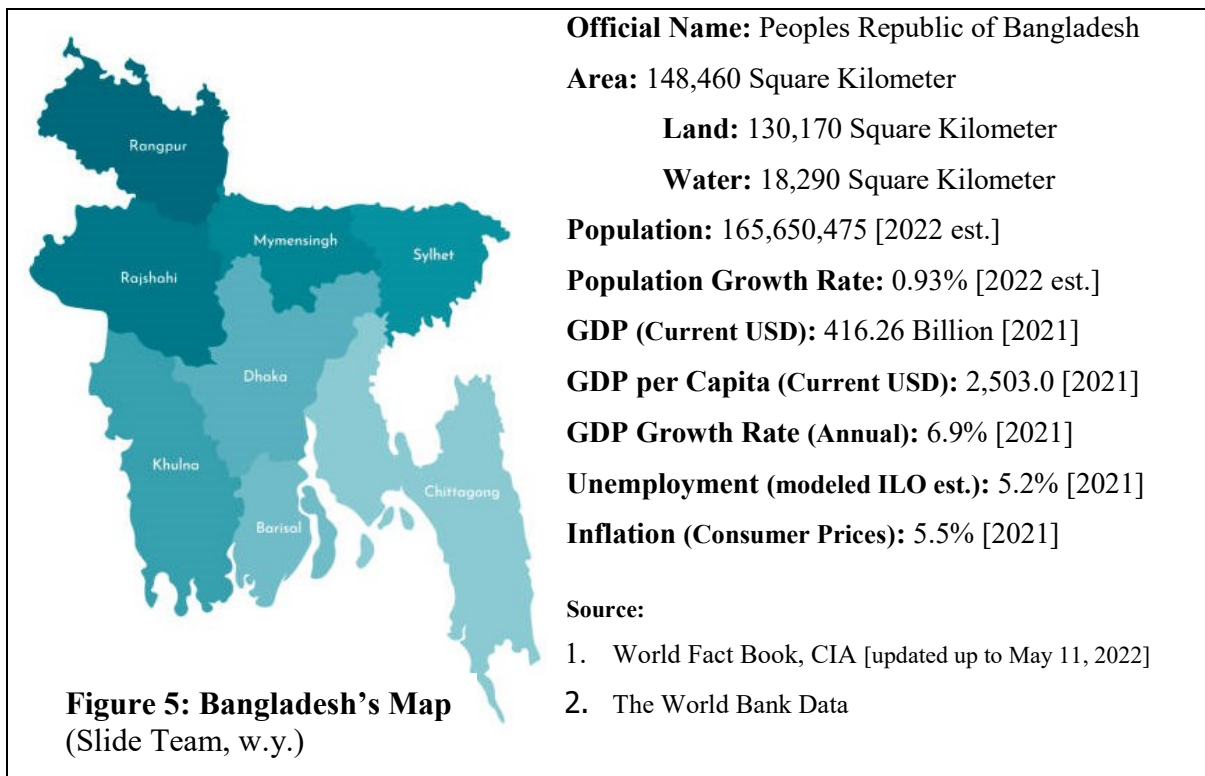


Figure 4: Frame of Reference

2 Background

The global apparel industry was estimated to be around USD 600 Billion in 2007 (Fibre2Fashion, 2008) and by the end of 2026 it is estimated to be around USD 2 Trillion (Smith, 2022). However, the apparel industry is characterized by a super-efficient supply chain network, meaning raw materials are delivered from its producers to the locations where clothes are made and then the manufactured clothes are sent ultimately to the market, where the products are sold. The process is fast and costs get squeezed away as much as possible and often in such a manner that end-users buy product at extremely low price. But over time the burden of these low cost items has mainly been borne by the workers, mainly those of the developing countries, who hardly have any other alternatives. Bangladesh is one of those least developed countries [LDC], which is expected to graduate to lower middle income country within a few years. (IHRB & Chowdhury Center for Bangladesh, 2021). As is the case, the monthly minimum wage of an RMG worker in Bangladesh being around BDT 8,000 (equivalent to around EURO 76.19) is one of the lowest wages in the world. (ADB Report, 2020). Having cheap labor, mainly women, is probably the biggest advantage of Bangladeshi RMGs till date and the reason behind Bangladesh doing well in RMG export.

Before delving into much details, a short brief on Bangladesh is presented below for developing a better understanding on Bangladesh and its economy:



2.1 History of Ready Made Garments Industry

The history of apparel industry is quite fascinating. Fashion industry has developed significantly in last two centuries due to the invention of sewing machine by Elias Howe in 1846 and clothes were mostly hand sewn until 1950's (McCarthy, 2021). McCarthy (2021) also mentioned that even after a century of the industrial revolution, RMG workers still had apprehension that their jobs will be jeopardized by development of new machinery and people/consumers also preferred handmade clothes. As such transition to automation was very slow – up until high end fashion became a major part of the society.

Tailoring has become apparel industry over a long period of time and it has become a trillion dollar industry. Now those tailoring shops have become ready-to-wear apparel shop, one can just walk into a shop, pick an item from the rack, even put it on and walk right out of the shop. Let's have a short brief on development of the Apparel [ready-to-wear or Ready Made Garments] Industry presented below:

Table 1: Development of Apparel Industry (Monet, 2022)

1400 BCE	Archeological records show that merchants in ancient Babylonia shipped and distributed some ready-to-wear garments as early as 1400 BCE (BC). In ancient Rome, garments were produced in workshops of up to 100 workers to outfit the military.
1350 AD	After 1350, clothing became more form fitting. A small ready-to-wear industry soon began to produce shirt accessories such as detachable sleeves and collars, as well as gloves, and hats.
16 th Century	By the second half of the 16th century, gloves, stockings, collars, and hats were imported and exported in bulk quantities.
17 th Century	Before the Industrial Revolution, most textile and garment production existed on a small scale in home workshops. Merchants dropped off raw materials to the workers' homes where production relied on self-pacing and included low and highly skilled work.
18 th Century	Industrial Revolution saw mass production of yarn and cloth. By the end of 18 th Century Bristol England was home to over 200 businesses that exported hats, gloves, drawers, pants, stockings, shirts, jackets, and footwear.
19 th Century	<ul style="list-style-type: none"> • Early in the 19th century some large scale apparel production still relied on hand sewing for piece work. In 1835, a New York company advertised for 800 tailors, and 1200 plain sewers. • The mills and factories of the Victorian era offered grueling work at poverty wages. Women and children worked 12 hour days and during busy seasons, work hours could extend to 20 hours a day. • As such, in England, lawmakers enacted early labor standards in 1833. The new child labor laws mandated an 8 hour work day for 9 year olds. Younger children were no longer allowed to work in mills or factories.

Table 1: Development of Apparel Industry (Monet, 2022)

	<ul style="list-style-type: none"> • In 1846, Elias Howe invented sewing machine, which allowed workers to piece garments together quickly. Along with marketing by business savvy Isaac Singer, Howe's invention changed the garment trade forever. • In the late 19th century, the department store introduced the idea of consolidating large amounts of mass produced goods for public consumption.
20 th Century	<ul style="list-style-type: none"> • In the United States at the turn of the 20th century mills and factory conditions earned the attention of progressives. Attempts to unionize erupted in violence and workers' strikes were seen as being influenced by socialists. • Dangerous workshops and low pay were brought to the forefront when the Triangle Shirtwaist Factory Fire erupted on March 25, 1911. Young workers had been locked in and were unable to escape the inferno. • Near the end of the Great Depression the Roosevelt Administration created a project to standardize women's measurements. From July 1939 - June 1940 American women were measured in order to formulate average sizing. This would save on alterations and cut down on store returns increasing the sales of ready-to-wear apparel. • The mid-20th century brought an overall rise in US wages and a growth of the middle class. As purchasing power increased people began to buy more articles of clothing. • In the 1990s deregulation made the import of cheap apparel from developing countries more advantageous for the garment industry. Garment and textile factories popped up in China and Bangladesh where labor was cheap.

2.2 Importance of RMG in Bangladesh

As stated earlier RMG export is around 85% of the total export earning of Bangladesh as can be observed from the following figure and table (see figure 6 and table 2):

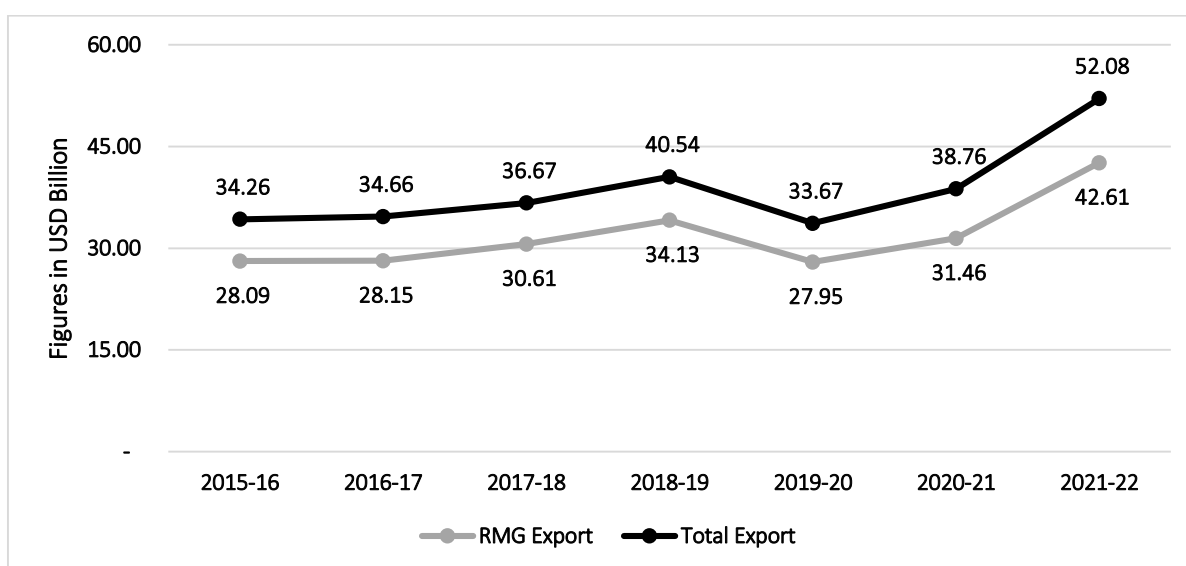


Figure 6: RMG Export in Comparison with Total Export of Bangladesh (BGMEA, w.y.)

Table 2: RMG's Contribution in Bangladesh Economy (BGMEA w.y.)

Year	RMG Export [in USD Billion]	Total Export of Bangladesh [in USD Billion]	RMG's to Total Export
1984-85	0.12	0.93	12.44%
1989-90	0.62	1.92	32.45%
1994-95	2.22	3.47	64.17%
1999-00	4.35	5.75	75.61%
2004-05	6.42	8.65	74.15%
2009-10	12.50	16.20	77.12%
2014-15	25.49	31.21	81.68%
2019-20	27.95	33.67	83.01%

Even if Bangladesh's RMG export has grown significantly, the industry generally has not progressed beyond cutting and sewing of basic items to which relatively little value is added and from which profits are modest. Bangladesh's garment industry has created jobs, offered a degree of independence to rural young women, and helped prop up the country's shaky economy. But it has not made the same progress in terms of the quality of those jobs, the value added to exports, or increases to workers' real wages. [Asian Development Bank (ADB), 2020]

2.3 History of RMG in Bangladesh

Reaz Garments Ltd. was the first RMG factory in Bangladesh to export, they exported 10,000 pcs shirt to France valuing 13.0 Million Franc in 1978 to French buyer Holander France (Rahman, 2021). Bangladesh's total RMG export was USD 42.61 Billion in FY 2021-22 (BGMEA, w.y.). It has become the second largest RMG exporter in the world – to get there, Bangladeshi RMG owners had to walk a long way. It was not at all smooth sailing – over the years different challenges aroused and they overcame those to be in today's position. The following table shows how the RMG industry in Bangladesh developed over the years:

Table 3: History of RMG in Bangladesh (Islam, 2021 & other Online Research)

Years	Events
1978	Reaz Garments Ltd. exports 10,000 pcs shirt to France valuing 13.0 Million Franc
1979	Desh Garments Ltd., 1 st non-equity joint venture in Bangladesh for technical and marketing collaboration, was formed with Daewoo Corporation of South Korea
1980	Youngone Bangladesh [Youngone: 51% and Trexim: 49%] exports padded and non-padded jackets to Sweden

Table 3: History of RMG in Bangladesh (Islam, 2021 & other Online Research)

Years	Events												
1982~85	At the end of 1982 there were only 47 garments manufacturing units, which became 587 by the end of 1985. Bangladesh Garments Manufacturers and Exporters Association [BGMEA] was formed in 1983. This period is considered breakthrough years for RMG sector.												
1992~95	BGMEA banned child labor amid US ban in 1992. Later in 1995, BGMEA, ILO and UNICEF signed another agreement.												
2005~07	Multi Fibre Agreement [MFA] phased-out by the end of 2004, which was expected to decrease RMG Export by 18%. But rather RMG export increased as shown below:												
	<table border="1"> <thead> <tr> <th>Year</th> <th>Export</th> <th>Year</th> <th>Export</th> </tr> </thead> <tbody> <tr> <td>2004</td> <td>USD 6.22 Billion</td> <td>2006</td> <td>USD 8.93 Billion</td> </tr> <tr> <td>2005</td> <td>USD 6.90 Billion</td> <td>2007</td> <td>USD 9.35 Billion</td> </tr> </tbody> </table>	Year	Export	Year	Export	2004	USD 6.22 Billion	2006	USD 8.93 Billion	2005	USD 6.90 Billion	2007	USD 9.35 Billion
Year	Export	Year	Export										
2004	USD 6.22 Billion	2006	USD 8.93 Billion										
2005	USD 6.90 Billion	2007	USD 9.35 Billion										
2010~13	Fire in Garib & Garib sweater factory on February 2010. Fire in Tazreen Fashions factory on November 24, 2012. Rana Plaza collapse on April 24, 2013.												
2013	Formation of ACCORD on fire and building safety in Bangladesh. Formation of The ALLIANCE for Bangladesh worker safety												
2018	Minimum monthly wage for RMG workers was fixed @ BDT 8,000.00 [eqv. to EURO 76.19], prior to that which was BDT 560.00 in 1984, BDT 930.00 in 1994, BDT 1,662.50 in 2006, BDT 3,000.00 in 2010 and BDT 5,300.00 in 2013.												
2020~21	Impact of covid-19 in 2020 and in the early part of 2021 causing dramatic decrease in export, deferment or cancellation of export orders by buyers.												

