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Readymade Garments Trade Routes to the US and European countries

A Study on the Cost Effective Routes for Exports of Nepalese Readymade Garments in the US and European markets through Different Ports available for Nepal.



2076

Disclaimer

Trade and Export Promotion Centre (TEPC) endeavor, using its best efforts to provide a thorough research on the Cost Effective Routes for Exports of Nepalese Readymade Garments in the US and European markets through Different Ports available for Nepal and provide recommendation of exporting process that TEPC and other stakeholders initiate.

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Executive Director

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ACRONYMS AND ABBREVIATIONS

3D	Three dimensional
3PL	Third Party Logistics
APC	Advance Payment Certification
APL	American President Lines Limited
ASYCUDA	Automated System for Customs Data
ATC	Agreement on Textiles and Clothing
AWB	Airway Bill
B/L	Bill of Lading
BiBiNi	Currency declaration form of Nepal Rastra Bank
BPA	Business Process Analysis
BSO	Business Support Organization
CFS	Container Freight Station
CBM	Cubic Meter
CCU	Kolkata Airport
CF	Cost and Freight
CHA	Custom Clearing and Handling Agent
CIF	Cost, Insurance and Freight
CONCOR	Container Corporation of India Limited
COO	Certificate of Origin
COVID19	Corona Virus Pandemic
CSR	Corporate Social Responsibility
CTD	Custom Transit Declaration
DA	Destination Agent/Direct Arrangement
DAP	Delivery Against Payment
DGR	Directorate General of Resettlement

DO	Delivery Order
DoC	Department of Commerce
ECTS	Electronic Cargo Tracking System
EDI	Electronic Data Interchange
ERP	Enterprise Resource Planning
EU	European Union
FCA	Free Carrier
FCL	Full Container Load
FCR	Forwarder's Cargo Receipt
FF	Freight Forwarder
FIATA	International Federation of Freight Forwarders Associations
FOB	Free on Board
FWF	Fair Wear Foundation
FY	Fiscal Year
GAN	Garment Association of Nepal
GATT	General Agreement on Tariffs and Trade
GOI	Government of India
GON	Government of Nepal
GSP	Generalised System Preference
HAWB	House Air Way Bill
HLB	House Bill of Lading
HTPL	Himalayan Terminal Private Limited
IATA	International Air Transport Association
ICD	Inland Container Depot
ICP	Integrated Check Post
IFC	International Finance Corporation
IGM	Impact General Manifesto
ILO	International Labour Organization
INCO	International Commercial Terms
INR	Indian Rupees
IT	Information Technology
ISO	International Organization for Standardization
ITC	International Trade Centre
LC	Letter of Credit
LCL	Less than Contained Load
LED	Light Emitting Diodes
MAERSK	A.P. Møller – Mærsk A/S
MAWB	Master Air Way Bill
MBL	Master Bill of Lading
MFA	Multi-fiber Arrangement
MSC	Mediterranean Shipping Company
MT	Metric Ton
MTO	Multimodal Transport Operator
NITDB	Nepal Intermodal Transport Development Board

NOC	No Objection Certificate
NPR	Nepali Rupees
NRB	Nepal Rastra Bank
NTWCL	Nepal Transit and Warehousing Company Limited
ONE	Ocean Network Express
PAN	Permanent Account Number
PIL	Pacific International Lines
QC	Quality Control
REX	Registered Exporter System
RR	Rail Release
SA	Social Accountability
SAD	Single Administrative Document
SCM	Supply Chain Management
SDR	Special Drawing Rights
SME	Small and Medium Enterprises
SWIFT	Society for Worldwide Interbank Financial Telecommunications
TEPC	Trade and Export Promotion Centre
TFA	Trade Facilitation Agreement
THC	Terminal Handling Charge
TiR	Transports Internationaux Routiers
ToT	Treaty of Transit
TPC	Trade Promotion Centers
TT	Telegraphic Transfer
ULD	Unit Load Device
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
USA	United States of America
USD	United States Dollars
VAT	Value Added Tax
WTO	World Trade Organization

EXECUTIVE SUMMARY

Nepal's apparel industry flourished in the 1980s when apparel products were in demand in the US after the American Multi-Fiber Arrangement allowed quotas to apparel imports from developing nations and Indian businessmen flocked into Nepal to avoid quota limit in India. Both of these factors led to the boom of the labor-intensive industry in Nepal making it one of the top export commodities and the highest currency earner for Nepal. However, after the removal of Agreement and Nepal's participation in the World Trade Organization, the sector faced a huge setback. Countries like India, Bangladesh, and Cambodia survived and even boomed further after the removal of MFA with the state-guided economic policies and low production costs; however, the competitiveness of Nepalese apparel industry weathered due to the neo-liberalization policy, competitive global market, labor unrest, energy shortage, limited market opportunities, legal hassles, and political instability.

While the business environment is much more conducive now given a stable political climate and mitigation of energy shortages, the export competitiveness is yet to soar given the dependency on imported materials, inefficiencies in the supply chain and labor shortages leading to high production costs. Likewise, the poor infrastructure, lack of domestic supply chain, feeble international connectivity, etc. have not yet created a conducive environment for the promotion of apparel industry in Nepal. Hence, this study aims at mitigating inefficiencies in the supply chain and management of logistics costs to reduce the production cost and thereby enhance the export competitiveness of the Nepalese apparel industry. The study presents its findings with two-fold objectives: 1) to determine the extent to which the logistics function is developed in companies of the apparel sector and, 2) Suggestion of an improvement plan in the field of logistics to increase competitiveness. To do so, in-depth analysis of the logistics function and the supply chains in two companies of the apparel sector (all of the significant companies having a market in Europe and in some cases the USA or worldwide) has been carried out, taking into account both structural and organizational aspects.

Supply Chain Management

Adoption of technology can lead to supply chain optimization. Nepalese apparel companies need to pay attention to market access strategies, as well as, new manufacturing technology solutions. Some of these can be - innovations to sewing machines, such as laser-cutting machines, fusing machines, buttonhole machines, and seam bonding machines; sewing robots; stitch-free clothing. Accordingly, companies can also adopt latest printing technologies such as 3D printing, which has more potential for apparel production than current applications, especially for apparels involving multiple layers and digital textile printing, which gives companies and consumers the ability to customize and produce specific consumers' designs and ideas quickly and relatively cheap. Wearable technologies such as fitness-tracking bands, smart sports bras, wearable for pets, outerwear such as jackets with built-in LEDs, etc. should also be considered to increase the market share.

Modern manufacturing of apparel with a modern mindset on logistics can enhance export competitiveness. Modern logistics and modern manufacturing can be guides for clothing and apparel producers and practitioners in terms of the applicability of proposed innovative approaches. They can

benefit the performance of enterprises by reducing operational cost and time, enhancing agility, transparency, quality, productivity, and increasing customer satisfaction.

Replacing traditional marketing techniques with effective branding and promotional strategies can increase the scope of the market. Seeing from the above perspective Nepal has a good prospect of apparel exports. We have a couple of advantages over other countries, out of which the cheap labor cost is just one. We just need to formulate good marketing activities. All we need to create is a competitive marketing system, to attract new customers, develop core strength, and retain existing customers.

Vertical integration attracts buyers. Buyers feel comfortable doing business with a composite organization. In general vertical integration means a comprehensive plant that can have the capacity to outsource the raw materials of the product internally. Although companies main focus on readymade apparel but many companies stepped to the backward linkage industry to maintain quality and reduce lead time for export. Many companies have a separate textile division which consists of spinning, yarn dyeing and weaving, fabric dyeing, printing, and finishing, and composite knitting unit.

Commitment of an entrepreneur on quality compliance is the key to increase competitiveness. The word compliance is derived from the verb ‘to comply’, which means, ‘to act in accordance with the rules’. Supply chain management directly affects product quality and the overall profitability of a company. Hence, an entrepreneur’s commitment to quality control in the supply chain is critical for maintaining a competitive edge in the marketplace and reducing operating costs. Without quality control, waste becomes prevalent beyond a tolerable amount.

International quality compliance is required to compete in the global market. International compliance issues are the biggest issues regarding apparel and textile manufacturing in Nepal. Brand image, quality, and productivity will be less important if the company is unable to fulfill the compliance requirements of the importing countries. For this, Nepalese apparel industries can adopt the ISO standards, particularly, the ISO 14000 series. ISO 14000 is one of ISO's most widely known standards and primarily concerned with environmental management, which can be applied to any organization in any sector. It will minimize harmful effects on the environment caused by the organization’s activities and achieve continual improvement of the company’s environmental performance. Likewise, SA 8000 is one stop shopping opportunity for apparel manufacturers. SA 8000 standard explicitly covered 13 ILO requirements. In a business environment where social issues are increasingly important SA 8000 is a chance to gain a competitive edge, attract new customers and enter new markets while giving the company and its managers “social peace of mind”. Implementing the standard can significantly reduce cost of managing social requirement. Similarly, apparel and textile importing companies give topmost importance to compliance of local and international rules and regulations related to child labor, forced labor, harassment abuse, health, and safety issue, benefits, work hour, overtime, discrimination, and natural environment. Companies also maintain a global standard in factories and work management. The highest priority has always been on workplace safety. Most of the cases factories are equipped with a mechanical, chemical, electrical hazard-free, most of these provisions are absent in Nepal.

Corporate Social Responsibility is the key to sustainability. Corporate Social Responsibility (CSR) represents care for social and environmental issues with a profitable business perspective: the so called

‘People – Planet – Profit’ philosophy. CSR sees environmental and social trends as opportunities for growth and competitive advantage. The clear commitment to social and ethical standards will make it easier for a company to attract well trained and skilled staff- a factor which is seen as the key success factor in the next millennium. This will not only enhance the organization’s productivity but will lead to better customer relations and long term to more loyal customers. Nepalese apparel companies can adopt the CSR practices by following the guidelines of the Fair Wear Foundation (FWF), which aims to promote humane labor conditions in the supply chain of the garment industry. According to FWF, cheap garments are too often produced under unacceptable labor conditions. The FWF works with the Code of Labor Practices for the Garment Industry. Member companies endorse this code. In doing so, they commit themselves to auditing labor conditions in their factories against the provisions of the code and to implementing improvements, where necessary.

Logistics Management

Introducing third party logistics can facilitate logistics functions. Most textile manufacturers handle all logistics functions including trucking and warehousing through their logistics and transportation department. Introduction to 3PL (Third-party Logistics) could help better manage in and our flow of goods and services in the context of Nepal.

Route for exports and import of raw material for apparel manufacturing. The best route to export to Europe and the USA is by sea keeping in mind the cost factor. The shipment via Visakhapatnam looks to be much cheaper if the timing is right and goods don’t remain at the dry port for too long. But because of the time, air shipments are viable. Larger quantities can move by sea and smaller by air. Likewise, movement via Kolkata is expensive in comparison to Visakhapatnam. If transported, ex-Birgunj is fast (dwell time low) and operations at Kolkata are smooth. The comparison analysis shows shipment via Kolkata also to be competitive. However, given transit time, shipment from Kolkata takes longer in comparison to Visakhapatnam.

In terms of imports, India looks to be more competitive than Bangladesh. Shipment of raw material from the third country like China and Taiwan is better in quality but expensive according to manufacturers. It is, therefore, suggested to plan the inflow of raw material and channeling and distribution of finished products from various points of import keeping in mind all the factors such as cost, time, bank interest rates and urgency, and nature of commodity and volume.

Negotiate multiple routes for import/export and remove hurdles faced along these routes to reduce logistics costs. The comparative analyses of the various routes for imports and exports depict that no route is the best in terms of providing an optimum facility in terms of service, lead time, number of handling points, and cost. Thus, new routes for import and export of cargoes must be explored and negotiated to reduce the cost and time of exporting apparel from Nepal. Also for the existing ones, existing hurdles should be mapped and should be mitigated as far as possible thus enhancing the export competitiveness of Nepal.

Flexible and integrated payment mechanisms are required to ensure timely placement and dispatch of orders. The flow of money in the supply chain is a critical factor in the supply chain. Since the industry is managed by medium industries and cash flow is a problem, they desire a mechanism to de-link payment

with the movement of goods. The possibility of enabling them to import on credit with suppliers with whom they have goodwill and backed with a contract to that effect endorsed and monitored by government agencies such as the customs department. This demands for an automatically permits to deposit advance with suppliers as per their need so that they can purchase material faster. The logic behind is that the goods no matter which mode always enters a custom point and prior approval mechanism with the right documents can be made possible if there is a willingness to expedite exports of any kind. Some industries have been getting such facilities under special provisions already. Likewise, the best possible remittance needs to be planned before the order of raw material and logistic costs fixed with the right liability and responsibility on the supplier and supply chain service provider.

Reducing documentary compliance can reduce the cost and time associated with exporting apparel.

The requirement of the number of documents along the supply chain is a major constrain in importing and exporting in Nepal. The time taken at custom points (dwell time) is very high due to the lengthy process of clearing the goods at custom points. The concept of a master document with an automated system can easily solve the purpose, but such issues are not solved even today despite all government agencies involved being well-aware of this concept. Improving and harmonizing the document processing procedures are some efforts that need immediate attention.

A large centralized warehouse needs to be created to store fabrics and finished products. In the absence of a warehouse act in Nepal, it is difficult to create a perennial source of supply of raw materials and provide space for the storage of finished goods. For better monitoring of the flow of goods and distribution with right vehicle types for carrying the right volume and quantity and ultimately optimizing the cost of transport, logistics centers should be created in various parts of Nepal with future preparedness of enhancing export competitiveness.

The operation of freight flights can boost export performance and reduce transportation costs for enterprises. The time and cost associated with air freight are too high for apparel to be competitive. The operation of freight flights from Nepal can help boost exports by reducing transportation costs and increasing access to global markets thus encouraging manufacturers to increase investments. To enable this, there is a need to increase the infrastructure of Nepal's international airport and pay attention to the management side of the ramp and warehouse with appropriate equipment and safety measures.

The logistics of cargoes less than container load. Cargoes that are less than 5 cubic meters are appropriate by air rather than the sea. The consolidation of cargo takes a long time at Kathmandu or exit custom point. The time to consolidate also takes time at transshipment point Kolkata. Less than Container Load (LCL) via Visakhapatnam is not possible. The cost of total transportation is also very high. Similarly, when importing LCL via Kolkata it is very difficult to consolidate the cargoes to make it a Full Container Load (FCL) by truck. The goods are sent to different Container Freight Station (CFS) at Kolkata and consolidation from that particular CFS is only possible.

In addition to these recommendations, overall, there is a dire need that apparel industries of Nepal follow the principles of business, namely: strictly respect the law; contribute to a safe and healthy working environment; commit to diversity and good working conditions; protect the group's assets and resources; guarantee confidentiality; avoid conflicts of interest; refuse all forms of corruption; develop loyal and transparent business practices; provide reliable and accurate reporting; and be an ambassador of the brand.

1. INTRODUCTION

1.1 Scope of work

The Trade and Export Development Centre (TEPC) felt the need to identify an action plan to enable survival in the highly competitive business environment and felt if problems related to logistic was identified, with the hope of beginning of the revival of the apparel industry could at least begin in Nepal. Hence, this study aims to understand the logistics management in Nepalese apparel manufacturing to enhance exports by motivating entrepreneurs to use Nepalese fabrics as far as possible. It also aims to best manage the inflow of raw materials from Bangladesh, India, and third-country by all the means of and modes of transport by minimizing the risk involved by utilizing the appropriate International Commercial (INCO) terms in the most cost and time-effective manner. It is also important to assess the environmental issues and requirements of the consumers both domestic and international buyers and know how to cater to niche markets.

This paper explored the practices within logistics performance management in apparel supply chains and identified the related best practices and barriers. This study shall also provide a systematic approach to managing the manufacturing process by optimum utilization of resources from the right supplier, at the right cost, and at the right time with the right documents and procedure compliance. For these baseline findings, the study limits one or two apparel products that have the potential to sell in the international market from two manufacturers identified by the TEPC.

Likewise, Nepal has the highest logistic costs and therefore one of the major constrains of not being export competitive. As per a study by the TEPC, there is a substantial amount of differences between transportation charges (around NPR 36.50) in manufacturing a piece of apparel item between Nepal and Bangladesh. Many early studies were done on value chain analysis, which covered export of finished goods to targeted markets but this studies logistics within an apparel unit and does a cost, time analysis identifies where there are problems, and helps to reduce cost. Thus this study is aimed at identifying the right mode of transport by providing comparative scenario analyses on the advantages and disadvantages of a different mode of transport used to export apparel from Nepal in terms of cost, time, and ease of doing business. The study also is directed towards providing information on compliance on import regulation on quality-related matters for apparel needed to be clear to enabling a conducive environment for enterprises to establish apparel units in Nepal. This study also shall enable the apparel manufacturers to select the right logistic service providers to coordinate among different private and government service providers who facilitate to bring the raw material and help in exports of finished goods. The tips on modern manufacturing, best practices, and marketing techniques to target markets are some value-added information along with compliances for export to the European Union (EU) and the United States of America (USA). It is also hoped that the information on the establishing of an apparel unit will enable more entrepreneurs to join businesses giving employment and catering to domestic or international markets.

1.2 Objectives of the study

The study was conducted to achieve six objectives:

1. Improving the overall performance of suppliers by providing comparative report based on sourcing country and modes of transport,
2. Avoiding risks in the supply chain,

3. Best use of money and labor,
4. Better time management,
5. Aware the government on the problems on the supply chain-related procedures and,
6. Suggesting remedies.

1.3 Approach and methodology

This study has focused on the introduction of qualitative sustainability indicators that apply to both internal and external supply chains. To bridge the gap in the literature available on the sector and the reality of the supply chain at the field available, the framework of business process analysis (BPA) has been used. The framework employed in the study is developed from a theoretical approach after the conceptualization of the study given the existing literature. The focal company (TEPC) then passed this framework onto its consultant based on the major objectives of enhancing the performance indicators of the industry, creating jobs, and increasing exports of apparel from Nepal.

Supplier evaluation of risk and performance has been focused on associated risks and barriers along the supply chain as well as performance concerns from an internal perspective of policy and incentives. The supply chain framework and investigation methodology have also been considered mostly in identifying constrains of the sector as per pre-designed modules by different experts in the field. The information for the study was gathered from government agencies, private sector actors, and other stakeholders who are involved with the logistics services within Nepal and beyond borders.

1.4 Limitations of the study

There were four main limitations of the study:

1. The study is based on secondary literature and has a purely qualitative approach. Although it provides insights for both scholars and practitioners, the study lacks empirical data to support evidence-based policy advocacy towards promoting the exports of Nepalese apparel. Studies based on real data about suppliers or measurements of actual sustainable performance can further the discussion in the literature and help practitioners determine their weaknesses to improve their performance enhancement.
2. The qualitative survey could not be backed up with thorough stakeholder consultations due to the travel restrictions imposed in Nepal in light of the COVID-19 pandemic. Thus, information gathered is mostly focused on desk research, correspondences by e-mail, telephone conversation, and personal expertise.
3. The study is limited to activities of one apparel product for one market through various routes available for Nepal based on findings of two apparel manufacturers LOGO and PEARL's Fashion. The volume has been fixed to 20 feet ship container and +500 kg for air transport.
4. Besides domestic consumption, export analysis limited to two markets of the world – the United States of America and Europe and cannot be adopted fully for other countries.

1.5 Recommendation for future studies

While this study covers the supply chain management and logistics analysis of apparel import and export, covering aspects of domestic logistics of the apparel industry including internal distribution and other mode

of transport like air/sea or sea/road will further bolster the findings of this study and help to provide a complete picture of the logistics analysis of apparel industry of Nepal.

2 Apparel industry and its contribution to economic growth

The global textile and apparel sector is critically important as an early phase in industrialization for many developing countries and as a provider of employment opportunities to thousands of low-income workers, many of them women. The apparel industries offer employment opportunities for lower-wage workers provides a link between apparel and poverty at the individual (micro) level. However, there is a link at the macro level as well. When a country begins to engage in the global economy, one of the first steps often involves the expansion of the apparel sector. Great Britain, Japan, the United States, and other countries all had an “apparel phase” of their development. Apparel often acts as a gateway into manufacturing for countries and workers whose alternatives might be in agriculture, the informal sector, or low-productivity service work.

Most people consider labor cost to be the most important market incentive, but there are many other relevant factors. For example, access to markets, distance, ease of establishing a factory, infrastructure (such as the cost of electricity or access to water), and government regulation can all affect global production patterns. However, above all, the major factor to increase market share by enhancing export competitiveness is the logistics costs.

3 The changing dynamics of the global apparel industry

1. The role of policies and regulations. The apparel sector has been strongly shaped by international trade policy and regulations, notably the Multi-fibre Arrangement (MFA) and the Agreement on Textiles and Clothing (ATC). The MFA was implemented in 1974 by industrial countries outside the normal rules of the General Agreement on Tariffs and Trade (GATT). The goal was to help industrial countries adjust to the rising production capacity of the developing countries. Under this arrangement, textile and clothing quotas were negotiated bilaterally. On 1 January 1995, the MFA was replaced by the ATC, which brought the MFA under the rules of the World Trade Organization (WTO).

As a transitional instrument, the ATC established a period to eliminate quotas and integrate clothing and textiles into the 1994 rules of the GATT. The MFA restricted trade, but it also created opportunities for countries that might not otherwise have developed their apparel sector. In an important paper, Evans, and Harrigan (2005) document how the MFA quotas shifted U.S. apparel imports away from Asia toward Mexico and the Caribbean. The MFA preferences of the EU for Bangladesh created the incentive to develop the apparel industry there, thus laying the foundation for future increases in apparel production. For other countries, such as China, the limits created the incentive to establish production in other developing countries that were not filling their quotas. In this way, the MFA had very significant effects on the pattern of global apparel production. Removing these quotas through the ATC had important welfare effects in importing countries (Harrigan and Barrows 2009) and meant that global apparel production could be allocated according to market incentives rather than regulation. The end of the MFA/ATC on 1 January 2005 was expected to have a major impact on the apparel sector and apparel workers in many developing countries, and in turn on the prospects for future employment, wages, and poverty reduction. However, it

has been witnessed in recent years that this sector can be transformed to meet the country's export and unemployment problems by exporting certain items to the niche markets or customers.

2. The shifting trends of apparel sourcing. The changing scenario of apparel sourcing is something of the major concern of the industries. China is Europe's largest apparel supplier. However, wage inflation in China and other low-cost sourcing nations is a posing significant challenge for apparel companies; the social risk is also a growing concern. Seeking to optimize the cost/risk ratio, apparel companies are exploring new sourcing locations and sourcing strategies are becoming more complex. While companies are evaluating potential new frontiers, they are also exploring source countries closer to home. Proximity sourcing is favored for the fast fashion segments of the apparel business and the national government needs to take initiatives in encouraging re-shoring. Companies offering products that are less fashion-forward favor low-cost sourcing. Turkey is a key competitor for all countries in today's European sourcing landscape; exporters need to focus on speed to market, just-in-time deliveries, and preproduction services to best compete in the changing sourcing landscape.

3. Technological advancements as game-changers. The apparel industry is facing other great changes from technology trends that offer interesting opportunities only if one knows how to use them to improve the business. Big data, combined with production automation and product technology innovation, has the potential to make manufacturing more precise, as well as more local and sustainable. Potential benefits include higher speed, faster delivery times, and lower cost than current, because of reduced shipping times and lower stocks. The focus therefore must be towards up-to-date capacity planning with much attention on predictive capacity planning; predictive apparel manufacturing; predictive fabric manufacturing; more control oversupply and demand as well as rating the Corporate Social Responsibility (CSR)-performance of a company. The capacity and strategies of finding new leads; generating repeat sales; increasing conversion rates; predicting future sales; reducing costs by optimizing your supply chain; communication—ERP (Enterprise Resource Planning) software; predictive selling enables the shoppers to receive products based on software predictions of their needs and wants may help the company grow further.

