

Margin and Its Relation with Firm Level Compliance
Illustration on Bangladesh Apparel Value Chain

Prepared by

Dr Khondaker G Moazzem

Additional Research Director, CPD

and

Kishore K Basak

Senior Research Associate, CPD

The study has been carried out
in collaboration with Friedrich-Ebert-Stiftung (FES), Dhaka

12 August, 2015



CENTRE FOR POLICY DIALOGUE (CPD)
B A N G L A D E S H
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- Authors would like to appreciate Quanita Ahmed, Intern, CPD for her research support in this study.

Acknowledgment

Authors would like to register their deep appreciation to

Professor Rehman Sobhan

Chairman, CPD

Professor Mustafizur Rahman

Executive Director, CPD

and

Dr Debapriya Bhattacharya

Distinguished Fellow, CPD

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1. Background

Despite significant economic upgrading in the apparel value chain, social upgrading remains weak in most of the supplying countries. As one of the major sources of global apparels, Bangladesh's apparel sector is no exception. Usually, different social issues in the value chain including workers' wages, workplace safety and security and worker's rights are supposed to be handled by the 'judicial' system operated by local legislative bodies of the supplying countries. Given the weak institutional structure in the supplying countries, 'judicial' governance faces serious constraints in maintaining expected level of compliance. In this context, the 'external' governance of the value chain is considered to be a possible avenue to facilitate social compliance where buyers would play the lead role.

Margin received by market agents in the value chain is supposed to be 'neutral' with regards to compliance at the manufacturing units of supplying countries since local legislative bodies usually monitor and ensure that standard. Necessary costs for maintaining compliances are supposed to be built-in the margin of the suppliers and therefore distribution of margin both at the suppliers' and buyers' end is likely to have limited implications on maintaining compliance. In contrast, a consistent rise in sourcing of apparels from major supplying countries despite having poor compliance records indicate that compliance standards at the factory level has been compromised which may directly and indirectly benefit major players in the supply chain. In a state of fierce competition, low cost for compliance is practiced by market players as a strategic tool in order to maintain competitiveness and thereby ensuring higher profit. Overall, the study intends to explore whether existing distribution of margin in the apparel value chain limits the scope for maintaining compliance at the suppliers' end.

The focus of the study is to appreciate existing practices of compliance mainly related to occupational health and safety (OHS) at the workplace in the apparel sector of Bangladesh, costs for maintaining compliance at the firm level and its relation to other costs and profit at the suppliers' end. The study also analyses the margin received by suppliers and buyers/retailers and its relationship with maintaining compliance in factories in supplying countries. The study also suggests possible measures for improvement of compliance in the apparels sector of Bangladesh.

2. Literature Review

Theoretically margin received by market agents comprises operational costs and return. The return distributed among the agents in any value chain is the share of surplus generated in the process of production and marketing after deducting various costs ((Dijk and Trienekens (eds.), 2012). In the apparel value chain, this surplus is usually generated from design, production, marketing coordination and recycling processes (Ravenhill, 2014). There are three issues related to the competitive value chain, these are – a) barriers to entry in the market; b) nature of governance of the market; and c) nature and development of the value chain. These issues indicate that distribution of return among the market players is not by default determined only through demand and supply in the market but also influenced by the level of governance practiced at the domestic and international levels.

Given the simple nature of activities undertaken in the manufacturing process, the extent of barriers to enter the apparels market is usually low. As a result, the number of suppliers within and between the supplying countries has been increasing over the years which further weakens entry barriers and heightens the competitive pressure. Such fierce competition between suppliers reduces the level of return. In contrast entry barriers remain high in areas such as designing and marketing which is usually under the domain of buyers/retailers/ brands. It is argued that the higher margin is increasingly found in the areas outside of production, such as design, branding

and marketing (Tokatli & Kizilgün, 2004). Overall, margin as well as return is likely to be reduced in the manufacturing part as opposed to non-manufacturing part of the apparel value chain.

Distribution of margin and return also depends on the type of value chain the firm operates in (Fernandez-Stark, Frederick, & Gereffi, 2011). The position of the supplying firm in the tier of the value chain which determined the nature and level of relationship with the buyers, impacts the distribution of return. However, with upgrading the value chain, this relationship changes and firms move from one tier to another tier with broader responsibilities in the manufacturing process which also changes the distribution of return (Gereffi, 2013).

The surplus generated in the entire process and its distribution is also influenced by the structure of governance in the value chain. There are three kinds of governance which influences the value chain: legislative (making the laws), the executive (implementing the laws) and the judiciary (monitoring the conformance of laws). In fact, issues relating to conformance of labour standards are considered to be under judicial jurisdiction in nature; however, the practice of governance is influenced by numerous exogenous factors which may have direct and indirect implications on maintaining compliance. It is argued that maintaining compliance is not a voluntary aspect but a business condition to maintain good relationships with buyers (Ahmed & Nathan, 2014).

The study by Ahmed & Nathan (2014) showed that the FOB price for the main apparel export items of Bangladesh is around 11 per cent of the retail price. This indicates that the buyers and retailers earn high margins and also a rent from wage arbitrage (difference in wages in destination and manufacturing countries). Khatun et al. (2008) showed that wage bill comprises of only a small portion (about 12 per cent) of the total cost which is the only cost factory owners can control (Miller, 2011). In addition, compliance initiatives and improvements result from pressure from the buyers' side (Ahmed & Nathan, 2014). The growth in capacity, expansion to new markets and long term relationship with buyers not only increases the bargaining position of suppliers but also improves the level of compliance (Ahmed & Nathan, 2014). Rahman et al. 2006 found positive relationship between compliance and profit margin in Bangladesh's apparels firms.

While existing literature hints about influence of margin on compliance standards, there is lack of adequate research on nature and extent of relationship between margin and level of compliance.

3. Objectives and Research Questions of the Study

The study will explore the possible linkages between allocation of margin in the global apparel value chain particularly in the context of Bangladesh and maintaining compliance at the suppliers' end. The following research questions will be examined in this study: a) what is the nature of relationship between allocation of margin and compliance in the value chain particularly between workers' social compliances? b) which factors influence the relationship between the two? c) how margin can contribute to the improvement of compliance in the apparel value chain? d) to what extent the compliance and accountability issues in the apparel sector in Bangladesh are relevant for policy makers abroad? and e) what are the possible ways to improve the situation of the garment workers in Bangladesh.

4. Methodology of the Study

This study follows an exploratory research method in order to address the research questions. Instead of collecting data through rigorous sampling method, key informants of the apparels value chain have been interviewed. Hence the study is an illustrative case of exploring relationship between margin and compliance. As part of this study, key market players, mainly suppliers and buyers/retailers have been interviewed with structured questionnaires. A total of 15 suppliers and buyers took part in the interview. The reason for limited response of suppliers and buyers/retailers

is perhaps due to lack of interest to share information about a number of sensitive issues including margin and profit received by them. Thus, the information gathered through interviews and the analysis carried out based on that would not be considered robust. Besides, the study carried out a comparative assessment with other competing countries based on the information and data of other recent studies. Overall, the conclusion drawn from the study is rather indicative in nature and based on this study, however in-depth analysis need to be carried out.

5. Brief Overview of Compliance Standard in the Apparels Sector of Bangladesh

5.1 Legal and Institutional Mechanism for Maintaining Compliances

The physical and social compliances maintained at industrial entities in Bangladesh are supposed to be guided by specific national rules and regulations. These rules and regulations include *Fire Prevention and Fire Fighting Law 2003*, *Bangladesh Labour Act 2006 (amended in 2013)*, and *The Fatal Accidents Act 1855*. *Bangladesh National Building Code 2006* provides guidelines for establishment of buildings for industrial purpose. The provisions in various regulations that are related to the occupational safety of workers at the garments factories are mentioned below under different aspects.

Establishment of Industrial Building: According to the *Fire Prevention and Fire Fighting Law 2003* (sub-clause 1 of clause 8) approval or revision of the design of commercial buildings will not be given unless the Director General (DG) certifies the issues of fire prevention and fire-fighting of the respective buildings. The Law also keeps provision for the DG to inspect multi storied or commercial buildings and in case of requirement give suggestions on the above mentioned issues. In this case, the owner of the building is bound to adopt measures as per the suggestions of the DG according to the requirement of public safety. If no measures are undertaken for public safety, the DG may announce the building to be unsuitable for use.

According to the *Bangladesh Labour Act 2006* (amended in 2013) if it appears to the inspector that any building or part of a building or any part of the ways, machinery or plant in an establishment is dangerous to human life or safety, he may write to the employer about specific measures to be adopted. The inspector may also prohibit the use of a building or part of a building until proper repair is done. The law also specifies the requirements for the construction of floors, stairs and means of access in every establishment necessary to ensure safety. Workers should be provided with safe means of access to every place at which any person is, at any time, required to work; and all floors, pathways and stairways should be kept clean and clear of obstructions.

Bangladesh National Building Code (BNBC) delineates the requirements for the establishment of industrial buildings under various occupancy groups that are based on the handling of raw and finished products, and operations conducted in the industry etc.

Precaution against Fire: The *Bangladesh Labour Act 2006* (amended in 2013) delineates measures that should be adopted by any establishment in case of prevention against fire. The law stipulates that every establishment should provide at least one alternative connecting stairway with each floor and such means of escape in case of fire and fire-fighting apparatus. The law also states that if it appears to the inspector that any establishment is not providing with the means of escape as prescribed then the inspector may provide suggestion to the employer on specific measures before a date specified in the order. In case of occurrence of fire in any establishment, it has been recommended that exit doors from any room shall not be locked. This is to enable easy and immediate exit by workers in case of any emergency situation. To make the exit clearer to the people inside the premises on fire, the exit should be distinctively marked in Bangla and in red letters of adequate size. Every window, door or any other exit avenue of the establishment

should be usable to the workers for exit in case of any emergency with a free passage-way giving access to each means of escape.

Chapter 3 in BNBC outlines the means of escape in an emergency situation. It states that the means of escape should be continuous and unobstructed from any point of the building to a street, roof of another building or a designated area of refuge. BNBC stipulates general requirements for various means of escape for workers in case of an emergency. The code also includes provisions for fire protecting through designing and managing in-built facilities for a building and its premises. The various provisions for fire under BNBC include fire protection plumbing, design of smoke and fire venting system etc.