2.4 Operational Process of the RMG Industry in Bangladesh

In a typical RMG factory, any owner having the capacity to produce quality items will like to market his capacity by soliciting export orders from good international apparel brands. Once a buyer gets interested in a factory, they will provide them with a sample of the item, which the RMG has to replicate or the importer will provide an idea about a new item and the factory has to prepare a sample. This may go on for some time, as the buyer may think of tweaking something or other, until they are fully satisfied. If all go well, they will then place the order for a larger quantity, which the factory has to produce within a given time period and ship it to the buyers' choice of destination. Now a days it is just not enough to have the production capacity and the skilled labor, due to various accidents and mismanagement that have taken place in the RMG industries all over the world at different point of time. The factories need a lot of documentation, supporting that adequate facilities and safety measures are there in the factory for the wellbeing of the workers. Arranging those

facilities and safety measures along with the supporting documentation requires significant investment. Thereby, though the RMG industries have over the years been gradually shifted to a country where cheap labor is available, the investment that is required is still quite high at present. Now going back to the process of ordering, any international brand is much stronger than the suppliers located in Bangladesh and though at the beginning of the industry the orders were preceded by advance payments to procure the raw materials, gradually it moved towards letter of credit [LC], which has been more or less replaced by export contract or sales contract [SC] (Uddin, 2020). The following figure shows relationship amongst the retail brands, RMG factories and RMG workers, see figure 7:

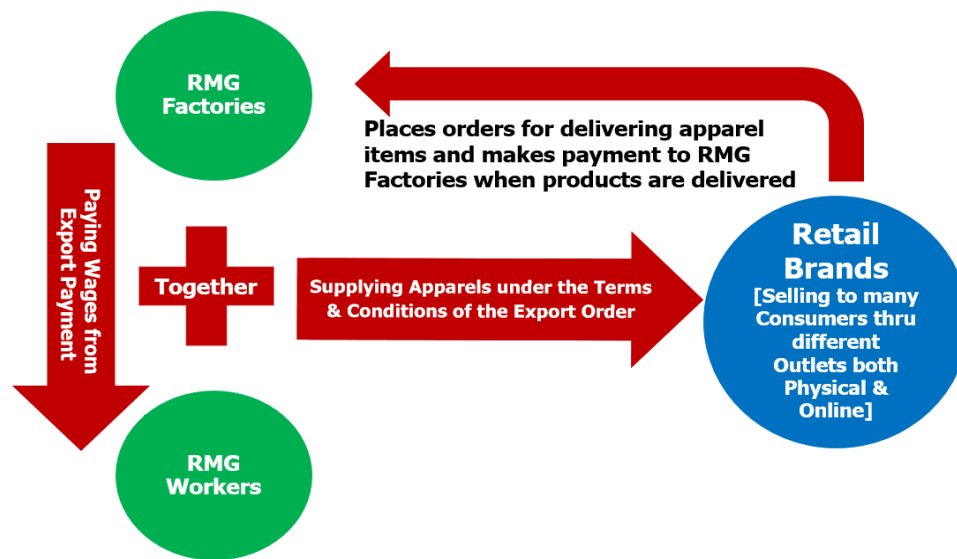


Figure 7: Relationship amongst Retail Brands, RMG Factories & RMG Workers

A letter of credit or LC is a written document issued by the importer's bank (opening bank) on the importer's behalf. Through the issuance of the LC, the exporter is assured that the issuing bank will make a payment to the exporter for the international trade conducted between both the parties. A guiding principle of an LC is that the issuing bank will make the payment based solely on the documents presented, and they are not required to physically ensure the shipping of the goods. If the documents presented are in accordance with the terms and conditions of the LC, the bank has no reason to deny the payment. (Parekh, 2022). However, upon receiving the LC/SC any factory owner will take steps to procure the required materials like fabrics, sewing threads, buttons, etc. and then after receiving those will take steps for cutting, sewing and finishing [including washing and packaging] and then hand over the goods to the freighter for delivering it to the desired destination. More often than not all these fabrics, sewing threads, buttons and or any other accessories needs to be procured from a buyer nominated source/supplier, who will not supply the product to the RMG manufacturer in Bangladesh without having received an LC first. Point of contention

is that payment against these LCs are not at all conditional on receiving payment against the original export order; LC or contract whatever it may be. (Uddin, 2020).

Lead time in supplying any items from Bangladesh now stands around 90-100 days, which is 30-35 for China and around 60 days for Vietnam (Khan, 2021). Nuruzzaman and Haque (2009) have shown that the major reason behind this higher lead time is raw material procurement as also shown in the figure below:

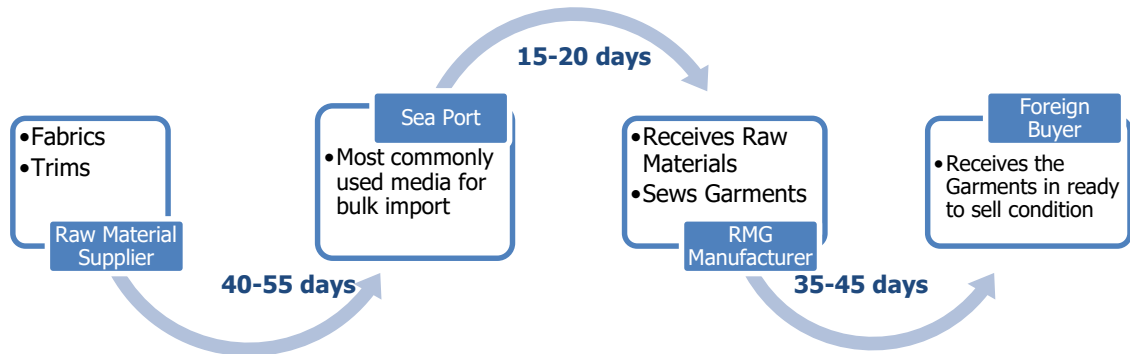


Figure 8: Basic Supply Chain of Bangladeshi RMG Industries (Nuruzzaman & Haque, 2009)

As has been said before, most of these export orders (open account transaction) now come in the form of export contract i.e. no letter of credit issued under Universal Customs and Practice for Documentary Credits [UCPDC] and that means suppliers or the RMG owners have very little option to do anything against the buyer, if he cancels the order midway. Filing legal suit against the buyer in its country, but it is not only expensive but it may also translate into ending the relationship with the buyer (Uddin, 2020). In a buyer dominated market, RMG suppliers of Bangladesh, who mainly produces basic items and value addition being very low (Islam, 2021) (ADB Report, 2020), possesses little bargaining power. This in turn means a very low margin for the owners, very low salary or benefits for the workers. On the other side, most of these workers don't have any bank account or ways of saving and no insurance to help them in emergencies (Sahoo, Chowdhury & Robin, 2022). Let alone the pandemic, if for any reason one is not able to continue work, that person along with his dependents have no fall back. Salaries used to be paid mostly in cash before the pandemic, however, due to insistence of Bangladesh Government to disburse the salary stimulus [described in details later] through bank accounts or mobile financial services [MFS] like bKash or Rocket (Ovi, 2020), now many RMG pays monthly salary through using mobile financial services (bKash, 2022) and these mobile financial services have become one of the major ways of sending money to the dependents of the workers staying in their villages.

2.5 Salaries & Benefits of the BD RMG Workers

Hachfeld (2019) made an analysis of the Zara hoody to understand what made the price of that hoody, which is depicted through the figure below (also presented in Appendix 5):

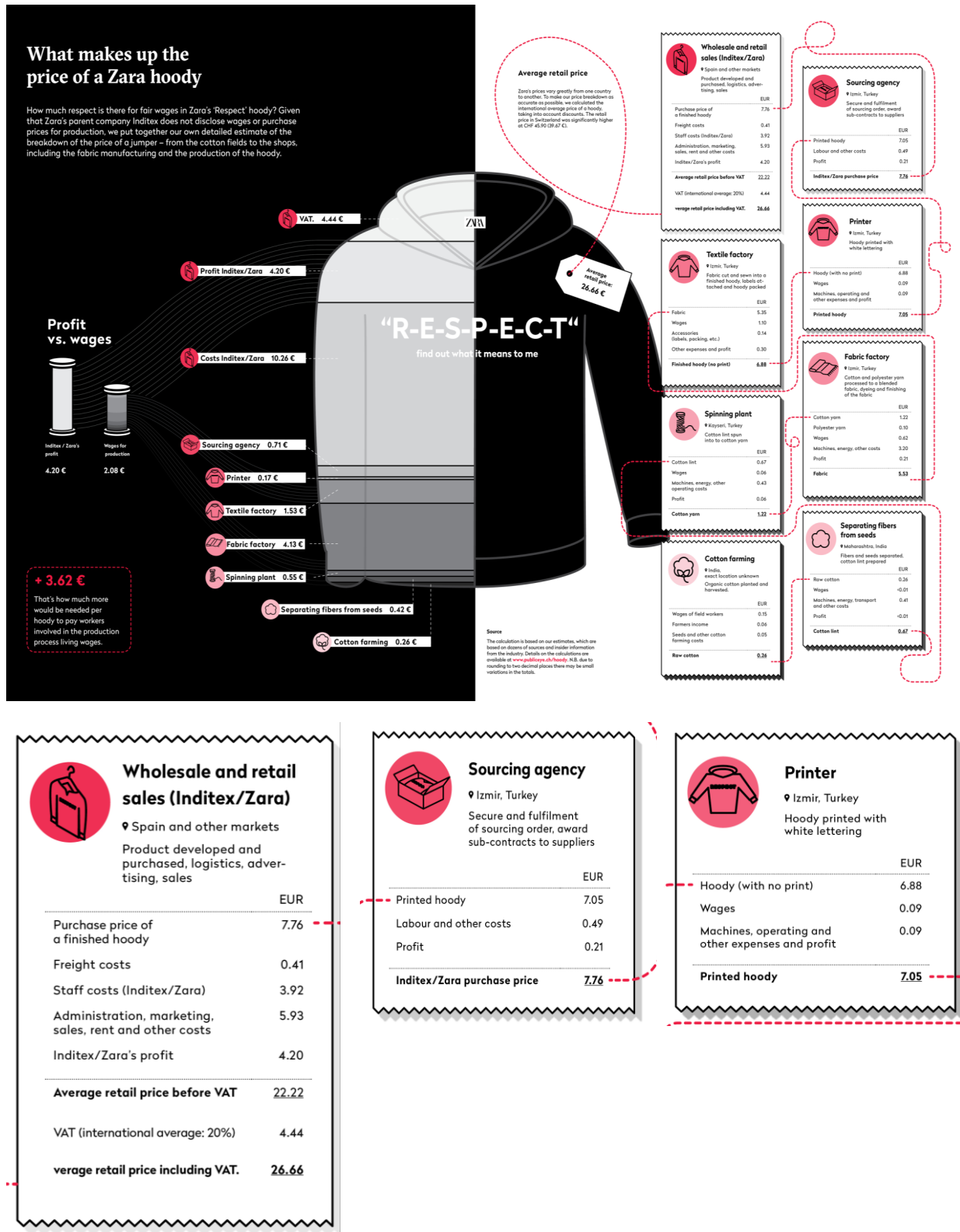


Figure 9: Makeup of the price of a Zara Hoody (Hachfeld, 2019)

The services provided by the sourcing agency and the printer of Turkey shown in the above figure is sewing the hoody after procuring the raw materials and printing 'R-E-S-P-E-C-T' on that hoody respectively. Any typical RMG factory in Bangladesh will be able to provide both the services. As is observed from the above figure wages constitute only EURO 0.58 meaning 2.18% of the retail price of the hoody, whereas, Zara itself is making a profit of EURO 4.20 [15.75%] and their staff cost is EURO 3.92 [14.70%].

The latest minimum wage for the RMG Sector was set at BDT 8,000.00 per month [equivalent to EURO 76.19] in December 2018 as is presented below (Moazzem, 2019):

Table 4: RMG Wage 2018 [published on 29 November 2018] (Moazzem, 2019)

Grade	<i>[All Figures in BDT]</i>						Gross Wage [in EURO]
	Basic Wage	House Rent [50% of Basic]	Medical Allowance	Transport Allowance	Food Allowance	Gross Wage	
Grade I	10,440	5,220	600	350	900	17,510	166.76
Grade II	8,520	4,260	600	350	900	14,630	139.33
Grade III	5,160	2,580	600	350	900	9,590	91.33
Grade IV	4,930	2,465	600	350	900	9,245	88.05
Grade V	4,670	2,335	600	350	900	8,855	84.33
Grade VI	4,370	2,185	600	350	900	8,405	80.05
Grade VII	4,100	2,050	600	350	900	8,000	76.19
Trainee	-	-	-	-	-	5,975	56.90

Including overtime and other benefits total monthly take home of any RMG Worker may rise up to BDT 15,000.00 [equivalent to EURO 142.86] on an average.

2.6 Covid-19 Impact on RMG Sector in Bangladesh

As the coronavirus spread across the world in early 2020 and like other countries, Bangladesh went for lockdown (Asian Development Bank, 2020), businesses were forced to respond very quickly to the evolving situation. Though initially some leeway was allowed but as Covid-19 was spreading quickly in Bangladesh and the number of deaths kept rising internationally, almost all businesses were closed. However, being a Least Developed Country [LDC], it was soon felt that a complete lockdown for a prolonged period is not feasible due to economic reasons – there were too many mouths to feed. At the same time, it was feared that RMG, being the key export earning product of Bangladesh may lose international market. So the lockdown was gradually lifted and economic activities were allowed to resume, by ensuring appropriate health and safety measures. (Kamruzzaman,

2020). But the major shock came when many international brands started to cancel orders or requested for delayed shipment. As has been mentioned earlier, export orders worth about USD 3.15 Billion got cancelled or deferred by March 2020 (Asian Development Bank, 2020). Some of those are listed below.

Table 5: Cancelled/Delayed Orders by Major Fashion Brands (Ecotextile News, 2020)

Brand Name	Amount [in USD Million]
Primark, Ireland	273.00
C and A, Germany and Belgium	166.00
Inditex/Zara, Spain	109.00
Mothercare, UK	62.00
Bestseller, Denmark	59.00
Kiabi, France	57.00
VF Corporation, USA	56.00
Tesco, UK	50.00
Marks and Spencer, UK	39.00
Kohls, USA	39.00
Walmart, USA	38.00
LPP, Poland	37.00
Target, USA	24.00
JC Penny, USA	23.00

Some brands like Debenhams reportedly asked for 90% discount for accepting already completed and/or shipped order from the RMG Manufacturers of Bangladesh. (Ecotextile News, 2020). On the other hand, some international brands sent health and safety guidance on responding to the pandemic to their suppliers, drawing on standards developed by international agencies. They also engaged stakeholders and suppliers in dialogue after the initial shock wore off. Some brands intervened with international financial institutions or banks to advocate for greater liquidity for their suppliers. Campaigns by international civil society groups partly influenced some brands to honor their original contractual obligations. However, instances of buyers helping out the manufacturer is almost nil. (IHRB & Chowdhury Center for Bangladesh, 2021).

2.7 Steps Taken to Absorb the Shock

Bangladesh did well amid the impending catastrophe of covid-19, the predictions were ominous for densely populated LDCs like Bangladesh. The situation was quite like a double edged sword – keeping people at home was required to avoid Covid-19 spread but that meant their livelihoods would get severely compromised. So, Bangladesh Government kept the

economic activities going but steps were taken to ensure social distancing and hygiene. Initially, many RMG manufacturers redesigned factories, provided personal protection equipment such as masks and gloves as well as sanitizers, measured temperature and provided washing facilities. Some even made medical facilities available for their workers. But later some suppliers relaxed those rules to meet contractual commitments and/or cost issues and/or user reluctance. (IHRB & Chowdhury Center for Bangladesh, 2021).

But those wouldn't have been enough, if the Government of Bangladesh had not decided to stand by the private sector with huge financial support. Bangladesh Government announced stimulus packages of around BDT 1,213.53 Billion (Euro 11.56 billion), or 4.34% of GDP to revive the economy, by strengthening the social safety net, export sectors, SMEs and other priority sectors (Bangladesh Bank Special Publication, 2021). According to the earlier mentioned publication (Bangladesh Bank Special Publication, 2021) major stimulus packages for export oriented concerns like RMGs is described below:

Workers' Salary Stimulus Package: The package allocated BDT 50.00 billion i.e. about EURO 476.19 Million [non-interest bearing Term Loan] for RMG and other export-oriented industries, which could only be used to pay salaries and allowances to workers and employees for the month of April - July 2020. The size of the fund later got increased to around BDT 91.88 Billion

Export Development Fund: Size of the fund has been increased from around Euro 3.00 Billion (USD 3.5 billion) to Euro 4.34 Billion (USD 5.0 billion), which provided short-term facilities for importing raw materials for export-oriented industries. Interest Rate of the EDF Loans were reduced from 6-Months LIBOR + 2.50% p.a. to 6-Months LIBOR + 1.75% p.a.

Pre-Shipment Credit: BDT 50.00 Billion [equivalent to EURO 476.19 Million] with low interest.

Working Capital Facilities: BDT 400.00 Billion [equivalent to EURO 3.81 Billion] for Large Industries and BDT 200.00 Billion [equivalent to EURO 1.90 Billion] for SMEs @ 4.50% Interest rate [4.50% subsidized by Govt.]

There were some other notable initiatives for the export-oriented industries of Bangladesh. Without those Government support meeting needs of their daily lives would have been very difficult for these RMG workers.