4. Customer experience in the digital world. Enabling online shopping of apparel needs to focus on speed to market; better customer relationship management; better browser experience; personalized shopping experience; unified commerce which means that the "practice of providing flexibility, continuity, and consistency across digital and physical channels to deliver a superior customer experience. This consistency includes multiple phases of the customer's buying journey, including when a customer is searching, browsing for, transacting, acquiring and consuming a product or service" and Omni channel strategies, which means focusing on creating seamless transitions between multiple channels and touch points to ensure the best shopping experience for your customers are some trick in the trade.

4 Nepal's apparel industry in the changing dynamics of the global apparel industry

The apparel industry in Nepal needs clearer attention because this sector is an important first step to industrialization for developing countries such as Nepal for the following reasons:

1. **Start-up costs are relatively low.** Firms can open with relatively small capital investments (sewing machines) and relatively low training costs. The production is relatively simple and material costs can be low if the right product (item/category) is identified and raw materials sourced from the

right place at a right and competitive mode of transport. The price of a product is not of many issues at destination markets if the right strategy is adopted towards identifying the right customers and meeting with the standards on quality and environment.

2. **There are clear links to the domestic and global economy in the apparel sector.** Nearly 70% of apparel exports come from low-income countries. The industry is characterized by value chains that involve the international division of stages of production (Gereffi and Frederick 2010; Staritz 2011).
3. **The fragmentation of production creates opportunities for moving up the value chain.** Countries can enter at the simplest stages and gain experience that helps them move into processes that are more complicated further up the value chain. These higher stages usually involve more skill and capital, and they may be associated with higher productivity and higher wages.
4. **Opportunities in the niche segment.** With a good offer, it is easier to compete in the upper-middle segment than at the lower end where competition is fierce. As a small or medium-sized enterprise in a developing country like Nepal, one may not be able to compete with these large players at the lower end. The middle and higher segments offer more room for product differentiation and value addition. Consumers in these segments focus less on price and more on aspects such as quality, design, sustainability, etc.

While Nepal can scale the apparel industry based on the above three criteria, the apparel industry is far behind its ability. Some of the reasons for this are outlined below:

1. **Emigration of youth.** Businesses have not been able to capitalize on the low labor costs due to the trend of the emigration of Nepalese youths.
2. **Low labor productivity.** The low productivity issue has offset the advantage of low wages. Nepal's productivity is approximately 65% in comparison to that of China.
3. **Unpredictability and uncertainty of the business climate are high in Nepal.** Lack of security, frequent labor unrest, or lack of skilled labor, high costs of raw material, and unpredictable supply chain is contracting the growth of Nepalese apparel industries.
4. **Expiry of MFA.** Expiry of multi-fiber agreement and removal of the quota system in 2004 and duty-free status granted by the USA to African countries has created an uneven playing field for the Nepalese apparel industries. Total apparel industries in Nepal have reduced from 1200 in 2001 to 33 registered in the Garment Association of Nepal (GAN) Association by 2019. Out of the 33, about 20 are quite active while about 22% have informed the government that they have been completely shattered and seek governments support for reviving the units.
5. **Economies of scale.** The WTO regime has end to the protection and advocating survival of the fittest concept in the world. When there was no WTO, we were moving at a slow pace. Now, after entering the WTO, Nepalese organizations have been thrown into a fast-moving highway and left to drive as fast as everybody else. This is where the role of government comes into play to bring about changes required as per the world market of apparel and help speed up rather than slowing the pace and pulling the industry back further, however, the government has been ineffective in providing this support to businesses.

In this context of both opportunities and challenges, Table 1 to Table 4 presents the current scenario of export and import of the Nepalese apparel industry.

Table 1: Export data (quantity in pieces and value in ‘000 NPR) of readymade apparels from FY 2008/09 to FY 2012/13

		F.Y. 2008/09		F.Y. 2009/10		F.Y. 2010/11		F.Y. 2011/12		F.Y. 2012/13	
		Quantity	Value								
	Total	13,531,674	4,350,915	17,425,260	3,758,161	17,084,925	4,084,040	13,262,868	4,059,923	11,804,471	3,824,297
1	U.K.	1,082,397	404,383	1,456,711	479,293	1,842,137	609,916	1,191,326	543,311	1,042,847	517,933
2	U.S.A.	2,810,334	1,004,465	3,360,375	807,964	4,000,719	799,582	3,258,100	968,954	3,094,965	995,574
3	Germany	734,067	282,685	1,269,842	287,491	1,296,093	359,285	1,291,450	465,796	1,373,563	459,389
4	France	1,780,441	626,473	2,627,601	707,766	2,197,740	677,652	1,434,937	512,517	1,228,047	447,578
5	Italy	671,544	206,516	1,229,765	156,347	722,619	161,256	382,819	137,167	360,697	188,542
6	Canada	666,120	197,864	939,848	209,743	734,516	180,566	441,375	154,158	339,985	161,517
7	Japan	801,085	170,629	1,089,998	124,276	1,477,744	203,237	1,268,630	217,596	1,052,788	243,716
8	Spain	511,752	112,999	1,025,198	102,902	909,314	133,929	871,855	167,649	632,877	133,014
9	India	2,010,190	600,771	873,294	293,266	1,002,644	434,625	683,623	332,824	381,758	141,879

Source: Trade and Export Promotion Centre

Table 2: Export data (quantity in pieces and value in ‘000 NPR) of readymade apparels from FY 2013/14 to FY 2018/19

	2071/72	2072/73	2073/74	2074/75	2075/76						
	Quantity Pcs	Value 000 Rs	Quantity Pcs								
Total	12,843,729	5,287,982	13,319,723	5,884,597	12,317,336	5,303,109	15,048,821	5,970,995	12,262,627	6,343,132	
U.K.	1,356,801	829,259	1,700,872	1,129,505	1,803,967	1,177,188	1,795,786	1,492,007	1,662,831	1,273,665	
U.S.A.	3,043,238	1,193,647	3,530,235	1,571,861	2,693,078	1,057,827	3,904,402	1,202,436	3,190,408	1,199,954	
Germany	1,009,551	536,114	1,088,215	604,602	1,050,291	599,474	1,099,637	662,215	1,380,385	919,408	
France	996,273	429,716	855,129	434,059	791,788	388,473	590,418	401,537	532,378	355,583	
Italy	553,924	268,385	717,217	388,245	673,780	311,651	448,802	320,080	358,532	362,561	
Canada	601,495	254,352	761,511	308,318	512,879	211,138	558,072	275,810	473,009	270,033	
Japan	1,056,000	330,568	635,238	227,858	947,607	287,586	1,170,630	271,064	585,411	321,571	
Spain	1,208,334	208,688	822,259	189,843	721,865	136,400	723,962	175,360	562,493	149,836	
India	537,484	260,657	365,026	166,890	286,920	199,820	264,959	147,578	274,998	174,298	

Source: Trade and Export Promotion Centre

Table 3: Export data (quantity in pieces and value in ‘000 NPR) of woolen, pashmina shawls, scarves, mufflers, mantillas, veils and the like from FY 2008/09 to FY 2018/19

		F.Y. 2008/09	F.Y. 2009/10	F.Y. 2010/11	F.Y. 2011/12	F.Y. 2012/13	F.Y. 2013/14	F.Y. 2014/15	F.Y. 2015/16	F.Y. 2016/17	F.Y. 2017/18	F.Y. 2018/19
	Total	1,818,891	1,317,065	1,635,629	1,908,232	2,179,794	2,821,451	2,645,919	2,885,389	2,441,747	2,277,328	1,909,834
1	Germany	385,359	228,870	305,571	401,789	435,043	587,226	593,049	639,022	619,798	556,042	410,244
2	U.S.A.	315,162	229,022	254,005	274,271	310,596	429,364	436,136	471,710	363,020	265,499	276,439
3	France	122,138	129,814	209,072	247,052	301,290	345,274	330,488	323,081	274,832	251,453	194,823
4	U.K.	166,544	173,423	153,446	204,147	312,816	415,140	350,327	390,395	303,043	234,686	218,357
5	Italy	135,327	105,371	138,057	149,168	129,533	129,606	138,624	165,313	175,668	138,523	118,889
6	Switzerland	14,779	32,164	33,185	38,882	43,448	65,873	59,789	77,707	73,944	127,967	112,542
7	Japan	43,014	41,639	57,050	82,831	90,259	82,079	68,152	61,447	56,597	94,122	78,914
8	India	194,568	83,887	144,063	55,357	49,234	68,008	62,494	74,559	75,606	80,285	113,487
9	Finland	1,839	3,661	3,491	12,864	33,858	44,734	70,463	76,003	61,639	59,993	43,795
10	Norway	6,878	7,337	2,084	4,809	22,120	104,499	79,606	86,052	49,901	57,928	30,119
11	Australia	38,201	6,129	12,236	5,766	17,789	43,337	35,715	69,608	43,953	55,662	19,091
12	Canada	53,837	49,867	22,144	28,782	51,863	80,368	70,632	50,332	44,206	31,816	27,970

Source: Trade and Export Promotion Centre

Table 4: Export data (quantity in pieces and value in ‘000 NPR) of woolen, pashmina shawls, scarves, mufflers, mantillas, veils and the like from FY 2008/09 to FY 2018/19

		F.Y. 2013/14		F.Y. 2014/15		F.Y. 2015/16		F.Y. 2016/17		F.Y. 2017/18		F.Y. 2018/19	
		Quantity	Value										
	Total	14,053,256	5,604,905	12,843,729	5,287,982	13,319,723	5,884,597	12,317,336	5,303,109	15,048,821	5,970,995	12,262,627	6,343,132
1	U.K.	1,380,920	889,027	1,356,801	829,259	1,700,872	1,129,505	1,803,967	1,177,188	1,795,786	1,492,007	1,662,831	1,273,665
2	U.S.A.	3,942,851	1,446,008	3,043,238	1,193,647	3,530,235	1,571,861	2,693,078	1,057,827	3,904,402	1,202,436	3,190,408	1,199,954
3	Germany	1,364,649	648,350	1,009,551	536,114	1,088,215	604,602	1,050,291	599,474	1,099,637	662,215	1,380,385	919,408
4	France	1,238,614	520,123	996,273	429,716	855,129	434,059	791,788	388,473	590,418	401,537	532,378	355,583
5	Italy	365,473	196,065	553,924	268,385	717,217	388,245	673,780	311,651	448,802	320,080	358,532	362,561
6	Canada	433,507	177,881	601,495	254,352	761,511	308,318	512,879	211,138	558,072	275,810	473,009	270,033
7	Japan	1,132,646	394,176	1,056,000	330,568	635,238	227,858	947,607	287,586	1,170,630	271,064	585,411	321,571
8	Spain	1,005,650	235,974	1,208,334	208,688	822,259	189,843	721,865	136,400	723,962	175,360	562,493	149,836
9	India	641,210	310,634	537,484	260,657	365,026	166,890	286,920	199,820	264,959	147,578	274,998	174,298

Source: Trade and Export Promotion Centre

4.1 Supply chain management of the apparel industry and the role of logistics

4.1.1 Supply chain management

The apparel industry is a vast industry producing millions of apparel every day. One of the toughest challenges faced by this industry is increasing the costs of apparels making and the price of both local and imported raw materials also increasing. The right solutions to this are efficient supply chain management (SCM) strategies by which optimal sourcing is possible where cost is minimum.

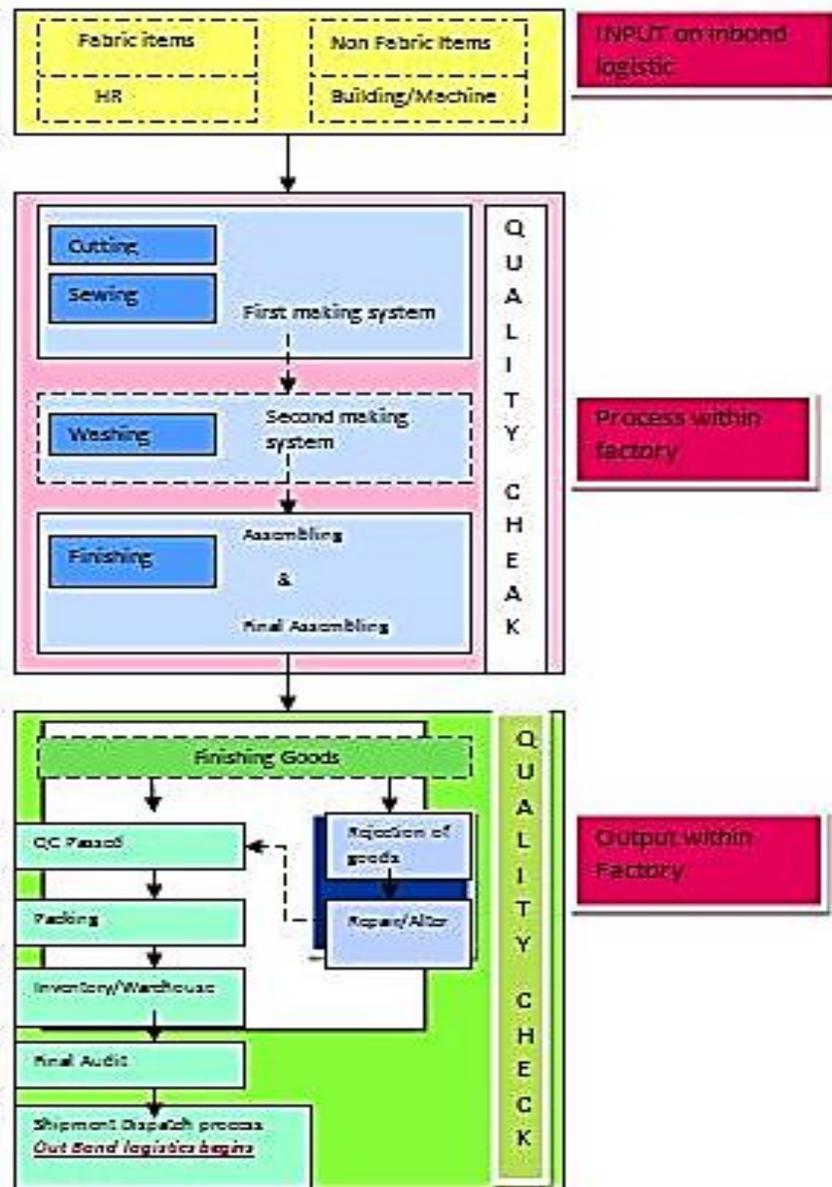


Figure 1 Conceptual Framework of Supply Chain Management of Apparel Industry

Hence, an apparel manager should carefully develop their supply chain because those who manage supply chain properly will get a competitive advantage over its competitors because:

- SCM ensures the right time delivery of products/resources/services to the right place for a minimum cost.
- SCM provides a better logistics solution.
- A logical innovation in SCM creates efficiency in business operations, which will ultimately lead to success.

Having said so, a supply chain cannot ensure high value if it is without effectively organized transport. For this reason, logistics is one of the most crucial factors in the quality of any supply chain, and technology is another means that facilitates this process as outlined in Section 4.1.2 and 4.1.4 respectively.

4.1.2 Role of logistics on supply chain management

Logistics is the art and science of managing and controlling the flow of goods, energy, information, and other resources along with the flow of money. Logistics involves the integration of information, transportation, warehousing, inventory, material handling, packaging, and even security. The main fields of logistics in line to apparel manufacturing are as follows:-

1. **Procurement Logistics:** It consists of activities such as market, research, requirements planning, make, or buys decisions, supplier management, ordering, group purchase of raw material, and order controlling to economize cost and time.
2. **Production Logistics:** The term production logistics is used to describe logistic processes within the apparel industries. The purpose of production logistics is to ensure that each machine and workstation is being fed with the right product in the right quantity and quality at the right time.
3. **Distribution Logistics:** Its main task is to deliver the finished products to the customer. It consists of order processing, warehousing, and transportation. Distribution logistics is also necessary because the time, place, and quantity of production differ with the time, place, and quantity of consumption. There are many actors along the supply chain who have their unique activities and each has a cost, time, procedure compliance. It is important to identify them well to economize the product-selling price.
4. **Disposal Logistics:** Its main function is to reduce logistics costs, enhance services, and save natural resources.
5. **Business Logistics:** It can be defined as – ‘Having the right item in the right quantity at the right time at the right place for the right price in the right condition to the right customer’, and is the science of process and incorporates all apparel industry sectors.
6. **Communication logistics:** In apparel industries, communications between each functional area should be increasingly automated to keep pace with production system and status, some information is very complex and needs rapid communication system to meet production deadlines like information regarding the status of raw material and communication related to coordination of the flow of goods and finance. Therefore, the industries need to adapt to the computerized advanced communication system along with all its suppliers and service providers.

Logistics plays a critical role in the manufacturing of apparel. Some of them are listed below:

- According to the Council of Logistics Management, logistics contains integrated planning, control realization of monitoring of all internal and network-wide material and product flow including the necessary information flow in apparel industries along the complete value chain to confirm the purpose of customer requirement.

- The job of satisfying buyers who are located very far is not easy without an effective IT system that needs face to face discussions at least during the finalization of raw materials and delivery of final products. Apparel industries cannot manage all communication themselves, that is where the role of logistic service providers come into existence to bridge the gap of making things happen.
- The quality of the final product that reaches the customer is the result of a chain of successive, inter-linked phases: procuring, designing, dyeing, cutting, stitching, finishing, distribution of apparel, etc. In this new competitive environment, quality and price must be the feature of all market segments to meet the specific requirements and tastes of all types of customers.

4.1.3 Modern manufacturing of apparel with a modern mindset on logistics

We are on the verge of a new industrial revolution, and enterprises that successfully adopt this new revolution can survive in the competitive global market. Thus, modern logistics and modern manufacturing intended to be a guide for clothing and apparel producers and practitioners in terms of the applicability of proposed innovative approaches. The main benefits of modern apparel manufacturing are as follows:

1. **Agility:** The collected data from the factory can be processed to monitor and analyze the ongoing production process in a real-time fashion which allows us to detect and solve problems on the production line in the shortest period.
2. **Transparency:** With the customer's access to the integrated production system, the real-time monitoring of suppliers, and the real-time report generation about production processes, the transparency of the apparel factories can be increased easily.
3. **Increased quality:** We can increase product quality through reduced human errors by the virtue of the automated production process with the cyber-physical systems and robotics technologies. The integration of image processing and machine learning approaches also allows us to increase equality control precision, with the automated quality control process. Moreover, the sewing training with augmented reality also increases the overall product quality by reducing human errors.
4. **Increased productivity:** The integration of cyber-physical systems and human-robot technologies, real-time production line management, real-time performance management, and predictive maintenance enables us to improve overall productivity and agility.
5. **Reduced operational costs:** Automation of processes has paved the way for minimizing human intervention on production as well as reducing overall labor costs. Moreover, the end-to-end digital integration and automated worker performance reporting also help us to reduce non-performing activities and operational costs.
6. **Reduced order delivery time:** The utilization of 3D product design, real-time supplier management, real-time production management, automated processes, cyber-physical systems, and human-robot technologies allow us to reduce order delivery time.
7. **Increased customer satisfaction:** With the increased product quality, transparency, and decreased order delivery time, it is possible to increase overall customer satisfaction.

However, there are associated challenges of the proposed smart factory listed as follows:

1. **Initial investment cost:** Cyber-physical systems, robotics, virtual reality, 3D product design, wireless sensor networks, big data infrastructures, and their integrations are very costly. Moreover, most apparel companies are small-and-medium-sized enterprises. To this end, the companies need to inspect the costs and benefits of the innovative approaches that are proposed in the context of Apparel 4.0, to determine a detailed roadmap to initiate their smart factory transition processes.

2. **Privacy and security:** Even though many studies in the literature investigate the privacy and security of digital data, it is still an important issue for many organizations. The collected data from the smart factory environment is very critical for the confidentiality and security of the factories. To this end, communication among smart devices should be provided with secure machine-to-machine protocols to protect data.
3. **Technical challenges:** New technologies are challenging due to the shortage of experienced workers in these technologies. For this reason, national policies should be developed and supported to increase the number of experienced workers.
4. **Lack of a global standard:** The lack of a global standard developed for Industry causes an important difficulty. Therefore, standardized apparel Industry models need to be developed to establish a standard roadmap that will guide the firms and practitioners (Gökalp, Şener, and Eren, 2017).
5. **Social difficulties:** New technology and techniques of production will require low-skilled labor force to shift towards more high-skilled complex jobs which require a more intense focus on emerging technologies. This brings an important social problem, unemployment. It is predicted that Industry revolutions will cause 5 million people to quit their jobs in 15 developed economies over the next 5 years (World Economic Forum, 2016). Therefore, there is a need to develop a roadmap to train the labor force on emerging technologies.

Having said so, in the context of Nepal, logistic service providers must be equipped with modern technology to cater to the sector. More and more research and training are needed in Nepal in this sector along with a technology-friendly policy with long term vision of the government. Almost every country has its apparel industries be it for exports or domestic consumptions and there is no reason why Nepal cannot function and meet the targeted market's preferences and standards to serve them. What is needed most is the capacity to market and promote the product to the right clients and to do this a further study in this sector to find the most competitive items of apparel that suits Nepal best for exports needs to be conducted.

4.1.4 Latest technologies and mechanisms to enhance the internal and external supply chain in apparel manufacturing

The advent of modern technologies demanded the upgrading of machinery in industries to be easier and speed up production. This made a vast difference in terms of productivity of labor, reduced costs, and time to market enabling them to cater well to the industrialized countries.

The search for improved competitiveness not only increases the rise of new methods in designing, quick response, quality, and service and provide greater flexibility by motivation the employees, but at the same time, it is threatening the small and medium scaled firms as these mass merchandisers have been extending their involvement and relationships with supplier's right back to the fabric, fibers, and yarns. The trading house system binds the number of stages of textile and clothing manufacturing together with retailing. Such companies use electronic data interchange (EDI) as a core technology for building and managing their supply chains. The requirement for qualities such as sizing and fit, coloration, patterning establishes the interest in new fabric and apparel styles are some advantages of the larger manufacturers and it is, therefore, necessary to invest in technology and newer machines for the small and medium enterprises and therefore the industry needs to evolve quickly to respond to the need of ensuring the right products at the right price,

the right time and the right customers through improved and sophisticated processes some of which are listed below:

1. Supply-chain optimization:

Shortening lead times are key to ensure deliveries with optimum timing and to meet with the requirement most of the manufacturers of apparels are bringing change in the "in-house" processing system to increase speed and supply chain efficiency. Materials sourcing, creative and technical design, samples, production, and shipping are all under the same roof. Real-time flow of information within the house must run smoothly among all the teams to ensure everyone has access to the same data and the same version of the latest products. Likewise, the rise of machine learning increases the capacity to collect information, performs activities of skilled labor, and predicts consumer behavior. Some even predict themes in trending patterns, silhouettes, colors, and styles and provide customer sentiment around products and runway images. Some are almost taking the place of humans to detect when it's the right time and product for a brand's ideal customer.

2. Robot designs for the manufacturing floor:

In the past robots have been used to perform tedious, repetitive tasks on the assembly lines in factories. But the latest advancements have equipped robots with memory and agility making them highly programmable and collaborative. It is not about eliminating positions, but about making smarter workers, and also keeping humans safe by replacing them in dangerous situations where robots can do the job.

Some companies have developed "sew bots" equipped with robotic arms and vacuum grippers, which can guide a piece of cloth through a sewing machine very accurately, bringing down costs and speeding up the process.

3. Rapid data analysis for quick adaptation

Factories can receive real-time feedback and alerts companies of defects or damaged goods helping to save money and eliminate waste, helping deliver adequate products at the perfect time due to Internet facilities and new software. Today as cloud computing has grown; it lets factories and companies work together from many parts of the world at the same time. This can allow them to access relevant data, facilitating quicker, more productive, and clear communication. Similarly, 3D Design, printing, and mass customization have become an increasing need as competitiveness lies more and more in delivering products tailored to the customer's tastes and needs in a speedy and timely manner.