Management of Combustible Items: The *Bangladesh Labour Act 2006* (amended in 2013) includes that effective measures should be taken to ensure that all the workers are familiar with the means of escape in case of fire in every establishment where more than ten workers are ordinarily employed. This will be applicable to establishment using or storing explosive or highly inflammable materials. The law also states that a mock fire-fighting should be arranged at least once in a year in factories where fifty or more workers and employees are employed and the employer shall maintain a book of records in this regards.

The BNBC stipulates that no apparatus generating flames shall be permitted to be used or stored in a building or room using or storing volatile flammable liquid [2.12.7 (a)]. The regulation requires boiler rooms and areas containing heating plants to be segregated from the rest of the occupancy. BNBC requires adequate preventive measures against hazards associated with electricity and gas. *Fire Prevention and Fire Fighting Law 2003* lays out penalties for a person keeping, storing or processing of inflammable materials. The government in certain cases may also seize such materials.

Managing Machinery and Equipment: Clause 71 of *Bangladesh Labour Act 2006* (amended in 2013) states that if any part of the plant or machinery used in manufacturing process is operated at a pressure above atmospheric pressure, appropriate measures should be taken to ensure that the safe working pressure of such part is not exceeded. The act also includes measures relating to the use of cranes and other lifting machinery, revolving machinery, hoists and lifts and casing of new machinery etc.

Provisions for Health and Safety: The various national regulations include provisions for health safety of workers. *Bangladesh Labour Act 2006* (amended in 2013) states that certain materials are to be made available in any manufacturing process for the protection of persons employed if the process involves risk of injury. The law also includes that if it appears to the inspector that any building or part of a building or machinery or plant in an establishment, is dangerous to human life or safety, the employer shall be ordered to furnish documents to determine the safety of such building and machinery or plant. Other provisions in the law include cautioning workers regarding dangerous fumes, specifying and declaring hazardous operations, prohibiting or restricting the employment of women, adolescents or children in such operations and providing the periodical medical examination of persons employed in the operation etc.

The law also assigns power to the workers if they were to find that any machinery or building used by them is in a dangerous condition that it is likely to cause physical injury at any time. In this case the worker shall inform the employer of it in writing immediately and if the employer fails to take appropriate action within three days of receiving the information, he or she is liable to compensate the worker in case of an injury resulting from negligence.

Others: Other issues that have been addressed in the *Bangladesh Labour Act 2006* (amended in 2013) include ensuring occupational safety of workers including provisions for shelter, their canteen facilities, room for children, recreational, educational and medical care facilities etc. There are also provisions related to the power of inspector to enter industrial premises and collect sample of any substance used that is likely to cause injury to the health of workers in the establishment. In addition to various rules and regulations for maintaining the appropriate working condition, the apparel sector of Bangladesh is also subject to conditions imposed by international buyers.

Various provisions related to workers' safety and security under different laws/acts could legally ensure occupational health and safety of the workers at the workplace. However, the institutional mechanism for monitoring and inspection of compliance particularly under the Ministry of Labour, RAJUK and Ministry of Home have struggled to ensure proper enforcement of various provisions of national rules due to constraints of capacity and weak governance (Moazzem, 2013). As a result, the apparel sector suffers poor standards of compliance at different levels. The number of tragic incidences at the workplace and death of workers particularly the collapse of the Rana Plaza indicated that compliance related rules are not properly followed by firms.

5.2 Overall State of Compliance in the Apparels Sector: Pre- and Post-Rana Plaza Period

During the pre-Rana Plaza period, firms usually maintained physical and social compliances taking into account the national rules as well as the guideline followed by buyers/brands/retailers under their code of conduct. Usually, these CoCs are partially compliant with national rules and regulations (Moazzem, 2013a). Major provisions under CoC include a number of aspects related to physical and social compliances particularly in four areas including facilities in workplace, fire prevention and fire-fighting measures, planning and storage and building design compliance (Table 1). Based on these CoC, associations particularly BGMEA and BKMEA set minimum required criteria for compliance which include fourteen different aspects: minimum wage, identity card, wage at right time, leaves (weekly, sick leave, occasional and annual), participation committee, welfare committee, child labour, alternative exit for emergency, service book for workers, necessary fire-fighting equipment, day-care centre, first-aid facility and separate toilet for male and female workers.

Table 1: Compliance related Guideline Followed by Firms during Pre-Rana Plaza Period

Provisions under Buyers/Brands/Retailers COC (Pre-Rana Plaza Collapse Period)	
1. Facilities in work place	
○	Healthcare
○	Toilet
○	Pure drinking water
○	Dining facility
○	Lighting and ventilation
2. Fire prevention and fire-fighting measures	
○	Fire extinguisher
○	Sprinkler
○	Smoke and heat detector
○	Fire alarm, signage
3.Planning and storage	
○	Safety requirements of electromechanical installation
○	Warehousing location
4. Building design compliance	
○	Width & no. of stairs

Source: Based on different documents

During the post-Rana Plaza period, the apparel sector has undergone major restructuring on compliance related issues. A number of private sector initiatives including Accord, Alliance and ILO supported initiatives are in force to oversee the compliance standard at the factory level. As part of those initiatives a new guideline for fire and electrical safety and physical integrity has been prepared. Compared to the guideline followed during pre-Rana plaza period, this guideline is quite comprehensive regarding physical compliance. A detailed list of important compliance related aspects of the guideline is presented in Annex 1. These standards have been set based on the national rules and regulations as well as international rules and regulations where national rules are inadequate.¹ These guidelines have been accepted by the National Tripartite Committee (NTC) formed in collaboration with the representatives from government, employers and workers of the apparels sector of Bangladesh. Based on the guidelines firms have been inspected by several team of experts who are working with Accord, Alliance and the ILO. The NTC is overseeing the progress of monitoring and inspection of factories.²

¹ Rules and guidelines taking support from international rules and regulations include International code council publications such as international building code, 2012, international fire code 2012, international existing building code 2012. National fire protection association, USA publications including standard for portable fire extinguishers, 2013, standard for installation for sprinkler systems, standpipe and hose systems, stationary pumps for fire protection, water tanks for fire protection and others; American concrete institute publications, American institute of steel construction etc.

² There are a total of 3743 factories which are members of two major associations- BGMEA and BKMEA. Till July, 2015, a total of 1898 factories have been inspected. Based on the inspection, firms have been given the corrective action plan (CAP) to make necessary remediation as per the timeline. However, another 1500 factories have been identified which are not suppliers of the buyers of Accord and Alliance. A large number of these firms are working for local suppliers as well as for foreign buyers under subcontracting arrangements. These factories have been inspected by the ILO. There exists another set of firms, which are not members of any organizations such as BGMEA and BKMEA and their numbers could total 800. These firms mostly operate informally and often do subcontracting type of work for larger firms.

6. Level of Compliance in Sample Apparel Firms

A firm level investigation has been carried out in order to understand the level of compliance and current practices for maintaining compliance standard. The investigation had been carried out in January-February, 2015 in different categories of firms including large and small sized firms as well as firms having direct and sub-contracting arrangements with buyers/retailers. A similar investigation has been carried out among brands and buyers which operate their businesses from Dhaka. Respondents of both firms and buyers/retailers were asked to share their views regarding current practices of compliance, cost of maintaining compliances, distribution of margin between different market agents and relationship between margin and compliance standards etc. It is important to note that during the time of interview sample firms were either inspected or to be inspected by the expert teams of Accord and Alliance. As a result firms have made some changes in compliance related infrastructural facilities in order to be better rated during the time of inspection. Hence the perception of the respondents on various issues reflected the compliance standard in congruence with the newly set standards.

6.1 Physical Compliance

According to Table 2, most of the firms are moderately equipped with major physical compliance related indicators such as fire-fighting system and other equipment including fire alarm and signs. However, sprinkler and smoke/heat detector systems are not available in most of the sample firms. Majority of the factories follow national regulation of having one toilet for every 25 workers. But there are concerns regarding other compliance issues such as width and number of stairs, dining facility, pure drinking water facility and lighting and ventilation.

ACCORD has identified 52 605 different kinds of problems in the inspected factories which are related to unsafe means of egress, unsafe electrical installations and weak structures. Till March 2015, 900 CAPs have been received by Accord and handed over to the respective factories. Accord has been publishing the CAPs on their website- so far 683 CAPs have been updated on their website. Most Accord inspected factories face the problem of common safety hazards which include lack of fire doors in stairwells, inadequate automatic fire alarm systems, inadequate fire separations and protected exits, lack of lateral stability in structure, lack of accurate structural drawings, inadequate space for electrical installations such as substations (Accord, 2015).

Alliance, like Accord, has undertaken rigorous initiatives to inspect its member factories. Alliance has already inspected all of its 648 factories. During the inspection process, 5 factories have been fully closed, 12 were partially closed and the remaining two were required to operate at reduced capacity (Alliance, 2015). Alliance has finalized 300 CAPs till date. In order to support factory owners to promptly undertake remediation plan as CAPs, Alliance has arranged low cost financing for factory owners. Besides, Alliance has provided training among the workers on basic fire safety issues.

The NTPA initiative is currently facing a number of difficulties in conducting the inspection. Out of 1500 factories listed as members of BGMEA which are not covered under Accord and Alliance initiatives, 1100 factories are found to be challenging for inspection. Factories which remain uninspected under the three initiatives, are likely to have deficiencies in terms of physical and social compliances and need to be internalized in the formalization process and need to be inspected properly. A total of 32 factories have been closed because of safety concerns with several thousand workers being affected.