2.8 Covid-19 Impact on the World's Apparel Industry

On the other hand, not only Bangladesh was impacted by covid-19, rather the whole world was severely impacted. GDPs of USA and UK were reduced at a significantly higher rate than that of Bangladesh (in fact, Bangladesh's GDP grew amid at a lower rate). Most global apparel brands experienced significant sales reduction and some of them were forced to shut their operation, business modalities changed dramatically as online purchase/platforms gained traction amid restriction on movement, demand for Formal Wears diminished.

Table 6: Iconic Retailers [Apparel] that fell into Pandemic Bankruptcy

(Retail Woes: A Running List of Fashion & Retail Bankruptcies, 2022)

J.C. Penney [107 year old company] filed for bankruptcy on May 2020
Neiman Marcus filed for bankruptcy on May 2020
Aldo Group filed for bankruptcy on May 2020
J. Crew filed for bankruptcy on May 2020
Ascena Retail Group filed for bankruptcy on July 2020
Brooks Brothers [202 year old company] filed for bankruptcy on July 2020
G. Star Raw filed for bankruptcy on July 2020
Tailored Brands filed for bankruptcy on August 2020
Lord and Taylor [nearly 200 year old company] filed for bankruptcy on August 2020
Century 21 filed for bankruptcy on September 2020
Arcadia Group filed for bankruptcy on November 2020
Belk filed for bankruptcy on February 2021
Global Brands Group [GBG USA, Inc.] filed for bankruptcy on July 2021

The above presentation of facts show that economy of Bangladesh is highly dependent on the RMG industry, which in turn is reliant on the international retail brands. Besides, RMG industry is characterized by cheap labor. Thus, for RMGs in Bangladesh and for the greater benefit of the RMG workers, RMGs need to work along with the buyers on the following:

- Increase their value addition through offering more services or differentiating products
- Ensuring that once the order is placed, suppliers are duly compensated for the expenses already made
- Look into the pricing structure of any product in such a way that the worker, who is lying at the bottom of the pyramid can live his life decently
- Ensure that the RMG worker has some savings/retirement schemes for his old life or unforeseen incidences.

3 Identifying the Problems – Discover

To find a way to resolve the underlying issues or sufferings of the RMG suppliers or their workers, we need to first understand them and their problems and in this stage following the Double Diamond Model, I will try to ‘Discover’ their issues.

Three medium to small RMGs were approached to learn about their businesses and process and their short description of their business is provided below:

Respondent 1:

Director of an RMG factory that exports around EURO 5.00 million in a year mainly to its UK buyers with around 900 workers. In CY 2020 (the covid-19 impacted year), their export was about 26% lower than that of the earlier year. In CY 2021, they export increased and was almost equivalent to the earlier level. They are expecting CY 2022 to be much better and in the first eight months almost reached last year’s level.

Respondent 2:

Director of an RMG factory mainly exporting to European buyers. Their average yearly export was around EURO 15.00 Million. Export amid covid-19 was not that much impacted, but it was slightly lower both in CY 2020 and CY 2021. In fact, the decline was more in CY 2021 than in CY 2020. They employ around 2,500 workers on an average.

Respondent 3:

Director of an RMG factory exporting around EURO 4.00 million yearly. Covid-19 saw their export dropped by around 40% in CY 2020 and increased back to previous level in CY 2021. They employ around 570 workers.

3.1 SWOT Analysis

Understanding the strengths, weaknesses, opportunities and threats of the Bangladesh’s RMG sector will go a long way in understanding or in future redefining the ordering processes. As has been said before, buyers having significant bargaining power mostly dictate on what terms the dealings in between them and the suppliers will be conducted.

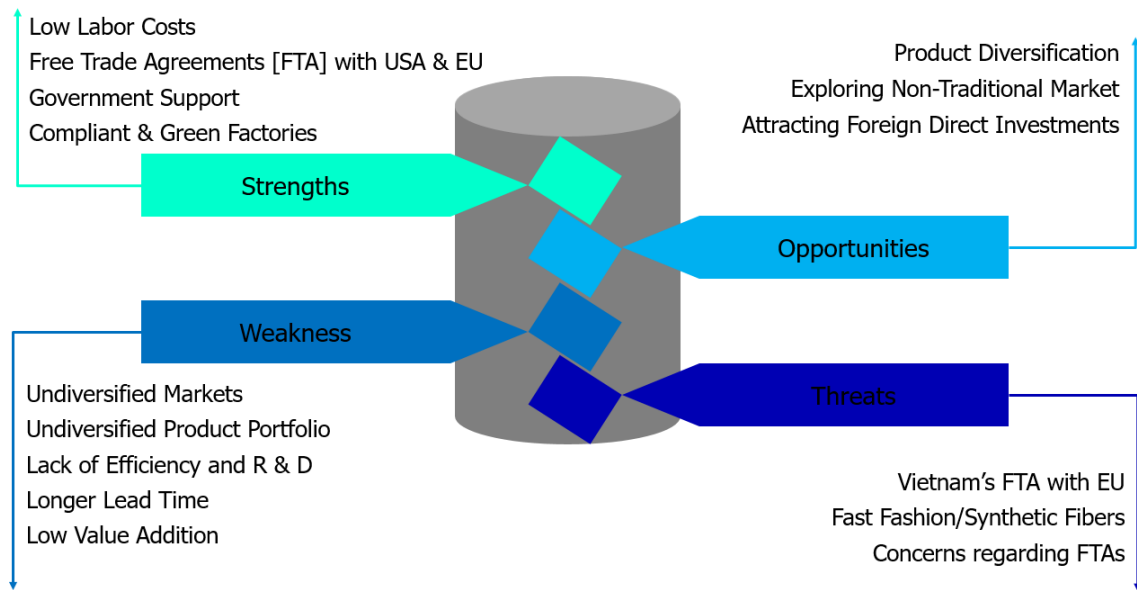


Figure 10: SWOT Analysis of Bangladesh’s RMG Industries (author’s adaptation from the works of Berg, Chhaparia, Hedrich and Magnus, 2021 and Islam, 2021)

However, if the responses of the RMG owners are to be summarized against their responses on the competitive advantages of Bangladeshi RMG’s, their responses slightly differ from that I have derived from desk research. It needs to be noted here that, the RMG owners were allowed to answer this question in a free form, only one leading line was provided i.e. ‘Cheap Labor’ and they were given the freedom to choose whatever they wanted mainly to keep an open mind and their responses were somewhat numbered and then summarized as shown below:

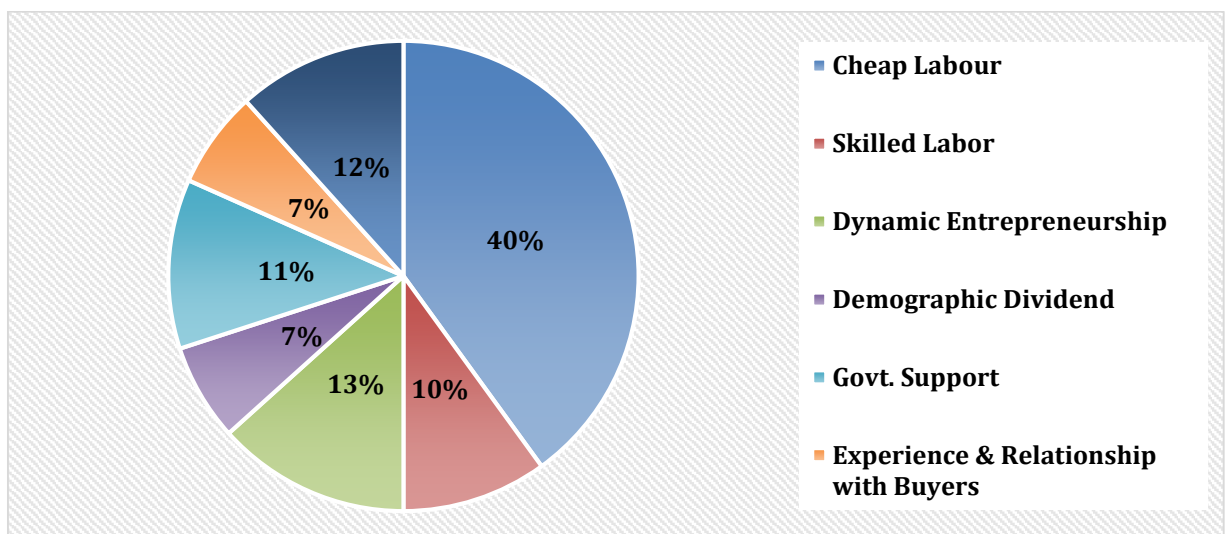


Figure 11: Competitive Advantages of RMG’s of Bangladesh

3.2 Stakeholder Map

A stakeholder map will allow us to understand the relationship amongst the different set of people that are involved in a typical RMG business. Trying to develop an ideal ordering process will ultimately aim to touch all the stakeholders that has been shown in the figure below, except that of user/end customer. At the core are the four parties – such as brands/buyers, RMG factory owners, RMG workers and user/end customer.

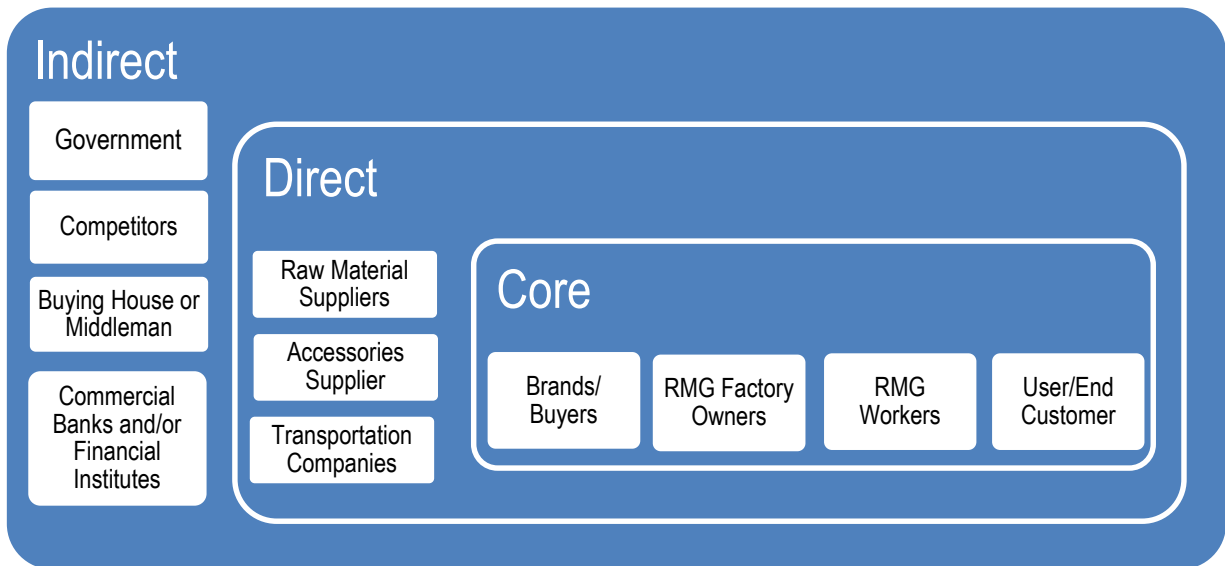


Figure 12: Stakeholder Map of RMG Industry

3.3 Expert Interviews

A questionnaire was aimed at understanding RMG business, especially focusing on how they secure orders, at which form out of the two forms that they receive and what were the situation they faced during the covid-19. Initially, the questionnaire was sent to the RMG owners and their replies were later discussed in an informal interview session to better understand their responses and their responses are summarized below:

Ways of Sourcing Export Order

Discussion with the RMG owners and my earlier experiences with them indicates that there are a number of ways to attract a buyer - from having compliant factories (described later) to meeting potential buyers. Large buyers/brands over the years has opened offices in Bangladesh to look after their procurements, quality maintenance and to ensure timely shipment. On the other hand, there are buying houses who keep liaison with many medium sized buyers and offer their services to act as a contact point between different RMG factory owners and provide the services that any local office of the buyer would have provided. As

is the case, having existence of a middleman obviously has its cost. Another popular way is to hire experienced and well versed and well-connected [with buyers/brands] executives from other RMG factories and then use their connections to net in new buyers. The responses of the three RMG owners are summarized, as shown in below graph, about 47% is sourced through their direct marketing with the buyers, 47% is thru buying houses and remaining 7% is through hiring experienced executives from other competitors.

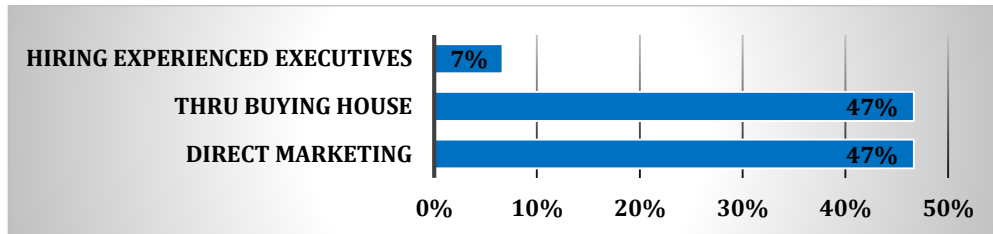


Figure 13: Ways of Sourcing Export Orders

Answers from the RMG/garment factory owners and subsequent discussions with them reveal that the owners mainly depend on direct marketing of their production capacity, either directly to the buyers or through the buying houses to source orders for their factories. The manufacturers have to build a factory that is capable of delivering the products as per the buyer's requirement and due to several incidences that happened earlier the manufacturers' facilities need to be up to certain standards or in other words be a compliant factory. From effluent treatment plant to having proper fire exits, fire proof doors to adequate spaces for workers movement, having doctors room to breast-feeding facilities – everything have to be there. The apparel sector has evolved over the years and so has the standards. Customers with a high degree of social awareness, have forced the brands to be more responsible and they in turn have forced their suppliers to do more both for the environment and for the workers.

Type of Buyers – Existing or New

Respondents were asked what percentage of their running works are from existing or old buyers and how much is from new buyers that they have not worked before and their responses were, see figure 14:

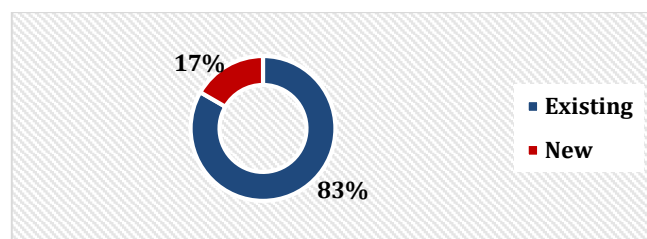


Figure 14: Types of Buyers – Existing or New

Forms of Export Order

As has been discussed earlier basically there are two forms; letter of credit [LC] and export/sales contract [SC]. Sometimes a combination of both is seen, where a buyer initially provides an export contract in broader terms and later issues LCs before taking the shipment. Payment terms also differ; there are both sight payments [payment as soon as delivery is made] and deferred payments [payments after some specified days of receiving goods].