There is new 3D rendering technologies that allow brands to edit designs at the moment and instantly review changes like cutting, loosening the fit, and making all necessary adjustments in real-time. This can help improve the quality of designs by checking silhouette (image representing the shape of a person or object) and fit sooner in the development process minimizing unnecessary waste, and error in the sample before finalization.

4. Effective marketing strategies:

Each organization has a way to do business. There are so many apparel products available worldwide and what they are producing is selling ultimately. Much research is done before setting up as an apparel unit

and mostly established only after being assured of the products being manufactured will sell in the international market or within country markets.

It is the knack of selling that counts the most and branding is open of them but think of a product so widely available in different names and think how it is selling? They are either targeting a class of people, market or a trend and fashion, they are either focusing on the high-end customers with much money or middle or small purchase capacities. The apparel is something mostly visible item when invisible items like the under apparel sell, why can't an apparent appeal be sold is something the seller must think and plan accordingly.

Seeing from the above perspective Nepal has a good prospect of apparel exports. We have a couple of advantages over other countries, out of which cheap labor cost is just one. We just need to formulate good marketing activities. All we need to create is a competitive marketing system, to attract new customers, develop core strength, and retain existing customers.

5. Industrial tour for buyers:

New buyers never place any order unless or until they visited the factory and get satisfied. The brand image is not sufficient to get a purchase order from a new buyer. During the time of the visit, buyers generally focus on the quality of the product and capacity of the company. Apparel and Textile companies often invite these buyers to visit the factory and get familiar with capacity and quality. Buyers need to image their suppliers well to place the order. This enables them to identify what is going on based on the image they have of your factory. For example, if the buyer has visited your finishing hall, he exactly imagines the processes and activities based on his visit and that helps him to understand and plan better.

6. Foreign experts:

Textile manufacturers rely on foreign experts. In maximum cases, experts are recruited by India, Sri Lanka, and Turkey. This expert works at the top level. These foreign experts work as a Brand promoter of a company. On the other hand, those people are used to convince international buyers. We can also target diplomats working in our country and use our diplomatic missions for the promotion of our products. The diplomats from the targeted countries for export will help supply information and show the way of entering their country markets.

7. Activities for buying houses:

Buying houses have experience and the capability to manage or contact with different buyers. Buying house agents act as a subcontractor. In the case of apparel, middlemen acts like a manufacturer and coordinator, he represents the buyer and flows information to the buyer and makes things happen. If the business is a foreign company, the company has to contact with different Buying houses to make the negotiation. Buying house works as middlemen and perform all tasks from manufacturing and exporting firm. Buying houses agents, therefore, works as a media between buyer and seller. It helps the manufacturer concentrate on their production activities related to deliver a fine product and therefore polish the product quality. Normally, in Nepal, it is witnessed that such involvement of buying houses is burdensome as they impose authority and even costs money but that is a bad practice as this compels the buyer to think otherwise.

8. Vertical integration:

Vertical integration has a great impact on buyers. Buyers feel comfortable doing business with such a composite organization. In general vertical integration means a comprehensive plant that can have the capacity to outsource the raw materials of the product internally. Although companies main focus on readymade apparel but many companies stepped to the backward linkage industry to maintain quality and reduce lead time for export. Many companies have a separate textile division which consists of spinning, yarn dyeing and weaving, fabric dyeing, printing, and finishing, and composite knitting unit. Currently, none of the factories enjoy vertical integration in Nepal.

9. International compliance:

International compliances issues are the biggest issues regarding apparel and textile manufacturing. Brand image, quality, and productivity will be less important if the company is unable to fulfill the compliance requirements of the importing countries. Apparel and Textile importing companies maintain top most important to compliance of local and international rules and regulations related to child labor, forced labor, harassment abuse, health, and safety issue, benefits, work hour, overtime, discrimination, and natural environment. Companies also maintain a global standard in factories and work management. The highest priority has always been in workplace safety. Most of the cases factories are equipped with mechanical, chemical, electrical hazard-free.

10. Diversification and modernization:

Most of the cases, the manufacturer wants to diversify and modernize their business so that they can increase the capabilities to meet the demand by setting up state-of-the-art plants and machinery.

11. Managing relationship:

Apparel businesses are all about making a relationship concerning buyers. The manufacturer wants to make a good relationship by fulfilling the desire wants of the buyers. As a result loyalty program has been developed and repeat purchases take place. On the other hand, businesses have to make a very strong relationship with the suppliers. All about making the good flow of supplies from suppliers and finished product for buyers.

12. New product development:

Besides dealing only in business with the buyers' companies need to establish its own Research and Development Department to meet the current demand of the customers as well as for continuous development. This R & D is responsible for developing new color combinations, style, design, and other market trends on technology and accessories and meets the buyer's requirement efficiently and effectively. The use of software "dexpo" gives some glimpses on the R & D scenario.

13. Corporate social responsibility:

Companies provide schooling facilities to the local children and worker children, Health care facilities, daycare centers for worker children, canteen, and club facilities in the factory. Companies need to engage in the social-cultural enhancement of not only their workers but also the society they live in and the country keeping in mind the ethical practices to maintain the environment.

14. Promotional strategies:

The main promotional campaigns are limited to magazine advertisements and arranging tradeshow in Nepal but the trend of fashion shows is picking up. We need to display our products in target markets. We need to increase activities to a certain extent where manufacturers need not go to the buyer but rather the buyer comes to the manufacturer. The manufacturer needs to formulate strategies to retain the buyers like the video that could give an impression about the company's ability to fulfilling the buyer's requirements. Other tools and techniques on marketing can be web site development and promotion, mobile presence, social media presence, branding products as per customers' need, leveraging the latest technology, making personalized approaches, using techniques of re-marketing, organizing shows and contest, developing giveaways, starting a blog, etc.

4.2 The supply chain of Nepalese apparel industry

As developing countries such as Nepal are searching for ways to strengthen their textile and clothing base in the face of intensified quota-free competition, literature such as Feenstra, 1998; Gereffi, 1999; Gereffi and Kaplinsky, 2001; Humphrey and Schmitz, 2000 show that at least three issues in the supply chain that complicate adjustment to exporting and obstruct market entry:

1. **Supplier network with high market access:** Firms do not simply export into undifferentiated economic space but also that the global trade in the apparel industry is increasingly mediated by institutional arrangements of powerful buyers, retailers, and branded merchandisers who coordinate the design, production, and distribution of apparel within highly mobile, globally dispersed 'buyer-driven' value chains. This trend will get more difficult as buyers consolidate with their supplier's network creating stronger competition to through other out. This implies that, after the dissolution of quotas, access to major markets may become more constrained as global buyers turn toward more capable 'full-package' suppliers who have capabilities that go beyond assembly operations to accommodate flexibility and variability in design, proximate sourcing of high-quality fabric, and the ability to handle small-batch as well as large-volume production cost-effectively. Market access, in his view then, depends not only on low costs, or freer trade, but also on the ability of local suppliers to meet increasingly stringent buyer demands for quality, customization, and full-package supply, in addition to low costs.
2. **Regional trade agreements:** The spatial divisions are further reinforced by the rise of regionalism within world trade, and by the proliferation (increasing) of the regional free-trade agreement. At a time when the dissolution of quotas is restructuring the rules of trade in textiles and clothing, and the emergence of preferential regional trade agreements as well as new forms of sourcing are complicating market access, ways of integrating incorporated into global markets and upgrading the standards that are emerging is required. Regional trade agreements are segmenting market access based on differentially applicable tariff levels. In a world without quotas, where tariffs (or their absence) and non-tariff barriers assume much greater power in shaping market access, regional trade agreements can produce highly differentiated and uneven geographies of apparel sourcing and supply.
3. **Costs related to sourcing of materials:** The emergence of new considerations in sourcing such as - the importance of short turnaround times in the procurement of raw material or finished goods, and attention on sensitive and quick-selling items has added further stickiness to the flow of apparel and textile trade, reinforcing the importance of location in supplier choice (Abernathy et al, 1999; 2004; NordÔs, 2004). Acting in a direction opposite to the dynamic of extensive outsourcing within

globally dispersed production chains, the rise of 'lean retailing' or the adoption of sophisticated IT to manage the sourcing of replenishment-intensive items is privileging under certain conditions, speedy delivery and proximity over considerations of price. For example, Abernathy *et al.* (1999) point out that buyers from the USA may prefer Mexico or the Caribbean Basin, despite their higher production costs to lower-costs China for the supply of certain items. These new trends are making sourcing patterns sticky by creating new spatial divisions where proximity is valued over price (see also Nordö, 2004).

Amidst these global scenarios, the supply chain of Nepalese apparel industry is as follows:

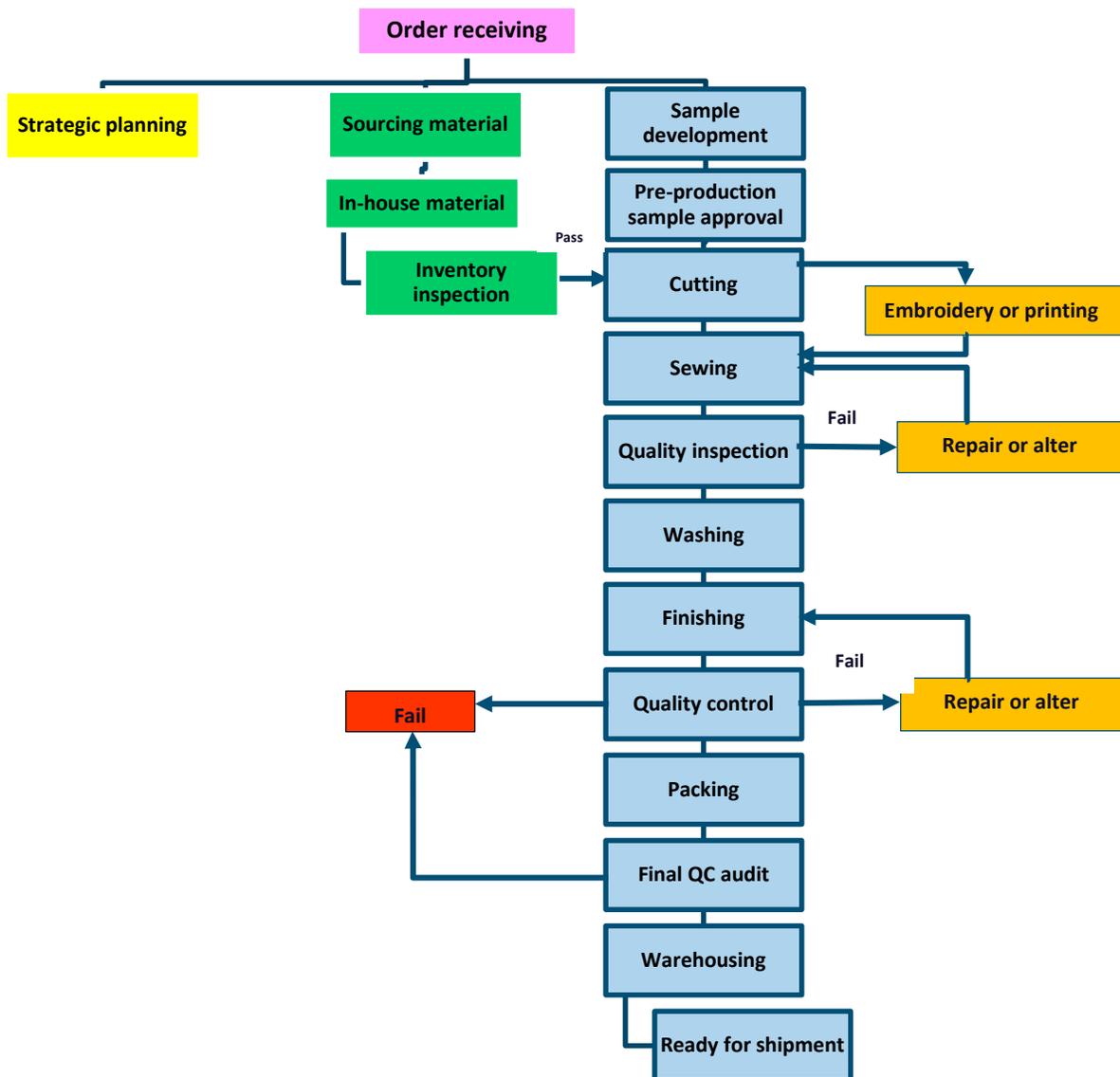


Figure 2 Supply chain of Nepalese apparel industry

In the past, information technologies have progressed very fast which has led to increased access to information and services. Customers can acquire information on price differentials from various sources, compare them, and negotiate for best prices thus reducing the margins for sellers. The general trend of reduced inventory, shift to the concept of Just in Time business, smaller order sizes (which mean more impact on countries that have higher transport overheads like Nepal) are in trend these days but this also implies that buyers will have to order in smaller quantities and more frequently, thus demanding to speed up our order process.

In the apparel industry, where these many stages are needed to pass from raw materials to finished goods and then to reach customers end within a stipulated period, the job of managing all activities is not easy and in a landlocked country like ours, it is even difficult as the main obstruction is the high logistic costs.

Hence, this paper analyses the logistical cost structure of the apparel industries from angles such as competition factor (export competitiveness), product factor, circumstance factor, and management factor (logistics management). The composing factors of the logistics cost include the order period, cost inventory, personnel quality, geographic position, management costs, transportation costs, turnover rate, and some other factors of the apparel industries like the inbound logistics of raw material and synergy composition for manufacturing. It will also cover the flow of raw material, flow in finance, the flow of goods, the flow of information, and the flow of finished product along with the flow of consumer's feedback. This study, however, covers only the part of Procurement logistics and a part of distribution (export) logistics. Business logistics has been covered surficial whereas disposal and production logistic is beyond the scope of this study.

4.3 Nepal's export competitiveness for apparel

Nepal is fit to capitalize on the opportunities created by a booming apparel sector based on its competitive edges listed as follows:

- 1. The unit price of the apparel production of Nepal is better than most apparel producing countries.** The expertise of the Nepalese apparel producers in the four categories of men's or boy's shirts in 2000 it is said that the Chinese unit value exceeded by 32 % to 115 %. This shown ability to compete in the US and European markets. The unit values of Nepalese apparels were also lower than that of India and Sri Lanka in two of the same category in men's shirts. In some cases, it was lower than that of Bangladesh and very close competition with Bangladesh in the balance of two categories. The only country that superseded Nepal was Vietnam.
- 2. Small order sizes help maintain flexibility in production.** Keeping in mind the demand of fashion industry and requirement of fast production and swift delivery, Nepalese apparel manufacturer stock raw materials. This is also because the import is not easy from third countries and therefore, inventory needs to be managed appropriately. This helps them produce faster and manage to deliver on time. However, stocking raw materials also means that the cost of maintaining the inventory is a bit higher. This cost is added to the cost price of buyers but buyers have been

accepting these prices as others factors like quality, on time delivery and flexibility to produce small orders is possible.

3. **Unique felt items are produced by Nepalese apparel manufacturers.** Felt is a textile material that is produced by matting, condensing and pressing fibers together. Felt can be made of natural fibers such as wool or animal fur, or from synthetic fibers such as petroleum-based acrylic or acrylonitrile or wood pulp-based rayon. It is used to produce numerous textile items including but not limited to decorative items, shawls, sleepers, carpets and many more. Nepalese felt market in international markets is increasing year by year and becoming more and more popular.
4. **Nepalese artisans have years of experience in minute embroidery.** The skill of embroidery and artisans embraced during the good old times of high manufacturing export still remains within Nepalese apparel industry tending buyers to choose Nepalese manufacturers when they need small and flexible orders with skill of embroidery and artistic work.
5. **Relatively cheaper labor compared to India and China.** Nepal's labor cost is cheaper than China and India when it comes to apparel manufacturing, however, compared to Bangladesh Nepal's labor cost is a bit higher. Despite this, the advantage over China and India is good enough to cater to the niche markets as there are chances of being more competitive if orders increase and more labors get attracted to the industry. The demand of job has chance to reduce the cost of labor in future if government addresses to the industry's concerns. As Nepalese labors are returning in light of COVID-19, it is a right time to tap their skills and availability to create jobs in the apparel industry and boom the sector.
6. **Productivity is high compared to India.** While Nepal's has a competitive advantage over India when it comes to productivity, it lags behind when compared to China. This is primarily because production in Nepal is primarily human-driven while that in China is machine-driven. Nevertheless, if Nepal is successful in drawing foreign investment and technology into the domestic apparel sector, productivity will rise swiftly.
7. **Production of Cashmere (Pashmina) fabrics is a unique specialty of Nepal.** The use of special costly wools in making garment is a skill Nepal possesses that other countries are still not very much involved. The export of these products has been increasing and the international trade support organization like the ITC has been giving due importance in enhancing the quality and market access. However, meeting the quality standards and following the trend, styles and designs has been challenging to the entrepreneurs but with international and TEPC's support it is expected that the challenges will be mitigated gradually.

4.4 Challenges to export competitiveness of Nepalese apparel industry

Nepalese apparel sector faces the following issues that hamper the export competitiveness for apparel:

1. **Low-risk aversion.** The apparel manufacturers in general and those involved in export have several possibilities in the mind and seek government and policymakers to address them to make them competitive in export business and earn foreign currency as well as create jobs.
2. **Illiquid sector.** Since the industry is managed by a medium as medium industries and cash flow is a problem they desire a mechanism to de-link payment with the movement of goods. The possibility of enabling them to import on credit with suppliers with whom they have goodwill and backed with a contract to that effect endorsed and monitored by government agencies like the customs department. This demands automatically on permits to deposit advance with suppliers as per their

need so that they can purchase material faster. The logic behind is that the goods no matter which mode always enters a custom point and prior approval mechanism with the right documents can be made possible if there is a willingness to expedite exports of any kind. Some industries have been getting such facilities under special provisions already.

3. **Inefficient custom processes.** The procedure of faster procedure compliance at customs to release goods faster and more efficiently to reduce total transport costs per transaction. The vendors strongly feel that this will also enable in faster processing/production if their goods arrive fast. The process of export can similarly be made faster if the system to pre classify goods and even to the pre-custom clearing of documents so that once goods arrive, there is no delay, and goods can be released immediately on examination. At times the customs creates a problem by inspecting 100% goods and create hindrance and delay, this can be solved based on the past performance of the exporter and can be done on a sample basis. After all, there are so many other provisions of government to control malpractice as the import remains in the factory as raw material for at least one month and export is based on the import of raw materials. The customs system is now computerized and even made compatible with all the customs point to monitor the trade. Therefore, many doable things must be introduced if the government is serious in enhancing Nepal's export performance of apparel.
4. **Costs of logistics.** The problem of LCL shipments has been long taken up and everybody in the trade knows about the cost factor being too high. The industry is full of micro, small, and medium enterprises and they often have very small shipments. When buyers can manage lead time, the exporter is not able to move the shipment by sea and has to use air, which is too expensive. The provision of moving cargo in sealed trucks or provisions of consolidating and moving FCL should be worked out. This can be introduced for any non-sensitive cargo.

4.5 Logistics management in Nepalese apparel industry

Most apparel manufacturers of Nepal handle all logistics functions including trucking and warehousing through their logistics and transportation department. Companies purchase most of their fabrics from the group's fabric producer and rely on the group's retailer for the wholesale of its products, which are mostly placed on the national market by large distribution firms. Manufacturing activities are outsourced to a group of small local sub-contractors with whom the company has established close, long-term partnerships; this enables it to achieve cost efficiency and production flexibility. In particular, a large centralized warehouse is created to store fabrics and finished products. The UN/CEFACT Recommendation No. 18 illustrates a simplified view of the international supply chain in the Buy-Ship-Pay model as illustrated in Figure 3. The model identifies the key commercial, logistical, regulatory, and payment procedures involved in the international supply chain.

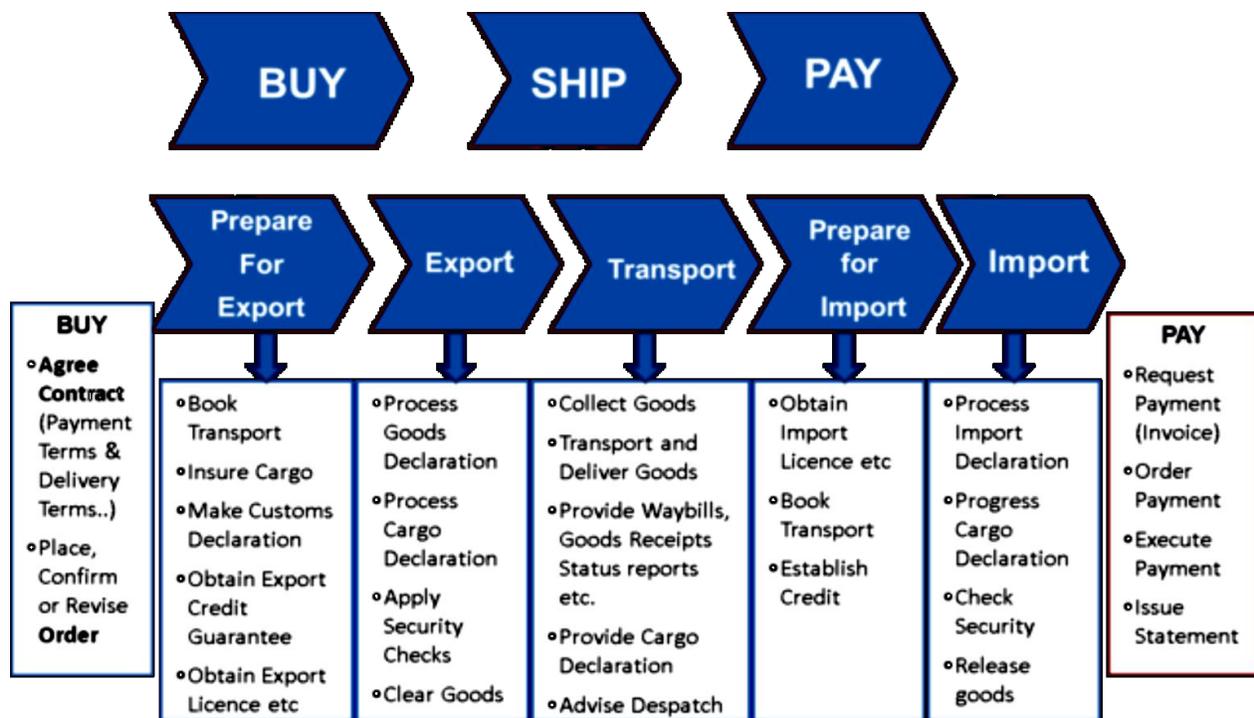


Figure 3 Buy-Ship-Pay model of logistics

Besides managing the external logistics, managing the following issues in a unit of the apparel industries of Nepal also needs much attention. Some of them are as follows:

- Routes are blocked by storage materials
- Machine layout is often staggered
- Lack of signage for an escape route
- No provision for emergency lighting
- Doors, opening along escape routes, are not fire-resistant.
- Doors are not self-closing and often do not open along the direction of escape
- Adequate doors, as well as adequate staircases, are not provided to aid quick exit
- Fire exit or emergency staircase lacks proper maintenance
- Lack of proper exit route to reach the place of safety
- Parked vehicles, goods and rubbish on the outside of the building obstruct exits to the open air
- Compartmentalization of the workplace is practiced mostly practices and that could be dangerous at times.

Thus, enhancing coordination of operations and coordination of logistics flows between the company and its suppliers (both raw materials and subcontractors) is not only the focus but also considering logistics within the factory premises is also very important.

4.6 Backward linkage in apparel industry

In global apparel markets, international buyers place an order with competitive pricing along with shortest possible lead time. Here, backward linkages play a major part to reduce lead time and offer competitive price in the international market. One of the major issues for apparel industry of Nepal is the backward linkage conditions, support, and strategy formulation. This report extensively discusses the present condition of backward integration, needs for further development. Since all backward linkage is covered in

tables (Section 4.8 and Section 4.9) on import supply chain by Road, Air and sea mode of transports from India, Bangladesh and China and Taiwan and export to EU and the USA the focus below is on the dyeing, printing and finishing portion of readymade garment manufacturing.