Table 2: Perception of Sample Firm Owners on Physical Compliance

Items	Level of perception
Toilet facility	U
Fire extinguisher	U
Fire alarm, signs	M-U
Alternative exit for emergency	M-U
Health care/First-aid facility	M-U
Pure drinking water	M-U
Lighting and ventilation	M-U
Electrical safety requirement	M-U
Width & no. of stairs	M-U
Location of warehouse for combustible items	M-U
Dining facility	L-U
Sprinkler	--
Smoke and heat detector	L-U
Alternative exit for emergency	U
Day-care centre	M-U

Note: U=Upper level (score: 8.0-10.0); M=Moderate (5.0-7.99); L=Low (3.0-4.99); VL=Very low (1.0-2.99)

Source: Based on interviews with apparel suppliers (CPD, 2015)

There exists wide differences between large and small firms with regards to maintaining the compliance standard at the factory level (Table 3). While large firms are found with necessary compliance in all aspects, small firms are found with differences in compliance standard. Better compliance standard in small factories is observed in the case of availability of fire extinguishers and pure drinking water, toilet facility and fire alarm and signs etc. Most of which are either usually built-in or low-cost equipment. In contrast, there are issues including lighting and ventilation facility, electrical safety equipment, dining facility, smoke and heat detector and warehouse for combustible items which are either costly or not so widely used at the factory level. The poor ranking was found in case of availability of smoke and fire detector at the factory level. Similar kinds of difference in compliance standard were found in case of sub-contracting firms and directly contracting firms. While directly contracting firms have necessary compliance standard in most of the cases, sub-contracting firms have moderate to poor compliances. Overall, although firms are supposed to maintain similar standard of physical compliance as per law, differences in the standard of compliance indicate lack of proper monitoring and inspection to be carried out by local authorities as well as auditors working with the buyers.

Table 3: Perception of Owners of Different Categories of Sample Firms on Physical Compliance

Items	Perception Level			
	Small	Large	Sub-contract	Direct
Fire extinguisher	U	U	U	U
Toilet facility	U	U	U	U
Pure drinking water	U	U	U	U
Fire alarm, signs	U	U	M	U
Width & no. of stairs	U	U	M	U
Lighting and ventilation	M	U	M	U
Electrical safety requirement	M	U	M	U
Health care/First-aid facility	M	U	M	U
Dining facility	M	U	M	U
Warehouse for combustible items	M	U	M	U
Smoke and heat detector	M	U	M	U

Note: U=Upper level (score: 8.0-10.0); M=Moderate (5.0-7.99); L=Low (3.0-4.99); VL=Very low (1.0-2.99)

Source: Based on interviews with apparel suppliers (CPD, 2015)

6.2 Social Compliance

Sample firms were asked to score their social compliance including minimum wage, identity card, participation committee, service-book for workers, no use of forced labour and child labour, discrimination and harassment and timely payment of wages etc. Majority of indicators are found to be in better state in the sample firms including ensuring minimum wage, ID card for every worker, workers' participation committee, service-book for the workers, discrimination/harassment in the workplace, forced and child labour (Table 4). However, there are issues such as timely payment of wages, forming workers' welfare committee, having proper day care centre for workers' children which need further improvement. Better compliance is found in most of the factories in case of minimum wage, identity card, participation committee, service book for workers, no forced and child labour and no discriminatory treatment. Moderate level of compliance standard is found in case of no harassment and abuse, payment of wage at right time and facilities for taking leaves. Overall, level of compliance on social issues is better compared to that of physical issues.

Table 4: Perception of Owners of Sample Firms on Social Compliance

Items	Perception Level
Minimum wage	U
Identity card	U
Participation committee	U
Service book for workers	U
No forced labour	U
No child labour	U
No discrimination	U
No harassment and abuse	U
Wage at right time	U
Facility for taking leaves (weekly, sick, occasional and annual)	U
Welfare committee	VL-U

Note: U=Upper level (score: 8.0-10.0); M=Moderate (5.0-7.99); L=Low (3.0-4.99); VL=Very low (1.0-2.99)

Source: Based on interviews with apparel suppliers (CPD, 2015)

There is no major difference between different categories of firms in terms of maintaining social compliance (Table 5). Most of the social compliance related indicators are found ranked better in all categories of factories. Minor differences are observed in the case of timely payment of wages, incidents of harassment and abuse and getting weekly leaves. Since a large part of these issues have been enforced since early 2000s, no major difference is observed at this stage. Overall, social compliance standard has been maintained as per the CoC of the buyers which is mainly due to the result of long practice of those standards at the firm level.

Table 5: Perception of Owners of Different Categories of Sample Firms on Social Compliance

Items	Perception Level			
	Small	Large	Sub-contract	Direct
Minimum wage	U	U	U	U
Identity card	U	U	U	U
Participation committee	U	U	U	U
Welfare committee	U	U	U	U
Child labour	U	U	U	U
Service book for workers	U	U	U	U
Forced labour	U	U	U	U
Child labour	U	U	U	U

Discrimination	U	U	U	U
Wage at right time	U	U	U	U
Harassment and abuse	U	U	U	U
Leaves (weekly, sick, occasional and annual)	U	U	U	U

Note: U=Upper level (score: 8.0-10.0); M=Moderate (5.0-7.99); L=Low (3.0-4.99); VL=Very low (1.0-2.99)

Source: Based on interviews with apparel suppliers (CPD, 2015)

7. Costs for Maintaining Compliances at Firm Level

Maintaining compliance in the factories requires investment of different kinds. A part of those investments are project related fixed cost mainly for setting up physical compliance. A part of the investment is met up from working capital which is of variable cost in nature, mainly related with social compliance and partly with physical compliance. These fixed and variable cost of firms are supposed to be met from the margin received by the suppliers. The level of compliance maintained at the factory depends on firms' investment for maintaining physical and social compliance. The cost for compliance is usually shown under heads of selling, general and administrative (SGA) cost and overhead cost of manufacturing. SGA is a non-manufacturing overhead cost which includes compensation of nonmanufacturing personnel; occupancy expenses for nonmanufacturing facilities (rent, light, heat, property taxes, maintenance, etc.); depreciation of nonmanufacturing equipment; expenses for automobiles and trucks used to sell and deliver products; and interest expenses. On the other hand, manufacturing overhead includes such things as the electricity used to operate the factory equipment, depreciation on the factory equipment and building, factory supplies and factory personnel (other than direct labour) (<http://www.accountingcoach.com/manufacturing-overhead/explanation>). Hence a part of costs related to compliance is included in SGA in manufacturing overhead cost.

O'Rourke (2011) presented a comparative picture of SGA and manufacturing overhead costs for a selected set of products exported to USA from Bangladesh (Table 6).³ The SGA per unit of product for Bangladesh's apparels was found within the range of US\$0.01 to US\$0.02 for a total FOB cost of US\$4.7 to US\$8.9 per unit of product. On the other hand, mfg overhead cost ranges between US\$0.18 to US\$0.16. The share of SGA in FOB cost is a mere 0.2-0.4 per cent of mfg. OH is only 1.6-2.2 per cent. Thus aggregate share of these two costs is only 1.8-2.6 per cent of total FOB cost (margin). Needless to mention only a part of these cost is related to compliance. Thus firms spent a fractional share of the SGA and overhead costs for maintaining compliance.

³Products included men's basic 100% cotton 5 pocket denim jean, women's fashion stretch jean 98% cotton/2% spandex, men's 100% cotton twill casual pant, women's textured 96%polyester/4%spandex zip trouser, men's polyester active t-shirt and women's 100% cotton polo shirt (dark jersey 6.5 oz.)

Table 6: Average per Unit Cost for SGA and Manufacturing Overhead for Selected Bangladeshi Products Exported to USA, 2011

	Men's Basic 100% Cotton 5 Pocket Denim Jean	Women's Fashion Stretch Jean 98% Cotton/2% Spandex	Men's 100% Cotton Twill Casual Pant	Women's Textured 96%Polyester /4%Spandex Zip Trouser	Men's Polyester Active T-Shirt	Women's 100% Cotton Polo Shirt (Dark Jersey 6.5 Oz.)
SGA \$	0.02	0.03	0.03	0.02	0.01	0.01
Mfg. OH \$	0.16	0.2	0.18	0.16	0.07	0.07
FOB Cost \$	7.57	8.91	7.99	5.68	4.34	4.68
Percent of FOB Cost (Margin)						
SGA \$	0.3	0.3	0.4	0.4	0.2	0.2
Mfg. OH \$	2.2	2.3	2.3	2.9	1.7	1.6

Source: Authors' calculation based on O'Rourke, 2011

8. Margin for Suppliers and Buyers/Retailers

8.1 Margin for Suppliers

Suppliers usually receive cutting and making (CM) charges which is supposed to cover all kinds of X-factory costs of production. In case of FOB contract, costs related to shipment of products are also included. According to the survey carried out by CPD (2015), raw materials comprised of a major part of the total CM cost (about two-third to three-fourth of total costs), followed by industrial costs and other costs (transport, banking, alternate source of energy, depreciation cost). There is no major difference between different components of costs in the manufacturing process; the dissimilarities are observed due to differences in the raw materials used in the production process for different categories of products (Table 7).

Sample firms produced different kinds of products including T-shirts, polo shirts, trousers, pyjama and shirts. Analysis shows that although suppliers could not mention specific costs involved in maintaining compliance, a large part of this cost is included under 'other costs'. The share of 'other costs' in the suppliers' margin is about 10-20 per cent. Suppliers' net margin which indicates profit varies depending on the type of products produced. About 3-10 per cent of total CM is the net profit margin for the suppliers which vary due to differences in the quality of products. Generally, net margin is quite low for very basic products such as t-shirts and shirts but margin is high for quality polo-shirt, better quality shirts and sports apparels. According to the sample firm owners, their net margin ranges between 3-10 per cent and in case of other non-basic products their net margin can be up to 10-12 per cent of total CM.⁴

⁴ The effective margin would be much higher considering the cash incentive received for sourcing local fabrics and other benefits received at different levels.

Table 7: Manufacturing Cost of Various Apparel Products

Products	Percentage of total manufacturing cost			
	Raw materials	Industrial costs	Others costs	Net margin
T-shirt	60-70%	15-20%	10-20%	3-10%
Polo shirt	60-65%	15-18%	15-20%	3-6%
Bottom	60-65%	15-18%	15-20%	3-5%
Pyjama set	75%	12%	10%	3-4%
Shirt	60-70%	15-20%	10%	2-10%

Source: Based on interviews with apparel suppliers (CPD, 2015)

Surveyed firm owners indicated that expenses related to 'other costs' are higher for large firms and for those working under direct contract. In contrast, costs for similar items are lower for small firms as well as those working under sub-contracting arrangement. Thus, firms of all kinds are not spending equally on compliance enforcement. In fact large and directly contracting firms spend more on compliance. It is important to examine how profit held by small firms affects the costs that are required for maintaining compliance. Overall spending on compliance and level of compliance at the firm level is likely to be closely associated.