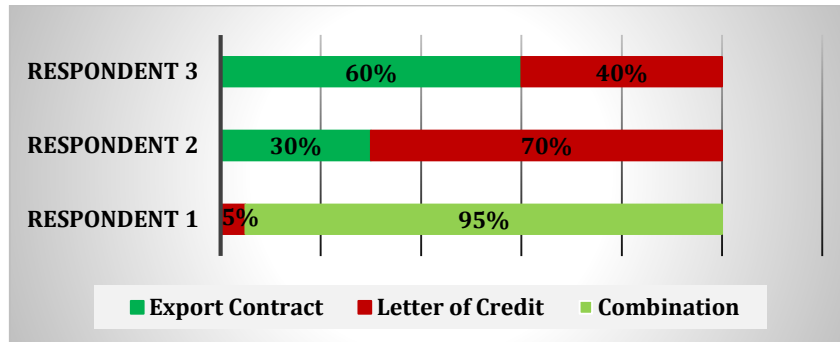


Figure 15: Forms of Export Order

Buyers are highly reluctant to bear the cost of adding a 3rd party [bank or financial institution] in the mix between them and the manufacturers at their own cost. Yes, I am talking about the ‘Letter of Credit [LC]’, which is simply an export order backed by the irrevocable guarantee of a bank or financial institution ensuring the supplier some sorts of coverage against the whim of the buyers/importers. Having export order through LC means that, if the manufacturer is able to comply with the terms and conditions of the LC, payment is ensured by the bank or financial institution. The importer or the buyer will not be able to call-off or back out from his contractual obligation, in the middle of the road without the consent of the seller or manufacturer or exporter. But there is a cost to pay and in a buyer dominated and a highly competitive apparel market, it is no wonder that those highly influential buyers are reluctant to bear that cost. Rather they prefer open account transactions or simply place the order in the form of SC guided mainly by the contract laws – which in most cases is a set of terms and conditions printed in the letterhead pad of the buyer and send to the seller or manufacturer for their acceptance. Once both parties agree – raw materials procured by the supplier, stitched to perfection, packaged in the right way, shipped for the buyer’s warehouse in time and buyer making the payment as per the agreed terms and conditions, there are no issues. A simplistic diagram of transactions/relationship between buyer, supplier along with its’ worker has been shown earlier. But when things don’t go right and there are differences in opinion, buyers will have the upper hand.

Covid-19 Impact

Respondents were asked whether any of their buyers cancelled any export order during covid-19. If the answer was positive, they were asked to inform in which form those orders were received. However, if the answer was negative, they were asked a supplementary question on whether shipments against export orders were deferred or not. And on what was the real impact of Covid-19 on their business and reasons. This was also a free form question, they were allowed to express themselves, which would be required to understand their pain points.

The three RMG factories did not face any cancellation of export order. Their buyers obviously deferred some shipments, but many of them did so in consultation with their suppliers. Their responses are summarized below:

Respondent 1	Respondent 2	Respondent 3
<ul style="list-style-type: none"> • No Cancellation but orders were deferred from 8-12 months • A lot, we couldn't operate in our full scale, or even couldn't operate at all in the initial 4 to 6 months of COVID-19. • Bangladesh Government helped us to pay the initial 3 and half months' salary, by providing us with favorable soft loans with easy repayment terms. Banks helped us to run the show as smoothly as possible. 	<ul style="list-style-type: none"> • Officially nothing was cancelled or deferred. Most of them simply stopped issuing Purchase Orders that generally comes around 1-month before shipment. It seemed like we were stranded in the middle of nowhere, having no clue what's going to happen. • There was hardly any export in the 1st 2-months, gained a little from 3rd month onward. We almost didn't have any ability to pay our worker's as we had to invest our savings for health and hygiene i.e. to stopping the spread of Covid-19 in factory and taking care if anyone became infected. • Thru Government Support 	<ul style="list-style-type: none"> • Only 2-buyers cancelled those orders that were made only a few days back and in consultation with us and no initiatives to procure raw materials was taken then. But orders were deferred and export was very slow in 1st 9-months of the pandemic in Bangladesh i.e. from March – September 2020. • Exports decreased dramatically along with our capacity to pay our workers. • Took help from the Government declared Stimulus Package and my business also generated some cash flow

Figure 16: Covid-19 Impact

It needs to be mentioned here that, Hossain and Alam (2022) citing Centre for Policy Dialogue [CPD] estimation mentioned that more than 348 RMG factories including 0.4 million jobs lost due to lockdowns during pandemic.

3.4 Brainstorming

SWOT analysis has given an understanding on the competitive position of the Bangladeshi RMG manufacturers, which actually dictates the relative positioning of the buyer and the supplier. Stakeholder map described the relationship matrix amongst the interrelated parties. Then the expert interview outcomes show that, the RMG manufacturers receive export orders mostly through direct marketing or through the buying house and mainly from their

existing customers. Regarding the forms of order, the respondents' get order both in the form of Letter of Credit [LC] and Sales Contract [SC]. Besides, a combination of both is also there, meaning SC followed by an LC [initially order received thru SC and later LC issued by buyer before actual shipment]. Impact of the covid-19 in terms of order cancellation or deferment and how the RMG owners coped with the situation has also been discussed. Now, is the time to dive a bit deeper in to understanding what the RMG owners would prefer and what would be the key reasons behind such preferences. It needs to be noted here that, knowing the reasons behind their preference(s) is important because, in the later stages when we would go on to develop/design an alternative ordering mechanism, these issues need to be taken care of. Keeping this in mind, brainstorming session was conducted with the three RMG owners.

Being the moderator, it is my job to put the owners in the right sort of mental state, so that they are not overly prejudiced by their own selfish interest. I initially discussed about the different articles that were posted during the pandemics regarding order cancellation, people's sufferings and how they felt in those days. Then moved towards the news and publications on what the world's leading apparel brands had to suffer, how many of them went bankrupt and how developed economies nosedived. And lastly, how they are feeling now as the Covid-19 seems to have passed, RMG export is back on track, in FY [Financial Year] 2021-22 it was indeed very good. Though the Russia-Ukraine war seems to be derailing the world economy again. This was done mainly to put their thinking in right perspective i.e. not be too emotional about their requirement only but also enabling them to think about the perspectives of a brand/buyer – how they were affected too and that the world has not healed itself entirely. With that note they were given time to discuss amongst themselves on what form of export order they prefer and the reasons behind that preference.

It was quite obvious, they will choose 'letter of credit', against which payment is guaranteed by a bank/financial institution but the more important part, as stated earlier, was to know the key reasons behind their choice. After much discussion, they came up with the following key reasons of choosing 'letter of credit' as their preferred form of receiving export order:

- ↳ More secure i.e. payments are guaranteed by bank, if the terms and conditions of the LCs are fulfilled by the suppliers
- ↳ Buyers cannot cancel/defer easily as it is governed by UCPDC or internationally accepted rules/guidelines/practices
- ↳ Easier to avail financing from local banks/financial institutions

3.5 Survey

A survey was conducted amongst thirteen RMG workers mainly to understand how much they got paid during the covid-19 period, how much they receive generally and their work hours during covid-19 and normal period. The data collected from that survey reflect that their payment during the covid-19 period was around 80% of what they receive generally as shown below:

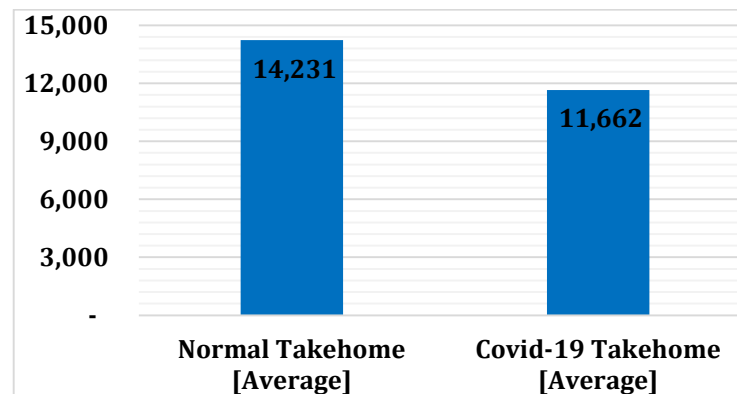


Figure 17: Comparison of Worker's Salary during Covid-19 & Normal Period

It needs to be noted here that, due to time constraints and distance a larger sample could not be used, which would have given a far more representative data to analyze and rely on. A printed survey questionnaire was sent to the RMG workers for them to fill out. However, regarding the other questions such as salaries received during the lockdown periods were unanimous i.e. 60% of their salary, as it was mainly supported by Bangladesh Government and as has been said before, they were given as loans to RMG owners but the disbursement was made by sending the determined wages directly to the RMG workers or RMG workers' mobile wallets, bank accounts, whatever they had; no cash was disbursed or not credited to the RMG owners' account. Commercial banks on behalf of Bangladesh Government disbursed the loan and later that amount were refinanced by Bangladesh Government through Bangladesh Bank. As the factories that I concentrated on, didn't have much cancellation, their workers did not suffer much. As is expected during economic downturn induced by the covid-19 pandemic, the salaries were a bit lower than normal and so was their working hour.

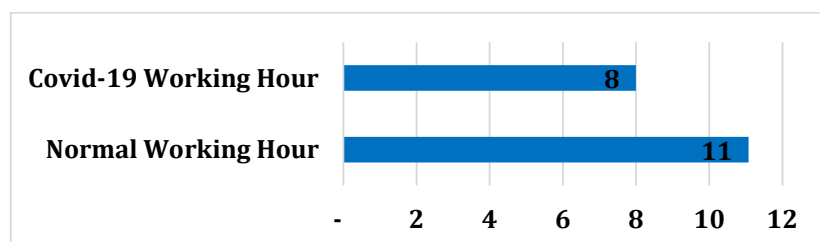


Figure 18: Comparison of Normal Working Hour & COVID Period Working Hour

Apart from concentrating on the above issues, they are also enquired about their living conditions and to understand how they coped up during covid-19 (full questionnaire annexed) and these were later used to create the hypothetical personas of RMG worker. Some of these questions are presented below:

- Whether you and your spouse both work? If yes, where does your spouse work?
- How many family members do you have or are dependent on you?
- Do you have any savings?
- Does your children go to school?
- Did you get to eat properly during Covid-19 period?
- Whether any of your close relative or known person died in Covid-19?
- Did you stayed in Dhaka, Bangladesh during Covid-19?
- How did you protect yourselves from Covid-19 – received free masks and/or free medicines and/or free hand washing or sanitizers, etc.?
- Did any other organization helped you with food or medicines during Covid-19 period?
- How was the behavior of the Owners of your factory?

The survey points out towards the fact that they were well provided with masks, gloves and sanitizers during the covid-19 periods. None of them or their known persons lost their jobs or lost lives during the pandemic. They could take care of their family members as well. It needs to be noted here that initially people were quite afraid of covid-19 and the number of death tolls in developed nations like Italy, UK and USA and even neighboring country like India, further intensified the fear and as such lockdown was imposed. However, it became unbearable for the poor to earn their living, export nosedived dramatically and Government had no other option but to open up the economy. Rather than keeping the economy closed, Government of Bangladesh put their effort on vaccinating the people and maintaining health and hygiene measures prescribed by World Health Organization (WHO) and other renowned international bodies. That was a blessing in disguise as now in hindsight we see that the death toll in Bangladesh was not that high and economy did not slump into a halt, though GDP growth was lower than earlier years, it did not go red.

3.6 Benchmarking

The following diagram (see figure 19) shows the monthly minimum wage of RMG workers in 2019 in comparison with some neighboring countries and supposedly apparel giants in the world:

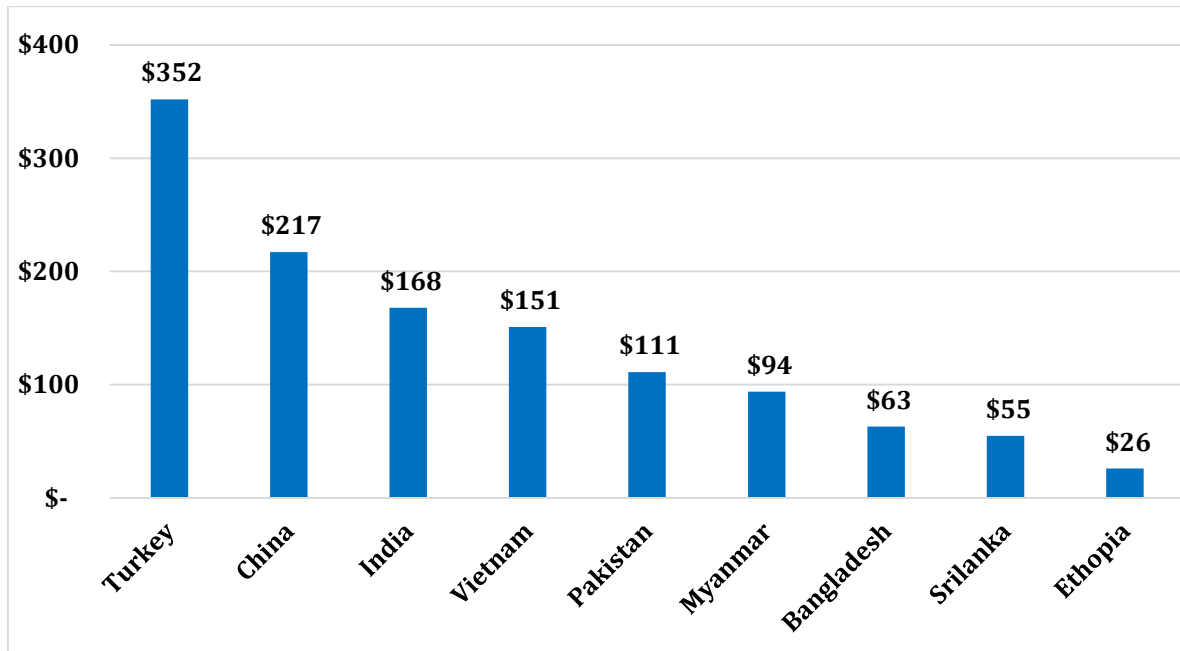


Figure 19: Monthly Minimum Wage of RMG Workers in 2019 (Minimum Wage Level for Garment Workers in the World, 2020)

International Labor Organization [ILO] defines minimum wage as-

“The minimum amount of remuneration that an employer is required to pay wage earners for the work performed during a given period, which cannot be reduced by collective agreement or an individual contract”.

In Bangladesh, Government forms Minimum Wage Board in every five years for the RMG sector to formulate wage structure for the workers. The board is generally led by a senior district judge as chairman accompanied by representative from both RMG owner and worker along with other independent members. (Ovi, 2019). It is to be noted here that, minimum wage level needs to be considered in conjunction with the living wage of that country. Living Wage generally refers to the income level that one needs to earn the country one is living to pay for their basic human needs such as food, clothing and shelter.

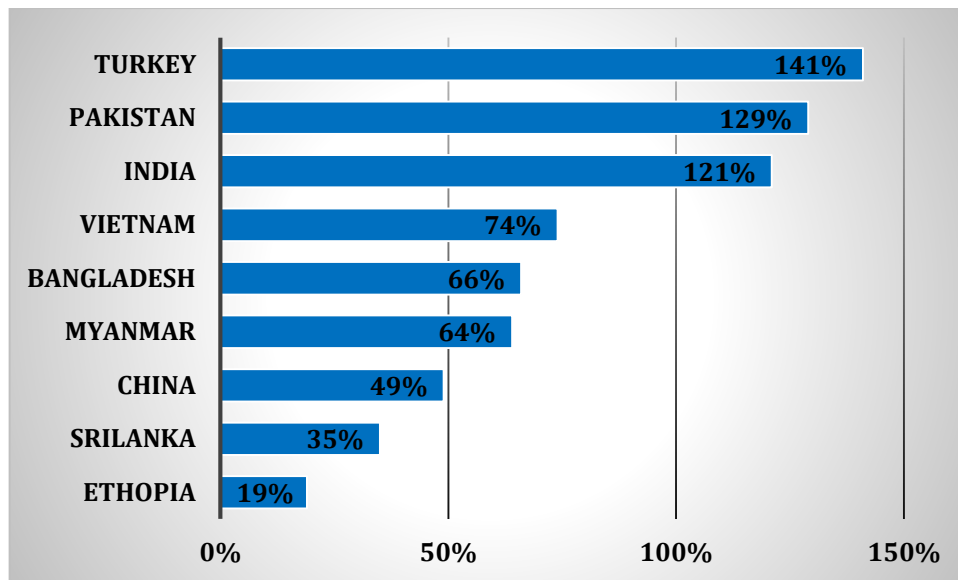


Figure 20: Minimum Wage of RMG Workers as % of Local Living Wage in 2018-19

Source: Minimum Wage Level for Garment Workers in the World, 2020

The following graph shows the monthly minimum wage level of all kinds of workers [not only RMG] in Bangladesh in comparison with the neighbors in 2019. The values are in Purchasing Power Parity and what it shows is quite obvious, amongst the neighbors Bangladeshi workers earn the lowest.