Dyeing, Printing and Finishing

The final linkages in the textile industry, namely, dyeing, printing and finishing have not improved in spite of huge knowledge gained by apparel industry of Nepal during the peak times of garment export from joint venture with Indian and other foreign investors only a few firms can match colors, get the right dyeing and printing jobs . The efficiency of this sub-sector however, depends mostly on the quality of the imported fabrics.

Apparel industry in Nepal still are unable to meet the standard of quality demanded by the export-oriented apparel industries either due to high import duty, non-facilities on infrastructure free to dyeing, printing and finishing sub-sector to set up new units with advanced technology etc.

This dyeing, printing and fabric processing sub-sectors are still not well facilities in Nepal as only small-scale operations, small investments are involve. All these mean that a stronger encouragement should be provided for the development of these components of the backward integration (Habib, 2002). This view has also been supported by an IFC report which suggested development of dyeing, printing and fabric production by improving infrastructural facilities and the transport facility and its logistics. Streamlining the import policy by removing the cumbersome procedures, facilities for apparel at proposed Kathmandu dry port and enhanced law and order are some issues that need government's attention.

Nepal's garment industry will face serious challenges if it wants to maintain and improve its competitiveness position in the post-MFA era. The challenge should serve as a wakeup call for the garment industry for forming a new strategic position with sustained government support.

4.7 Inward logistics of import for apparel industries of Nepal

The flow of inward logistics for import of raw materials and accessories for apparel in Nepal based on the Buy-Ship-Pay concept is explained in tables below:

4.7.1 Import of Raw Material to Kathmandu via Kolkata or Vizag by sea from China or Taiwan and Bangladesh by road

Business Processes	Time	Cost	The relevance of the activity	Actor	Procedures	Action	Documents
Identification of product and country	Between 15 to 45 days	Varies as per source and type of products. Minimum NPR 1,500 to 10,000 (If travel to the source is involved the cost will increase)	This is important for the production of the best quality in compliance with the market demand meeting with standards like in the case of Europe mentioned in this report.	The importer is interested in purchasing fabrics with his team and possible mode of transport	<ul style="list-style-type: none"> United Nations Convention on Contracts for the International Sale of Goods 1980 INCO terms Export-Import (Control) Act of 1957 Country requirements Quantify requirement etc. 	Buy	Trade porter, Business Support Organization (BSO) of origin country, agencies if any at the destination, web visits, trade promotion centers (TPC), etc.
Import contract corresponding	2 to 30 days	Cost of communication is minimal, but approval samples could be paid and courier charges involving and import duties on some accessories also applicable for the study NPR 15,000	<ol style="list-style-type: none"> Importer contacts exporter and makes a trade offer on: <ul style="list-style-type: none"> Quantity required Quality of the fabric Price of fabric Mode of payment Delivery time Exporter receives the trade offer. If the trade terms are not acceptable, it is renegotiated. Exporter confirms the trade terms. Importer issues a purchase order in the name of exporter online. Exporter prepares a Pro-forma invoice and sends it to the importer electronically. Exporter and importer agree on trade terms. 	Importer and Supplier both need active involvement especially, while trying to source through different suppliers and different products.	Telephone, webinar, zoom, letters, e-mails	Buy	Information of BSO's and TPC, Government web, search engine, etc., banks of importer and exporter, and the regulations applicable for payment terms, contract mechanism to avoid any disputes
Performa invoice and banking process- Telegraphic Transfer (TT) and	10-15 days For LC, it takes a longer time as terms and conditions need to be fixed and the	NPR 5,000 – 10,000 (0.05 to 0.1 % of invoice value) LC opening cost could be between NPR 15,000 to deposit of 2% of the amount of LC	Send payment via telegraphic transfer <u>TT:</u> <ul style="list-style-type: none"> Foreign Exchange (Regulation) Act of 1962 	<ul style="list-style-type: none"> Exporter Importer Exporter's Bank Importer's Bank NRB Commercial Bank in Nepal and the 	The importer has a commercial account in the bank where TT is being issued. Exporter has sent a Pro-forma invoice to the importer	Pay (This is the fixation of payment)	Importer approaches a commercial bank to issue a TT to the exporter and submits following documents in print <ul style="list-style-type: none"> Pro-forma invoice PAN/VAT certificate (one time) Company registration certificate (one time) Foreign exchange control form (BiBiNi3A)

Letter of Credit (LC)	point of responsibility be mentioned. The goods might be imported following a particular INCO terms but the contract may have a special provision like third party inspection etc.		<ul style="list-style-type: none"> • Foreign Exchange (Regulation) Rules 1963 • Nepal Rastra Bank Act of 2002 • Circular 641 of Nepal Rastra Bank (NRB) <p>This is to fix the point of transfer of risk, ownership, and cost, etc. to avoid disputes</p>	corresponding bank of the commercial bank	Importers bank Exporters bank and their corresponding banks.	terms for import)	<ul style="list-style-type: none"> • Foreign currency dealing permit from NRB <p>The importer's bank verifies the validity of these documents and if not satisfied asks importer to resubmit correct documents.</p> <ul style="list-style-type: none"> • If documents are satisfactory, the importer's bank requests the importer to deposit money. Importer deposits money to make payment. • Importer's bank issues a SWIFT message and forwards the message to the NRB electronically. • NRB sends the SWIFT message to the bank at the origin electronically. • Origin Bank in turn informs the exporter's bank of the telegraphic transfer and forwards the SWIFT message to the exporter's bank electronically. • The importer forwards the SWIFT message to the exporter electronically. • The exporter receives the SWIFT Key and provides the key to the bank. • The exporter's bank makes payment to the exporter. • The exporter's bank issues the certificate of payment and forwards it to the importer's bank. • The importer bank then receives the certificate of payment and suggests the importer collect the certificate in print. • The exporter acknowledges the receipt of the payment and sends the following documents to the importer through mail: <ul style="list-style-type: none"> - Commercial invoice - Pro-forma invoice - Certificate of origin (COO) - Packing list - Payment certificate (TT) - B/L endorsed in the name of importer (LC) • The importer receives documents from the exporter and the bank.
Order preparation time	7 to 10 days	It starts at NPR 5,100 and varies as collection, packing, labeling based on the mode of transport is necessary and transport, labor correspondence, and coordination are needed.	Notice no. 1 and 2 published by the Ministry of Commerce and Supplies in Nepal Gazette 2009	Freight forwarder for document and bank work/Importer	Get approval from the Department of Commerce (DoC)	Payment arrangements	<p>If LC is involved, there is no need for DoC involvement unless it is donated items. The importer provides the following documents to the DoC for permits for import by TT:</p> <ul style="list-style-type: none"> • Commercial invoice • Pro-forma invoice • Certificate of origin • Packing list • Payment certificate • PAN/VAT certificate • Company registration certificate <p>The DoC verifies these documents and asks the importer to resubmit the documents with amendments</p>

							if any. If satisfied with the documents, DoC requests payment from the importer. The importer makes payment to DoC, which then issues printed authorization letter in print in the name of the importer. The importer collects the authorization letter from the DoC and sends it to the customs point of entry to its nominated clearing agent. In some cases, the freight forwarders coordinate the total action.
Order arrival time	<p><u>By air</u> 7 to 15 days</p> <p><u>By road Bangladesh</u> Min. 6 to 7 days to Nepal border</p> <p>Up to 7-12 days up to border and + 4 to Kathmandu Total: 16 days</p> <p>In the case of Via Kolkata Origin to Kolkata 24 days Kolkata to Birgunj (BRJ) 12 to 17 days BRJ to Kathmandu 5 days.</p> <p>Time at Vizag 4 to 45 days depending on a load of goods and volume At Kolkata, minimum holding time at port and</p>	<p><u>By air:</u> USD 1.50- 2.50 per kg</p> <p><u>By sea:</u> Via CCU: USD 2,350 to 2,900 per 200 ft. container</p> <p><u>By road:</u> USD 1,700</p>	<ul style="list-style-type: none"> As per Nepal India treaty IATA Multimodal Transport Operator (MTO) Act Nepal Transit and Warehousing Company Limited (NTWCL) regulation for via Kolkata and Bangladesh Transports Internationaux Routiers (TiR) Carnet International Federation of Freight Forwarders Associations (FIATA) 	<ul style="list-style-type: none"> Shipper along with his freight forwarder, shipping line, the clearing agent at India, Bangladesh, and Nepal Customs of origin, transit and importing country and terminal operators NTWCL Consulate general's office at Kolkata, liner agents, port, etc. 	Different means and modes of transport in compliance with norms of exporting/importing/transit countries.	Ship	<ul style="list-style-type: none"> Air: Airway Bill (AWB) Sea: House Bill of Lading (MBL) House Bill of Lading (HBL) Road: MBL/HBL/Road consignment note/ Custom Transit Declaration (CTD) By Rail MBL/HBL/ Rail Release (RR) <p><u>Other documents:</u></p> <ul style="list-style-type: none"> Authority letter by an importer in the name of clearing agent at Kolkata for other modes. For Air: Authority letter in the name of clearing agent in Nepal. Airlines delivery order/manifest. <p><u>In case of all modes:</u></p> <ul style="list-style-type: none"> Invoice, Packing list, payment certificate (TT or LC or DP) Certificate of origin, Insurance policy, SAD, etc. <p><u>Procedure for air:</u></p> <ul style="list-style-type: none"> Release of DO after airlines inform the arrival of goods with a bank release letter Prepare documents as above File in the customs system (ASYCUDA) and get it endorsed by the customs officer in an appraisal customs staff, search for the staff and take out the goods, do the appraisal of goods If found ok the customs check the valuation as per SAD form filed by clearing agent and after payment of taxes the good are released loaded on vehicles and conveyance to the respective consignee, delivery receipt, billing of services, and payment through the bank for service provided. <p><u>Procedure for the road at Kolkata:</u> Shipment under CIF Kolkata Basis</p> <ol style="list-style-type: none"> Document to clearing agent by courier.

	CFS is 14 days as per various researches. Transport by road takes a minimum of 5 days to 12 days At ICP in BRJ 3 days and ICD 4 to 12 days.						<ol style="list-style-type: none"> 2. The clearing agent notifies the liner of the arrival of goods with the bill of lading copy or original. 3. The liner advises on the arrival dates. 4. DO release and custom house filing by CHA. 5. After vessel arrives the documents are filed at the port customs along with prepared CTD 6. shipment moved to the delivery point 7. After all formalities of port and fess paid it is loaded on trailers and moved to Nepal. 8. If at CFS, another three steps to be completed. <p><u>Procedure for rail at Kolkata:</u></p> <ol style="list-style-type: none"> 1. Invoice filed by the shipping line to Customs with manifest 24 hours before arrival. 2. ETCs procedure done by its nominated agent. 3. Container offloaded or shifter to port delivery point or CFS (if needed). 4. Trans-loaded in a rack or train for moving to ICD. <p><u>Procedure in the Nepal customs by Rail or Road:</u></p> <ul style="list-style-type: none"> • Same as below
Document preparation for bank and customs/insurance	2 days	Insurance cost: 0.1375% of the invoice value	Insurance Act and names of respective countries as per the nature of the transport used and liabilities covered by the transport document	<ul style="list-style-type: none"> • Importer • Importer's insurance company 	<ul style="list-style-type: none"> • Customs Act of 2007 • Customs Rules 2007 • Customs Regulations 2007 • Insurance regulation of Nepal and transit country regulation 	Ship	<p>Same as above:</p> <ul style="list-style-type: none"> • Invoice • Contract copy • LC or draft (TT) • Registration certificate copies • packing list, etc.
Customs process and tax	2 days	<p>Customs agent charges NPR 2,000 per truck</p> <p>Cost of courier NPR 200</p> <p>Tax and VAT (19-20)%</p> <p>Logistic cost in the total cost USD 3,400 to USD 3,600 per 20 ft. It is the highest for linen, cotton, and viscose.</p>					<p><u>For Bangladesh Imports</u></p> <ul style="list-style-type: none"> • Customs agent approaches a transport company/transporter's association for transporting consignment from the country of origin. • The transport company/ transport association allocates specific transporter for transporting the consignment. • The transporter agrees to deliver the consignment from Fulbari to the importer's warehouse. • The transporter takes the empty truck to the customs office premise. <p><u>Documents and Procedures:</u></p>

						<ul style="list-style-type: none"> • Air: AWB • Sea: MBL HBL • Road: MBL/HBL/Road consignment note/CTD • By Rail MBL/HBL/RR <p><u>Other documents:</u> Authority letter by the importer in the name-clearing agent at Kolkata for other modes.</p> <p><u>In case of all modes:</u></p> <ul style="list-style-type: none"> • Invoice, Packing list, payment certificate (TT or LC or DP) • Certificate of origin, Insurance policy, SAD, etc. <p><u>For Air:</u></p> <ul style="list-style-type: none"> • Authority letter in the name of clearing agent in Nepal. Airlines delivery order/manifest. • Release of DO after airlines inform the arrival of goods with a bank release letter • Prepare documents as above, file in the customs system (ASYCUDA), get it endorsed by the customs officer in an appraisal customs staff, search for the staff and take out the goods, do the appraisal of good • If found ok the customs checks the valuation as per SAD form filed by the clearing agent • After payment of taxes, the goods are released, loaded on vehicles and conveyance to the respective consignee, delivery receipt, billing of services, and payment through the bank for service provided. <p><u>In the case of Road at Kolkata:</u></p> <ul style="list-style-type: none"> • Same as above <p><u>In case of Rail at Kolkata</u></p> <ul style="list-style-type: none"> • Same as above <p><u>In the Nepal customs by Rail or Road:</u> ICD by Rail:</p> <ol style="list-style-type: none"> 1. Train arrival at Raxaul and manifest filed and checking of seals done. If ok, sent it to the Nepal side. 2. The train arrives and offloads the containers. 3. The Clearing agent processes the documents at customs and pays duty at the bank. 4. Identifies the container and appraisal done by the customer.
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							<p>5. If all is ok the container moves to Kathmandu in trailers or by a truck after de-stuffing at ICD.</p> <p>6. Delivered to Importer.</p>
Domestic transport	3 days to Kakarvitta 3 days from Kakarvitta to Kathmandu BRJ to Kathmandu 5 days normal but takes 12 days at times.	The cost of telecommunications is marginal. Cost of transport NPR 50,000 to NPR 55,000			<ul style="list-style-type: none"> • Contract Act of 2000 • Transport Management Act of 1993 • Vehicles and Transport Management Rules 1997 		<ul style="list-style-type: none"> • Nepalese trucks wait until Bangladeshi trucks enter at the Fulbari customs station. • The Customs Agent allocates the trucks as per the truck consignment note. • The transporter from Nepal loads the trucks as per Customs Agent's instructions. • NTWCL provides a list of the day's consignments in print to the Fulbari customs for its approval. • An officer at Fulbari customs inspects the consignment. • The customs officer issues the release form and endorses the CTD in the paper. • The officer seals the trucks. • The officer from NTWCL submits a copy of CTD to the customs office at Banglabandh, Bangladesh. • Customs at Banglabandh endorses the CTD. • NTWCL collects the CTD from Banglabandh customs. • The trucks depart from Fulbari. • Custom official from the Fulbari customs port provides escorts to the consignment. <p><u>Domestic transport from border to Kathmandu</u></p> <ul style="list-style-type: none"> • Procedure same as above
Warehousing and undertaking Waiting time	2 days at Kakarvitta, 1 day at Kathmandu but max 2 to 3 days. In transit at BRJ could be a minimum of 3 days	0.35 % of the invoice value as service charge 0.15 % of invoice value as undertaking charge.			<ul style="list-style-type: none"> • ToT between GoN and GoI 1999 • Protocol to the ToT between GoN and GoI 1999 • Transit Agreement between GoN and Government of the People's Republic of Bangladesh 1976 • Protocol to the Transit Agreement between GoN and Government of the People's Republic of Bangladesh 1976 		The truckers have to pay INR 250 per truck for loading, INR 50 for sealing, and an additional INR 225 per truck for escort (for the whole escorted trucks).
Distribution of fabric within	2 days max	Internal operation under fixed costs of the factory unit	Checking the right product and quantity as well as the condition of goods and allocation to respective areas	The importer and its factory staff storekeeper.	Check as per packing list and products ordered and maintain an inventory of raw material in stock	Buy finally	The packing list and delivery order and delivery receipt to the transporter. Take the customs documents and payment receipt of tax and other documents needed for record-keeping and claims or tax filing or claiming for incentives.

Manufacturing process	N/A	N/A	NA	NA	NA	NA	NA
TOTAL	50 min 72 max days	From Bangladesh USD 1,000 to USD 1,200 From Kolkata USD 2,450 to 2,800 From Vizag USD 3,150 to USD 3,600 based on 20 feet container					

The above table clearly shows the step and procedures along with documents, time and cost factors. The cost considered are based on consultants personal experience as Logistic service providers .The costs are not fixed and keep changing based on season, volume and international market factors.

4.7.2 Import of raw materials by air from India, Bangladesh and third country

Business processes	Time	Cost	Actors	Activity	Documents
Pre-shipment	Factory to airport same day dispatch if space booking and space is secured. Transit time is normally 4 days inclusive of waiting time and flight schedule. The transit time depends on the space in the airlines, flight schedule, and nature of the cargo. Minimum days can be ranging from same day dispatch to 4 or 9 days India	Procedures based on INCO Terms: If CIF: the exporter in Bangladesh pays all the charges ex-factory to delivery at Kathmandu airport. The destination delivery charges like terminal handling, unloading, handling, delivery order, etc. Charges are paid by importer in Kathmandu. Insurance is done by the exporter and facilitates claim if any.		Inspection of goods, packing, labeling, and marking as per importers instruction. Loading in trucks is done and delivery formalities. The goods upon reaching airport of origin are processed through customs with required documents, labeled with the right MAWB and HAWB (to enable delivery to respective importers based on HAWB Numbers as all the goods have one MAWB and it will be difficult to identify goods belonging to respective importers at the destination.	1. Contract paper 2. Purchase order 3. Delivery slip 4. Handing over certificate 5. AWB or HAWB. ¹ Since there is a vast difference between USD 3 per Kg and USD 1.5 per kg the consolidator or freight forwarder offers him a rate of say 2 dollars, which is cheaper than USD 3 per kg. However, there are fees of the HAWB involved which may cost up to USD 15.

¹Airway bill is normally the master way bill of the airlines being used.

HAWB comes into existence only when there is consolidation of several suppliers' goods at origin but destined to one consignee at destination or various consignees at destination. Also, there is a huge misconception of the use of two documents .The use of HAWB normally is supposed to help the exporter or importer match a better rate as rates are in different slabs like minimal, normal, +45 Kg, +100 Kg, +500 Kg, + 1000 kg up to 4 tons etc. If for example a small shipper has 100 kg and he has to ship the goods by air normally, it costs him say USD3/per Kg but if the forwarder consolidates the goods of same destination and makes it above 1000 kg he gets a rate of \$1.50/kg.

The destination needs to be one.

		<p>It must be noted here that USD 20 per kg is already insured by airlines as per IATA and insurance comes to be possible only if the value is higher than USD 20 kg.</p> <p>If FOB: the shipper hands over the goods to the nominated freight forwarder and they arrange all the activities but payment of origin airport, terminal handling, inland haulage all paid by the shipper.</p> <p>Airfreight is paid by Importer in Nepal. This may be paid by the agents at the origin with MAWB as prepaid and HAWB as collect with which the Freight Forwarder in Nepal remits the sum to its agent in origin country with permission from Bank through his foreign currency account. This arrangement must be done only after a permit from NRB for foreign currency and endorsement of agency contract with the foreign agent by NRB. It must be noted here that no goods can be shipped to Nepal on a charge collect basis.</p>		<p>The goods are palletized, or loaded on-air containers or in break bulk in the stomach of the airlines.</p> <p>The documents needed for destination customs clearance are then attached to the master AWB.</p> <p>Based in the LC clause the AWB or HAWB is handed over to shipper with all endorsed documents by customs for enabling negotiation with the bank for the goods shipped by shipper.</p>	<p>Other documents needed at customs at origin are as follows:</p> <ul style="list-style-type: none"> • LC or advance payment certificate or telegraphic transfer-proof from Bank original • Invoice original, packing list original, Certificate of origin original, Quality related compliance certificate, MAWB, HAWB, Handing over the certificate, FCR, etc. <p>Airlines generate the manifest of the total cargo carried which is cross-checked at the destination airport/</p>
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4.8 Outward logistics for export of apparel products and accessories from apparel industries of Nepal

4.8.1 Export of apparel products by air

Business processes	Time	Costs	Relevance	Actor	Procedure	Documents
1. Inform the buyer on the readiness of the order	1 day	0	Pre-alert to the buyer for the necessary fund and banking procedure	Exporter	E-mail	Purchase order
2. Buyer sends the packing and delivery details	2 days	0	For the ease of distribution and inventory management at the destination and even to save freight cost by avoiding the volume, rate applicable. Tracking and tracing easier as cargo is deaf and dumb.	Importer	E-mail	E-mail or as per contract paper and agreement before beginning production as per purchase order.

3. Quality Inspection	1 day	As agreed borne by the buyer	Ensure the quality as demanded by the importer. Certified by a 3PL.	Quality compliance and standard companies	Physical inspection based on the specification of the order	Gives quality compliance certificate after inspection. This might be needed during the negotiation of documents with the bank for the final payment.
4. The goods are packed	2 days	Included in the price quoted to the buyer	Compliance and checking the volume and managing the packing material	The exporter or its logistic service provider	Based on agreed packing and labeling in the purchase order. Depending on the mode of shipment and time to deliver.	Quality certification of material used in case of any claim and purchase order distribution details.
5. LC is demanded based on the value and quantity to ship as per purchase order	4 days		LC confirms the conformity of payment after compliance with buyer's terms and conditions with a witness as shipper's bank and buyers' bank and the corresponding banks involved in between.	Exporter Bank	By e-mail along with Performa Invoice and other details that are required in the contract between buyer and seller.	Performa invoice, purchase order, and quality inspection report.
6. LC receive notice provided by the bank	1 day	NPR 5,500 bank fees	This notice enables planning documents and effecting the shipment.	Bank Importer	By e-mail or telephone	Covering letters for respective customs office and original stamped letter of credit is given to importer for effecting the shipment.
7. Freight forwarders are informed to collect the documents on behalf of the exporter	1 day	5% of the freight charges NPR 10,000 per ton	Making things ready to process customs with relevant original documents	The importer or his logistic service provider	Telephone or e-mail	Freight forwarders collect LC and cover letter.
8. Pick up a schedule and onboard details worked by freight companies	1 day		Planning on shipment pick up as well as space booking and onward movement.	Freight Forwarder	Internal communication among freight forwarders and his alliances.	The invoice and packing list are given to pick up the coordinator and matched it with the factory list.
9. Goods picked up from factory to airport	1 day	Transport charge may be charged if the shipment is less than 500 kg NPR: 3,500	Based on the volume and nature of the goods the freight forwarder plans pick up with labors and equipment needed.	Forwarder	The transport company, laborers in coordination with freight forwarders and documents provided by the exporter.	Export document as proof for traffic
10. Document preparation	0		Documents for customs clearance and on forwarding.	Forwarder and Importer and bank custom broker	Needed for custom clearance and based on LC	Invoice, packing list, LC or Advance payment or DA whichever is applicable. DoC permit if by TT or under special items export GAN permit certificate Certificate of origin, REX, AWB or HAWB

						Authority letter, company registration, and VAT/PAN registration once a year with photo identity authorization. Manifest, warehouse receipt. A separate page shall show a list of various documents needed for export and import.
11. Appraisal	0	NPR 5,000 per MT	As per governments rules; NTWCL rules	Customs and custom broker	In the custom premises at the airport	SAD and all the above documents in point 10.
12. Warehouse	1 day	Ware house charge of 0.015% of the invoice value	NTWCL regulation	NTWCL	After custom clearing, the goods need to be kept in the warehouse before booking with airlines for onward journey. This is as per the rule of the government.	Warehouse receipt paid as per fixed rates for different volume or weight
13. AWB booking	0	Airfreight charges to Europe per kg 3.50. USD 3500 per MT	Transport document of negotiation capacity and the contract between buyer and seller with the agent as a witness.	Airlines	Once the number of packages, its actual and volume weight is known as the airlines' book space with its airlines or their alliance airlines for onward booking.	Air waybill as per acceptance of the IATA (International Air Transport Association) House air waybill based on IATA and approved by NRB as a negotiable document.
14. Loading at aircraft	1	Covered by Freight forwarders fees	Planning bulk loading or loading in pallets or containers. Depending on the nature of the aircraft and passengers and baggage's load and temperature or climate condition at origin and destination.	Airlines concerned or ground handling agent or freight forwarder.	Depending on the nature of the goods and its volume to plan effective Unit Load Device (ULD)	Manifest of airlines
15. Onboard the flight	0		After the consignment is "On board" the AWB is released to enable the exporter to negotiate with the bank as this point is considered as the transfer of cost and risk to the buyer.	airlines	Inside the flight and the goods physically takes off the ground of the origin country.	Confirmation of airlines taking off the ground by civil aviation and air transport traffic control.
16. Hand over customs documents for bank negotiation	1		The bank needs proof on custom clearance and Onboard for negotiation based on the INCO Terms and LC conditions.	Clearing agent or Forwarder	This is being paid as per LC condition compliance for negotiating with commercial banks.	Documents as per point 10.
17. Exporter prepares following docs to get payment	1		Negotiation activity	The exporter or his nominated logistic service provider	These documents are demanded by LC so they need to compliance LC demand, regulation, and terms.	All documents in point 10 along with the bill of exchange and BiBiNi.
18. Present bills to the exporter by the freight forwarder	0		For the service provided	Freight forwarder	Logistic service providers service appraisal and payment system.	Copy of SAD, Bills of customs, warehouse, custom clearance expenses as agreed with shipper along with their fees and facilitation expenses and labor expenses clearing agent fees, etc.