8.2 Margin for Suppliers in Other Countries

The margin received by the suppliers of different countries is not widely varied (Table 8). O'Rourke (2011) made a comparison on margin (in terms of FOB Cost) of major apparels products sourced from Bangladesh, China, Vietnam, Mexico, Honduras, Mexico, Haiti and Nicaragua. In fact, Bangladesh offers the lowest FOB price (margin) for major products to the US market such as men's basic 100% cotton 5 pocket denim jean, women's fashion stretch jean 98% cotton/2% spandex, men's 100% cotton twill casual pant, women's textured 96% polyester/4%spandex zip trouser, men's polyester active t-shirt and women's 100% cotton polo shirt (dark jersey 6.5 oz.). The composition of different production related costs is more or less same across major competing countries although the distribution of costs are different. In all competing countries including Bangladesh, fabric is accounted for the highest costs in terms of FOB value but the share is different – from 53.2 per cent (in Honduras) to 59.4 per cent (in Bangladesh). The second most important cost is related to trimming and washing but with moderate level of variation in costs between countries. However, Bangladesh spent the highest share for this work (15.1 per cent). Bangladesh's higher expenditure on fabric, trimming and packaging needs to be examined closely- whether it is related to lack of capacity of domestic textiles industries to supply fabric at low price or it is related to higher import cost and associated lead time for import of fabric from nearby sources including India and China? Interestingly, Bangladeshi manufacturers invariably spend less for SGA and manufacturing overhead compared to major competing countries for all major exported products to USA. In fact, these expenses comprise the lowest share in overall cost structure (Table 8).

The differences of costs are rather high between Bangladesh and other major supplying countries for a number of items including labour costs, manufacturing overhead costs, selling and general and administration (SGA). The highest level of difference is observed in case of SGA (between 50-400 per cent) followed by labour costs (between 35-300 per cent) and manufacturing overhead costs (between 30-75 per cent) (Table 9). Better spending on compliance is likely to provide benefit in terms of profit to firms of major supplying countries. Differences of fabric related costs indicate that Vietnam and China spent about 1 to 5 per cent less compared to that of Bangladesh while other countries such as Mexico, Honduras and Nicaragua spent about 9 to 14 per cent more compared to that of Bangladesh. Similarly, spending on trimming and packaging in Vietnam and China is about 1 – 3 per cent less compared to that in Bangladesh. Given the bulk share of

spending on these two components, an improvement in cost efficiency of Bangladesh in those components would allocate additional resources for better spending on compliance. However, the extent of scope for improvement of cost efficiency would depend on the extent to which the challenges are related to structural bottlenecks (such as bulk share of import of fabric associated with additional cost and time).

Table 8: Comparison of Different Component of Costs of Men's Basic 100% Cotton 5 Pocket Denim Jean between Bangladesh and Other Competing Countries

	China	Vietnam	Bangladesh	Mexico	Honduras	Haiti	Nicaragua (from Mexico)	Nicaragua (from China)
FOB Cost US\$	7.69	7.62	7.57	8.63	8.89	8.67	8.4	8.29
Percentage of Men's Basic 100% Cotton 5 Pocket Denim Jean								
Fabric Cost \$ / Garment	55.5	58.4	59.4	53.5	53.5	57.2	56.8	56.5
Trim/Packaging Cost \$ / Garment	14.4	14.8	15.1	14.0	13.8	14.3	14.8	15.0
Labor \$ / Garment	7.0	3.7	2.7	9.3	9.6	5.2	6.2	6.3
Mfg. OH \$	2.9	2.8	2.1	3.2	2.9	2.9	2.5	2.5
SGA \$	0.7	0.4	0.3	1.2	1.1	0.6	0.7	0.7
Mfg OH and SGA	3.6	3.2	2.4	4.4	4.0	3.5	3.2	3.2
External Wash/Embroidery \$	5.2	5.2	5.3	5.3	5.1	5.4	5.2	5.3
Additional Seconds \$	2.6	3.0	3.4	2.5	3.0	3.5	2.6	2.5
Mfg. Profit 10%	8.8	8.8	8.9	8.9	8.9	8.9	8.9	8.9
Freight, Insurance	2.9	2.9	3.0	1.9	2.0	2.2	2.3	2.3
FOB Cost \$	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Authors' calculation based on O'Rourke, 2011

**Table 9: Differences in Costs between Bangladesh and Other Countries
(Men's Basic 100% Cotton 5 Pocket Denim Jean)**

	China	Vietnam	Mexico	Honduras	Haiti	Nicaragua (from Mexico)	Nicaragua (from China)
FOB Cost US\$	7.69	7.62	8.63	8.89	8.67	8.4	8.29
Difference in costs between Bangladesh and other countries (%)							
FOB Cost \$	1.6	0.7	14.0	17.4	14.5	11.0	9.5
Fabric Cost \$ /Garment	-5.1	-1.1	2.7	5.8	10.2	6.0	4.0
Trim/Packaging Cost \$/Garment	-2.6	-0.9	6.1	7.9	8.8	8.8	8.8
Labor \$ / Garment	160.1	35.1	287.0	309.1	114.9	150.0	150.0
Mfg. OH \$	37.5	31.3	75.0	62.5	56.3	31.3	31.3
SGA \$	150.0	50.0	400.0	400.0	150.0	200.0	200.0
External Wash/Embroidery \$	0.0	0.0	15.0	12.5	17.5	10.0	10.0
Additional Seconds \$	-23.1	-11.5	-15.4	3.8	15.4	-15.4	-19.2
Mfg. Profit 10%	1.5	0.0	14.9	17.9	14.9	11.9	10.4
Freight, Insurance	-4.3	-4.3	-30.4	-21.7	-17.4	-17.4	-17.4

Source: Authors' calculation based on O'Rourke, 2011

8.3 Implications for Compliance

In fact, Bangladesh spent lowest amount for various kinds of costs which are not directly related to production including those of compliance (O'Rourke, 2011). This is not only true in absolute terms but also true in relative terms (Table 10). Bangladesh's spending for non-production related works ranges between as low as US\$0.08 per garment to as high as US\$0.28. In contrast, China spent for similar works between US\$0.13-US\$0.37; Vietnam spent US\$0.1 to US\$0.34. The spending was highest for Mexico and Honduras between US\$0.25 to US\$0.50. A part of high spending in other competing countries is associated with higher investment required for necessary compliance. Even share of total cost for non-production works in the competing countries was also high implies their higher spending on those works. Better spending on compliance is likely to ensure better compliance. Despite such higher spending firms of competing countries ensure similar or higher profit margin per unit of product (see Table 8).

Table 10: Comparison of Non-manufacturing Costs between Different Countries (including compliances) (in US\$ per piece)

Items	Non-manufacturing costs (US\$ per piece)							
	China	Vietnam	Bangladesh	Mexico	Honduras	Haiti	Nicaragua (from Mexico)	Nicaragua (from China)
Men's Basic 100% Cotton 5 Pocket Denim Jean	0.37	0.34	0.28	0.5	0.48	0.42	0.39	0.39
Women's Fashion Stretch Jean 98% Cotton/2% Spandex	0.32	0.28	0.23	0.48	0.47	0.37	0.32	0.32
Men's 100% Cotton Twill Pant	0.31	0.25	0.21	0.47	0.46	0.35	0.31	0.31
Women's Textured 96% Polyester/4 % Spandex Zip Trouser	0.3	0.22	0.18	0.44	0.42	0.35	0.3	0.3
Men's Polyester Active T-Shirt	0.13	0.1	0.08	0.25	0.23	0.14	0.14	0.14
Women's 100% Cotton Polo Shirt (Dark Jersey 6.5 Oz.)	0.13	0.1	0.08	0.25	0.23	0.14	0.14	0.14

Source: Authors' calculation based on O'Rourke, 2011

The lowest costs for SGA and manufacturing overhead in Bangladesh is perhaps related to the lowest margin (as FOB costs) for products manufactured in Bangladesh. For example, FOB cost for men's basic 100% cotton 5 pocket denim jean is lower than other competitive countries (Table 8) - from as low as 0.7 per cent (in case of Vietnam) to 1.6 per cent (in case of China) to as high as 17.4 per cent (in case of Honduras). Part of the lowest margin is associated with low level of average wage for workers in Bangladesh while another part of it could be explained by low cost for SGA and overhead cost which include costs for compliance.

Bangladeshi firms need to investment more for compliance. However, rise of compliance related expenses is not easy for the suppliers as it may reduce the competitiveness of Bangladeshi products vis-à-vis those of other countries. For example, average costs of Mfg OH and SGA for men's basic 100% cotton 5 pocket denim jeans of the selected eight countries is US\$2.5 and US\$0.7 respectively. If Bangladesh needs to increase compliance related costs at par with those average costs, it needs to increase both the costs by US\$0.4 each which would cause a rise in total FOB costs by about 19 per cent and 57 per cent respectively. Such rise of costs for compliance would increase overall FOB cost of the product from the existing level of US\$7.57 to US\$7.63 which could make Bangladeshi products costlier compared to that of other countries such as Vietnam. An alternative of this is to accommodate those additional costs by cutting suppliers' profit margin; this would not be so easy in low-level of profit margin. Thus a straight rise of compliance related costs by Bangladeshi suppliers without necessary adjustment in other costs may not be feasible.

A possible alternative could be improve the level of cost efficiency in major cost components such as costs for fabric and trimming and packaging. As discussed earlier, Bangladesh is relatively cost inefficient in those two items particularly against those of China and Vietnam. Bangladesh's average fabric costs for selected items was US\$3.90 in 2011 which was US\$0.18 higher than that of China and US\$0.05 higher than that of Vietnam. A reduction of costs for fabric at par with other competing countries would provide more resources to Bangladeshi firms which could be used for

compliance. Similarly, there is marginal difference in case trimming cost particularly with China and Vietnam which could be of focus as well. Under a competitive backward linkage market, it is not so easy to reduce those cost without undertaking medium to long term investment for improvement of efficiency and productivity. If it is difficult to accommodate those costs immediately without improving the productivity and other means, then a part of the additional expense could be shared both by buyers and suppliers from their existing level of profit.