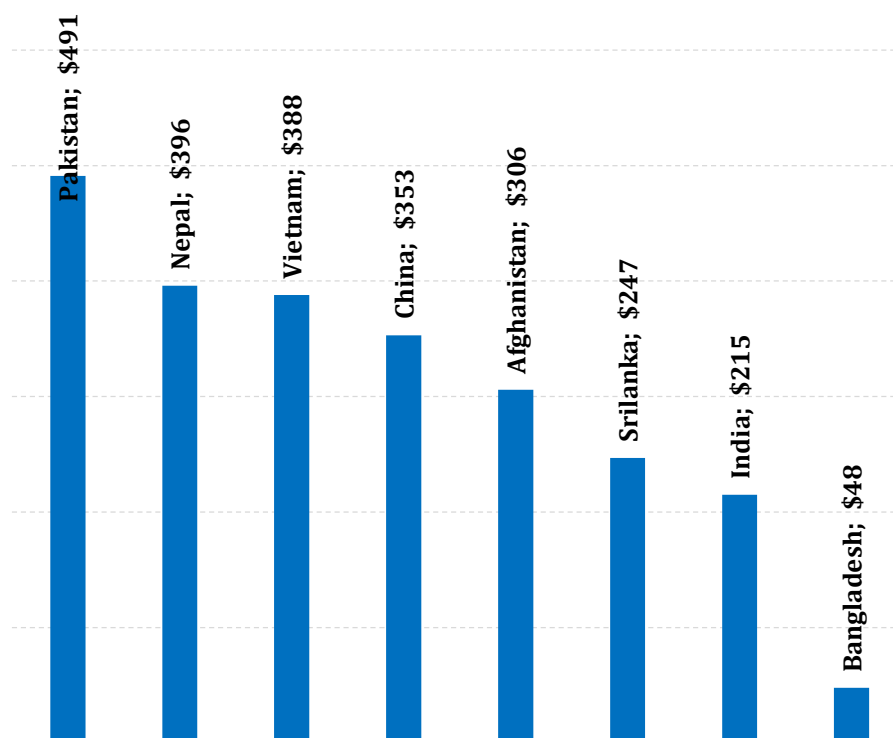


Figure 21: Monthly Minimum Wage Levels in Bangladesh & Selected Neighbors in 2019 [Values in Purchasing Power Parity] (ILO Report referred in The Business Standard, December 03, 2020)

According to The Economic Times:

“Purchasing Power Parity [PPP] aims to determine the adjustments needed to be made in the exchange rates of two currencies to make them at par with the purchasing power of each other. In other words, the expenditure on a similar commodity must be same in both currencies when accounted for exchange rate. The purchasing power of each currency is determined in the process. PPP is used worldwide to compare the income levels in different countries. PPP thus makes it easy to understand and interpret the data of each country.”

On the other hand, Asia Floor Wage Alliance conducted consumption survey on some Asian countries namely Bangladesh, Cambodia, India, Indonesia, Myanmar and Pakistan in early 2022. They estimated that Asia Floor Wage for 2022 will be 1,600 PPP\$ per month, which for Bangladesh will be around BDT 53,104.00 per month. It needs to be noted here that, PPP\$ is an imaginary World Bank currency built on the consumption of goods and services by people, allowing the standard of living between countries to be compared regardless of the national currency. (Asia Floor Wage Alliance, 2022).

Reasons behind Order Cancellation

Discussions regarding the reasons behind order cancellation/deferment from almost all of them points to the fact that the apparel industry, especially in Bangladesh, is dominated by the buyers themselves. Local manufacturers lack the bargaining power. Besides some pointed to the following facts:

- ↳ Weak negotiation power of the Bangladeshi Government
- ↳ Bonds among the garments manufacturers of Bangladesh is very fragile i.e. hardly have any collective bargaining power

Loopholes in the existing Ordering Mechanism

As most of the orders come in the form of sales contract [SC] and there is no set guideline of governing any SC. In absence of any 3rd Party in between the buyer and seller that enforceability is also very weak. Like LC, sales contract is not guided by any universally accepted set of Guidelines like UCPDC [Uniform Customs and Practice for Documentary Credits]. As such, it has its loopholes.

Sufficiency of Contribution Margin to bear their Operational Expenses

Contribution margin as a term refers to the sales price or revenue less the raw material expenses, with which the RMG manufacturer will bear the operational expenses like workers' wages and staff salary, utilities payment, asset depreciation, bank interest and charges, etc. In the discussion the owners agreed with the fact that the contribution margin they are getting now reflects the comparative disadvantage that Bangladeshi RMG owners has against that of their peers. The disadvantages are like longer lead-time, lack of product diversification, backward linkage, etc.

Impact of Lower Value Addition & Future Strategy

This part of the discussion was quite emotional as they were pointed towards different research report showing that in comparison with Vietnam, our apparel export growth to EU and USA is much slower [Berg, Chhparia, Hedrich and Magnus, 2021] and we have quite a lot of comparative disadvantages. One of them was rather emotional:

“Garments will never ever end in Bangladesh, it will always sustain, it is something where we are really good, that is why no one sector not a single one developed in last 50 years. There is only one strategy that is “keep manufacturing, keep branding”, we should do what we are best at rather than paying attention to unnecessary stuffs, this nation runs on garments and remittance, the heart and brain of the nation, so keep

this to running to keep the nation running, any of this failing will have severe consequences on the future sovereignty of the nation.”

It is quite true that these emotional private entrepreneurs were the key resources in driving Bangladesh to the stage that we are today. As has been mentioned in the earlier part, history of RMG in Bangladesh, the industry was pioneered by a few individuals and that has ultimately become not only the highest export earner by quite some distance but it has played a key role in women development and empowerment.

However, going back to the real issue, they know that taking appropriate steps to cover those disadvantages will certainly put the industry in a better position. But there will always be some disadvantages like that of lead-time because geographical positioning cannot be changed and others will also keep on improving. But they seemed to agree on the fact that, to maintain our core advantage i.e. cheap labor, we need to work more on the worker's productivity, not by paying the workers less. Workers need to be trained to increase skill level. Investments need to be made on automation, product and market diversification. The strategy got to be very simple i.e. invest more to decrease the deficiencies and to maintain the advantages.

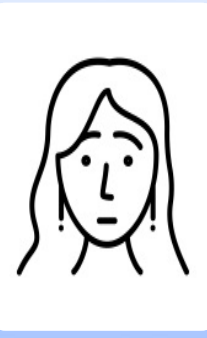
4.2 Personas

The word 'persona' comes from Greek and means 'mask'. Nilesen (2019) said, when we work with personas, we assume the mask of the users to understand their needs and walking in the user's shoes gives an idea about what their wishes are. Hypothetical personas of three RMG workers were created to understand their wants and needs.

It needs to be mentioned here, most RMG workers are illiterate and they are not aware of their position as such. They can only compare themselves with the people around them and as such not aware of those international standards or even some of the benefits they are entitled to get. All those research on living wage or purchasing power parity – they never heard about those thing. However, they seemed to be satisfied on the steps that were taken during pandemic and somewhat thankful that they at least got some payment when factories remained closed or running at a very low capacity. It also needs to be noted here that, even though labor is cheap in Bangladesh, factories do not want to lose their experienced workers. Over the years they have understood that productivity of an experienced worker is much higher and albeit the work is simple, coordination amongst the workers is very important.

Worth mentioning is the fact the production process of RMGs are assembly line and if one of them is slower than the others the total production line gets impacted. So, RMG factories do want to retain their existing workers as much as possible.

As has been said earlier, most of the RMG workers do not have sufficient educational qualification and many of them join RMGs at an early age, due to family pressure of becoming an earning member. The majority of RMG workers are female. On the basis of discussion with the RMG workers, three hypothetical personas were created as described below:

	<p>Persona 1: Name: Rojina Khatun Age: 18 years Education: Class Six Family: Lives alone with other co-workers, parents live in village Marital Status: Unmarried and no children Spouse's Occupation: Not applicable Work Experience: One year Designation: Junior Sewing Operator</p>
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What were you most Concerned About during Covid-19:

Response: Loosing job and thereby not being able to send money to my parents


Were you paid adequately during Covid-19?

Response: Payment was only 60% in the 1st month, when Factory remained closed. Then for a few months there was no overtime, salary got reduced.

What can the RMG Owners do for workers that will help you?

Response:

- Provide lunch
- Healthcare Support for my parents
- Job Security - pension



Persona 2:

Name: Abu Kawser

Age: 27 years

Education: Class Ten

Family: Lives in Dhaka with older brother & mother, father has passed away

Marital Status: Married but no children

Spouse's Occupation: Garments worker

Work Experience: Seven years

Designation: Line Operator

What were you most Concerned About during Covid-19:

Response: Job Security – whether Factory will remain open


Were you paid adequately during Covid-19?

Response: Payment was only 60% in the 1st month, when Factory remained closed. Then for a few months there was no overtime, salary got reduced.

What can the RMG Owners do for workers that will help you?

Response:

- Increase Salary
- Good Behavior
- Support during emergencies



Persona 3:

Name: Rashida Akhter

Age: 35 years

Education: None

Family: Lives in Dhaka with her family

Marital Status: Married with two children

Spouse's Occupation: Carpenter

Work Experience: Ten years

Designation: Sampleman

What were you most Concerned About during Covid-19:

Response: Me and my Family's Health

Were you paid adequately during Covid-19?

Response: Payment was only 60% in the 1st month, when Factory remained closed. Then for a few months there was no overtime, salary got reduced.

What can the RMG Owners do for workers that will help you?

Response:

- Job Security
- Support during Sickness
- Education Support for my Children

4.3 Affinity Diagram

My research required me to look into three main areas of Bangladeshi RMGs, such as

- Reasons behind low value addition or competitiveness of the Bangladeshi RMGs
- RMGs ordering process – pros and cons
- RMG workers' wages and benefits

Findings from the SWOT analysis, expert interviews, survey, brainstorming and benchmarking was further elaborated through focus group discussion and personas. By using the affinity diagram (shown below), I have organized the key findings according to the three main topics.

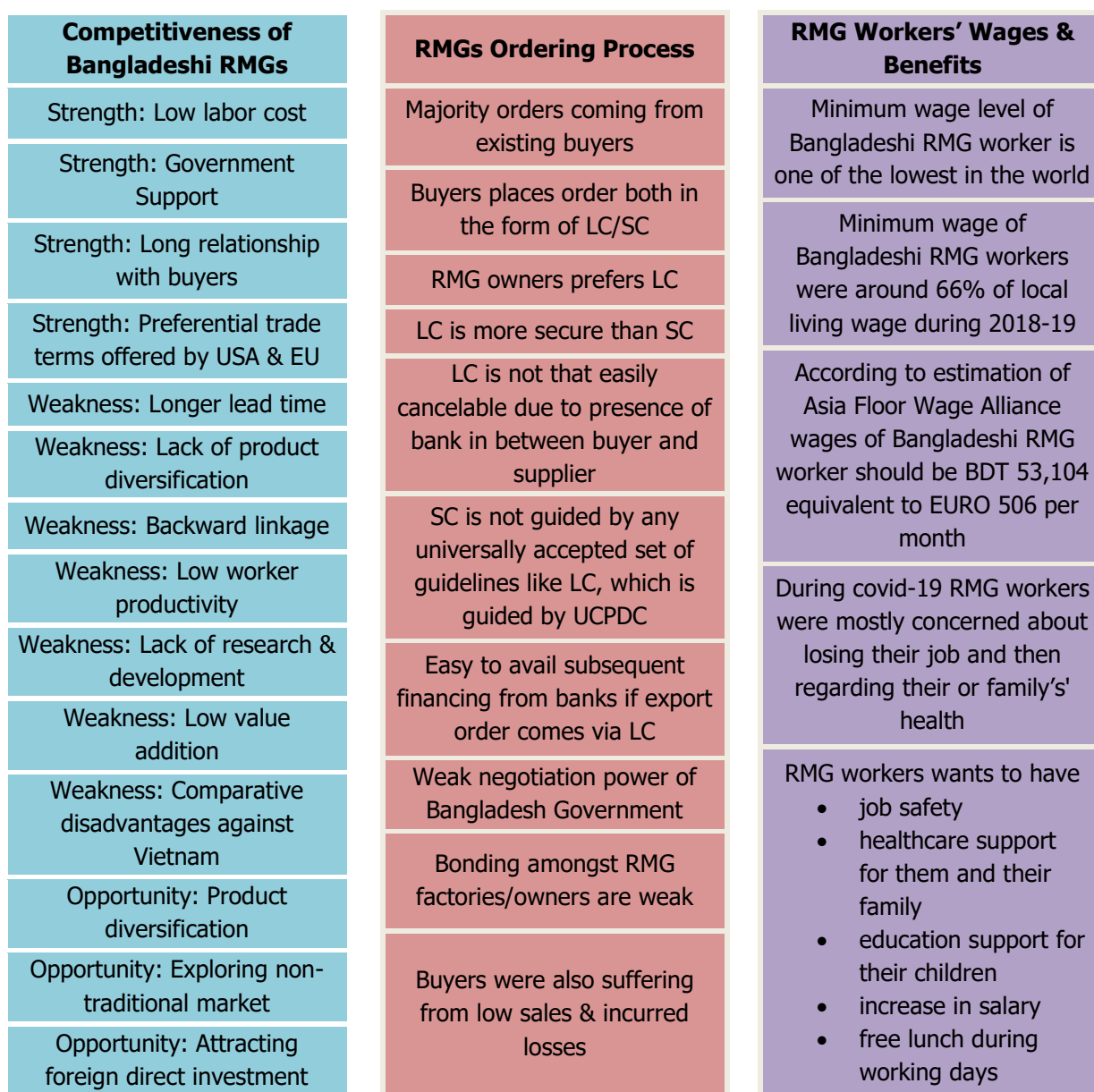


Figure 23: Affinity Diagram

4.4 Strategic Decision Making

As has been mentioned earlier strategic decision making is a combination of strategic foresight and strategic design. Before moving on to the ‘develop’ stage, it seems utmost important to understand the inbound changes coming from the external environment and identifying the opportunities to influence the future through outbound action. For Bangladesh, sustainability of RMG industry is critical. Not only for its contribution in export, but also for the fact that, it has played a key role in women empowerment. Decision needs to be taken strategically, by being abreast about the external challenges and by building on the core competencies.

Covid-19 was an isolated incidence in a province in China, if that could have been identified at an early stage, the world economy would have been in a much better shape. It came from nowhere and spread like anything – touching all lives rich or poor, children or old, male or female. But covid-19 also showed us that by being highly reliant only on the United States of America [USA] and European Union [EU], we are too exposed to concentration risk. On the other hand, it also showed that, the large retail brands – no matter how large or how old they are – they also have their own vulnerabilities. However, not all of them were that severely impacted and decided to take preemptive actions without thinking about the poor workers and to some extent their relatively poorer suppliers, who probably was with them for quite some time. Now is the time to prepare for the future and find ways so that similar situation is not repeated.

This is not the first time, Bangladeshi RMG industry is facing a setback. Multi Fibre Agreement [MFA] phase-out in 2004 was expected to cause a reduction of 18% RMG export, but that did not happen rather export in the subsequent year kept increasing [presented earlier in ‘History of RMG in Bangladesh’]. Then there was the fire incidence in Tazreen Fashions and Rana Plaza collapse in 2012 and 2013 respectively. Many lives were lost and that brought in ACCORD and ALLIANCE. They checked all RMGs and improved the building structures, fire safety measures and even the electrical wirings. Now, the RMG sector of Bangladesh has 171 US Green Building Council’s [USGBC] Leadership in Energy and Environmental Design [LEED] certified green factories, the highest in the world – fifty three [53] in the platinum category, one hundred four [104] in gold, ten [10] in silver and another four [4] LEED-certified factory buildings (Hossain, 2022). These turnarounds show that, Bangladeshis are quite resilient and if right steps are taken at the right time, it is not very difficult to reverse a disadvantageous position in to opportunities.