						Handing over certificate or Forwarders cargo receipt or any other demanded by the buyer or his LC.
19. Follow up shipment	0		Tracing the movement and keeping sellers and buyers up to date on movement status.	Freight forwarder	To be responsible to seller and buyer on the job provided as payment has been effected it is our responsibility to watch and be sure the goods reach on time in the right condition to the importer for better selling and future orders.	Based on the AWB number
20. Bank releases payment	2	Commission as per banks	The end of pay action as per the BPA	Bank	Final payment to the shipper if no LC discrepancy is witnessed. If discrepancy the bank waits until the discrepant documents are accepted by the buyer and the buyers' bank confirms to the sellers' bank	After compliance with all documents needed by LC
21. Couriered to consignee	0	NPR 7,000	Needed for destination clearance purpose and distribution to respective stores or warehouses.	Courier companies facilitated by the freight forwarder or by Importer.	These documents are needed to comply with importing countries' customs regulation and quality compliances like the Certificate of origin REX, quality certification, etc.	The Invoice Packing list and original REX or Beneficiary confirmation or certificate etc. or any other document demanded by the buyer as per contract or LC.
22. Arrange distribution to respective stores at destination	5	Paid by Consignee	Distribution channel to economize the logistic costs	The destination freight agent or customs broker or transport company or consignees own fleet of trucks	Based on the list of packages and size demanded by respective stores and delivery is planned. The apparel on hangers needs to be placed at the right place of the store if needed.	Based on the distribution list and details given by the importer
23. Pick up unused packing material for disposal	1	Paid by consignee	Waste management and environmental regulation compliance in destination countries.	The importer could nominate a separate company or use the destination freight agent or customs broker or transport company or consignees own fleet of trucks	Waste management compliance of the importing country.	Contract and order execution forms.

4.8.2 Export to Europe and USA from Kathmandu via Vizag and Kolkata

Business processes	Time	Costs	Relevance	Actors	Procedures	Documents
1. Inform the buyer on the readiness of the order	1 day	0	Pre-alert to the buyer for the necessary fund and banking procedure	Exporter	E-mail	Purchase order
2. Buyer sends the packing and delivery details	2 days	0	For the easiness of distribution and inventory management at the destination and even	Importer	E-mail	E-mail or as per contract paper and agreement before beginning production as per purchase order.

			to save freight cost by avoiding the volume, rate applicable. tracking and tracing easier as cargo is deaf and dumb			
3. Quality Inspection	1 day	As agreed borne by the buyer	Ensure the quality as demanded by the importer. Certified by a 3PL	Quality compliance and standard companies	Physical inspection based on the specification of the order	Gives QC (Quality Control) certificate after inspection. This might be needed during the negotiation of documents with the bank for the final payment.
4. The goods are packed	2 days	Included in the price quoted to the buyer	Compliance and checking the volume and managing the packing material	The exporter or its logistic service provider	Based on agreed packing and labeling in the purchase order. Depending on the mode of shipment and time to deliver.	Quality certification of material used in case of any claim and purchase order distribution details.
5. LC is demanded based on the value and quantity to ship as per purchase order	4 days		LC confirms the conformity of payment after compliance with buyers' terms and conditions with the witness as shipper's bank and buyer's bank and the corresponding banks involved in between.	Exporter Bank	By e-mail along with Performa Invoice and other details that are required in the contract between buyer and seller.	Performa invoice, purchase order, and quality inspection report.
6. LC receive notice provided by the bank	1 day	Bank fees NPR 5,500	This notice enables planning documents and effecting the shipment.	Bank Importer	By e-mail or telephone	Covering letters for respective customs office and original stamped letter of credit is given to importer for effecting the shipment.
7. Freight forwarders are informed to collect the documents on behalf of the exporter	1 day		Making things ready to process customs with relevant original documents	The importer or his logistic service provider	Telephone or e-mail	Freight forwarders collect LC and cover letter.
8. Document preparation as follows	One day	Zero	Documents for customs clearance and on forwarding.	Forwarder and Importer and bank custom broker	Needed for custom clearance and based on LC	<ul style="list-style-type: none"> • Invoice, packing list, LC or Advance payment whichever is applicable. • DoC permit if by TT or under special items export • GAN permit certificate • Certificate of origin, CTD • REX, Authority letter, company registration, and VAT/PAN registration once a year with photo identity authorization.

						A separate page shall show a list of various documents needed for export and import.
9. Goods picked up from the factory to BRJ	1 day and same-day effect the movement	Zero		Forwarder	The transport company, labors in coordination with freight forwarders and documents provided by the exporter.	Export document as proof for traffic along with road consignment note (Biltee) up to BRJ.
10. Customs Appraisal BRJ	1	NPR included in point 9.	As per governments rules NTWCL rules HTPL rules	Customs and custom broker Terminal operator and labors	In the custom premises at BRJ in compliance of all the governments export regulation and Nepal India treaties	SAD and all the above documents in point 10. CTD and Insurance if required.
11. Warehouse Terminal handling at ICP or ICD	1 day	Ware house charge or platform fees: 1 x 20 ft NPR 321.54 per day, 2nd day up to 7 day. From 8th day on ward NPR 428.71 per day. Entry fee 428.71 for first day 24 hours. ICD warehouse charges per day NPR: 330 + 13% VAT First 5 days free: from 5th 10 to 7 days (12 Days) NPR. 0.04/kg + VAT 12th day up to 19th day 0.07 paisa per kg per day + VAT onwards from 20th day NPR 0.13/per kg per day + VAT.	NTWCL regulation Terminal usage and equipment usage Brokerage, labor involved documentation, and coordination.	NTWCL Himalayan Terminal Private Limited (HTPL) Broker Labors Equipment supplier Nepal Intermodal Transport Development Board (NITDB)	After custom clearing, the goods need to be stuffed in containers in the ICD or ICP or transferred to another truck if stuffing at Kolkata	Warehouse receipt paid as per fixed rates for different volume or weight THC or ICP fees all documents endorsed by customs need to be sent to Indian customs at Raxaul

		<p>Terminal Handing Charge (THC) charges at BRJ NPR 1,700 to 2,200 per 20 ft. container</p> <p>Broker charges: NPR 3,500 per container but reduced if more containers are involved.</p> <p>The export fee to government is maximum NPR 500.</p>				
12. Raxaul clearance	Same day	ICP movement: INR 1700 per container or truck	Endorse CTD and seal cover as per Nepal India transit treaty to check the goods at the port so that it is not consumed in India and to proof on the way that it is transit cargo.	Clearing agent of Raxaul India Raxaul Customs Transporter	All documents that give proof of Nepal customs cleared and especially the CTD.	CTD endorsed and sealed in case of a road. CONCOR takes liability in case of Vizag but all documents need to be submitted Transporter (Drivers) license and vehicle details
13. Goods now move to Kolkata or Vizag	CCU: By road 5 days By rail: 13/25 days To Vizag 4 to 6 days	<p>Rail freight to CCU 14 MT min basis: INR 22,200 + 2,664 (GST) Total: 36471 per 20 ft. below 20 MT.</p> <p>Rail Freight to Vizag: INR 36,800 + 4,416 GST. Boarding crossing INR 637 per 20 ft. THC: INR 3,528</p> <p>Total: NPR 48, 626 per 20 ft. below 20 MT. Road transport cost to CCU: USD 1,450 (one way ex BRJ to CCU).</p> <p>If empty Container from Kolkata and loaded back USD 2050</p>	Responsibility as per INCO terms and contract for onward journey of Goods to the point of transfer of ownership or cost or liability and risk	Freight forwarder in coordination with the mode transport agency	Pre-booking or arrangements with transport mode and shipping line and the clearing agent	Railway consignment, Road consignment or Bill of lading, No Objection Certificate (NOC), and CTD are the main documents along with the packing list, and payment certificate or LC and Invoice to investigate if needed to check the consignment or in case of pilferages or lost or damage claim.
13. Kolkata and Vizag procedures	Vizag 3 or more waiting time for vessel	Clearing agents fee: INR 5,000 to 10,000	Planning bulk loading or loading in pallets or containers.	Airlines concerned or ground handling agent or freight forwarder.	Depending on the nature of the goods and its volume to plan effective ULD.	Manifest of airlines

	Kolkata minimum 7 days to 15 days waiting for time and custom and port facilities By road 3 working days and vessel waiting time	Port charges, THC of liners, shipping agents charges, etc. INR 14,000	Depending on the nature of the aircraft and passengers and baggage's load and temperature or climate condition at origin and destination.			
14. Onboard the vessel	Zero	Ocean freight if CIF or C and F	After it is "On Board" the vessel is released to enable the exporter to negotiate with the bank as this point is considered as the transfer of cost and risk to the buyer.	Shipping company	After all the customs formalities are completed the customs permit the liners to issue Bill of lading. The bill of lading draft is made first and approved with the importer or its agent and after final approval; the shipping line to the nominated clearing agent at Kolkata releases the bill of lading. The clearing agents pay the fees to liners as published by them in the notice and web and release the bill of lading after On Board the vessel" which means after the vessel leaves the port of origin.	Confirmation of airlines taking off the ground by civil aviation and air transport traffic control
15. Hand over customs documents for to shipping line for B/L	1	B/L fees	This is the main document by which the shipper gets payment	Clearing agent or forwarder shipping liners	As mentioned above point 14	Original B/L and CTD
16. Custom Clearing and Handling Agent (CHA) sends documents to its agent or importer in Nepal	4	Courier charges	Negotiation activity	The exporter or his nominated logistic service provider	These documents are demanded by LC so they need to compliance LC demand, regulation, and terms.	All documents in point 10 along with the bill of exchange and BiBiNi and CTD.
17. Exporter prepares following docs to get payment After freight forwarder hands over the documents to them	2	0	Negotiation as per terms of LC or contract	Exporter Freight forwarder	Bank and Exporter	All documents needed by LC and proof of shipment along with commercial bank's requirements set by the NRB for foreign currency, bill of exchange, etc. (All documents needed for export and import shall be covered under a separate section)

18. Present bills to the exporter by the freight forwarder	25 days as bills from Kolkata arrive very late due to the shipping company's delay in billing and payment system of liners.	All costs involved at Kolkata along with clearing agent's fee are included.	Proof of shipment and logistic service provided along with original bills and receipts for necessary cost and expenses calculation	Freight forwarder	Clearing agent in Kolkata Clearing agent at BRJ Freight Forwarders Exporter etc.	All documents needed by the exporter as already mentioned several times above.
19. Follow up shipment	Continues process until it reaches the destination	Ex Kolkata to USA 38 to 45 days Ex-Vizag to USA 40 days. Ex Kolkata to Europe: 28 days Ex Kolkata to the USA 45 to 55 days	To keep up with the right of information to enable customer plan shipment delivery to respective stores and manage inventory	Freight forwarders in coordination with shipping line used	Web visit and e-mail and telephone	Bill of lading details like the number Seal numbers Vessel name and voyage numbers.
20. Bank releases payment	2	Bank fees	Negotiation is done	Exporter and bank Exporter and importer and their respective banks in coordination with the corresponding banks	Payment received and LC canceled as all terms complied	LC payment release.
21. Couriered to consignee	7 days	NPR 700 to NPR 10,000	Documents dispatch for destination custom clearing and delivery	Courier company Freight forwarder and clearing agents at destination	After documents received the importer sends it to custom brokers at the destination port to clear the good and deliver to them	Based on the distribution list and details given by the importer
22. Follow on shipment	0	0	Keep the consignee and exporter informed on location and time of arrival	Freight forwarder and liner	Web and liner information	B/L number
24. Reach the destination and deliver to consignee	7	The cost paid by the importer	Custom regulation compliance	Custom broker at destination	Documents of export and bill of lading sent by the exporter	B/L, COO, and other relevant documents as needed by the customs as per the importing countries import regulation of the product.
25. Pick up unused packing material for disposal	1	Paid by consignee	Waste management and environmental regulation compliance in	The importer could nominate a separate company or use the destination freight agent or customs broker or transport company or	Waste management compliance of the importing country.	Contract and order execution forms.

			destination countries.	consignees own fleet of trucks		
26. Insurance issues (Covered below in Section 4.8.3)	0	It depends on the type of insurance.	Covering risk on transport, damage, etc.	Insurance company	It helps cover risk in the supply chain. The insurance company may also see the liability covered by each carrier in the supply chain for its purposes.	Invoice packing list payment certificate and the contract between buyer and seller and the INCO terms accepted.

4.8.3 Insurance and INCO Terms and Apparel Exports

It is found that most of the exports are done under the CIF terms. The buyers of Europe and USA send the money to cover not only the cost of apparel items but also the cost of insurance and freight (for air or sea or road transport). This term is normally used when goods are exported, as foreign currency is accommodated within the country. Moreover, the insurance companies and transport logistic service providers get payment settled within the country. CIF terms of business have its pros and cons when performing international trade transactions.

1. The exporter normally uses the full sum and holds payments to its service providers within and beyond borders. This compelled service providers to settle bills first before receiving from the exporter and often fall prey to exporters' monopoly.
2. The exporter uses companies that offer lower premiums; ocean liners and airlines having longer transit time and transshipment time, as well as, ocean or air freights with the aim of saving money on insurance and freights.
3. The buyer, on the other hand, shifts the liability and responsibility to the exporter. Thus, exporters are often caught up in disputes and other procedural hassles such as late delivery, damage of goods, loss in transit etc. This greed factor hampers the production and management of the manufacturing process.
4. Goods that have value less than USD 20 per kg need not be insured as the airlines covers the risk. The goods that value less than 250 SDR per cubic meter (CBM) also do not need to be insured as shipping lines cover the risk and liability. Only goods that have value more than those covered by the liability of logistic service actors while under their custodian need insurance coverage.
5. Transit insurance in such case is all together a separate issue demanded by trade treaty with India for third country movements of goods.
6. The term FOB or Ex work helps exporters as they do not have to bother on logistics after it leaves the factory premises or warehouse and can concentrate on other manufacturing processes.
7. The best export terms is FCA as this term covers insurance and transport by the buyers and only the liability up to "on board" the vessel at transshipment point Kolkata or Visakhapatnam or the airport of Kathmandu lies with the exporter. They just have to furnish the documents and evidences provided by the logistic service provider for settlement in the destination. This gives chance to buyers to hold exporters responsible until "on board" only. All payments are received by the exporter as soon as they transfer the liability to freight forwarders and the forwarder issues handing over certificate or AWB or B/L as demanded by the LC.
8. All imports need to be dealt under FOB or Ex Work as foreign currency can be retained within the country for insurance, and freight. This term permits remittance for services beyond borders through proper banking channels only.

4.9 Cost comparisons of imports and exports from various trading points of Nepal

4.9.1 Cost to import by truck from Bangladesh to Nepal

Activity	Cost in USD
Buy	
Conclude sales contract and trade terms	150 to 500
Pay	
Make payment	100
Get approval from DoC	51
Insure cargo	100
Appoint customs agent	100
Appoint transporter	500
Obtain undertaking from NTWCL	250
Load shipment at Fulbari customs	50
Clear Panitanki border point	50
Clear customs at Kakarvitta	50
Deliver consignment to importer's warehouse	500
Total cost	1,900 to 2,100

4.9.2 Cost comparison from Kolkata to Birgunj using ECTS

40' 15.6 MT

	CMA CGM	MAERSK	PIL	ONE	MSC	Others/Zim/ OOCL
CCU-ICD	128,960	119,350	129,148	132,150	134,055	135,475
D/O release fee	0	0	0	0	3,532	
ICD exp.						
	128,960.00	119,350.00	129,148.00	132,150.00	137,587.00	135,475
Free time after ICD arrival	5	14	5	5	4	
VIZ-ICD		135,000.00				

4.9.3 Cost comparison from Kolkata to Birgunj without ECTS/Rail

Earlier rate by rail service	APL	MAERSK	PIL	ONE	MSC	Others
S/Line DO fee	24,960	18,500	22,615	26,250	28,750	28,000

Port charges	2,550	2,550	2,550	2,550	2,550	2,550
CHA fee	8,000	8,000	8,000	8,000	8,000	8,000
Road transport (CCU-BRJ)	67,000	67,000	67,000	67,000	67,000	67,000
	102,510.00	96,050.00	100,165.00	103,800.00	106,300.00	105,550.00
Free time at CCU	21	21	21	21	21	21
ECTS expensive by INR than without ECTS in INR	26,450.00	23,300.00	28,983.00	28,350.00	31,287.00	29,925.00
In USD (1 USD=INR 70)	377.85	332.85	414.04	405	446.95	427.5

4.9.4 Cost comparison from Kolkata to Birgunj without ECTS/road

Earlier rate by rail service	APL	MAERSK	PIL	ONE	MSC	Others
S/Line DO fee	24,960	18,500	22,615	26,250	28,750	28,000
Port charges	2,500	2,500	2,500	2,500	2,500	2,550
CHA fee	8,000	8,000	8,000	8,000	8,000	8,000
Road transport (CCU-BRJ)	85,000	85,000	85,000	85,000	85,000	85,000
	120,460.00	114,000.00	118,115.00	121,750.00	124,250.00	123,550.00
Free time at CCU	21	21	21	21	21	
ECTS expensive than road transportation in INR	8,500.00	5,350.00	11,033.00	10,400.00	13,337.00	11,925.00
In USD (1 USD=INR 70)	121.42	76.42	157.62	148.57	190.52	170.35
Difficulties:						
<ol style="list-style-type: none"> 1. Money Remittance 2. Dwell time/transit time 3. Documents discrepancies and issues 4. Detention at destination (ICD/BRJ) 						
Note: In ECTS, payment should remit prior shipment arrival at border but if CHA/Freight Forwarder is used, payment can be paid within 15 days after arrival.						

4.9.5 Export cost comparison ex Kathmandu to Europe and USA by Road and Rail Via the port of Kolkata and Visakhapatnam

Activity	Transportation on rail/road	Ocean Freight 20 FT US/EU	Total cost	remarks
KTM-BRJ	USD 400	CCU-NYC: USD 1,650 to USA	USA: USD 2,700	To make empty arrangement is a bit complicated as No objection need to be received from the respective lines. To bring empty up to BRJ or to factory and then move is costly as two transport is involved CCU-BRJ –CCU or CCU-BRJ-KTM-BRJ-CCU.
BRJ-CCU Rail	USD 650			
Kolkata Operation Costs	USD 350		Europe: USD 2,400	

	USD 1,400 -----	CCU-HAM: USD: 1,350 to EU		Further bringing empty available at BRJ or that is booked from Kolkata up to Kathmandu is also a high cost issue. Moreover, The rail does not move if there is fewer than six export loaded containers due to rack imbalance issue of train service.
KTM-BRJ BRJ-VIZ Rail VIZ Operations Cost	USD 400 USD 775 USD 200 ----- USD 1,375 --	USD 1,600 to USA USD 1,400 to EU	USA: USD 2,775 Europe: USD 2,575	Same as above
KTM-BRJ- Kolkata Road	USD 1,800	USD 1,600 to USA USD 1,350 to EU	USA: USD 3,400 Europe: USD 3,150	Easily possible to move empty available at BRJ or to bring from Kolkata up to Kathmandu and send loaded. No need to wait for the train and load factors.
Total:	KTM-CCU: RAIL USD 1,400 KTM-VIZ: Via Rail: USD 1,375 Via Road: USD 1,800			

Some of the issues to be considered prior to shipments are as follows:

1. Cost break down of Kolkata transshipment charges and activities,
2. Destination delivery charges of liner, port etc.,
3. Detention charges per day for 20 ft., 40 ft. and 40 ft. high cube (HQ).
4. D/O charges
5. Free time for container deposits,
6. Place and ways for the money collected for D/O, detention, and other charges. If paid in Nepal, ways to remit it back.
7. Detention waiver process
8. Compliance to document required
9. Procedural compliances.

4.9.6 Time and cost-saving analysis for import

Importing country	Time	Cost in USD	Remarks
India	7-10 days	1,200-1,350 + 250 for border clearance etc.	Time: Waiting time at BRJ depending on the point of origin. Cost: Transport cost only border clearing and other charges + 250 dollars

Bangladesh	7-12 days	1,750 – 1,900	Time: This includes waiting time at Fulbari and Kakarvitta Cost: Inclusive of border clearance
The third country direct to ICD from Origin under ECTS and to Kathmandu	47 days	3,500 - 4,000	Time: This includes waiting time at Kolkata or Vizag. The waiting time is higher Cost: Shipping lines have different rates as regards ocean freight as well as Kolkata related charges. The free time depends on the client and liner relation ranging from 4 to 7 days up to 14 to 21 days at ICD. Detention charge USD 75 to 150 per day per container
Via Road CCU	40- 43 days	2,800 to 3,100	Time: This includes waiting time at Kolkata. Waiting time could be reduced as trucks are arranged by Clearing agents. Cost: we have considered range as Ocean freight and Kolkata delivery destination charges are various with various shipping lines. Clearing agents also have different fees. Road transport cost depends on the availability of Trucks.
Air	7 – 9 days	3.00 per kg	Time: This includes waiting time at airport and flight connections Cost: The air cost depends on the volume and weight as well as airlines.

5 RECOMMENDATIONS

5.1 Recommendations to enhance export competitiveness

1. The Nepalese apparel companies need to pay attention to market access strategies, as well as, new manufacturing technology solutions. Some of these can be - innovations to sewing machines, such as laser-cutting machines, fusing machines, buttonhole machines, and seam bonding machines; sewing robots; stitch-free clothing. Accordingly, companies can also adopt latest printing technologies such as 3D printing, which has more potential for apparel production than current applications, especially for apparels involving multiple layers and digital textile printing, which gives companies and consumers the ability to customize and produce specific consumers' designs and ideas quickly and relatively cheap. Wearable technologies such as fitness-tracking bands, smart sports bras, wearable for pets, outerwear such as jackets with built-in LEDs, etc. should also be considered to increase the market share.
2. The apparel industries need to give confidence to the government on better remuneration to its employs in the face of rapidly rising living costs, The face problem is assuring job security due to the industry being very unstable, the problem of skilled labors is heard in plenty, they lack the

opportunity of better market access and promotion to neigh market, some complaint about sexual harassment in the workplaces.