Despite high spending on compliance, firms of major competing countries enable to maintain their competitiveness through other means. There are many economic and non-economic factors that play important role for better competitiveness (Table 12). Major economic factors include low interest rate, low operating costs, higher productivity, low wastage, higher efficiency of labour, skilled labour force and low cost of raw materials etc. Without sufficient improvement in those factors, it would be very difficult for Bangladeshi manufacturers to increase spending for compliance under the existing level of margin.

Table 12: Advantages Enjoyed by Suppliers of Other Competing Countries: Perception of Bangladeshi Suppliers

Low interest rates	Lower operating cost
Developed infrastructure	Higher productivity
Skilled labour force	Low wastage
Semi-automated production process	Duty free access
Financial incentives	Short lead time
Higher labour efficiency	Short freight time
Low cost of raw materials	

Source: Based on interviews with apparel suppliers (CPD, 2015)

8.4 Margin for Buyers

Determining the margin at the retailers/buyers' end is not easy as it varies across products (D'Arcy et al. (2011). There are a range of factors that influence this decision. The competitiveness of the market for the good is important; goods that are sold exclusively through a limited set of retailers are likely to have a larger gross margin. D'Arcy also explained that retailers' gross margins accounted for around one-third of the final price of retail goods, with wholesalers' gross margins around half of that. The bulk of these gross margins reflect a charge to cover distributors' cost of doing business (a total of 40 per cent of the final sale price), with the remainder reflecting net profit margins at the wholesale and retail levels.

According to the suppliers surveyed for the study, the margin distributed at the suppliers' and buyers' end widely varies – the major share of the margin is distributed at the buyers' end (Table 13). Different categories of products including T-shirt, polo shirt, trousers, pyjama and shirt, buyers/retailers received about 50 to 70 per cent of total margin which include retailers, buyers and wholesalers. It is important to understand how much profit different agents receive after incurring all costs. Suppliers could not provide information on profit received by different agents at the buyers' end. Information on profit margin was not shared by the representatives of the brands and retailers while they were interviewed.

Table 13: Cost structure of various apparel products at the retail end

Products	Retail price (\$)	Suppliers' margin	Retailers/buyers/Wholesalers margin
T-shirt	4-15	30%	70%
Polo shirt	44-55	60-40%	40-60%
Trouser	44-55	40%	60%
Pyjama set	13	50-40%	50-60%
Shirt	5-69	65%	35%

Source: Based on interviews with apparel suppliers (CPD, 2015)

It is very difficult to get a detailed breakdown of margin distributed among all the market agents in the apparel value chain. A major challenge was that most of the data highlight margins on the supplier's side as opposed to the retailers'/buyer's side, limiting the narrative of the research. The Fair Wear Foundation and several other publications by labour rights organizations including the Clean Clothes Campaign were used to determine the margins of individual parties in the value chain. The Fair Wear Foundation (FWF) (2013) made an analysis on breakdown of margin of a €29 T-shirt sold in the European market. The major parties in the value chain include the manufacturers, the wholesalers and the retailers each receiving about 17 per cent, 24 per cent and 59 per cent of retail price, respectively (Table 14). A similar study was carried out by Swiss bank J. Safra Sarasin (2014) in case of product sold in the US market and yielded similar results. Table 14 below summarizes information from the two sources. According to Rehman Sobhan (2014), the margin distributed at suppliers' end was about 28 per cent while the rest 72 per cent is distributed at the buyers' end. The margin received by suppliers include cost for fabric/yarn (about 15 per cent of retail value of products), administrative and overhead costs (8 per cent), and operating profit (5 per cent). Mustafizur Rahman (2014) in an informal discussion has mentioned about such wide difference in the distribution of margin between major market players. Overall, the large share of total margin is distributed at the buyers' end which need to be discussed from market based analytical perspective.

Table 14: Distribution of Margin in the Apparel Value Chain (At Suppliers' & Buyers' End)

Items	Fair Wear Foundation Currency: € 2013	Clean Clothes Foundation Currency: USD, 2014
	% of Retail Price	
Labour	0.6%	0.7%
Materials	12%	12%
Overhead	0.9%	1%
Factory Gross Margin	4%	4%
FOB Cost	17%	18%
Customs, Transport, Warehouse, etc.	8%	8%
Agent Fee	4%	-
SGA	-	4%
Clothing Brand Gross Margin	12%	12%
Wholesale Cost	41%	42%
SGA	-	34%
Retail Profit	-	24%
Retail Cost	59% (inclusive of profit)	-
Retail Price	100%	100%

Source: Based on different studies

The profit received by the retailers/buyers include investment of capital, market intelligence, market risks, productivity and other factors. Different costs involved in getting goods from manufacturers to retailers are borne by wholesalers, brands and retailers. The wholesaler bears all the costs post-FOB including customs, transport, warehousing and agent fees. The bulk of the costs can be attributed to customs, transport and warehousing totaling to 8 per cent while agent fees are 4 per cent. The clothing brand gross margin includes a cost and a profit element: some additional costs at the brand level include staff and rent whereas the profit element is the brand profit the wholesaler enjoys. It is unknown how much of the 12 per cent is attributable to brand profit. Thus far, the FWF article indicates the shirt costs a store 41 per cent of the total retail price. This value includes the FOB cost and all the intermediate costs borne by the wholesaler. At this stage, the retailer is left with 59 per cent to allocate towards store level expenses (utility, staff and rent) and store profit. According to J. Sarasin (2014) retail profit is approximately 24 per cent which is the highest profit margin commanded by any player in the value chain.

There are number of reasons that pose systemic risk to retailers which could justify their higher margins. According to Booz & Company (2010) a major internal challenge companies face is inventory control. Too often retailers fail to identify the optimal product offering leading to high holding costs and wasted floor space (Sivara, Miller and Meany 2005). By developing capabilities to better understand shopper needs at the geographic and demographic level, retailers can capture higher levels of profit (Booz & Company 2010). Several publications have cited the importance of supply chain optimization. This emphasizes collaboration between retailers and suppliers to improve revenue and reduce uncertainty in an industry where speed-to-market is highly important. By working independently, retailers forego synergies such as stock keeping unit rationalization and proper forecasting.

Moreover, investing in superior information technology systems will eliminate many problems. Retailers can automate parts of the business and integrate business functions to improve operations efficiency and effectiveness (Booz & Company 2010). The industry's fragmented nature and low switching costs could mean "savvy technology usage can become real competitive differentiators, while also significantly lowering the retailer's cost-to-serve (Booz & Company 2010). Investing in technology has more benefits such as helping to reduce - the amount of retailer margin eroded by theft, waste and virtually training employees (Sivara, Miller and Meany 2005). Unfortunately, many retailers still rely on legacy systems that are difficult to maintain and hamper integration of the supply chain. Upgrading IT systems are very expensive but retailers must make the investment to stay competitive. Overall market operations at the buyers/retailers' end is quite different with that of suppliers' end and market forces are different and they acted differently. Thus a disjointed value chain is in operation in the apparels sector of Bangladesh where existing structure and market forces put little emphasis on compliance.

9. Compromise with Maintaining Compliance

9.1 Costs for Establishing Factories

Most of the surveyed firms set up their factories taking into account a short maturity period (between 5 years) (Table 15). According to the SMI, 2012, about 49 per cent of net asset of apparel firms accounted for machinery and equipment followed by factory building (21.7 per cent), land (13.5 per cent) and transport (2.9 per cent). Since firms are increasingly using state of art machineries, higher longevity of these machineries can easily be ensured. Hence the depreciation cost currently estimated appears to be high. A low depreciation cost could provide firms additional resources for spending on compliance.

Table 15: Period for Viability of a Project Considered by Sample Firm Owners

	Between 5 years	Between 6-10 years	Over 10 years
Small	75%	25%	0
Large	75%	0	25%
Sub-contracting	67%	33%	0
Direct	100%	0	0

Source: Based on interviews with apparel suppliers (CPD, 2015)

It is important to note that local suppliers still give priority to cost competitiveness. Suppliers' priority in renting space and/or constructing buildings is usually guided by cost. Among different aspects related to renting a building, highest priority was put on effective area/space, followed by cost of land/space and national rules (Table 16). Small and sub-contracting firms usually try harder to increase effective floor space given the constraints of space in the shared building as well as high rent for space. The second most important criteria considered by the suppliers is cost of land/rent particularly for small and sub-constructing ones. As a result, firms may try to spend less on development of necessary facilities required for OHS at the work place such as sufficient passages with required number of stairs for movement of workers, adequate ventilation facilities, dining facilities, ware house for combustible items and setting up fire and smoke detectors etc. Thus firms usually intend to compromise in maintaining necessary compliance related to OHS at the workplace.

Table 16: Priority Issues Considered by Sample Firm Owners in case of Different Fixed Assets (% of respondents)

Priority of considerations for constructing/renting a building (%)		Priority of considerations for placing electrical wiring system (%)	
Effective area/space	43	Costs of equipment	50
Costs of land/rent	35	Brand	37
National rules for setting up factory/Buyers' guideline	16	Buyers' guideline/ National rules	13
Workers' facilities as per law	6	Others	0

Source: Based on interviews with apparel suppliers (CPD, 2015)

However, in the case of using electrical wiring system in the factory, sample firms usually follow buyers' guidelines and national rules (Table 17). Firms irrespective of their sizes, do not put emphasis on cost of electrical equipment perhaps considering its direct implications for workplace safety.