People are already talking about ‘fair price’ or ‘right price’ of garments. Farra (2020) wrote the following:

“Fabric, pattern-making, sampling, trims, sewing, handwork, packaging, duties, shipping: This is an incomplete list of what you’re paying for when you buy a new T-shirt. And that’s before a wholesale markup (i.e., the profit a brand makes on the item) or the additional retail markup if you’re buying it in a store. Read that again, and the idea of a T-shirt being “worth” \$5 might seem preposterous, if not criminal. How is it possible that all of those materials, logistics, and people amount to just dollars or cents? Many of those costs are fixed; the price of cotton isn’t negotiable, even at scale. The person who made the T-shirt, on the other hand, is a lot easier to exploit. Fast fashion’s exploitation and hidden supply chains aren’t new revelations, but when we talk about the mistreated workers or the environmental impact of disposable clothes, we’re ignoring a third impact on the consumer. The “race to the bottom” has totally ruined our perception of value; we literally have no idea what our clothes (or food, or anything else) should cost, and low prices have become so normalized that we don’t even second-guess them.”

Now, there is this war between Russia-Ukraine, increase in oil price is fueling inflation all over the world. Ukraine was known as the ‘breadbasket of Europe’ (Think Tank, 2022). They also reported the following:

“Fears of an unprecedented global food crisis similar to, or even worse than, the 2007-2008 crisis have mounted, magnifying ripple effects for security, migration and political instability. The supply shock provoked by the blockade of Ukrainian exports, coupled with record price levels for energy and basic commodities, led several nations to adopt export restrictions, fuelling market shocks and speculative operations, leading to unpredictability in global food supply.”

World Bank (2022) in a report on the impact of the war states that-

“The global economy continues to be weakened by the war through significant disruptions in trade and food and fuel price shocks, all of which are contributing to high inflation and subsequent tightening in global financing conditions. Activity in the euro area, the largest economic partner for emerging and developing economies (EMDEs) of Europe and Central Asia, has deteriorated markedly in the second half of 2022, due to distressed supply chains, increased financial strains and declines in

consumer and business confidence. The most damaging effects of the invasion, however, are surging energy prices amid large reductions in Russian energy supply.”

Bangladeshi currency ‘Taka’ depreciated by almost 10.08% against USD till June 2022 and inflation at the end of June 2022 was 7.56% (Alam & Hossain, 2022).

As far as strategic foresight is concerned, I think the coming days will be tough at least in the short term. However, people becoming aware of the right price of garments, becoming conscious about environmental impact of all those dyeing and washing of garments or the works of the worker centric organizations like Clean Clothes Campaign or Asia Floor Wage Alliance shows that things are not that bad either. However, to move forward all parties that we are discussing about – buyers, RMG factory owners and RMG workers has to work closely and concentrating on the following from the point of view of an RMG factory owner and buyer or international retail brand will be beneficial:

- Focus for the RMG factory owners has to be on
 - Increasing the skill level of the workers to increase their productivity and they have to take steps to ensure workers are well compensated
 - More investment needs to be on research and development for increasing value addition and product diversification
 - Designing an ordering process that will not benefit the RMG owners only but also shields the buyers from unnecessary risks
- Focus for the buyers or international retail brands needs to be on
 - The understanding that they cannot just go and cancel any order that is in the middle of being produced. Their actions have consequences over RMG factories or other backward linkage factories and especially on the workers.
 - The right price of a garments needs to be paid in order to ensure that the end of the chain RMG workers gets to earn a living wage

5 Way Forward – Develop

Covid-19 affected all lives and businesses around the world. The international brands or retailers also suffered a lot, as economic activities dropped amid lockdown to prevent piling death tolls. So, it is not that the brands cancelled/deferred their orders without having any valid reasons, but at the same time not all of them were as affected as others. Those renegeing on their commitments could have had severe impact on a RMG Worker living in a least developed country like Bangladesh with minimal expectations and as such ways needs to be unearthed to better handle any future pandemic. In this stage, the aim is to move towards ways of finding solutions to the problems that has been defined in a clearer manner.

5.1 Service Blueprint

A service blueprint, showing how a buyer interacts with different departments of RMG factories, is presented in the next page (see figure 24). In order to design an innovative ordering mechanism, it is imperative to know how the buyers interact with the RMG factories and what steps the RMG factories take in turn. The activities in reality gets further subdivided, especially that in the production department of the RMG factory. For example, to sew the garments, fabrics need to be cut according to design requirement, and cutting is altogether a different process – different sets of people gets involved in that. However, the thing that needs to be remembered is – once the fabric gets cut, it is very likely that the fabrics cannot be used for any other purpose than sewing the desired garment. But before cutting, there remains some scope of using the fabric for something else other than the garments that was desired to be sewed.

On the other hand, fabric manufacturers or the other raw materials and accessories suppliers often prepares or manufacture customized product such as fabric construction, color, etc. and specific quantity for any specific order. In actuality, by issuing the export order the buyer initiates a chain of events and it ends with the buyer receiving the goods/products. Then when the buyer pays the RMG factories, the money gradually trickles down to all the raw materials and accessories suppliers, the service providers and all workers and staffs involved with the process.

As has been shown in the diagram below, commercial department upon receiving export order, either Letter of Credit [LC] or Sales/Export Contract [SC], from the buyer will take steps to procure raw materials (RM) and there a similar process might take place within that

raw material supplier's factory or organization and RMG factories in that case will take up the role of the buyer. It needs to be noted here that, interaction patterns in that case is expected to be similar and that will help us to design the ordering process, which will ensure transparency and accountability of all parties involved in the overall process.

Moreover, even under one department there can be multiple units who looks after different aspects or takes care of different parts of activities. For example, under production depart there can be separate cutting, sewing, quality inspection, finishing and industrial engineering or planning unit. Besides that, raw material (RM) procurement does not only mean fabric; there are different kinds of accessories, packaging items that needs to be procured from multiple suppliers. Even different types of fabrics sometimes need to be procured from different suppliers. Layers of physical unit and number of interactions will be much higher in reality. That nitty-gritty has not been shown here, to keep the diagram simple and understandable for everyone.

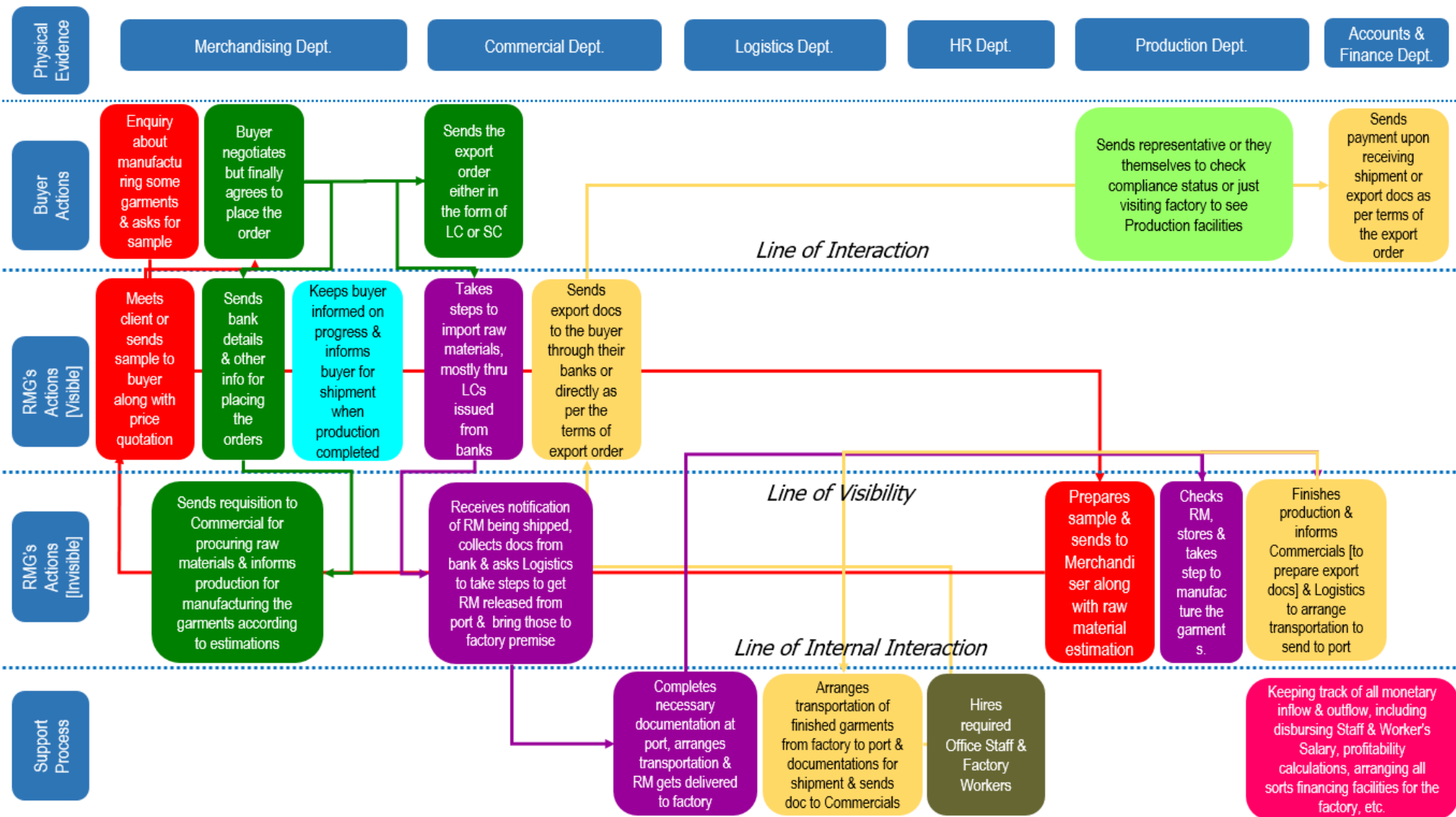


Figure 24: Service Blueprint of buyer's interaction with different departments of RMG Factories

5.1 Brainstorming

The second brainstorming session of the three RMG owners were arranged to ideate the probable solutions and issues with the ordering process. It would have been better, if we could bring the buyers/retailers and the suppliers in the same forum to discuss on different ideas or things that could be done differently, which will ensure everyone gets paid justly for their involvements without any prejudice and without increasing the cost of doing business significantly. But we only had the RMG owners on the table and as such, they were asked to think what could be done to ease their problem and also think about the pros and cons of that solution.

After much discussion amongst themselves, they came up with the following ideas along with the pros and cons of those, which has been summarized in the figure below:

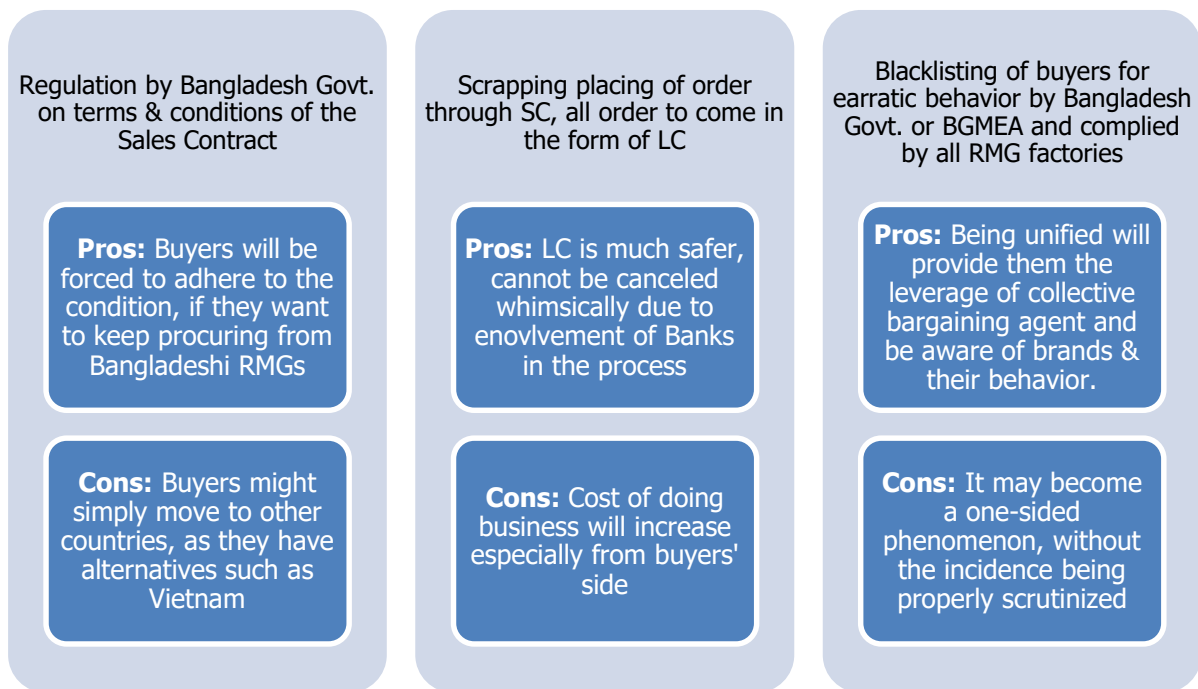


Figure 25: Brainstorming results in finding a better ordering process

The ideas that were generated by the RMG owners had some good side and some bad side and mostly they wanted to do things unilaterally. As such, they were requested to think differently with a view to making the ordering process transparent and accountable, for both the buyer and the RMG owner (they themselves). I then introduced my idea on the issue with a basic understanding of fixing whose liability starts at what point. For example-

Day 1: Buyer has placed an Export Order of USD 1.00 million to RMG, which is to be shipped to his preferred location in 120 days;

Day 10: Buyer finds that Sales is slow and he doesn't want to go forward with the order

Now, buyer needs to inquire with the RMG, whether they have purchased the raw materials [RM] or placed subsequent orders for raw materials. If they have purchased the RMs that cost plus a compensation needs to be paid by the buyer. If they have only placed subsequent orders, the actual status needs to be checked in a similar fashion to understand how much payment is obligated. If no steps had been taken by the RMG owner, brand/buyer may only pay a compensation for the opportunity cost or the cost of marketing and probable utilization of factory spaces at least. This last bit can be of a mutually agreed rate, which can be stipulated in the terms & conditions of first order itself or may be taken to an arbitration body. On the other hand, if the supplier does not take actions according to the terms and conditions and buyer incurs losses for that, the RMG owner has to bear those expenses. With this concept in mind, designing an ordering process by using blockchain technology was proposed.

After this discussion, a 30 minutes break was allowed for the participants and they were informed that the next session expected to be short. In the last session, brainstorming on the value addition issue will be discussed. It is to be noted here that, increasing value addition cannot be a short term project. However, after the break when everybody gathered again, I asked the RMG owners to think about the competitive advantage and disadvantage of Bangladesh RMG sector. The SWOT analysis diagram was there, shining brightly to remind us of what we are dealing with.

As has been mentioned earlier, RMG owners knows the fact that some of the competitive disadvantages that Bangladeshi RMGs have might remain there forever like that of production lead-time [time required from receiving an export order to ultimately deliver the product to importers country], which is due to our geographical position, until and unless India becomes the largest importing country of Bangladeshi RMG. Building a deep sea port may shorten the lead-time but that requires huge investment and a function of Bangladesh Government. On the other hand, value addition actually differs from product to product – if it is a denim product, value addition is relatively higher than that of woven items such as formal shirt or pant; as Bangladesh has some good textile industries, which produce quality denim fabrics. But most of the fabrics for woven items are imported and significant investment on textiles as well as research and development has to be made to manufacture quality woven fabrics. Value addition in cotton knit items such as T-shirt is also relatively higher than woven garment. This is so as there are a huge number of composite knit garments

factories in Bangladesh. The procures the yarn, then knits it make the fabric, dyes it, washes it and finally cuts and sews it. Hence, the value addition is higher against knit garments export. So, it seemed that not much is within the reach of the RMG owners to change the game. Obviously they discussed about investing on automation or procuring modern machines or investing on factory workers to improve their productivity. But that is an ongoing process. They also discussed about the ‘fair price’ [as discussed in the ‘Strategic Decision Making’] issue and they felt that until the ultimate consumers or users becomes conscious, buyers are not likely to change.