3. The supply chain should be more inclusive, training better communication and lobbying for facilities on import duty which is high for bringing raw materials.
4. Research centre for the latest garment technologies need to be set up in Kathmandu. Likewise, mechanisms in accessing the updated information on worldwide fashion trends should be made available to Nepalese apparel entrepreneurs. However, TEPC is already considering involving young designers and researchers for the purpose .The problem is that the association is not involving in issues of studying trends, designs, motives and colors etc. but mostly seeking facilities from the government only.
5. The selling of Nepalese apparels in the overseas market shall be allowed through the online gateway system in the economy with crediting all income in respective bank accounts to develop the retail marketing with the right e- commerce policy.
6. The cash incentives being made available in the export of apparels shall be put in place for a minimum five years period to enable right marketing strategy and costing calculations. Constant changing experience in the past has hampered proper negotiations with international buyers
7. Around 2% of the total value of Nepalese apparels must be allowed to be invested for promotional activities in export market with the right procedure and methodology of controlling illegal trade and remittance of foreign currency. The TIR, CARNET could be one possible way towards facilitating such marketing possibility.
8. Foreign experts should be invited to train Nepalese entrepreneurs with valued information in the areas of quality standards of apparels, technology and market aspects of fashion industry.
9. The gender division of labor is another factor that needs to be taken into consideration because this is something every buyer in the developed economy.
10. The banking sector must have faith in providing loans and this should be based on the project basis with a special contract between buyer and seller. The focus on the unit labor cost, investment in R & D, working hours for labors, accommodation facilities, and hazard management and safety are some issues that need to be managed well.
11. Negotiate multiple routes for Import/Export and remove hurdles faced along these routes to reduce logistics costs. If we can reduce these costs, we can foresee benefits equal to duty reduction.
12. Negotiate port and other charges at Calcutta port and Chittagong port (Bangladesh government willing to provide 50% discount on Chittagong port charges similar to what discount they are offering at Mongla port)
13. Ensure smooth transit of Nepal trucks right up to Banglabanda dry port at the Bangladesh side. Further, negotiate with the Bangladesh government to allow Nepalese trucks up to Chittagong port.
14. Delink payment with the movement of goods. Why can we not import on credit if we have goodwill with our suppliers? Also, we should be allowed to deposit advance with suppliers as per our needs so that we can purchase material faster.
15. Allow TT or DD payment on imports from India in USD.
16. Allow USD payment for all industrial inputs – at least if for re-export.
17. Reorganize customs to process goods faster and more efficiently to reduce total transport costs per transaction. Strongly convinced that this will also result in faster processing if there is no incentive to hold goods at customs points.

18. The introduction of a system to pre classify goods and even to pre-customs clear documents so that once goods arrive, there is no delay, and goods can be released immediately on examination. Even to remove 100% inspection on regular import items – and move to a sampling basis – at least for established industries.
19. Setup of mechanism to monitor cost and transit time along various corridors regularly so that action can be taken by the Nepal government in time.
20. Remove 0.4% NTW charges at Kakarvitta and make this fixed on a per truck basis.
21. For small cargo, which volume is below 10 cubic meters, we need to move to a system of the sealed container and package system instead of a sealed truck system. Then we will be able to transport very small volume cargo by any method up to customs point via the cheapest and fastest transport. This can be introduced at least for non-sensitive cargo.
22. Reduce procedures at transit custom points like use of too many clearing agents and fixing their fees as well as reducing duplication of document submission.

5.2 Recommendations to strengthen supply chain management

The inference of this study is that there is a direct relationship between the speed of movement of goods and cost. Most of the cost is incurred at customs points, ports due to dwelling time and procedure compliance and not during transport; the cost at times is higher than the transport cost. For instance, ocean freight cost to Visakhapatnam is low but the cost from Visakhapatnam to Kathmandu is higher. There is a direct relationship between how we can move cargo in and out of our country and economic prosperity. Those countries, which can solve logistic problems, can leverage that in today's competitive world but issues in Nepal remain unsolved.

Some of the recommendations based on the findings are as follows:

1. Most textile manufacturers handle all logistics functions including trucking and warehousing through their logistics and transportation department. Introduction to 3PL (Third-party Logistics) could help better manage in and our flow of goods and services in the context of Nepal.
2. Lead time needs to be managed by better managing the supply chain to address the complexities of global sourcing by considering the four-phase of supply chain a) generation of requirement b) Sourcing, c) Post-Award Activities, and d) Pricing. Political involvement of laborers is another important issue that needs much focus. The supply chain not only looks on the flow of raw material and outward flow to consignee it also means managing the factory unit well.
3. Enhancing coordination of operations and coordination of logistics flows between the company and its suppliers (both raw materials and subcontractors), as well as, considering logistics within the factory premises is also very important.
4. Adequate logistics facilities should be established in different areas as their deficiency forces the company to have a high stock of raw materials and suggestions to optimum utilization and inventory.
5. The inference of this study is that there is a direct relationship between the speed of movement of goods and cost. Most of the cost is incurred at customs points and not during transport with customs expenses being sometimes greater than transit cost itself. For instance, transport cost from Hong Kong to Calcutta includes trans-shipment in Singapore. Despite slow transport, speed cost is very low because of the streamline of processes in Singapore. We need to solve our problems first which can be done if there is a will.

6. There is an urgent need to open up various routes so that Nepal can negotiate better on port charges with India and we can choose to move cargo via cheapest cost routes as per the nature of goods. We have seen that Calcutta is not necessarily the cheapest and best route for import/export.
7. There is a direct relationship between how we can move cargo in and out of our country and economic prosperity. Those countries which can solve logistic problems can leverage that in today's competitive world; otherwise, we can foresee the death of all our industries especially in the context of Nepal being landlocked.
8. They should train their labors to have sustainability in the production process.
9. Companies should formulate a clear supply chain strategy for both inbound and outbound logistics to have a competitive edge in the international market.
10. Some industries were mainly concentrated and managing the supply chain. The other importance is to adopt the supply department for better sustain.
11. The supply chain has been taken a major part in transportation only if the supply chain adopted for the whole process. They may be changes in the apparel Industry.
12. The document was given the risk taken by carriers of the goods and provision of free movement of vehicles of respective countries. The WTO norms or the World customs organizations' norms as well as revised Kyoto convention norms of authorized economic operators must be utilized.
13. Above all, it is imperative to plan logistics of import and export with the right expertise logistic service providers. The experiences of the past clearly indicate unprofessional trading terms and negotiation, which has led to bad practices as well as uncompetitive logistic. GAN and Nepal Freight Forwarders Association should sit and discuss issues at regular intervals to plan mode and means of shipment based on volume. The practice of concentrating on production and designing will help better enhance the industry rather than manufacturers involving in transport and logistics activities and saving.

5.3 Recommendations based on trading ports and methods of trading

1. Recommendation for exports via India by sea:

The study shows that importing from India involves the shortest logistics time to the factory. The cost of transport is not very high if managed and coordinated well with the right service provider. The documents needed are still very high and the concept of a master document with automation should solve the problems. The payment remittance procedure for exporting firms is still lengthy and needs rectification.

2. Recommendation for exports via Air:

The space available is very low as most passenger flights operate and have limited carrying capacity. Mostly apparel falls into the volume weight category due to the nature of goods and packaging requirements of importers. This packaging requirement is beneficial at the destination as handling smaller packet is easy and distribution to stores and inventory management is easy but the air transport cost is high and buyers often fail to be competitive in their market. Therefore, the government should think of operating more freight flights enabling exports and if that is organized by the national carrier it is even better. It may be noted here that the priority of carrying apparel by air is very low due to volume and weight problems. The procedures can still be simplified and documents reduced. Freehand to sell in credit based on some sort of mud gage or contract could

also probably help exports as per some entrepreneurs who are interested to jump to this business with better facilities as regards finance and infrastructure is provided.

3. Recommendations for inbound logistics via Bangladesh:

The transit agreement between Nepal and India should be reviewed to explore the possibility of permitting Bangladeshi trucks to travel to Nepal through the Indian Territory. This would reduce the time taken for imports by up to 12 hours, reduce the cost of empty trucks moving from Kakarvitta to Fulbari, and reduces undertaking cost of 0.50 % of the invoice value (which can be up to NPR 25,000 per truck). Further, free movement of cargo and passengers as per the objectives of Bangladesh Bhutan India Nepal (BBIN) Agreement needs to be implemented keeping in mind the usage of the right transport. Besides, the following points should be considered:

- a. The National single window.
- b. Harmonize the data and information required by each organization, to standardize and share the information through better coordination. In this respect, Article 10 of the World Trade Organization's Trade Facilitation Agreement (TFA) titled "formalities connected with importation and exportation and transit" should be followed.
- c. Customs, quality institutes, private sector service providers are needed.
- d. ACU payment process vs. through LC.

Furthermore, the following recommendations are provided to boost the overall supply chain management particular to the apparel industry:

- Alternate arrangement of transportation of apparels by air to Calcutta, Dubai, Qatar, Colombo, Bangladesh, Singapore and Thailand and thereafter sea to the actual destinations should be explored to minimize the logistics cost both ways in the exports of apparels and imports of raw materials as well. This study does not cover and suggest for future study.
- Alternate plan to avoid Calcutta and use of Vishakhapatnam or other route like China for the apparel exports should be concerned by improving ease of doing business.
- Alternate plan to transport apparels by road/ air to China and then by sea must be also explored in future study as this report covers a small portion only.
- All Nepalese foreign missions must depute a Commercial Counselor/Attaché to assist/guide the Nepalese entrepreneurs in the areas of market, price etc. enabling the exports of goods to the overseas countries.
- Air cargo flights should be commenced by Nepal Airlines for the exports of apparels and Nepal airlines should enable charting at reduced rate.

5.4 Recommendations to improve logistics management

The apparel exporters must learn techniques to optimize the handling cost and time associated with the import and export by assessing various modes and means of transport. The right methods to source and flow of goods need proper planning. For this, the exporter must be well-aware of their guaranteed landed cost to continue the workflow and castings of their products. There are so many variable costs that need to be fixed and agreed upon before the movement of goods. The dealing on a contract basis is vital to avoid

dispute in logistic matters related to the supply chain. Hence, the following points are recommended to improve logistics management:

1. Without the endeavors of those involved in export promotion, the logistic issues cannot be solved. Therefore, a collective effort by producers, traders, and service providers involved in the inward and out bond transport is recommended in the following areas:
 - Establish a department for logistics or shipping incorporated within a competitive government authority (NITDB authority) for logistics management and to facilitate the overall exports and imports.
 - Draft a logistics/shipping law to bind the scope as well as the responsibility and liability of every actor/provider associated with the supply chain.
 - Incorporate shipping rules in the treaty of transit and trade in the bilateral arrangement to enable avoid hassle at transit points.
 - Lobby to register the shipping companies (registered under the above-proposed laws) with NRB by submitting specimens of the transport documents along with agency agreement to avoid frauds in businesses.
 - Amend the insurance law for freight and cargoes incorporating the provision of mandatory insurance of the transport documents.
 - Lobby with the financial authorities, especially the NRB to direct commercial banks to accept the Nepalese transport documents as a negotiable document.
 - Initiate steps for Nepal to become a member of the International Maritime Organization.
 - Provide training on maritime law and processes to concerned government authorities and private business enterprises.
 - Conduct a feasibility study for inland waterway - a reality finding on the possibility of movement in different seasons; provisions or leasing charter ship, their cost of birth at each harbor/port, and the cost of handling at each operation.
 - Work out risk management provisions based on the provisions of Authorized Economic Operators of TF and TIR CARNET.
 - Lobby for automatic provisions under the National Single Window is necessary.
 - Strengthen the infrastructure for the operation of ships/ICD/ICPs with the right equipment and revise the acts of hiring and managing the dry ports, ICP/ICD, and logistics centers.
 - Increase investment in the right vehicle type to carry loaded containers under the provisions of discounted import tax.
 - Amend the MTO Act to facilitate service providers in selling their negotiable documents.
 - Revise the Warehouse Act to incorporate state-of-the-art distribution system in the warehousing techniques.
2. So far, the policy of the government has been to protect service providers of transit providing country and payment of the majority of a sum to transit service providers. That needs to change to make the Nation's service provider liable, responsible, and Foreign Service providers cooperate with Nepalese agencies to address the discrepancy and disputes. This will also help the flow of foreign currency abroad and retain within Nepal.
3. Currently, it is the private sector involved in the operation and management of shipping lines, which have to agree to deliver at the harbor of their interest and transfer of cargo. The equipment shall belong to them until delivered and therefore, detention and demurrage of cargoes shall still be applicable. Since Nepalese companies cannot own a large volume of containers, the provision of

transferring goods at transit port or harbor or CFS, etc. will have to be worked out with security and sealing systems to avoid the detention of shipping companies.

4. Nepalese enterprises face significant logistics-related challenges such as insufficient logistics infrastructure for the distribution of merchandise to nearby markets, high transport costs, lack of technical expertise in the area of logistics and transportation management, and a lack of cold storage, collection hubs, and warehouse facilities. To facilitate small and medium enterprises (SMEs) access to improved logistics solutions, measures that can be adopted are proposed as follows:

- Establishing a national logistics and transportation framework (with logistics hubs, cold storage facilities, etc.)
- Establishing a distribution and network feeder or channels for consumption areas (e.g. establishing prices, weight limits, information requirements for the traceability of good, etc.)
- Developing a mechanism for public-private dialogue through which enterprises can bring up logistics-related issues and concerns
- Offering technical training on road transport, sea and air freight optimization for relevant logistics service providers
- Offering guidance and technical support to selected SMEs related to logistics and transport of export products. Particular attention will be given to tea, coffee, cardamom, ginger, and handmade paper products.
- Developing training and advisory support services adapted to the needs of Nepalese SMEs and service providers in areas such as:
 - o Optimizing shipping costs and improving productivity
 - o Procurement and management of transport services, distribution, storage, order preparation
 - o Order preparation and delivery management
 - o Warehousing and distribution
 - o Transport management systems (outbound and inbound)
 - o Road transport, sea, and air freight optimization

These services would be offered by teams of local experts (advisers and trainers) developed under the project and attached to relevant local service providers which would manage and offer the services to SMEs on a sustainable long-term basis. Alike other technical fields, each focus area would involve:

- o On-the-job-training and coaching of specialized local advisers (subject knowledge and advisory skills),
- o Development of local trainers (subject knowledge and training skills),
- o Transfer of training materials and tools and development of localized versions suitable for Nepalese SMEs,
- o Coaching and guidance of the local institutions where the services would be anchored.

6 CONCLUSION

Suppliers are viewed as critical resources for apparel retailers. They have to be managed to derive the maximum potential in the logistic system, and the selection of the supplier is the most critical task in supply management. The poor infrastructure, high cost of transportation, lack of skilled labor, and communication

network problems are the problems affecting successful logistics in the apparel industries of Nepal. It is necessary to locate such constraints to enable policymakers to address these issues for the enhancement of Nepalese exports. The logistics management system of the apparel industries given in this report gives a clear picture of the industry's performance and efficiency in its respected areas.

The study of an internal logistic system needs further study for the simulation of the effective design of this type of industries seems to be a good approach. It is possible to virtually implement a logistic control system to existing industries and analyze the corresponding impact without any type of physical intervention in the real factory. It is also possible to redesign the process to create a completely new industry.

The study presents its findings with a two-fold objective: 1) to determine the extent to which the logistics function is developed in companies of the apparel sector and, 2) suggestion of an improvement plan in the field of logistics to increase competitiveness. To do so, in-depth analysis of the logistics function and the supply chains in one or two companies of the apparel sector (all of the significant companies having a market in Europe and in some cases the USA or worldwide) has been carried out, taking into account both structural and organizational aspects.

Logistics is the management of the flow of goods and services between the point of origin and the point of use to meet the requirements of customers or corporations. Logistics involves the integration of information, transportation, inventory, warehousing, material handling, and packaging, and even security. Logistics is a channel of the supply chain that adds the value of time and place utility. Today the complexity of production logistics can be modeled, analyzed, visualized, and optimized by plant simulation software, but that is not covered in the study. It must be noted here that software is constantly changing and one needs to keep pace with the change in IT-related sectors. In apparel industries where so many stages need to be passed from raw materials to finished goods and then to reach customers end within a stipulated period, logistics management plays a vital role in satisfying customers' needs and brings delighters in business circles. This study also witnessed the involvement of seasoned logistic consultants in TEPC for making exports happen and guide the government with a focus on the logistics centers in the country.

The apparel makers need to focus on appropriate supply chain configuration to hold superior serviceability. If we do not align it with every single process, we will end up with supply delays, quality issues, and delivery of wrong products. For this purpose, we are at the beginning of a much bigger journey. We should focus on the development of supply chain managers as they can ensure the best value addition in all businesses and take the industries of our country to the next level.

We must act in considering the whole apparel supply chain as one to adapt to a fact-based approach by a thorough understanding of the current realities, invest in the appropriate skills, and constantly monitor and adjust the sort fallings to optimize results in an ever-changing world. We should focus on the development of supply chain managers as they can ensure the best value addition in all businesses and take the industries of our country to the next level. The complex buyer-driven global production networks and labor-intensive nature of the business, as well as, the consolidation of various raw materials from different origins is a big issue, which a manufacturing company cannot manage by itself and needs expertise.

Based on the overall finding focused only on supply chain the consultant's finding on transit time and cost factor in conclusions are as follows:

1. **In bond logistics:** Bangladeshi raw material by air transport cost NPR 55 per kg all inclusive. Planning orders which are small should not be a problem. Flight can carry approximately 2.5 to 3 ton depending on passenger and temperature. Time consideration can be an average of 7 to 9 days. Road movement via Fulbari and Kakarvitta is approx. USD 2100 per 20 ft. and time is approx. 19 to 24 days from processing to delivery but really needs good planning. Bringing raw material from Bangladesh by sea to Kolkata and then by train or road to Kathmandu is not covered by this study (refer to Section 4.8.8 for details).
2. **Export via Bangladesh:** To move from Kathmandu to Kakarvitta and entry from Panitanki/Fulbari to Chittagong is too far a route and not possible cost and time wise. If Mongala port was fully operationalised, some consideration could have been done but his study does not cover. Air from Kathmandu to Dhaka per Kg NPR 55/4 metric ton load of garments, THC Dhaka airport NPR 20,000, transport ex-Dhaka airport to Chittagong NPR 33,000/4 metric ton. Port handling NPR 25,000- ocean freight cost ex Chittagong to Europe and USA same as from Kolkata. The cost does not look to be cheaper than from India.
3. **In bond logistics via India:** Indian raw material by air costs approximately NPR 55/kg all inclusive. Movement is faster as number of flights from India is very high. Movement by road depends on the origin of goods in Indian city. If Kolkata the cost is NPR 130,000 to 145,000 up to Nepalese border.
4. **Export via Kolkata and Visakhapatnam:** 1 X 20 Ft container. Ex Kathmandu to Europe and USA. Export via Visakhapatnam is not possible as the load is not sufficient from Nepal. The rate assumed to be some USD 3,100 and USD 2,900 to Europe. Transit time is too high up to Visakhapatnam and delivery of B/L etc. is complicated. The export via sea from Kolkata to USA should be around USD 3,100 by rail and USD 3450 by road. To Europe, USD 2,850 by rail and USD 3,250. (Refer to Section 4.8.5 for details)
5. **In bond logistics via third country and China:** Raw material by air for a consignment of +500 kg is NPR 75/kg. By road from Tatopani or Kerung the cost per CBM is NPR 15000 (USD 130) while that from sea to BRJ via Visakhapatnam is USD 2850 per 20 ft and via Kolkata is USD 3,000. Transit time via Visakhapatnam is less if train moves on time and load sufficient. The experience of Kolkata is high transit time as of today. But Kolkata has choice to move by rail and by road. Movement by road from Visakhapatnam is not possible.
6. **Export by Air to USA and Europe:** For a consignment of +500 kg garment, following are the cost comparisons:

Weight break	Europe	USA East	USA West
+500	USD 1.85/kg	USD 2.35/kg	USD 2.40/kg

The use of air transport or sea transport be it by road or rail, taking into consideration weight and volume as well as transit time is suggested.

Based on transit time and delivery dates of garment the exporter or importer should the best means and mode of transport as well as transit points most appropriate with consultancy and contract with logistic service providers which should include cost of transport, fees and charges, detention and demurrages and tax and duties well covered along with minimum to maximum transit time agreed and variation based on mutual consent.

7. Chinese route for raw material import via road: In general, from any place of China to Kathmandu via Tatopni or Kerung (Rashwagadhi) costs NPR 14,500 to NPR 16,000 per CBM. The advantage of the route is that it enables consolidation of small packages (LCL) movement. However, export to Pakistan or third country using Chinese road or port needs a special study.

Kerung to Kaskar using the Karokaram pass (route), Gydar, Indus and Uthal to Karachi is 4,876 km and takes 80 to 85 hours of drive which approximately will take 9 to 10 days.

