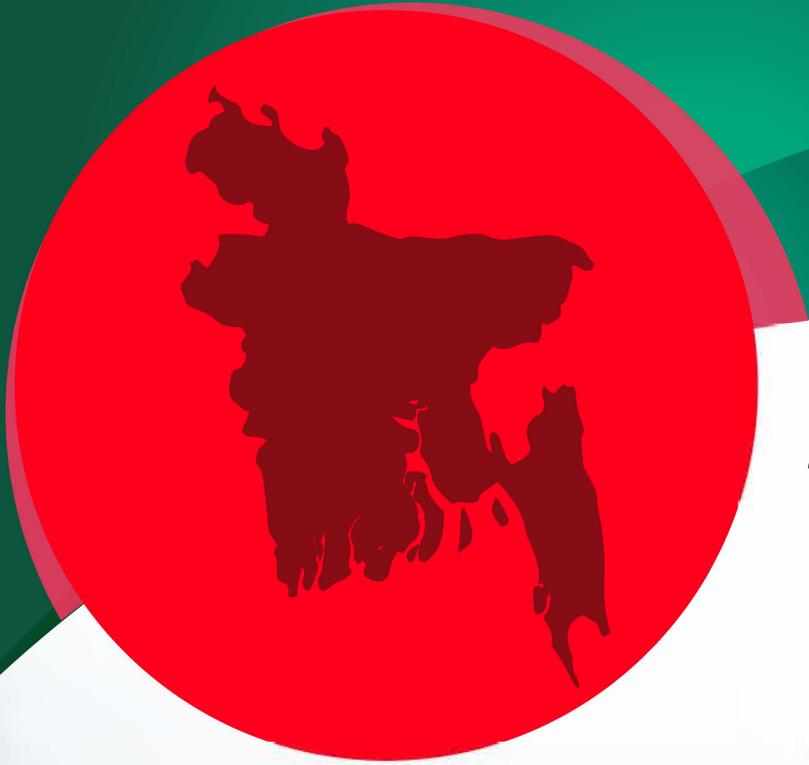


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Understanding the Dynamics of the Furniture Sector in Bangladesh

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Abstract

This paper reviews the furniture sector of Bangladesh as a potential sector for promoting pro-poor growth. With increasing urban surplus labor and the recent growing negative image of the RMG industries in the global arena, it is critical that we try to ensure that sectors like furniture, with high absorption capacity of low skill labor, can grow and expand quickly so as to diversify our export and manufacturing base. The paper is based on empirical research and qualitative study conducted across major furniture clusters in Bangladesh. In depth interviews of members of Bangladesh Furniture Industries Owners Association (BAFIOA) were also undertaken; the survey was financed by *Katalyst Swisscontact*. A market system approach is utilized to identify the systemic constraints in the sector. Major constraints entail lack of skilled labor force, low level of mechanization, limited access to finance, and lack of effective governmental support. The underlying constraints that give rise to these symptomatic issues are identified and actionable recommendations are offered.

1 Introduction

Furniture is one of the most rapidly growing sectors of Bangladesh with over 70,000 enterprises all over the country and employing over 300,000 poor laborers (Katalyst 2012). The growth of Bangladesh's furniture industry is evident in both local and international markets (EPB 2010). The industry life cycle of the sector significantly correlates with the macroeconomic performance of the country. When the disposable income of the population increases, the demand for furniture grows as well (Katalyst 2012). This has been manifested through the real estate boom in Bangladesh, as well as the increasing number of new entrants in furniture production. The local production of furniture is around US \$ 958 million,¹ and \$16.84 million² worth of furniture was imported in 2009–10. The export of furniture has also been increasing at 16–19%. In the fiscal year 2009–10 furniture export was \$19 million and in 2012–13 it increased to \$31 million (Hossain 2013).

The export-oriented shipbuilding industry has also been growing in Bangladesh which requires a significant supply of furniture and this can provide an avenue for exports. With the present momentum, Bangladesh has the potential to earn \$2.0 billion by exporting ships and vessels in the next five years; the industry has already secured orders worth \$500 million (Bilkis 2013). On average, 0.15%–0.20% of the cost in shipbuilding goes to

furniture (EPB 2010) and therefore we are looking at a potential market of over \$4 million. This could be another potential area of export expansion for Bangladesh; thus the furniture industry has the potential to play an important role in the country's economy.