5.2 Role Expectation Mapping

I have earlier discussed with the RMG workers about their expectation from the RMG owners for creating their personas. However, for mapping the expectations of the RMG workers and RMG owners, especially from one another [workers expectation from owners and owner’s expectation from workers] a workshop was organized. Two RMG owners and four RMG workers joined the session. At first, the owners and the workers were divided in two groups and they were allowed around twenty minutes to discuss and list down their expectations from their counterpart and the groups of RMG owners and RMG Workers listed the following:

RMG Owner’s Expectations from RMG Workers		RMG Worker’s Expectations from RMG Owners	
Quantitative	Qualitative	Payment related	Safety related
Higher Production	Commitment	Increasing Salary	Healthcare support
Error Free Production	No riot or destruction, if any dispute arises	Profit Bonus or Sharing [other than festival bonus]	No bullying/harrasment in workplace
Skill Development		Pension/Gratuity	Not more than 3-hours overtime

Figure 26: Expectation Maps of RMG Owners and RMG Workers

Later, a general discussion session amongst the RMG owners and RMG workers were conducted to discuss about these expectations and identifying deliverables. I moderated the session. Worth mentioning, the RMG workers generally has very little bargaining power and presence of collective bargaining agents, like trade union, is often not allowed. Whenever, dispute arises either due to non-payment of wages on time and as agreed or due to

mishandling of their right or sudden sacking from the job, they resort to vandalism. On the other hand, higher production or production efficiency depends on the experience and skill level of the workers – not only one or two, generally the whole line. As has been mentioned before, RMGs especially, the sewing department works like an assembly line. It is the job of the line supervisors or industrial engineers to synchronize the overall process to maximize output. Keeping these issues in mind, the expectations were discussed to reach a common understanding of expectation from one another and the deliverables are:

- RMG workers informed the owners that they generally work very hard and when they are in the factory, they are hardly given any leeway. On the other hand, skill development is not in their hand, they need proper trainings for that and RMG owners ensure that they will take steps to arrange training for the skill development of the workers thereby increasing productivity.
- Commitment, on the other hand, is a different issue. RMG workers tend to switch their job a lot. Moreover, it has often been observed that they often do not come back to work on due time after festival holidays. The workers assured that they will work on this issue and also request their fellow colleagues to comply, subject to the fact that their expectations are met.

Expectations of the RMG owners from their workers, in reality are basically qualitative and they themselves are actually in the best position to control/streamline those issues. Job hopping seems natural to me – anyone will strive to earn more. Besides that, to increase production they need to invest in new technology or machines and train their workers. After discussing the expectations of the RMG Owners snacks were served and the next part started after ten minutes. This is where I get more involved as I wanted to ensure that the workers gets something at least, which will help them in future.

- The RMG owners right away declined to increase workers' wages and salaries. They pointed to the fact that the export orders are decreasing and their buyers are not increasing the price; even though due to war and pandemic raw material prices and transportation costs are increasing.
- Regarding profit bonus or profit sharing, the owners sighted the same reasons and showed unwillingness to do anything about that. However, I reminded them about section 234 of the Bangladesh Labor Act 2006; as per law, companies are required

to establish Workers' Profit Participation Fund [WPPF] and Workers' Welfare Fund [WWF]. Hearing that, they informed us they will discuss the issue with their lawyers and get back later.

- Regarding pension/gratuity, the RMG owners pointed out that there is some sort of pension/gratuity there upon serving a certain years and assured the workers that they will instruct their Human Resource [HR] department to inform the workers the details of those rules.
- Healthcare support for me was the key issue, which can be most beneficial for the worker amid this kind of pandemic or in case of personal health related emergencies. The RMG owners pointed to the fact that there is no health insurance for the RMG workers – practice of having insurance is very minimal in Bangladesh. Adding health insurance as a service benefit may provide a great support in times of need. Again it needs to be mentioned here that, insurances generally may not cover such pandemic, but it should be designed in such a manner that this issue is taken care of. Detail modalities, like coverage amount, scope of the insurance or premium cost, of the insurance might be discussed later. RMG owners seems to have an assertion that the premium payment will be made by them under a group insurance policy and they might themselves look into the issue through discussion with different insurance company that are available in Bangladesh.

So, to summarize this stage and move on to 'deliver', the plan is to prepare prototype of the ordering process to be designed, which is expected to deliver us with the tool – a platform that is transparent and allows to fix accountability. Neither the buyer nor the supplier will be able to shy away from their responsibility and do things whimsically just to save their own skin.

6 Way Forward – Deliver

The ideas that have been developed in the earlier stage need to be delivered, prototype needs to be prepared and tested. The idea is to design the ordering process by using a platform, much like the enterprise resource planning software, for the buyers and sellers along with their interrelated parties. It needs to be designed in such a manner that, each transaction gets documented. Buyer/importer, seller/manufacture and all their interrelated parties will have access to that software and whenever one initiates any transaction the other related parties gets informed, even though all the parties might not have any deliverable at that stage. However, I am not a software developer and the RMG owners were not either and hence the entire scenario of how the ordering platform will work was presented to them as a scenario through the following:

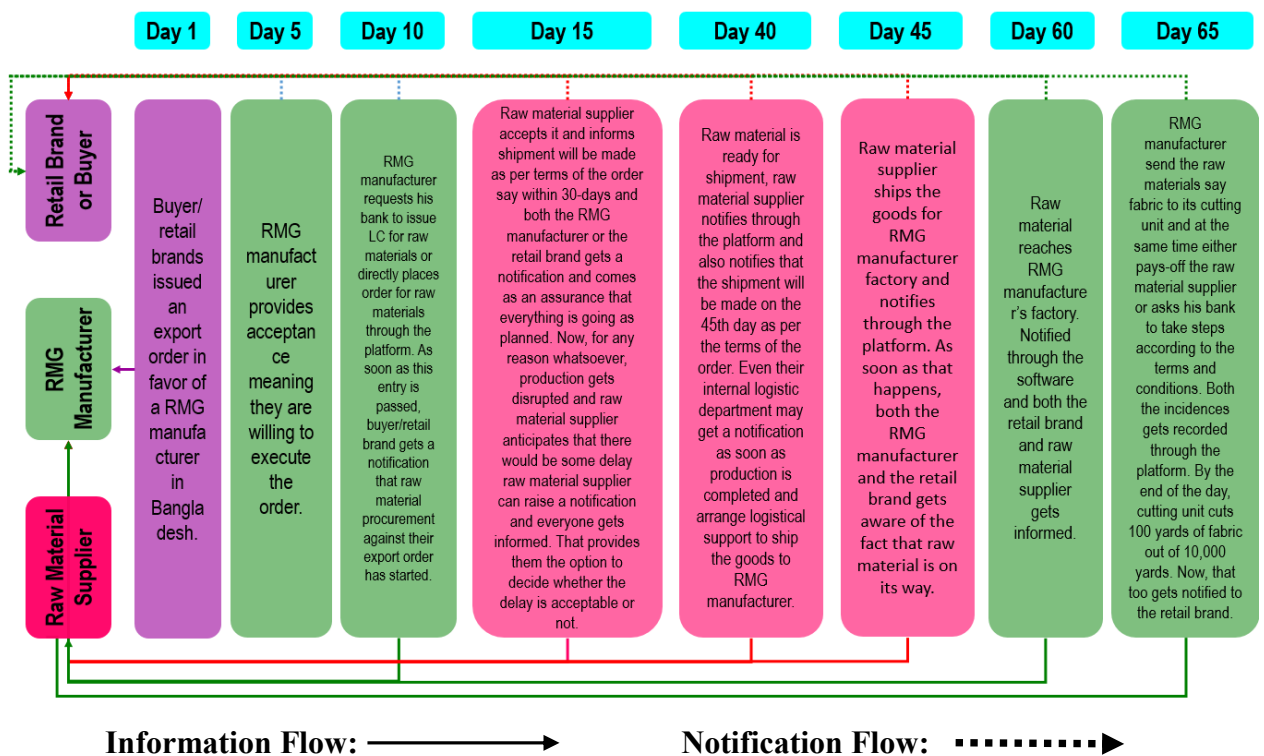


Figure 27: Visualization of the Ordering Process Platform [also appendix 4]

Day-wise different steps is presented in the next page again for better understanding and reading clearly.

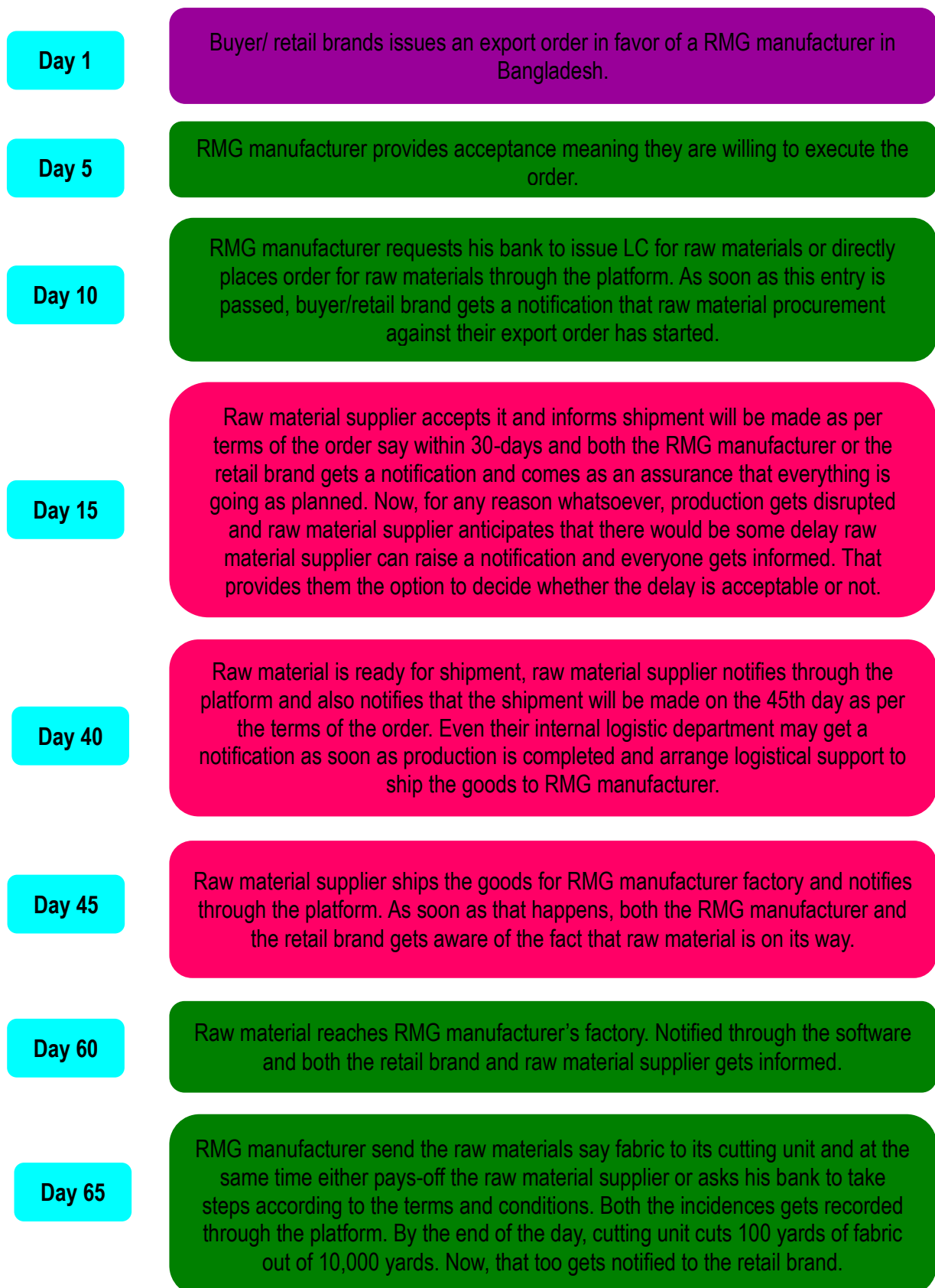


Figure 28: Day-wise detail activities of the Ordering Process Platform

In this way, all the interrelated parties will be aware of each development no matter how small that may be. Any disruption will get notified and related parties can take action accordingly. Compensations can be fixed later depending on the situation and according to the terms and conditions between different parties. Now, obviously developing such a platform or software will be costly but if developed universally, the cost of the platform is not likely to be very high in comparison with the benefit that it can provide.

On the other hand, even after designing such a platform some sort of governing body will be required, preferably an international forum consisting of representatives of all the stakeholders like buyers, suppliers, government representatives, and renowned personalities, etc. Their main responsibility would be to resolve conflict and formulating the rules of engagement or setting standards.

7 Conclusion

RMGs constitute about 85% of Bangladesh's export earnings and RMGs contribution in gross domestic product [GDP] is around 20%. As such it is no wonder that RMG is the most important industrial sector in Bangladesh. But when the covid-19 pandemic spread through the world, many countries went for lockdown, economic activities slowed and demand for apparels decelerated at an alarming pace. Many retail giants faltered and many others either cancelled or deferred their export orders that were already in the process of being manufactured in different sourcing countries or manufacturers. Large global brands retracting from their commitments of taking goods tailor-made for them at the at the last minute puts any RMG manufacturer in a precarious situation as they have already invested significant amount to manufacture them - at whatever stage they may be. Many of the RMG owners were not in a position to pay their workers. However, Bangladesh Government declared stimulus packages, specifically for paying the workers' salaries of the export oriented concerns. This, to some extent, prompted me to do the research on the RMG industries of Bangladesh, especially on finding the reasons of how could those retail brands cancel or defer ongoing export orders that easily.

The first research question was

“What is the current practice of securing export orders from international brand/buyers? What form do they receive the export orders?”

The research showed that, export orders come in the form of letter of credit [LC], sales contract [SC] or a combination of both [initially buyer sends SC and prior to shipment that SC gets replaced by LC]. Main difference between the LC and SC is the presence of a bank or financial institution. In LC, payment is guaranteed by a bank or financial institution. If the exporter is able to make the export to the buyer, in compliance with the agreed upon terms and conditions between them and there is proper documentary support, then payment will be made by the bank or financial institution – whether the buyer wants or not and even if the buyer becomes bankrupt. But there is costs associated with issuing export order in the form of LC and as such buyers generally tries to do business through SC. So, when the covid-19 induced economic downfall hit the buyers, they started calling off those exports. Other than taking legal action in the buyers country of origin, the exporters had very little to do.

On the other hand, any global brands may go bankrupt or incur losses that forces them to suspend their operation. Buyers have stopped issuing letter of credits [LC] to decrease their costs and they could do so as they had and have more bargaining power than those suppliers

of Bangladesh. However, these RMG suppliers of Bangladesh cannot purchase the raw materials from China or India or Turkey i.e. other textile, machineries or accessories supplier without issuing LC through banks, which meant they had no option to backtrack or cancelling that payment. Keeping all these issues in mind ideas were promulgated to develop transparent and accountable process, which will be beneficial for all the parties involved.

So, that answers the first part of second research question, which was

“What kinds of features/aspects should there be in an ideal ordering mechanism from the perspective of an RMG supplier? Whether those could be incorporated to design an innovative ordering process which could better protect both the importer and exporter, without increasing the cost of doing business?”

The second part of the second research question will be answered later and now have a look at the third research question, which was

“What is the existing level of value addition and what steps can the RMGs in Bangladesh take to increase their value addition and/or product offering?”