7 REFERENCES

- Abdin and Joynal (2008). Overall Problems and Prospects of Bangladeshi Ready-Made Apparel Industries. Available at SSRN: <https://ssrn.com/abstract=1117186> or <http://dx.doi.org/10.2139/ssrn.1117186>
- Ahsan and Azeem (2010). Insights of Apparel Supply Chain Operations: A Case Study. *International Journal of Integrated Supply Management* 5(4):322-343. Available at: https://www.researchgate.net/publication/259228741_Insights_of_apparel_supply_chain_operations_a_case_study
- Ballweg, T. (n.d.). Ethiopia - next stop for the textile industry? Retrieved from <http://www.dw.de/ethiopia-next-stop-for-textile-industry/a-17043826> on Dec.10/2014
- Bisht and Pandey (2011). Study of Barriers and Bottlenecks with Reference to Export of Indian Textile Goods: Strategies for Competitive Advantage. *Gumbad Business Review: International Journal of Business and Management Research* VII (1), 87-115. Available at https://www.academia.edu/4312764/GUMBAD_BUSINESS_REVIEW_VOL_VII_ISSUE_I_email_work_card=title
- Buciuni and Mola (2014). How do Entrepreneurial Firms Establish Cross-border Relationships? A Global Value Chain Perspective. *Journal of International Entrepreneurship*, 12 (1), 67-84. Available at https://www.researchgate.net/publication/258163443_How_do_entrepreneurial_firms_establish_cross-border_relationships_A_global_value_chain_perspective
- Dhanabhakya M. (2007). Indian Textile Industry - An Overview. *Fibre2Fashion*. Available at: <https://www.fibre2fashion.com/industry-article/2363/indian-textile-industry-an-overview>
- Duygu Turker (2014). Sustainable Supply Chain Management in the Fast Fashion Industry: An Analysis of Corporate Reports. *European Management Journal*, 32(5): 837-849. Available at <https://www.sciencedirect.com/science/article/abs/pii/S026323731400022X>
- ESCAP and ADB (2017). Business Process Analysis of Import of Wool to Nepal. Trade and Transport Facilitation Monitoring Mechanism in Nepal - Baseline study series #1: The Economic and Social Commission for Asia and the Pacific. Available at: <https://www.unescap.org/sites/default/files/01%20Nepal%20BPA%20Wool%20Import.pdf>
- ESCAP and ADB (2017). Performance and Monitoring of Selected Nepal's Trade Corridor. Trade and Transport Facilitation Monitoring Mechanism in Nepal - Baseline study series #4: The Economic and Social Commission for Asia and the Pacific. Available at: <https://www.unescap.org/sites/default/files/04%20Nepal%20corridors.pdf>
- Giri and Rai (2013). Dynamics of Apparel Supply Chain. *International Journal of Managing Value and Supply Chains*, 4(4): 29. Available at <http://www.airccse.org/journal/mvsc/papers/4413ijmvsc03.pdf>

Goto, Natsuda and Thoburn (2011). Meeting the Challenge of China: The Vietnamese Apparel Industry in the Post-MFA Era. *Global Networks* 11(3):355 – 379. Available at: https://www.researchgate.net/publication/227693769_Meeting_the_challenge_of_China_The_Vietnamese_garment_industry_in_the_post_MFA_era

Harshad Naik (2020). Indian Textile Industry to take the Economy to a New Height; Know About 'Technical Textile'. *Financial Express*. Available at <https://www.financialexpress.com/industry/indian-textile-industry-to-take-economy-to-new-height-know-about-technical-textile/1810622/>

Huq, F & Stevenson, M (2020). Implementing Socially Sustainable Practices in Challenging Institutional Contexts: Building Theory from Seven Developing Country Supplier Cases. *Journal of Business Ethics*, 161 (2): 415–442 Available at: <https://link.springer.com/article/10.1007/s10551-018-3951-x>

Jain and Gupta (2016). Textile Recycling Practices in India: A Review. *International Journal of Textile and Fashion Technology* 6 (6): 2319-4510. Available at https://www.academia.edu/30987635/TEXTILE_RECYCLING_PRACTICES_IN_INDIA_A_REVIEW

Jessica M. and Marimuthu K.N. (2013). Performance of Textile Industry in Tamil Nadu: Perspectives of General Manager. *International Journal of Innovative Research and Development*, 2 (12): 228-236. Available at: <http://52.172.159.94/index.php/ijird/article/view/42307>

Kadariusman and Nadvi (2013). Competitiveness and Technological Upgrading in Global Value Chains: Evidence from the Indonesian Electronics and Apparel Sectors Changes. *European Planning Studies*, 21 (7): 1007-1028. Available at https://www.researchgate.net/publication/263254805_Competitiveness_and_Technological_Upgrading_in_Global_Value_Chains_Evidence_from_the_Indonesian_Electronics_and_Garment_Sectors

Knorringa and Nadvi (2016). Rising Power Clusters and the Challenges of Local and Global Standards. *Journal of Business Ethics*, 133 (1), 55-72. Available at: <https://link.springer.com/article/10.1007/s10551-014-2374-6>

Lambert and Cooper (2000). Issues in Supply Chain Management". *Industrial Marketing Management*, 29 (1): 65-84. Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0019850199001133>

McCormick and Schmitz (2001). Manual for Value Chain Research on Homeworkers in the Apparel Industry. Manual for Value Chain Research on Homeworkers in the Garment Industry: Institute of Development Studies, University of Sussex, Brighton. Available at <https://www.wiego.org/resources/manual-value-chain-research-homeworkers-garment-industry>

Mezzadri and Srivastava (2015). Labour Regimes in the Indian Garment Sector: Capital-labour Relations, Social Reproduction and Labour Standards in the National Capital Region. Centre for Development Policy and Research. Available at <https://www.soas.ac.uk/cdpr/publications/reports/file106927.pdf>

Mudambi and Puck (2016). A Global Value Chain Analysis of the 'Regional Strategy' Perspective. Journal of Management Studies 53 (6): 1066-1093. Available at <https://onlinelibrary.wiley.com/doi/epdf/10.1111/joms.12189>

Natsuda, Goto, and Thoburn (2010). Challenges to the Cambodian Apparel Industry in the Global Apparel Value Chain. The European Journal of Development Research, 22 (4): 469-493. Available at https://www.researchgate.net/publication/46526342_Challenges_to_the_Cambodian_Garment_Industry_in_the_Global_Garment_Value_Chain

Nepal Rastra Bank (n.d.). An Assessment of Export Barriers of Nepalese Products to India. Study Reports: Nepal Rastra Bank, Kathmandu. Available at: https://www.nrb.org.np/red/publications/study_reports/Study_Reports--An_Assessment_of_Export_Barriers_of_Nepalese_Products_to_India.pdf

Nurizman and Singla (2017). Investigation of Barriers and Enablers of Supply Chain Management Practices Success: Case of Ethiopian Textile and Garment Factories. Journal of Supply Chain Management Systems, 6 (2): 15-43. Available at: <http://www.publishingindia.com/jscms/41/investigation-of-barriers-and-enablers-of-supply-chain-management-practices-success-case-of-ethiopian-textile-and-garment-factories/569/4032/>

Rehman and Ali (2015). A Study of the Skills Gap along the Cotton Value Chain: Garments Segment. Available at: https://www.researchgate.net/publication/241132414_A_Study_of_the_Skills_Gap_along_the_Cotton_Value_Chain_Garments_Segment

Rehman, Hasim and Begh (2018). Export Competitiveness Analysis of Pakistan Apparel Industry based on GEM Model. Industria Textila, 69 (3): 218-228. Available at https://www.researchgate.net/publication/328096563_Export_competitiveness_analysis_of_Pakistan_garments_industry_based_on_GEM_Model

Saravanan S. and Mohanraj S. (2013). A Study of the Challenges Faced by Tirupur Apparel Exporters. International Journal on Research in Commerce, IT and Management 3(10): 5-7. Available at: https://www.academia.edu/19616421/A_STUDY_ON_THE_CHALLENGES_FACED_BY_TIRUPUR_GARMENT_EXPORTERS

Saravanan S., Mohanraj S., and Bagyalakshmi K. (2015). A Study on Factors Affecting Supply Chain Management in the Apparel Industry with Special Reference to Tirupur. International Journal of Multidisciplinary Research and Development, 2(2): 304-307. Available at https://www.academia.edu/11892388/A_study_on_factors_affecting_supply_chain_management_in_garment_industry_with_special_reference_to_Tirupur

Saxena and Lozach (2010). Competitiveness in the Garment and Textiles Industry: Creating a Supportive Environment: A Case Study of Bangladesh. Asia Foundation, California. Available at <https://asiafoundation.org/resources/pdfs/1OccasionalPaperNo.1BGGARMENTwithCover.pdf>

Saxena SB, Berkeley Veronique Salze-Lozac'h. Competitiveness in the Apparel and Textiles Industry, University of California, Journal of Economics and Science 2010; 2(1):1-50.

Society for Labor and Development (2016). Precarious Work in the Walmart Global Value Chain.

Available at: https://www.ituc-csi.org/IMG/pdf/afwa_walmart.pdf

Towers, Perry and Chen (2013). Corporate Social Responsibility in Luxury Manufacturer Supply Chains: An exploratory Investigation of a Scottish Cashmere Apparel Manufacturer. International Journal of Retail and Distribution Management, 41(11-12): 961-972. Available at

https://www.researchgate.net/publication/263606864_Corporate_social_responsibility_in_luxury_manufacturer_supply_chains_An_exploratory_investigation_of_a_Scottish_cashmere_garment_manufacturer

Tsoi CSJ (2005). Supply Chain Management for Sustainable Development: Perspective from Greater Pearl River Delta. University of Hong Kong. Available at: <https://independent.academia.edu/RamBharti>

World Bank (2012). Sewing Success? World Bank Group: Washington DC. Available at: <https://bit.ly/2AGywvk>

ANNEX I: Documents for trade from Nepal

The following documents are necessary from the time an order is placed until the documents are negotiated with the Bank. These documents are inclusive of those needed in Nepal and India Border Custom as well as a transit point in Kolkata:

S. No.	Name of Document	Document Required for		Document to be Presented/Submitted at or Exchanged between				
		Export	Import	Nepal Customs	India Customs	Kolkata Customs	Bank	Other
Mandatory Documents								
1.	The contract between buyer and seller	✓	✓					✓ (between buyer and seller)
2.	Purchase Order	✓	✓					✓ (between buyer and seller)
3.	Performa Invoice	✓	✓					✓ (between buyer and seller)
4.	Commercial Invoice	✓	✓					✓ (between buyer and seller)
5.	Packing List	✓	✓	✓	✓	✓		
6.	LC/APC/DAP or any other payment related bank documents	✓	✓	✓	✓			
7.	LC Covering Letter by Bank	✓		✓				
8.	CTD	✓	✓	✓	✓	✓		
9.	Authority Letter for Nepal Border Customs	✓	✓	✓				
10.	Authority Letter for Kolkata CHA		✓			✓		

S. No.	Name of Document	Document Required for		Document to be Presented/Submitted at or Exchanged between				
		Export	Import	Nepal Customs	India Customs	Kolkata Customs	Bank	Other
11.	Letter to Consular General Office (APC)		✓			✓ (required for GON)		
12.	Permit Letter from Department of Commerce if APC		✓	✓		✓		
13.	Bi. Pi. Ni Form		✓	✓				
14.	SAD	✓	✓	✓				
15.	COO – GSP	✓	✓	✓				
16.	COO – Chamber		✓	✓	✓	✓		
17.	Company Registration Certificate	✓	✓	✓				
18.	VAT/PAN register certificate	✓	✓	✓				
19.	Empty Pick up permit (Shipping Line)							
	a. Booking Request with the shipping line	✓				✓		
		✓	✓			✓		
	b. Issuance of container Guarantee Bond	✓	✓			✓		
	c. Container Insurance							
20.	Transit Permit – Rail Movement	✓	✓	✓	✓	✓		
21.	Road Way Bill – Rode Movement							
	a. Roadway Bill – Nepal side	✓	✓	✓		✓		
	b. Road waybill – India side	✓	✓	✓		✓		
22.	Transit Insurance Policy	✓	✓	✓		✓		
	a. Transit Insurance	✓	✓	✓		✓		
	b. Duty Insurance		✓			✓		

S. No.	Name of Document	Document Required for		Document to be Presented/Submitted at or Exchanged between				
		Export	Import	Nepal Customs	India Customs	Kolkata Customs	Bank	Other
23.	BOL a. BOL – Master b. BOL – House	✓	✓	✓		✓		
24.	Quality Assurance Certificate	✓	✓					✓ (Business House)
25.	Dock Permit (Entry/Exit)	✓	✓					✓
26.	Slot acceptance letter		✓			✓		
27.	Mate Receipt	✓				✓		
28.	Manifest (IGM)		✓			✓		
29.	Bill of Exchange (Negotiating with Bank)	✓					✓	
30.	Delivery Order (HBL/HAWB)		✓					✓ (Shipping line, Air Line and FF)
31.	Delivery order (MBL/MAWB)		✓					✓ (Shipping Line, Air Line, and FF)
32.	Seal CTD cover	✓	✓	✓	✓	✓		
33.	Ending back of the CTD after sending back to Kolkata and vice versa	✓	✓		✓	✓		
34.	Port Rent Receipt	✓	✓			✓		
35.	THC	✓	✓			✓		
36.	Copy of Driver's Licence		✓	✓ (during gate entry)				
Additional Documents Specific to Consignment								

S. No.	Name of Document	Document Required for		Document to be Presented/Submitted at or Exchanged between						
		Export	Import	Nepal Customs	India Customs		Kolkata Customs	Bank	Other	
37.	Authenticated certificate of Analysis Certificate for medicines				✓	✓				
38.	Quality control or letter to the effect of handling hazardous cargo				✓	✓	✓	✓		
39.	DGR Certificate				✓	✓	✓	✓		
40.	Embassy letter and Department of Customs letter in case of personal effects or diplomatic cargo				✓	✓		✓		
41.	A form that needs to be filled at the department of customs in case of acquiring the certificate				✓	✓				
42.	These forms are given by airport, filled by the importer and given to Department of customs for issuing the test report				✓	✓				
43.	Beneficiary's Certificate as per LC clause				✓				✓	
44.	Road consignment note if LC require				✓				✓	
45.	Fax confirmation if LC require				✓				✓	
46.	Certificate from Archaeology Department for selective handicraft products				✓	✓				
47.	Certificate from Handicraft Association for handicraft products				✓	✓				

ANNEX II: How to set up a small apparel unit for export?

Before starting any business, everybody has to prepare a project plan. If you are interested in starting an apparel factory then you should have a business plan as in any other case. First of all, you have to decide what sort of apparel you have to manufacture. Then you have to make some research about the Market and then you have to select the segment of the market that you think you would target. Then you have to select some potential buyers and check their credibility in the market.

Basic requirements to set up an apparel factory:

1. Decide the product.
2. Decide your budget.
3. Make a list of machinery. (As per product and budget)
4. Make a list of potential customers and start contacting them. An expert will guide you.
5. Target market to sell. (Decide whether you want to sell directly or job working)

6. Target production as per sale and budget.
7. Choose the right place, the place where already apparel units are located. So you will get the staff easily.
8. Start the unit; it will take 2–3 months to set up. You need 1 experienced staff who can handle workers.

Besides the following factors to be considered while starting a new apparel unit are discussed below:

1. Selecting the appropriate product category:

Deciding product categorization to be focused on during the set-up of an apparel industry could play a crucial role. At the initial face of starting an apparel unit, the various kinds of apparel such as T-shirts, polo, and woven products should not be considered at the same time and only one or two product profiles should be considered.

2. Estimation of production requirement:

It would be helpful to have an idea about the quantity of apparel that can be produced per day so that it would be helpful in future planning based on the budget and customer demand. This necessitates the process of determination of the production capability of an industry.

3. Plant loading:

Plant loading is defined as the allotment of workers or machines for future processing of an order by considering the sequence of processes as in a route sheet and the priority sequencing and utilization of work centers. Loading establishes the volume of load every work center should have in a forthcoming period which results in load schedules indicating the evaluation of labor and machine hours necessary to get the master production schedules with the available labor and machine hours in every planning schedule in the short term.

4. Capacity study:

A capacity study is an evaluation of the apparel industry, manufacturing process, machine, or operator to estimate the maximum rate of production.

The objective of the capacity study is:

- To find-out the deviation between the actual rate of production to its capacity
- To evaluate the causes for lagging in the actual production
- To achieve the actual production closer to its actual capacity using proper methods and reducing the idle time

There are various types of capacity available for a factory:

- Maximum capacity – Number of hours available in a given time under normal conditions.
- Potential capacity – Maximum capacity adjusted for expected efficiency.
- Committed capacity – Total hours formerly allocated for production during a certain time.
- Available capacity – The difference between committed and potential capacity is known as available capacity.
- Required capacity – It is apparel SAM necessary to manufacture a specified volume at a certain time.

5. Standard Allowed Minute (SAM):

Standard allowed minute (SAM) means how much time is required to make one complete apparel including allowances. SAM is used to measure the task or work content of apparel. This term is widely used by industrial engineers and production people in the apparel manufacturing industry.

For the estimation of the cost of making apparel, SAM value plays a very important role. In the apparel industry, the industrial engineering department determines and calculates SAM for assembling processes of apparel using a standard calculation method.

6. Calculation of SAM by synthetic data:

In this system, 'predetermined time standard' codes are utilized to establish 'standard time' of a specific style of apparel. The step-by-step procedure for calculation of SAM by this method is given below:

- Selection of any one process or operation for which the SAM has to be determined.
- Study of various motions of the specific process/operation performed by an operator and remarking all movements used by the operator in carrying out one complete cycle of work.
- Enlist various motions performed by an operator sequentially. By referring to GSD and synthetic data for time measurement unit (TMU) values, TMU value (1 TMU = 0.0006 minute) for one operation could be obtained, which is then converted into minutes which is known as basic time.

$SAM = \text{Basic minute} + \text{Bundle allowances (10\%)} + \text{Machine and personal allowances (10\%)}$.

Calculation of SAM by time study

- The step-by-step procedure for the calculation of SAM by this method is given below.
- Selection of one process or operation for which the SAM has to be estimated.
- Note down the cycle time (total time necessary to carry out all tasks required to complete one operation) for the specific operation using a stopwatch by standing at the side of the operator using the stopwatch. It has to be done for five consecutive cycles of that operation and the average has to be determined. $\text{Basic time} = \text{cycle time} \times \text{performance rating}$.
- Establishing the performance rating of an operator after evaluating his or her movement and work speed. Suppose if the performance rating of an operator is 85% and the cycle time is 0.55 minutes, then $\text{basic time} = (0.55 \times 85\%) = 0.46$ minutes.

$SAM = \text{Basic minute} + \text{Bundle allowances (10\%)} + \text{Machine and personal allowances (20\%)}$.

Now, $SAM = (0.46 + 0.046 + 0.092) = 0.598$ minutes.

Functions of SAM value in production planning:

1. Determination of line capacity – The systematic method of estimating the production capacity of a line by utilizing the SAM of apparel.
2. Determination of lead time – Based on the production capacity of an apparel unit, order allocation has to be done for different lines.
3. Order booking – While booking the orders, available capacity at a particular time has to be taken into account. In these circumstances, the determination of the time required to complete the new order using SAM and comparing the same with production minutes available in the factory for a particular period will be helpful.
4. Process scheduling – The time and action calendar of every order are carried out by the production planning department based on the capacity of each process, which is known by calculating SAM.

5. Order execution and production monitoring – SAM facilitates the production planning department to set targets for sewing lines.
6. Estimation of labor – For the estimation of labor cost for a particular style, the SAM value will play a vital role.

Calculation of capacity:

Consider the following cutting plan example:

- The limitations on lay sizes are:
- Maximum height of lay = 15 plies
- Maximum length of lay = 4 apparel marked
- Time for laying one fabric ply = 1 minute
- Marking time = 5 minutes
- Cutting time = 10 minutes
- Working hours = 8

Solution:

Plan the cutting lay out.

- Lay I – 25 Plies (Sizes – 16, 18, 12, 12)
- Lay II – 40 Plies (Sizes – 10, 14, 14, 12)

Lay I:

- Maximum number of apparel in Lay I = $25 \times 4 = 100$
- Laying time for 25 plies = 25 minutes
- Laying time for one apparel = $25/100 = 0.25$ minute
- Marking time for one apparel = $5/100 = 0.05$ minute
- Cutting time for one apparel = $10/100 = 0.10$ minute
- Total processing time for Lay I = $25 + 5 + 10 = 40$ minutes
- Total processing time per apparel = $0.25 + 0.05 + 0.10 = 0.40$ minute

Lay II:

- Maximum number of apparel in Lay I = $40 \times 4 = 160$
- Laying time for 40 plies = 40 minutes
- Laying time for one apparel = $40/160 = 0.25$ minute
- Marking time for one apparel = $5/160 = 0.03$ minute
- Cutting time for one apparel = $10/160 = 0.06$ minute
- Total processing time for Lay II = $40 + 5 + 10 = 55$ minutes
- Total processing time per apparel = $0.25 + 0.03 + 0.06 = 0.34$ minute

Capacity:

- Capacity/hour for Lay I = $60/0.40 = 150$ apparel
- Capacity/day for Lay I = $480/0.40 = 1200$ apparel
- Capacity/hour for Lay II = $60/0.34 = 176$ apparel
- Capacity/day for Lay II = $480/0.34 = 1412$ apparel
- Total time essential to complete the order = $40 + 55 = 95$ minutes

7. The number of machines:

After deciding on the type of product and production capacity, the number of sewing machines and other machinery requirements could be calculated. Otherwise, it can be carried out conversely, that is, after

deciding to set-up a factory for a specific number of machines as well as the type of product, projected production per day can be determined.

8. Type of machines:

The succeeding process is to select the proper kinds of machines suitable for the production of apparel as well as the number of machines to be purchased in each kind of machine. This step would be useful for estimating capital investment in machines. Apart from the sewing machines, list other essential equipment such as pressing tables, spreading tables, boiler, generator, furnishings, etc.

9. Raw materials requirement:

After the selection of product categories and machines, raw materials such as fabric and other accessories and trims to make the apparel with their average consumption have to be listed. This would help prepare the budget for material sourcing.

10. Factory space requirement:

The space needed for setting up machines, equipment, and the administrative center has to be estimated. According to the estimation, the factory layout could be planned.

11. Manpower requirement:

After setting up the machine and materials, the labor, the primary resources for the apparel industry could be planned. The manpower calculation includes the number of office staff, supervisors, and workers. Further, estimation has to be done for their salaries.

12. Project cost:

To determine the budget for setting up an apparel industry, one could prepare the cost of the project. For doing that, the assessment of total capital investment, EMI amount, salary for staff, workers' wages, and running costs have to be taken into consideration.

13. Internal process flow:

Plan the detailed process flow for the execution of an order. This will facilitate deciding what all the departments need to set up and plan to employ the right people accordingly.

14. Supplier listing:

Finding out the good and reliable suppliers for fabrics, trims and other necessary items required to manufacture the apparel is crucial for completion and dispatch of the orders in time

ANNEX III: Export to the European Union

(Compliance-focused to market access and quality)

Do not focus on price negotiation too much as Europe considers success in selling your organization, its reliability, and service levels, not the cheapest product. If you focus exclusively on price, you may run the risk of losing out, as buyers will always be able to find another supplier with an even lower offer. Do not be afraid to say ‘No’ to a buyer whose demands are too high. Your perception should be that the niche markets or higher market segments often offer better margins and less competition than the low market who sell cheap.

Having a unique product or some other distinguishing feature like excellent craftsmanship, ethnic designs, or sustainability, the higher segments are normally a good target unless you believe that you can grow in business as a low-cost supplier with high-volume suppliers, the lower end is probably more suitable. If you find a niche area with growth potential and fewer competitors, be aware that you cannot reach that niche overnight and must focus on other factors and may be a gradual process that requires significant experience in the European market. In every segment, buyers are under pressure concerning margins and are looking for cheaper alternatives but comparatively better quality. Moreover, remember you will never be the cheapest for very long, therefore, do not try and compete only with basic styles, but focus on features that add value to the buyer’s collection. Eventually, reliability, honesty, quality, and good results will lead to orders over and above your basic collection. The value of on-time delivery and top service levels is very high.

Buyers’ requirements on the European apparel market are:

1. There are strict demands regarding safety and quality. This is especially regarding the use of chemicals is strictly regulated. In addition to that, non-legal requirements related to sustainability are also becoming more important. Therefore, information regarding specific products must be checked with the buyer and compiled accordingly. Buyers often need to comply with the consumers forum’s demands and that means a different requirement for products specific to each general or niche market.
2. When exporting to Europe you need to pay attention with the following legally binding requirements:
3. Product safety measures: applicable to all products.
4. Chemicals: specific for textiles, leather, and accessories.
5. Labeling: specific rules for textiles CITES – applicable to products made from wild plants and animals and
6. Intellectual property rights.

Chemicals REACH legislation:

The European Union has restricted a great number of chemicals in products that are marketed in Europe. Most restrictions on chemicals are listed in the so-called REACH regulation (Regulation (EC) 1907/2006). The legislation on Persistent Organic Pollutants (POPs) may affect you as well, for example, if you use certain flame retardants or waterproof materials. Chemicals that have relevance for you will depend on the product and material you use. Several risks for commonly used materials and chemicals are described below. Please note that if you are using other materials or techniques (for example innovative techniques,

such as 3D printing), you must still ensure that your product complies with all legislation regarding restricted chemicals. The following may guide you further on Chemicals:

1. Familiarize yourself with the full list of restricted substances in products marketed in the EU by checking out restricted chemicals in textile products in the EU Export Helpdesk. Many EU buyers provide their suppliers with the 'Restricted Substances List' (RSL). To obtain an idea of what these RSLs look like: an internet search for 'RSL' and the name of a major brand often returns a link to the RSL of that brand. (Refer to REACH information to determine how you are affected. REACH (EC 1907/2006) aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.)