Table 17: Priority Issues Considered by Sample Firm Owners in case of Using Electrical Wires

	Small	Large	Direct	Sub-contracting
Costs of equipment	-	-	-	25%
Brand	-	-	-	-
Buyers' guideline	40%	25%	-	-
National rules	40%	75%	75%	25%
Other	20%	-	25%	50%

Source: Based on interviews with apparel suppliers (CPD, 2015)

Sample firms were asked about the facility that they could reduce in order to get extra space; a mixed level of response was received. While several firms wouldn't find reasons to reduce existing

facilities, a number of other firms indicated their readiness to reduce existing facilities in order to create extra space for manufacturing activities. One of the major reasons for such attitude is lack of availability of suitable land at affordable price. Due to difficulty in getting land at suitable prices, often factories expanded vertically (Moazzem, 2013). However, maintaining proper safety and security in a multi-storied building requires extra caution which often lacks in multi-storied factories (Moazzem, 2013).

9.2 Changes in Retail Price and Its Implications on Margin and Compliance

It is apprehended that changes in retail price and its impact in the distribution of margin at the chain are likely to have implications on investment for compliance. An analysis carried out by Mark Anner, Jennifer Bair and Jeremy Blasi (2015) shows that price of imported apparels in the US market from top 20 supplying countries during the period of 1989 to 2014 shows a downward trend in the price paid per square meters of apparels. This reduced imported price of apparels benefitted both MNCs and consumers and the proportionate rate of savings is about 40 per cent and 7.5 per cent respectively. Except Vietnam, import price for products of most of the countries have reduced during this period. For example, one of Bangladesh's main export product to the USA M/B cotton trousers have lost 40.89 per cent of its real value between 2000 and 2014 (Anner et al., 2015).

Reduction of real price have diverge impact and implications on margin and profit in the value chain. However, reduction of price may or may not reduce margin and profit of any or all players in the chain provided productivity and efficiency in the value chain increased at a faster rate than the reduction of price. According to Moazzem and Sehrin (2015) firm level productivity has increased about 10-12 per cent per year during 2005 to 2013 due to application of modern technologies and machineries.

Retailers are also adopting various cost minimization initiatives to increase their profit margins. A 2012 research study conducted by Andrew Billings and Amy Burns (2012) indicates that many apparel companies view vendor negotiation as a primary lever for cost reduction. Billings & Burns (2012) project that by doing so retailers can save two to five percent of the FOB cost. Many apparel companies have introduced a formal score carding system to record vendor performance and rank one against the other to rank poor performers (Billings & Burns 2012). The study also found that nearly 80 per cent of the retailers surveyed make vender allocation decisions annually, signifying the importance of these metrics to the apparel companies.

According to Werner (2004) retailers usually follow three retail management strategies to maximize profit: geographic expansion, improving product selection and increasing customer value. Pursuing geographic expansion is the first step to maximizing profits as it encourages brand penetration by entering new markets. Developing a robust supply chain will make the expansion more effective and training personnel will enhance customer experience. The apparel industry is in a constant flux as consumer perceptions change overnight and retailers scramble to realign their business strategies.⁵ The successful retailers will be those that continuously re-create the ultimate retail experience so tourists are forced to come back year after year.

⁵ According to Karabell (2015) the face of retail is changing to luxury palaces that will predominantly cater upscale travelers. Brands are investing heavily in creating the most superior and unparalleled retail experience for tourists who are richer on average than ever before. Consider Macy's, the iconic US store that has nearly completed a \$400 million renovation of its flagship store, located near the Empire State Building for the sole purpose of attracting more tourists. Karabell (2015) believes however, that one of the biggest challenges to this new strategy is that a brick-and-mortar store takes years to build whereas tourist destinations can rise and fall in popularity overnight.

The second strategy is to improve product selection. It is imperative that retailers identify unprofitable products so they can be discontinued and command floor space more effectively. Finally, customer value can be increased by maximizing the profitability of a customer's long-term relationship with the retailer and even knowing which segments of the customer base are profitable (Werner et al. 2004). Hence the logic of reduction of retail price and thereby lowering margin and less investment for compliance is not acceptable.

9.3 Suppliers' Strategies at Different Business Situation

The sample firms were asked to share their priorities on compliance during two different states of business – while business is in normal state and while it is in critical/unusual state. Business assumed to be normal when there is no external or internal shock on the apparels sector. The findings from the survey depict interesting results. Suppliers' perception is rather different in two accounts. In a business which is in usual situation, suppliers prioritise different issues in a balanced manner particularly maximising profit, size of orders, maintaining business links with buyers and ensuring profit per unit of output (Table 18). In contrast, during the difficult situation, firms put more emphasis on ensuring total amount of profit. In both the situations, first three principles are – attaining maximum amount of profit, getting the order at any cost (in order to meet at least the variable cost) and maintaining the business link with the buyers. Besides, firms of all categories during the period of difficult business situation try to reduce cost of production by targeting worker related costs such as reducing overtime work (Table 19).

Table 18: Priority Issues Considered in Different Business Situations

	<i>Business as usual</i>	<i>Difficult situation</i>
Attaining maximum amount of profit	28	41
Getting the order at any cost (ensuring the variable cost)	24	27
Maintaining the business link with the buyers (offering less favourable price)	20	14
Size of order	14	6
Per unit profit margin	14	13

Source: Based on interviews with apparel suppliers (CPD, 2015)

Table 19: Sample Firms' Strategies for Adjustment of Costs in a State of 'Difficult Situation'

	Small	Large	Direct	Sub-contracting
Monthly wage costs	-	25	20	-
Overtime benefit	60	75	80	50
Costs for other social benefit	-	-	-	-
Costs for social compliances	-	-	-	-
Other	40	-	-	50

Source: Based on interviews with apparel suppliers (CPD, 2015)

9.4 Issues related to the Guidelines followed by Buyers/Retailers/MNEs

Buyers, retailers and brands have followed their code of conduct in order to maintain compliance at the factory level. The code of conduct has been audited either by auditors working under the first party (buyers/retailers) or working as third party (independent). The point is whether the existing auditing system could adequately ensure compliance at the factory level. If it is assumed

that the existing system is not properly functioning, then what are the challenges behind weak operation of the mechanism?

Several standards including the OECD Guidelines for MNEs and the ILO Tripartite Declaration although focus on direct contractors, lack proper guidelines for establishing responsibility of buyers towards subcontractors (Mares, 2010). This ultimately rendered the Guidelines inadequate as it left out a core part of the CSR agenda, the buyer's responsibility towards the supply chains. In the 2011 OECD Guidelines for MNEs, some amendments are made in terms of how far reaching the responsibilities of a buyer are. For instance in Section IX Science and Technology, the report mentions that MNEs can improve the capacity of international subcontractors which demonstrates that subcontractors are a part and an activity of an MNE and the buyer has influence over them. (OECD 2011) The 2011 OECD Guidelines do not define the multinational enterprises because they operate in various sectors of the economy and usually comprise of entities based in more than one country. (OECD 2011) Therefore while subcontractors are mentioned under the new Guidelines, the definition of MNEs still remain opaque. While the Tripartite Declaration makes an attempt to address buyer responsibilities, it is not nearly as comprehensive as it should be primarily because it defines MNEs very broadly like the OECD Guidelines before it, and therefore it is unclear as to which players in the supply chain would fall under the definition. The absence of further clarification has led to the standards being poorly implemented by MNEs (Mares, 2010).

The UN Global Compact (UNGC) makes an attempt to outline and clarify corporate responsibilities by advancing the concept of the "sphere of influence" which includes individuals the company has a direct effect on through economic, political or geographic means. (Mares, 2010). Additionally, the UNGC also advanced "complicity", a term that states a company is complicit in human rights abuses if it knowingly conceals, authorizes and tolerates such incidences by an entity in its sphere of influence which includes suppliers. (Mares, 2010) There are some weaknesses to the Compact primarily it being vague in the limitations of the buyer's responsibility. Mares (2010) writes that the "sphere of influence" ended up more like "mapping" impacts than "limiting" responsibilities".

The UN "Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework"⁶ recognizes "the role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights"⁷. According to these principles business enterprises and their functions are essentially related with human rights and therefore business enterprises are required to respect human rights. According to it "business relationships" includes relationships with business partners, entities in its value chain, and any other non-State or State entity directly linked to its business operations, products or services. This guideline in effect includes the suppliers and buyers as enterprises and therefore they should follow the necessary provisions. The enterprises should seek to prevent or mitigate adverse human rights impacts

⁶ The Guiding Principles in the document are grounded in recognition of:

- (a) States' existing obligations to respect, protect and fulfil human rights and fundamental freedoms;
- (b) The role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights;
- (c) The need for rights and obligations to be matched to appropriate and effective remedies when breached.

⁷ Human rights includes International Bill of Human Rights (consisting of the Universal Declaration of Human Rights and the main instruments through which it has been codified: the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights), coupled with the principles concerning fundamental rights in the eight ILO core conventions as set out in the Declaration on Fundamental Principles and Rights at Work.

even if they have not contributed to those impacts, assessing potential risks for human rights, take remedial action if they identify their contribution to adverse human right impact, incorporating grievance mechanism according to national and international frameworks and agreements.

The SA8000, launched in 1998 by Social Accountability International (SAI) is perhaps one of the most established certification schemes to develop and maintain socially acceptable practices in the workplace. It is used by MNEs extensively and has become a symbol of abiding by ethical workplace practices. Building on the UNGC's sphere of influence, the Standard aims to protect all those parties affected by the company including employees of its "suppliers, subcontractors, sub-suppliers and home workers." (Enterprise Solution Team) The SAI revises their guidelines on an ongoing basis leading them to add a clause stating a company's sphere of control and influence should be determined on a case by case basis (Mares, 2010) - avoiding the 'one size fits all' application of guidelines. The SA8000 has an entire section dedicated to a buyer's influence over its suppliers that outlines due diligence steps that a SA8000-certified company should take to ensure compliance of their standards (Mares, 2010). As per Mares (2010) there still exists some level of opacity regarding the boundaries of a buyer's responsibility as they are not defined beyond "vague qualifications such as "reasonable efforts" and "where appropriate". In conclusion, by specifying exactly what a company should do regarding suppliers and subcontractors, the SA8000 eliminates confusion and outlines the responsibilities of each party in the supply chain.

Buyers and retailers who operate their businesses in Bangladesh are diverse in nature and are not necessarily MNEs. Hence a large part of these buyers are not guided by the principle for MNEs and UNGC. It remains unclear how these small scale buyers comply to domestic rules and regulations of buying countries.