In the research, I tried to understand comparative advantages and disadvantages of the RMG industry in Bangladesh. Even though Bangladesh is the second largest RMG exporter in the world, the industry generally has not progressed beyond cutting and sewing of basic items, with relatively little value addition and as such profits are minimum. Even the RMG owners think that cheap labor is their biggest competitive advantage. Whereas, no such significant steps has been taken to turn those cheap labors in skilled labors. Besides, the backward linkage factories has not developed much in Bangladesh. As a result, a major part of those export proceeds needs to be used for raw material procurement. On the other hand, not having a deep sea port coupled by this two way shipment [raw material procurement and finished goods export] means production lead-time is much higher than the competitors. Research and development is another stumbling block. So, even to maintain its current position, steps need to be taken on these fronts. Significant investment and time will be required to overcome majority of those difficulties. However, one thing that can be done with relatively less investment and time, is developing those cheap labors into skilled labor.

The fourth research question was

“What steps can be taken to mitigate the sufferings of RMG workers, especially for any future pandemic or calamities or unforeseen incidents even in their personal life?”

Historically, RMG industry got developed in areas, which could provide cheap labor. Bangladesh being a densely populated least developed country has abundance of cheap labor. Different research and publications on the wages and benefits of the RMG workers showed that, Bangladeshi RMG workers are one of the lowest paid, minimum wage level in Bangladesh is USD 63, whereas in Turkey it is USD 352 and the minimum wage level for the RMG workers in Bangladesh is around 66% of local living wage. But, the RMG owners are not in a position to increase the wages and benefits of their works. Another research showed that only about 2.18% of a Zara Hoodie, which is priced EURO 26.66, gets spent as workers' wages and benefits. If the worker or any of his/her family member becomes sick, neither the Government nor the factory will provide any support. These workers have no health insurance or supports like that. As such, the RMG owners pointed to that fact and assured that they will work on arranging health insurance facilities for their workers.

Coming back to the issues on where it all started – cancellation or deferment of ongoing export orders by the retail brands. In those early months of 2020, when many European countries went for lockdown to minimize the spread on covid-19 virus, Bangladeshi RMG owners were staring at the cancellation or deferment notices sent by their buyers/international retail brand. Buyers not thinking about their long time supplier or their workers, was an unprecedented event. That's why, I along with the participating RMG owners by using the service design methods designed an innovative ordering mechanism, which will make the ordering process more transparent and make all parties accountable for their actions, without involving any costly third party like, bank or financial institution.

Main ideology behind the design was to fix whose liability starts from what point. With this in mind, I designed a platform much like the enterprise resource planning software that many companies use. The buyers, the manufacturers and even the raw material or other accessories suppliers or service providers of the RMG manufacturer, will have access to that platform. Any action taken by any related party, all others will get a notification even though they may not have any deliverables at that stage. For example,

On day 1, an RMG manufacturer receives an export order from a retail brand in Ukraine and the manufacturer accepts the order.

On day 5, the RMG manufacturer takes step to collect the raw materials – fabric, accessories, etc. and on day 30, receives all the materials.

On day 35, Russia attacks Ukraine and the retail brand wants to cancel the order. Now, if they are to cancel the order, they have to pay for the raw materials that has already been procure and the contribution margin that the manufacturer was expecting to make from this export. To put simply, contribution margin is the difference between the selling price and cost of the raw materials.

Obviously, in reality much more nitty-gritties has to be covered. So that answers the second part of the second research question, which was

Whether those could be incorporated to design an innovative ordering process which could better protect both the importer and exporter, without increasing the cost of doing business?"

It would have been ideal, if I could include some representative from the retail brands in the research process, especially any buyers of the participating RMG manufacturers. Their inputs would have been a valuable addition to the research. However, even though I tried to contact, even with the help of the RMG factories, they did not show any interest. On the other hand, doing a research on Bangladeshi RMG, being in Finland, was quite difficult.

I believe the ordering mechanism that has been ideated, will be able to bring in positive changes in the way of doing business. To implement it in real life significant investment would be needed and to design the software, all the related parties has to get involved. May be Bangladesh Government or the association of the RMG manufacturers namely BGMEA [Bangladesh Garment Manufacturers and Exporters Association] can undertake such initiative.

The covid-19 pandemic followed by the Russia-Ukraine war is making the world suffer a lot. World economy has slowed, inflations rising and Reuters referring to UBS (2022) reports that Eurozone is heading towards 'stagflation' as efforts to slow down inflation will bring down growth to a near halt. Even amid this huge uncertainties, steps needs to be taken and all parties involved with the supply chain of this humongous apparel industry need to work hand in hand for the ultimate benefit of the humanity.

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Appendix 1: Expert Interview Questions for RMG Owners

- What is the current practice of securing export orders from international brand/buyers? And what form they receive do they receive the export orders?
- What could be done in future so that brands/buyers cannot backtrack after placing any Export Order without increasing the cost of doing business
- What steps can the RMGs in Bangladesh take to increase their value addition and/or product offering?
- What steps can be taken to mitigate the sufferings of RMG workers especially for any future pandemic or calamities or unforeseen incidents even in their personal life?
- How do you source Export Orders for your Factory now-a-days in case of both existing and new/potential?
 - Direct Marketing
 - Physical Meeting with the Buyers
 - Participating in Different Fairs and Exhibitions
 - Sending Factory brochures or other details over mail
 - Through Buying Houses i.e. middleman, who sources orders from Different Buyers
 - Reference from Other Peer Factories, Existing Buyers, etc.
 - Hiring executives or officials from other peers who supposedly have good access with international brands
- What percentage of your order that you are processing now is from existing Buyers i.e. more than 1-years relationship?
- What is the form of these Export Orders – Irrevocable Letter of Credit [LC] or Export/Sales Contract? Please let us know approximately how much of export [in percentage term] that you have made in FY 2021-22 was against LC and how much against Sales Contract?
- What form of Export Order i.e. LC or Sales Contract do you prefer? Please provide 3-main reasons.
- During COVID 19 Pandemic did any of your Buyers cancelled Export Order?
 - If yes, in which form this order was i.e. LC or Sales Contract?
 - If no, did they defer any shipment? If yes, for how long?
 - What was the impact i.e. how much did you lose during those initial months of COVID 19 say for March 2020 till June 2020?

- How did you manage i.e. paying Worker's and Staff Salary and other Operational Expenses?
- As you know, RMG Export contributes more than 80% of Bangladesh's Export Earning and being an import dependent developing country importance of RMG Export is huge. What do you think the competitive edge of you and/or peer factories in Bangladesh – is it solely Cheap Labor or is there any other factors. Please identify few other factors and assign percentage of impact, as shown below:
 - Cheap Labor : _____%
 - : _____%
 - : _____%
 - : _____%
 - : _____%
- How do you think the COVID 19 Pandemic affected your Workers, especially in those early few months?

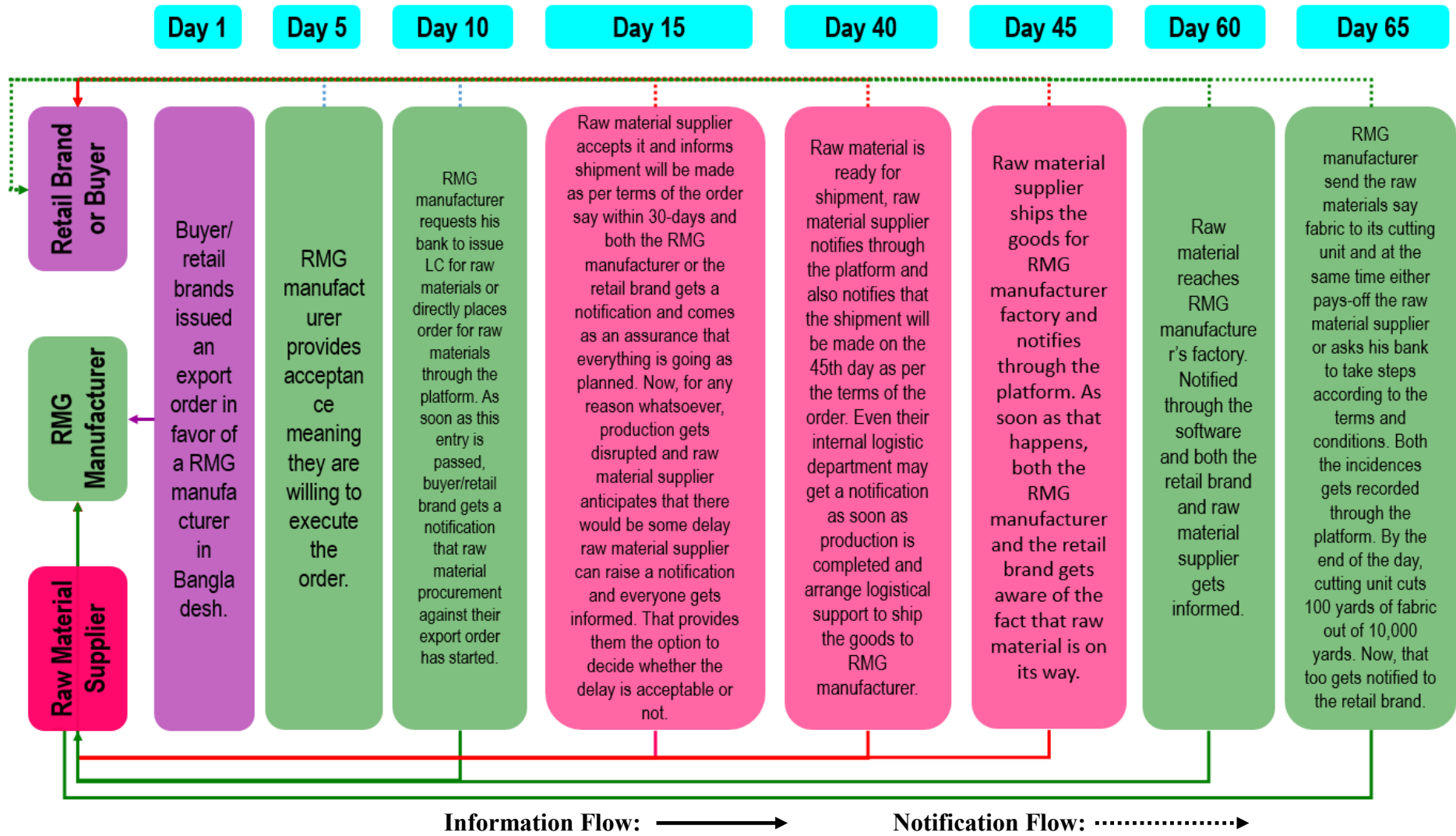
Appendix 2: Survey questions for RMG workers

- Identification: Name and Age
- For how many years you are working in RMG Factories?
- Whether you and your spouse both work? If yes, where does your spouse work?
- How many family members do you have or are dependent on you?
- How much Salary/Wage you get now a days on an average?
- How much Salary/Wage did you get during the Covid-19 period on an average?
- How many hours do you work now on each day on an average?
- How many hours did you work during Covid-19 periods on each day on an average?
- Did you do any other work during Covid-19 period?
- Do you have any savings?
- Does your children go to school?
- Did you get to eat properly during Covid-19 period?
- Whether any of your close relative or known person died in Covid-19?
- Did you stayed in Dhaka, Bangladesh during Covid-19?
- Did any of your colleague or co-worker lost job during Covid-19?
- Did you get your salary during Covid-19 period?
- How did you protect yourselves from Covid-19 – received free masks and/or free medicines and/or free hand washing or sanitizers, etc.?
- Did any other organization helped you with food or medicines during Covid-19 period?
- When factory remained closed how much of the actual salary did you receive?
- How was the behavior of the Owners of your factory?

Appendix 3: Focus Group Discussion questions for RMG Owners

- Even if your buyer didn't cancel any Export Order there was widespread allegations that many international brands cancelled their Export Orders initially, though many of those was later replaced, irrespective of on what stage their production was. What do you think enabled them to backtrack on their commitments, when factories have already invested heavily on manufacturing those orders?
- Is there any loophole in the way the Export Orders are placed now i.e. in the form like the LC or the Sales Contract or in the terms and conditions of those contracts?
- Do you think the Contribution Margins [Sales Revenue – Raw Material Consumption] that you make on manufacturing these RMGs are sufficient to pay-off the other related Operating Expenses i.e. Worker's Wages and Staff Salary, Utilities, Bank Interest Charges, etc. and then make sufficient return on investment? If not, please identify the major reasons and what is your suggestion to overcome those issues/factors.
 - Skill Level of the Workers
 -
- Do you agree that 'Lower Value Addition' in other word 'Lower Contribution Margins' is a major impediment or concern for RMGs in Bangladesh and ultimately is the summation of all those above factors that you have mentioned?
- What steps can be taken to ensure that in the event of Covid-19 like incidences in future, the effect on the workers or staff would be minimal or even unforeseen incidents in their personal life?

Appendix 4: Visualization of the Ordering Process Platform



Appendix 5: Makeup of the Price of a Zara Hoody

What makes up the price of a Zara hoody

How much respect is there for fair wages in Zara's 'Respect' hoody? Given that Zara's parent company Inditex does not disclose wages or purchase prices for production, we put together our own detailed estimate of the breakdown of the price of a jumper – from the cotton fields to the shops, including the fabric manufacturing and the production of the hoody.

Profit vs. wages



+ 3.62 €
That's how much more would be needed per hoody to pay workers involved in the production process living wages.

- VAT. 4.44 €
- Profit Inditex/Zara 4.20 €
- Costs Inditex/Zara 10.26 €
- Sourcing agency 0.71 €
- Printer 0.17 €
- Textile factory 1.53 €
- Fabric factory 4.13 €
- Spinning plant 0.55 €
- Separating fibers from seeds 0.42 €
- Cotton farming 0.26 €

Average retail price

Zara's prices vary greatly from one country to another. To make our price breakdown as accurate as possible, we calculated the international average price of a hoody, taking into account discounts. The retail price in Switzerland was significantly higher at CHF 45.90 (39.67 €).

Average retail price: 26.66 €

Wholesale and retail sales (Inditex/Zara)

Spain and other markets
Product developed and purchased, logistics, advertising, sales

Purchase price of a finished hoody	EUR 7.76
Freight costs	0.41
Staff costs (Inditex/Zara)	3.92
Administration, marketing, sales, rent and other costs	5.93
Inditex/Zara's profit	4.20
Average retail price before VAT	22.22
VAT (international average: 20%)	4.44
verage retail price including VAT.	26.66

Textile factory

Izmir, Turkey
Fabric cut and sewn into a finished hoody, labels attached and hoody packed

Fabric	5.35
Wages	1.10
Accessories (labels, packing, etc.)	0.14
Other expenses and profit	0.30
Finished hoody (no print)	6.88

Spinning plant

Kayseri, Turkey
Cotton lint spun into to cotton yarn

Cotton lint	0.67
Wages	0.06
Machines, energy, other operating costs	0.43
Profit	0.06
Cotton yarn	1.22

Cotton farming

India, exact location unknown
Organic cotton planted and harvested.

Wages of field workers	0.15
Farmers income	0.06
Seeds and other cotton farming costs	0.05
Raw cotton	0.26

Sourcing agency

Izmir, Turkey
Secure and fulfillment of sourcing order, award sub-contracts to suppliers

Printed hoody	7.05
Labour and other costs	0.49
Profit	0.21
Inditex/Zara purchase price	7.76

Printer

Izmir, Turkey
Hoody printed with white lettering

Hoody (with no print)	6.88
Wages	0.09
Machines, operating and other expenses and profit	0.09
Printed hoody	7.05

Fabric factory

Izmir, Turkey
Cotton and polyester yarn processed to a blended fabric, dyeing and finishing of the fabric

Cotton yarn	1.22
Polyester yarn	0.10
Wages	0.62
Machines, energy, other costs	3.20
Profit	0.21
Fabric	5.53

Separating fibers from seeds

Maharashtra, India
Fibers and seeds separated, cotton lint prepared

Raw cotton	0.26
Wages	-0.01
Machines, energy, transport and other costs	0.41
Profit	-0.01
Cotton lint	0.67

Source
The calculation is based on our estimates, which are based on dozens of sources and insider information from the industry. Details on the calculations are available at www.publiceye.ch/hoody. N.B. due to rounding to two decimal places there may be small variations in the totals.