Note that there is also a lot of attention for chemicals in apparel from nongovernmental organizations and consumers. This may lead to demand by buyers to increase their requirements that are even stricter than the legislative requirements. Check the section in this study on additional requirements given below:

Textiles:

1. Azo dyes: If you dye your textile, make sure you do not use any of the azo dyes that release any of the 22 prohibited aromatic amines. Because the EU legislation lists the aromatic amines, not the azo dyes that release them, most azo dyes are legally acceptable. Moreover, most reputable dye manufacturers only produce legally accepted dyes, and countries importing those dyes have their mechanism to control it at the customs point during imports like in the case of our country. However, border rejections and market withdrawals do show that azo dyes still are an issue causing problems on the EU market due to Nepal's open border and illegal trade. Much caution needs to be taken as the goods are destroyed in Europe and the chance of return back is very low due to regulations constrains in Nepal.
2. Flame retardants: In textile products that come into contact with the skin, flame retardants are restricted. Commonly used flame retardants are Tris (2,3 dibromopropyl) phosphate, Tris-(aziridinyl)phosphineoxide, and Polybromobiphenyles.
3. Organotin compounds: If you use PVC "vinyl clothing" (shiny plastic-coated fabrics) in your products, know that organotin compounds are also restricted. Organotin compounds Dioctyltin compounds and Dibutyltin compounds can be used in textiles products (e.g. print on T-shirts and other apparel). However, their use is restricted as they can pose a risk to human health. For example, they can suppress the immune system and damage reproductive functions.
4. Perfluorooctane sulphonate: Perfluorooctane sulphonate (PFOS) is a substance used to make textile (and leather) resistant to water and dirt. It is a persistent organic pollutant, restricted in the EU through regulation (EC) No. 850/2004 (Stockholm Convention). The maximum limit for PFOS is 1 µg/sqm. Therefore, if you use dyes, make sure your products do not contain any of the azo dyes which release the forbidden aromatic amines. This includes checking your suppliers. To test your products, use the official tests. You can find the tests on the CEN website: CEN Leather – Chemical tests – determination of certain azo-colorants in dyed leathers. (Reference: CEN ISO/TS 17234:2003).
5. CEN Textiles: The European Committee for Standardization (CEN) has released the following textile standards:

REFERENCE TITLE

- EN ISO 105-D02:2016 Tests for colorfastness - Part D02: Colorfastness to Rubbing: Organic Solvents (ISO 105-D02:2016)
- EN ISO 105-G01:2016 Tests for colorfastness - Part G01: Colorfastness to Nitrogen Oxides (ISO 105-G01:2016)
- EN ISO 105-X12:2016 Tests for colorfastness - Part X12: Colorfastness to Rubbing (ISO 105-X12:2016)
- EN ISO 105-X16:2016 Tests for colorfastness - Part X16: Colorfastness to Rubbing - Small Areas (ISO 105-X16:2016)
- CEN ISO/TR 11827:2016 Textiles

Date of Availability: June 22, 2016

Date of Announcement: September 30, 2016

Date of Implementation: December 31, 2016.

Additional Requirements:

1. Methods for the determination of certain aromatic amines derived from azo- colorants Part 1: Detection of the use of certain azo- colorants accessible without extraction. Reference: EN 14362:2003 / EN 14362-1:2012.
2. Follow new developments in the field of flame retardants, as new alternatives are being developed. You can do so for instance through the European Flame Retardants Association (EFRA).
3. Always check for specific national regulations in the countries you are targeting, as some EU countries have additional or stricter national restrictions on chemicals substances used in apparel. For example, formaldehyde in textiles (Austria, Germany, Finland, and the Netherlands) and PCP (Austria, Denmark, Germany, the Netherlands) and disperse dyes in textiles (Germany).
4. Fair trade cotton textiles: Among the niche initiatives, Fair trade and Better Cotton Initiative are the best known and available for cotton products.
5. Eco-labeled apparel: There are several different eco-labels used for apparel and as this is a means of showing sustainability, there is an interest from buyers.
6. The Global Organic Textile Standard and Natur land (Germany) are examples of textile processing standard for organic fibers; OEKO-TEX and Blue sign stand for no use of hazardous chemicals in textiles; the EU Eco label also look to chemicals environmentally friendly options like biocides test which can be achieved from Indian accredited labs like in the case of felt products.
7. Keeping the above tips in mind right from the planning stage and being informed about the issues will add professional knowledge and even help reach a niche market of the higher end. There are problems of accreditation in Nepal but in most cases, the buyers provide the information on how to get the tests done and the cost factors which need to be included in the costing of the apparel produced.

ANNEX IV: Interview notes with Logo Fashion

The logo was established in Dubai, UAE in 1993. Later in the year 1994, it expanded the production unit in North Cyprus. After success in the market, in 1997, it expanded the production industry in Nepal. Since its establishment; Logo Fashion has gained experience and professionalism through involvement in a variety of markets. Established in 1997 during the peak growth of exports from Nepal, they generated employment for about 475 employees and became the best exporter to the EU market and highest foreign

currency importer. Due to political unrest, opportunities shrank, they moved entire production back to Dubai and employed about 400 people there. The business declined during 2008 in Dubai and the company decided to collaborate with factories and units in Vietnam and began production employing about 300 people.

Seeing the political scenario change under the new political system in Nepal, their desire to serve the nation with their international experiences prompted them to return to Nepal and revive their old property in Bhaktapur in 2016 while continuing their business in Dubai and Vietnam and experimenting with markets in different countries abroad. The German market has been observed to consume about 90% of their overall outputs and 10% by countries like Austria, Spain, and various Slovakian countries, among others. At the moment, they run with strength of approximately 67 staff and have started 6 retail stores within Kathmandu valley with their brand name “LOGO” and planning to expand out of the valley as well to flourish their export standard quality apparel and promote ‘Made in Nepal’ products in domestic markets.

Their experience with the domestic market is mediocre according to the owner of the factory, Mr. Hira Muktan. In his own words, he says, “ It is at times disheartening to people enter our shops with sharp eyes and appreciation but are reluctant to purchase when they learn the products are Nepal’s own and not from abroad.” His suggestion to combat these issues is as follows, “ The feeling of pride in National products is missing among many due to brand consciousness among people and the use of duplicate goods of international brands. The government needs good control to monitor such practices in the market and bring about new strategies that enable Nepalese citizens to buy Nepalese products and take pride in them”. The need for governments to understand the motives behind national brand development is strongly felt. Such developments carry with them not only intentions of earning profits but also of generating employment, reviving lost businesses, enriching the national economy, and potential for earning foreign currencies.

Mr. Hira has shared his disdain for Nepalese logistic providers who charge unreasonable high prices, compelling the company to doubt them and second guess their projected costs. He mentioned an incident where about NPR 25000 was claimed as detention for trucks that moved goods from Birgunj Customs to Kathmandu whereas, upon investigation discovered that the drivers of said trucks were being paid only NRS 2500. Incidence of lengthening transit time by shipping liners by diverting vessels to different ports, irrationally long dwell time for vessel movement of about 25 days and about 10-15 days for road movement from the port of Kolkata, and further delaying in Birgunj customs are some of his bitter experiences with logistic service providers while procuring raw materials. Issues similar to these have increased the burden of costs upon his factory.

According to Mr. Muktan, the cost of a 20 ft container from China or Taiwan up to BRJ comes to be USD 3400 to USD 3600 and nearly 18% to 20% import duty tax in CIF value and 13% VAT and additional miscellaneous costs of custom clearing, customs facilitation, handling, terminal handling, and transportation from BRJ to Kathmandu and each consolidation cost him USD 250 per supplier/document add up to a devastating sum. The experience of moving LCL is even worse for transit time and costs end up coming out to be even higher than 20ft container movement from origin to destination.

Additionally, Mr. Muktan worries that the current system grants freight forwarders un-rightful power over shipments that do not belong to them due to the present trend of naming their agents as shippers and

consignees. This system allows them to have complete control over the Master Bill Of Lading and House Bill Of Lading, and extortion like demands of increased costs are often forced over actual owners of goods by freight forwarders who refuse to release the HBL unless their demands are met. Often these demands are claims of additional costs with no actual evidence. The information flow of the supply chain in Nepal happens to be very poor according to Mr. Muktan who doubts their transparency and accountability and strongly feels this is due to the larger number of people involved in the many logistics procedures who all seem to be manipulating their position for personal gain either due to monopoly or the casual culture of unethical practices.

He hopes that the government can come up with better provisions to manage logistic chains along with promotional schemes like import duty reduction for raw material like fabric/accessories for 5-7 years until industries will be established for domestic apparel producers to help conquer foreign markets and create international links rather than just focusing on incentives in export only. At the same time, the government should bring their attention to informal producers/markets to regulate them so that it can contribute to the country's economy. The company is committed to creating job opportunities and serving the nation with export quality products for affordable prices but this can only be achieved through close cooperation of government.

ANNEX V: Steps/documents to export to the USA and comply with the US customs

Suggestion to apparel exporters on how to prepare documents for export to the USA and comply with US customs regulations (Invoice, packing list, Inspection procedure, packing, and labeling requirement).

1. Include all information required on your customs invoices.
2. Prepare your invoices carefully. Type them, allow sufficient space between lines, and keep the data within each column.
3. Make sure that your invoices contain the information that would be shown on a well-prepared packing list.
4. Mark and number each package so it can be identified with the corresponding marks and numbers appearing on your invoice.
5. Show a detailed description of your invoice for each item of merchandise contained in each package.
6. Mark your goods legibly and conspicuously with the country of origin unless they are specifically exempted from country-of-origin marking requirements, and with such other marking as is required by the marking laws of the United States.
7. Exemptions and general marking requirements are detailed in Chapters 29 and 30 of the CBP regulation of the USA.
8. Comply with the provisions of any special laws of the United States custom and border protection that may apply to your goods.

9. Observe the instructions closely concerning invoicing, packaging, marking, labeling, etc., sent to you by your customer in the United States. He or she has probably made a careful check of the requirements that will have to be met when your merchandise arrives.
10. Work with CBP to develop packing standards for your commodities.
11. Establish sound security procedures at your facility and while transporting your goods for shipment. Do not allow narcotics smugglers to introduce narcotics into your shipment.
12. Consider shipping on a carrier participating in the Automated Manifest System.
13. If you use a licensed customs broker for your transaction, consider using a firm that participates in the Automated Broker Interface.

Packing requirement: Commingling Packing

Information on how to pack goods to transport them may be obtained from shipping manuals, carriers, forwarding agents, and other sources. The Goods should be packed in such a manner that it will permit CBP officers to examine, weigh, measure, and release them promptly.

Orderly packing and proper invoicing go hand in hand. You will speed up the clearance of your goods through CBP if the following documents are prepared well:

1. Systematically invoice your goods,
2. Show the exact quantity of each item of goods in each box, bale, case, or other packages,
3. Put marks and numbers on each package,
4. Show those marks or numbers on your invoice opposite the itemization of goods contained in the package that bears those marks and numbers.

When packages contain goods of one kind only, or when the goods are imported in packages the contents and values of which are uniform, the designation of packages for examination, and the examination for CBP purposes are greatly facilitated. If the contents and values differ from package to package, the possibility of delay and confusion is increased. Sometimes, because of the kinds of goods or because of the unsystematic manner in which they are packed, the entire shipment goes for a full inspection. Always bear in mind that it may not be possible to ascertain the contents of your packages without full examination unless your invoice clearly shows the marks and numbers on each package (whether a box, case, or bale) and specifies the exact quantity of each item of adequately described goods in each marked and numbered package.

Also, be aware that CBP examines cargo for narcotics that may not be known to the shipper or the importer and may be hidden inside. This can be time-consuming and expensive for both the importer and CBP. Narcotics inspections may require completely stripping a container to physically examine a large portion of the cargo. This labor-intensive handling of cargo, whether by CBP, labor organizations, or private individuals, results in added costs, increased delays, and possible damage to the product. Importers can expedite this inspection process by working with CBP to develop packing standards that will permit effective CBP examinations with a minimum of delay, damage, and cost.

A critical aspect of facilitating inspections is how the cargo is loaded. “Palletizing” cargo—loading it onto pallets or other consolidated units—is an effective way to expedite such examinations. Palletization allows for quick cargo removal in minutes using a forklift compared to the hours it would take manually. Another

example is leaving enough space at the top of a container and an aisle down the center to allow access by a narcotic-detector dog.

Your cooperation in this respect will help CBP officers decide which packages must be opened and examined; how much weighing, counting, or measuring must be done, and whether the goods are properly marked. It will simplify the ascertainment of tare and reduce the number of samples to be taken for laboratory analysis or other customs purposes. It will facilitate verification of the packages and contents, as well as the reporting by CBP officers of missing or excess goods. And it will minimize the possibility that the importer may be asked to resubmit for examination packages that were already released under the belief that the ones originally designated for examination were sufficient for that purpose.

Packing a combination of different types of goods makes it impracticable for CBP officers to determine the quantity of each type of product in an importation. Such packing can also lead to a variety of other complications in the entry process. No problem will arise, however, from the orderly packing of several different kinds of properly invoiced goods in a single package. It is indiscriminate packing that causes difficulty.

Additional Questions for Textile and Apparel Importers: Section 333 of the Uruguay Round Implementation Act (19 U.S.C. 1592a) authorizes the Secretary of the Treasury to publish a list of foreign producers, manufacturers, suppliers, sellers, exporters, or other foreign persons found to have violated 19 U.S.C. 1592 by using false, fraudulent, or counterfeit documentation, labeling, or prohibited transshipment practices in connection with textiles and apparel products. Section 1592a also require any importer of record who enters or otherwise attempts to introduce into United States commerce textile or apparel products that were directly or indirectly produced, manufactured, supplied, sold, exported, or transported by such named person(s) to show, to the Secretary's satisfaction, that the importer has exercised reasonable care to ensure that the importations are accompanied by accurate documentation, packaging, and labeling regarding the products' origin. Under section 1592a, reliance solely upon information from a person named on the list does not constitute the exercise of reasonable care. Textile and apparel importers who have a commercial relationship with any of the listed parties must exercise reasonable care in ensuring that the documentation covering the imported merchandise, its packaging, and its labeling, accurately identify the importation's country of origin. This demonstration of reasonable care must rely upon more information than that supplied by the named party.

To meet the reasonable care standard when importing textile or apparel products and when dealing with a party named on this list, an importer should consider the following questions to ensure that the documentation, packaging, and labeling are accurate regarding country-of-origin considerations. This list is just an illustration.

1. Has the importer had a prior relationship with the named party?
2. Has the importer had any seizures or detentions of textile or apparel products that were directly or indirectly produced, supplied, or transported by the named party?
3. Has the importer visited the company's premises to ascertain that the company can produce the merchandise?
4. Where a claim of an origin-conferring process is made per 19 CFR 102.21, has the importer ascertained that the named party performed that process?

5. Is the named party operating from the country that he or she claims on the documentation, packaging, or labeling?
6. Have quotas for the imported merchandise closed, or are they near closing, from the main producer countries for this commodity?
7. Does the country have a dubious or questionable history regarding this commodity?
8. Have you questioned your supplier about the product's origin?
9. If the importation is accompanied by a visa, permit, or license, has the importer verified with the supplier or manufacturer that the document is of valid, legitimate origin? Has the importer examined that document for any irregularities that would call its authenticity into question?

ANNEX VI: Supply chain certifications for successful and sustainable apparel business

A certification is a legal or contractual requirement. It is a performance benchmark and framework establishing how something should be made. A material or process can be certified against various standards that pertain to different environmental and social conditions and they are intended to ensure that certain conditions have been met in the production process. There are many important certifications in the apparel industry, which cover a range of topics, for example, social issues in the supply chain, recycle materials, chemicals used, etc. and it can help reduce the unethical practices occurring in the workplace. There is lots of standard certification available but the most common ones that a company needs to receive are as below:

1. Consumer Product Safety Improvement Act: Enacted by the federal government of the United States of America to establish consumer product safety standards and other safety requirements for children's products.
2. Oeko-tex: An international association that tests for harmful substances in the various stages of textile production. It has two certification labels; the Oeko-Tex Standard 100 and the Oeko-Tex Standard 1000.
3. GOTS certified: Worldwide requirements that ensure the organic status of textiles, this however encompasses the entire process, from harvesting of raw materials to labeling to provide credible assurance.
4. Content Claim Standard: A voluntary certification that can be used to trace material through the supply chain.
5. Fair trade and Fair mined Gold Certification: A new certification, combining Fair trade International and the Alliance for Responsible Mining, that assures consumers that gold jewelry is responsibly sourced, also allowing small-scaled miners to improve their living situation.
6. Blue sign: A certification focusing on aspects of consumer safety, water, and air emissions and occupational health. There is also a focus on the reduction of harmful substance usage at the early stages of production. This places an emphasis on legal compliance and environmental health and safety.
7. Know label: A digital label that allows consumers to see the overall environmental and human impact of the clothes purchased. The phone application allows consumers to scan the label thus educating on the origins of clothing, and how to care for it in the best environmentally friendly way.
8. EU Eco-Label: A voluntary scheme encouraging businesses to market products that are less harmful to the environment. The criterion is based on the overall impact the product has on the environment through its lifecycle.
9. Fair trade Certified: An independent consumer label that signifies that fairer terms of trade, better prices, and longer lead times promote security and economic self-sufficiency as well as sustainable production practices.
10. Global Recycle Standard: A track and trace system that verifies the number of recycled parts or materials in a given product.
11. IVN-Natur textil: These 2 seals that are responsible for safeguarding and reviewing the entire textile chain specifically environmental standards and social accountability.
12. Made in Green: A label that also verifies that a product is made in a fully traceable supply chain, and has been manufactured in factories that are respectful to the environment and the workers.

13. Cradle to Cradle: With a focus on eco-intelligent product designs, this certification awards based on levels of four different areas, specifically eco materials, renewable energy, water efficiency, and social responsibility.
14. Nordic Swan: A symbol that demonstrates a product is a good environmental choice.
15. R Cert: An educational standard for recycled clothes that guarantees that brands recycled their textile waste into their recycled textile clothing.
16. Recycled Claim Standard: Another standard to track recycled raw materials through the supply chain and giving credibility to recycled claims on products.
17. SA8000 Certified: A social standard certification with the mission to advance the human rights of workers around the world.
18. Sustainable Fair Trade Management System: The new overall universal approach for the certification of production, trading, and communication.
19. Textile Exchange: A non-profit, member-based organization, focused on the expansion of the organic cotton market who offers benefits to its members, especially those working in the areas of organic farming engagement and public education.
20. ZDHC Manufacturing Restricted Substance List: Zero Discharge of Hazardous Chemicals is a list of chemical substances banned from the intentional use in facilities that process textile materials.

Initiatives

Initiatives are a way to gain support and help to provide sustainability in the supply chain. While they may have voluntary codes, they do not certify. Many initiatives were formed to deal with the poor practices that are especially present in major chains of fashion.

Key Initiatives

Initiatives are often used to combat problems that are prevalent in major brands, but not something smaller brands have to deal with. They can have various purposes, from educating consumers to providing goals for companies to strive to reach. Some important initiatives that are particularly making a huge impact on the apparel industry are as follows:

1. Better Cotton Initiative: An initiative to promote sustainable cotton production by covering 3 pillars of sustainability specifically the environmental, social, and economic conditions.
2. Business for Social Responsibility (BSR): Voluntary goals set by the organization to improve and maintain wastewater quality in textile related operations.
3. Business Social Compliance Initiative (BSCI): A leading initiative committed to improving working conditions in the global supply chain. This can assist in retail, trading, brand, and importing companies toward an overall goal of social compliance.
4. Fair Wear Foundation: An independent verification that works to improve labor conditions in supply chains.
5. Fair Labor Association: A nonprofit organization dedicated to ending sweatshop conditions in factories worldwide.

ANNEX VIII: Informal apparel businesses in Nepal

The term “informal economy” replacing the previously used term “informal sector,” is used to refer to workers and companies that are not recognized or protected under legal and regulatory frameworks and are characterized by a high degree of vulnerability. Informal economy workers often have no wage agreements, earn little (not a living wage and often below legal minimum wage standards), are not paid on time, have no employment contracts, no regular working hours, are not covered by non-wage benefits (such as health insurance or unemployment benefits), and are not a priority for most governmental, political, or labor organizations.

“...The informal economy has been growing rapidly in almost every corner of the globe, including industrialized countries,” reports the ILO (2002: 5). “The bulk of new employment in recent years, particularly in developing and transition countries, has been in the informal economy.

Illegal trading or manufacturing is obvious in most of the products available in the market as mentioned above in the ILO definition and findings but when it comes to apparel industries, it has been making it very difficult for policymakers to locate and monitor them to bring them under the tax basket as well as monitor them on working condition matters and wages as well as for quality-related requirements of their outputs. Nepal having an open border with India and pores in the northern border with China the control of the flow of apparels within the country is unavoidable. It is equally difficult to trace the apparel once it reaches the outlets.

Further, the manufacturers are also engaged in establishing units who work day and night as well as use illegal labor women and children with very low wages. The conditions of the units are very risky and hazardous and often fall prey to diseases and other health and hygiene issues. These units supply to the main units which are exported but this provision has a good side as it helps the real exporter produce fast and meet with the timelines but the negative side is that the quality cannot be managed well and the risk on the part of the unit owner is very high with no possibility of seeking association or governments help if a dispute arises. The other threat to apparel industries established for domestic consumption is from products from China and India and at times second-hand apparel altered and made new. These products may cause health problems as well as discourages the main supplier as it is cheap and easily sellable as they don't pay import duty or tax to the government. The apparel imported from China and India are sometimes smuggled inside Nepal and sold which creates real manufacturers a problem due to bad competition. It is felt that there is a need to manage the problems and help apparel industries that are legal and established for both export and domestic consumption.

ANNEX IX: Marketing strategies to promote businesses

Some of the contemporary methods used in the marketing of businesses are as follows:

1. E-marketing: Communicate to customers through internet sell through internet source designs from the internet.

2. Market Penetration: Look for new ways to market designs and make new cloth designs depending upon the demand of the new buyers.
3. Branding and Cost Reduction: Have a business name, use modern machines, and pay the right wages to employees for the work done.
4. Interactive Marketing: Ask for feedback/evaluation serving as the nature of customers' vary and demand a very strong commitment.
5. Customer Focus: Customers opinion is very important in style decisions; focus on having as many customers as possible, set prices to increase the flow of customers.
6. Pricing: Are your prices always lower than competitors' prices based on market price?
7. Product Differentiation: Be keen on new designs that are on fashion, offer after-sale services; strived to have unique designs all the time.
8. Product Quality: Consider quality rather than price in choosing fabrics and emphasize on workmanship.

Some unique techniques used by international brands are as follows:

1. Developed story and emotion to conquer hearts and minds.
2. Create a user-friendly referral system to help fans spread the word.
3. Doing differently: Winners don't do different things but they do it differently.
4. Build a proud, loyal community connected by values. Ultimately you need to change consumer culture and inspire them. The deep belief on where something is made, and why, matters a lot to the customer.
5. Guts are needed to do great marketing and promotional activities. War by Parker does high-level PR stunts to get the press to talk about them.
6. Consciously targeted customers and develop inclusive advertising meant only for them.
7. Facilitating the customer: Fitness and conversation hub that gives free fitness classes.
8. Products made exclusive: Very high end and unique. Specialization achieved for a long time with special fabrics and special designs. "The Trend Setters"
9. Blog: With popular and loyal fans of the brand
10. Winning hearts: Winning over influencers of a sector of professionals or players or movie stars and the media for targeted celebrities for product endorsement.
11. Organized competitions: Like into an engaging sport.
12. Charity: TOMS built an entire company by giving away 45 million pairs of shoes to charity.
13. Untapped channel identification: a physical magazine for example.
14. Special catering: The Undress focused solely on a specific niche and targeted specific influencers to reach them.
15. Give always: Armour gave away free shirts to individual football players, and ended up with two sales from 2 NFL teams. "One give-away and three sales".
16. Break into new markets: Like Uniqlo sponsored prominent athletes to help them gain popularity.
17. Vans understand the importance of the human touch.
18. Serving the clients of interest. Victoria's Secret's in-store experience causes 67% of their customers to purchase after using their fitting room.
19. Slogan/Motto—"be fast, not first" Zara
20. Social Norms. Chanel challenged the status quo by designing products defying social norms one could also do it by following them up.
21. Economization: like Charles and Keith positioned itself in the "affordable luxury" market.

Thus, entrepreneurs in apparel making or fashion design need to be keen on how they price their products and vary their design for them to remain competitive. Interactive marketing is the most implemented while e-marketing could also be implemented. For entrepreneurs to successfully implement e-marketing, they need to be empowered to embrace the changes in technology. However, there is a need for further research to investigate the most effective strategy/strategies to use in apparel-making micro-enterprises. The above tips need highlighting the ones best suited and relating them to the type and nature of the apparel business.



Government of Nepal
Ministry of Industry, Commerce and Supplies
Trade and Export Promotion Centre