9.5 Operational Practices of Audit Firms

Over the years, discussions on proper social audit methods have gained momentum as tragedies in the garment industry are forcing companies to become more responsible corporate citizens. The role of the social auditor is to ensure the company in abiding by proper codes of conduct by maintaining objectivity and independency. There are two categories of social audit, namely the independent and internal auditors. The internal auditor is employed by the company that wants to audit its suppliers whereas independent auditors refer to third party auditors from a for-profit firm that are called upon by the buyer company to audit its suppliers (Bjorkman & Wong, 2013).

The traditional social audit process contains three main parts: a physical inspection of the factory, documentation inspection and, interviews with workers (Bjorkman & Wong, 2013). The purpose of the physical walk-through is to examine things such as fire exits, sanitary conditions, dining facilities, machinery safety and so on (Bjorkman & Wong, 2013) The documentation inspection analyses the company's records like pay-roll, employee records and so on (Bjorkman & Wong, 2013). The final step is the audit process that involves interviewing managers and employees (Bjorkman & Wong, 2013). Typically this is the lengthiest part of the entire audit process as it includes direct feedback and in-depth analysis of the factory. A criticism of this method is that it is too secretive leading researchers to criticize the effectiveness of social auditors (Bjorkman & Wong, 2013).

The FWF 2012 Audit manual indicates that an audit typically takes between 1 to 2 days which is a major criticism as they tend to be "too short, superficial and sloppy to actually identify certain types of code violations, such as discrimination." Predominantly, interviews are held with the managers and senior staff whose work is related to the labour standards (Fair Wear Foundation,

2012). It is evident that much of the focus is on senior staff members who may manipulate the information to social auditors leading to a distorted report. Clean Clothes Campaign (2005) recommends that worker interviews be held offsite so they are more open to speaking about their workplace while maintaining anonymity. FWF has adopted this method and claims that they select workers independent of manager involvement (Bjorkman & Wong, 2013).

Social audits are further criticized for their announcement of factory visits before arriving allowing managers to give a false impression of working conditions (Clean Clothes Campaign, 2005) For instance, Clean Clothes Campaign (2005) reported about use of 'double book keeping' system to keep two sets of wage records, a falsified one and the actual one. When visits are announced factory management only keep the falsified data for the auditors and hides the actual records. Additionally, suppliers maintain a model factory while sub-contracting the bulk of their work to another factory where working conditions are significantly poorer which helps the factory get a good audit report and secure more international orders (Clean Clothes Campaign, 2005).

9.6 Relationship between Auditors and Other Agents

Although it was previously stated that external auditors are generally more reliable than their internal counterpart, the former sometimes compromise ethical reporting to satisfy their client by giving them a good rating (Bjorkman & Wong, 2013). This undermines the fundamental purpose of a social audit: to objectively report the company's abidance to codes of conduct. Sometimes the internal auditor chooses to prioritize the company's interest of cost optimization over labour standards in an attempt to strengthen their relationship. Pruett (2005) observed that the vast majority of social audits is conducted by global firms whose staff is generally unskilled to do the job ultimately affecting the credibility of audit reports.

Bjorkman & Wong (2013) mentioned that the supplier-auditor relationship is also not as professional as it should be because one of the reasons auditors do not like to arrive unannounced (even though it will help them write a report that reflects actual conditions) is that they do not want to jeopardize their relationship with the suppliers who view this as impolite and an "inappropriate interfering of their business". All of this will force one to question the credibility and authenticity of an audit report and more importantly, the role of an auditor.

10. Towards Building an Integrated Value Chain for Improving Compliance

The level of compliance maintained at the suppliers' end is predominantly guided by the national rules and regulations and their level of enforcement. Since developing countries often suffer from institutional weaknesses the level of compliance maintained at the firm level is often found below the national standards. Institutional mechanism in place to ensure compliance is faulty and weak due to lack of resources and problem of governance. Unless monitoring and enforcement of the national standard of compliance improves, major market players will continue trying to avoid necessary investment for improving compliances (Figure 1). Hence the primary responsibility for maintaining compliance at the firm level goes to regulators at local level.

a) Addressing Market Failure: The value chain currently in operation could not ensure proper integration between different parts. As it appears, there are two segmented markets operating in the value chain – one at suppliers' end and another one at buyers' end. Both the markets operate for maximizing profit but market determinants are not necessarily the same. As a result, concerns related to compliance at the market of the suppliers' end has a far distant link with the market at the buyers' end. While workers are considered as the main factors of production in the whole value chain, worker related costs are not fully integrated into the value chain. A part of worker

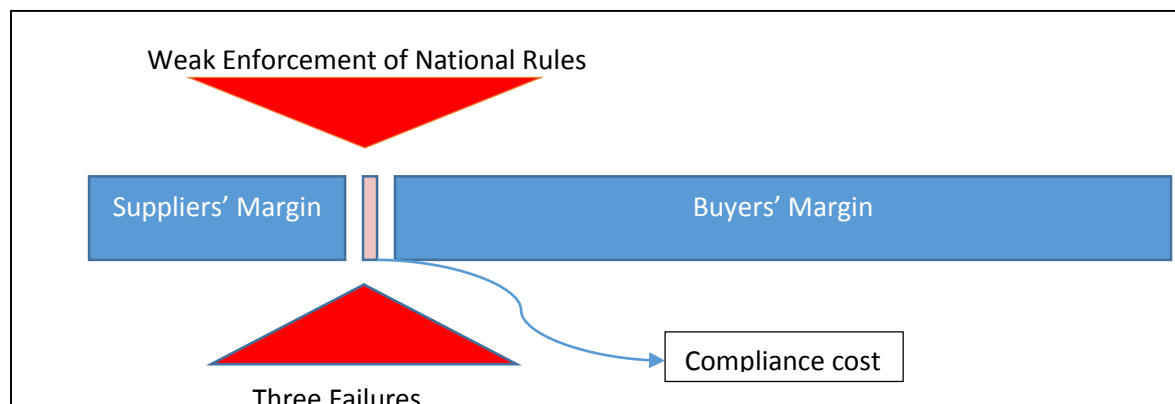
related costs are found in the structure of cost but compliance related costs are opaque and non-transparent in the cost structure both at the suppliers' and the buyers' end.

There needs to be an integrated value chain in the apparels sector where market players will jointly share responsibility in the whole value chain. In this context, a well- functioning mechanism needs to be set up in the whole supply chain which could ensure effective enforcement of compliance at the work place at the suppliers' end. Shared responsibility between suppliers and buyers and respective governments and other multilateral agencies needs to be ensured in order to improve compliance at the suppliers' end (Figure 2).

b) Addressing Coordination Failure: The social audit initiative of the buyers need to be well coordinated with that of national audit. Buyers auditing mechanism is not functioning properly. The buyers/brands/retailers while providing orders to suppliers are supposed to take into account that necessary compliance are maintained. Since buyers sometime are working with suppliers who do not have minimum level of compliance, indirectly they also violate their code of conduct. In other words, the dealing between buyers and suppliers would create space for buyers to receive a part of the benefit as profit. Given the low level of margin received by suppliers, it would be difficult to make necessary investment for compliance unless a part of it is shared by buyers by providing additional money to the suppliers for maintaining compliance.

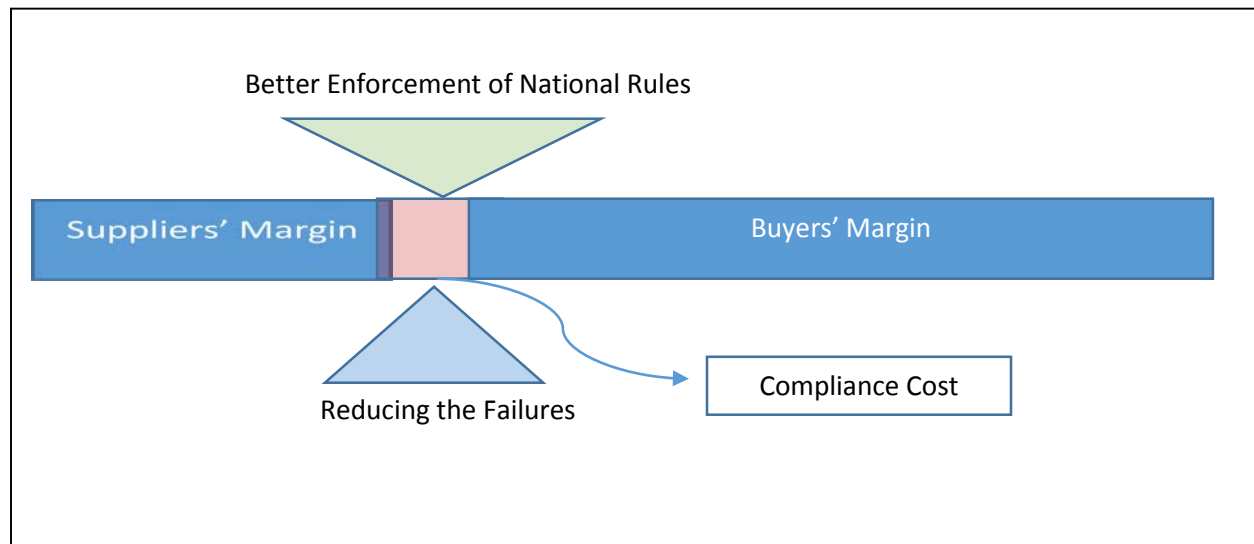
c) Addressing Information Failure: Although a number of international guidelines on responsible business practice of the MNEs/buyers are available which particularly focus on workers' rights, workplace safety and security, implementation of those guidelines is rather weak. A major challenge is failure to get adequate information about buyers' business practices in the supplying countries with regard to compliance related issues. There is no formal mechanism for getting information about business practices of international companies at supplying countries. The applicability of international guidelines appears to be more confined to large buyers, retailers and MNEs who possibly try to follow the guidelines better. However, there are another group of buyers who are relatively small in size but large in numbers and have a significant market share of Bangladeshi apparels. The information of business practices of these small buyers and retailers are not fully available at the buying countries under which these companies operate their businesses. Thus, a mechanism to be established between supplying countries and buying countries in order to exchange information about business practices of buyers, brands and retailers to ensure better accountability in the supply chain.

Figure 1: Fragmented Value Chain with Limited Focus on Compliance Costs through Different Means



Source: Prepared by authors

Figure 2: Integrated Value Chain addressing the Compliance Costs through Different Means



Source: Prepared by authors

In order to develop an integrated value chain in the apparels sector following measures and initiatives need to be taken into account. First, the allocation for maintaining compliance by apparel firms need to be increased as part of this additional spending could come from higher CM. Second, the component of compliance related expenses need to be made separate in the cost structure of the suppliers as well as of the buyers/retailers. There should be appropriate mechanism under which spending on compliance could be monitored transparently. Third, suppliers should take necessary measures to generate additional resources in order to spend on compliance by further reducing production cost by improving productivity and efficiency. The attitude towards lowering the spending for compliance in order to increase the return needs to be avoided. Fourth, the institutional mechanism to monitor and inspect the factory level compliance needs to be ensured. The government should allocate more resources for enhancing the capacity of respective organizations as well as take initiatives to strengthen their governance practices. Fifth, the social audit system practiced by the buyers/retailers need to be strengthened; as part of it, different players including occupational health and safety committee, national and international NGOs, working on social issues need to be integrated in the auditing process. Sixth, strengthening international rules, norms and guidelines are also necessary with a view to better regulate the buyers/brands and retailers to maintain compliance at the factory level. Seventh, all kinds of market agents from buying countries who are engaged in sourcing of apparels need to be registered under proper authority and have to follow international guideline and to be monitored properly.

11. Concluding Remarks

Present study has been carried out at a time when Bangladesh's apparels sector is undergoing major restructuring on physical and social compliances. Such restructuring initiatives are quite unique in the context of global apparels value chain. Firms have to make considerable amount of investment in order to address the weaknesses in fire, electrical and physical integrity which have been identified through various inspections. Suppliers expect that such investment on compliance will not only ensure better workplace safety and security at the same time would ensure better

return for them. Present study has strong relevance in this present context of improvement of firm level compliance and how it is related to the suppliers' margin.

The current study identified that Bangladeshi suppliers' spending on compliance is relatively less compared to that of major competing countries. Such low spending on compliance cannot be justified only by low return received by the suppliers. Due to weak institutional structure and poor governance, major market players avoid spending adequately for maintaining the compliance. The monitoring mechanisms at the private level are inadequate and faulty in order to ensure national compliance standard at the factories.

The level of compliance is different for different categories of sample firms. However, standard of social compliance is better than physical compliance at the sample firms. This is perhaps because of an increasing focus on maintaining social compliance during the last two decades. However, large and directly contracted firms are better complaint compared to small and sub-contracting firms. The low cost strategy to operate firms forces them to compromise in maintaining compliance standard with proper spending at the time of setting up the factory as well as at the time of day to day operation of business. The same is true for buyers and suppliers where they fail to maintain compliance standard through social audit mechanism. The weaknesses in implementation of the international guidelines and principles as well as national legal structure of buying countries to oversee buyers and retailers as well as their operational mechanism indicate not of taking responsibility towards ensuring compliance at the suppliers' end.

The apparel value chain operate in Bangladesh suffer three major failures – market, coordination and information failure. There are two different markets operating at two ends – suppliers' and buyers' end. The market forces in these two segments are different; and market risks and other issues are not same either. These two segments of the market need to be integrated properly so that major costs related to compliance are to be properly specified and necessary spending on those could be done.

The distribution of margin in the value chain could be by and large explained through market forces. However, inadequate spending on compliance could benefit major agents which need to be addressed. Thus extent of margin allocated for suppliers is partly matter on the level of compliance at the firm level.

The study suggested the following recommendations. *First*, the allocation for maintaining compliance by apparel firms needs to be increased as part of this additional spending could come from higher CM. *Second*, the component of compliance related expenses need to be made separate in the cost structure of the suppliers as well as of the buyers/retailers. There should be appropriate mechanism under which spending on compliance could be monitored transparently. *Third*, suppliers should take necessary measures to generate additional resources in order to spend on compliance by further reducing production cost by improving productivity and efficiency. The attitude towards lowering the spending for compliance in order to increase the return needs to be avoided. *Fourth*, the institutional mechanism to monitor and inspect the factory level compliance needs to be ensured. The government should allocate more resources for enhancing the capacity of respective organizations as well as take initiatives to strengthen their governance practices. *Fifth*, the social audit system practiced by the buyers/retailers need to be strengthened; as part of it, different players including occupational health and safety committee, national and international NGOs, working on social issues need to be integrated in the auditing process. *Sixth*, strengthening international rules, norms and guidelines are also necessary with a view to better regulate the buyers/brands and retailers to maintain compliance at the factory level. *Seventh*, all kinds of market agents who are engaged in sourcing of apparels from supplying countries need

to be registered under proper authority and have to follow international guideline and be monitored properly.

The sustainability of the apparels value chain depends not only on economic upgrading but also on social upgrading. The challenge is to maintain a balance between these two kinds of upgrading and thereby to ensure competitiveness in the global market. This is true both for suppliers and buyers. Based on the study it can be suggested that along with strengthening the institutional mechanism, both suppliers and buyers have to take responsibility towards ensuring compliance in the production process.

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Annex 1: Compliance related Indicators followed by Firms during Post-Rana Plaza Period

General Building Requirements	Fire Protection Construction	Fire Protection Systems	Means of Egress	Building Materials	Structural Design	Construction Practices and Safety	Building Services	Alterations/Change of Use	Existing Buildings	Human Element programs
High-rise building Occupiable roof Use and Occupancy Mixed Use - Accessory Occupancies - Separation of accessory occupancies - Daycare - Boiler or furnace rooms - Generators - Oil Filled Transformers - Storage - Misc. Storage - Parking Sleeping Areas - Flammable & Combustible Liquid - Chemical Storage - Non-separated Occupancies -Separated Occupancies Building Height and Areas - New Construction - Existing Buildings High Rise Buildings - Construction - New Construction	Fire wall resistance Fire resistance of structural members - Fire resistance ratings of common elements - Parapets Separation - Fire barriers - Vertical Openings - Doors - Windows - Ducts -Shafts - Fire-resistance rating - Continuity - Openings Opening Protective's Penetration	Automatic Sprinkler Systems - High rise buildings - Installation requirements - Documentation - Documentation Review - Acceptance Testing Supervision and alarms - Valves - Alarms Testing and maintenance Storage clearance - Solid shelves - Racks - Shelves - Aisles Standpipe Systems - Installation requirements - Documentation - Acceptance testing - Location of hose connections Water supply Roof-mounted tanks Size of tanks Fire department connections Portable Fire Extinguishers - Spacing - Mounting height Fire Alarm and Detection Automatic and manual heat and smoke ventilation Fire Department Elevators (Lifts)	General Means of Egress - Separation means of egress - Corridors - Exits - Exterior exit stairs - Interior Finish - Headroom - Walking surfaces - Changes in elevation - Changes in Level - Slip Resistance -Guards - Impediments to means of egress - Reliability - Furnishings, decorations Occupant Load Egress Width Number of Means of Egress Egress Illumination Doors and Gates Stairs Ramps. Exit Signs Handrails and Guards Travel Distance Exit Enclosures Exit Passageways Horizontal Exits Exit Discharge	Masonry-chip aggregate concrete (MCAC) Minimum Construction Material Properties In evaluating the structural capacity of existing structural elements Minimum assumed density of reinforced concrete – 23.6 kN/m3 (150 pcf)	Applicability of Building Code Structural Integrity of Existing Factory Buildings Preliminary Assessment to Confirm Structural Integrity of Existing Factory Buildings Results of Preliminary Structural Assessment of Existing Factory Buildings Detailed Structural Assessment of Existing Factory Buildings Remediation of Deficient or Overloaded Structural Elements Phased Construction Restrictions on Loading Factory Load Manager Floor Loading Plans (Load Plans) Floor Load Markings Load Factors and Load Combinations for Structural Analysis Confirmation of Actual Dead Loads Confirmation of Actual Operational Live Loads	Fire safe Construction practices Inspections Professional Services and Responsibilities Construction of all Elements Safe Load General Requirements and Restrictions on Storage and Handling Protection against Fire Inflammable and/or Fire-Sensitive Materials Flat Roof Construction Load Capacity	Electrical Wiring and Cabling Electrical Service Shaft and Bus Duct Electrical Substation Equipment and Accessories Main Switch, Switchboards And Metal Clad Switchgear Standby Power Protection of Circuits Earthing Lightning Protection Illumination of Exit Signs and Means Of Escape Inspection and Testing Elevators Naked lights	<i>Delete Part 9 of the 2006 (BNBC Code in its entirety. Substitute Part 9 of the 2012 (BNBC Code (draft) in its entirety</i>	<i>The requirements of Part 9 of the 2006 BNBC are adopted in their entirety.</i>	Fire Safety Director Fire Drills Evacuation Plan Hot work permit. Smoking Housekeeping Storage practices Egress Safety Inspections. Maintenance of fire protection equipment Electrical maintenance

<ul style="list-style-type: none"> - Existing Buildings Automatic Sprinkler System Fire Detection and Alarm System Battery Powered Signs and Exit Lights - Duration Atriums - Fire alarm system Separation Engineering Analysis Smoke control Type of construction - Separation - Fire walls - No Separation Separation Distances 		Cooking Operations			<ul style="list-style-type: none"> Minimum Floor Design Loads Confirmation of Actual Construction Material Properties Design for Lateral Loads Seismic Bracing of Key Non-Structural Elements Required Structural Documentation for New and Existing Factories Requirements for As-Built Documents Required Statement of Design Responsibility Construction Observation Notification to Accord of Planned Modifications to Factories Temporary Construction Loads on Existing Factories Site Investigation Durability and Maintenance Qualifications of Testing Laboratory Qualifications of Welding Inspectors Retrofitting of Deficient Structural Element Qualifications of Retrofitting Installation Firms 					
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Source: Prepared by authors based on various documents