Furniture sector is a labor intensive industry and is one of the very few sectors that offer progressive employment opportunity to workers below the poverty line. For Bangladesh, its competitiveness lies in the abundance of affordable labor. In other contemporary Asian furniture exporting nations (China, Vietnam, Thailand, Malaysia), the cost of labor is either equal to or more than \$120 per month, whereas in Bangladesh it ranges from \$37 to \$120 per month (INSPIRED 2013). The laborers here have expertise in complex hand carving on different hardwood varieties. But due to wide availability of such skills, the carver artisans charge close to what a normal laborer is paid. As a result, labor costs account for only 20% of production cost in Bangladesh, whereas in wood furniture manufacturing worldwide, labor accounts for up to 40% of the total costs (Whelan and Maklari 2002).

Furthermore, the furniture market is linked with various other interconnected value-chains, i.e. it is connected to sectors such as sawmills,³ wood processing industries, upholstery suppliers, accessories, etc. Thus growth in the furniture sector acts as a demand pull growth factor in related intermediate goods industries. This is borne out by international experience, for instance in Jepara, Indone-

sia, which is a large furniture cluster, Roda, Philippe, Philippe, Levania and Achmad (2007) found that the concentration of furniture activity and growth of the sector has stimulated a substantial regional economic boom with increased opportunity for more subsidiary activities and industries. But according to INSPIRED (2013), most furniture enterprises in Bangladesh lack efficient layout and material flow, adequate knowledge of up-to-date technologies, and labor productivity, all of which affect productivity, lead-time and overall quality. However, existence of large manufacturers who have the potential to expand their export base, and concurrent local market expansion with feasible approaches to enhance productivity for small and medium sized manufacturers can transform the Bangladeshi furniture industry and enable it to act as a major driver towards industrialization and poverty alleviation.

Hence the furniture sector has pro-poor growth potential and can concomitantly result in a poverty alleviating multiplier effect across a wide range of related sectors. The present paper, based on survey and secondary research, analyzes the furniture market system in Bangladesh and identifies the systemic constraints inhibiting the growth of the sector. The paper also posits recommendations which may stimulate systemic market changes in the sector resulting in poverty alleviation.

2 Literature Review

In a labor surplus economy like Bangladesh, pro-poor economic growth is strongly contingent upon evolving structural changes in the economy. Economic growth, to be poverty reducing, must ensure the generation of sufficient employment opportunities for the surplus labor in the agricultural sector (Ahmed, Bakht and Yunus 2011, Osmani 2005). Numerous cross-country studies show that countries which attained high rates of employment growth along with high rates of economic growth were also able to reduce poverty significantly (Rahman and Islam 2003). There are arguments for labor-intensive growth in a number of studies where employment expansion has been identified as the major tool of poverty reduction through economic growth (Khan 2001; 2005, Wold Bank 2005).

Employment can result in poverty reduction if there is a transformation of the structure of employment towards sectors characterized by higher productivity and returns. For Bangladesh this would mean a shift towards manufacturing and industrial sectors (Rahman and Islam 2003). Furthermore, Bangladesh's largest share of export comes from RMG, leather and shrimp processing industries. Researchers have found strong evidence that there exists a positive relationship between export and economic growth (Ahmed 2001, Mamun and Nath 2005,

Rashid 2000). The policy environment also played a crucial role as it shifted from that of an import substitution model of the early independence years to that of an export promotion model (Mamun and Nath 2005, Uddin and Ahmed 2009). Thus ensuring growth of manufacturing sectors with export potential, which offer scope for productive employment, can be a viable strategy for poverty reduction.

But the relationship between manufacturing sector growth and improving the lives of poor workers may be less direct as the internal dynamics of a sector can act as a 'filter'. For instance, the growth of a sector may lead to more and better employment opportunities for skilled workers rather than poor ones. Even worse would be if a sector absorbs low skilled poor workers, but they can't work themselves out of poverty and are 'trapped' in badly paid jobs. Also unskilled or low skilled workers cannot find employment in every sector as they might fail to meet the minimum skill requirements (Bekkers 2009).

Thus an urban pro-poor growth strategy would look for 'entry' sectors with *low thresholds*, capable of absorbing unskilled new workers often migrating from rural areas or agriculture. However the ability to absorb low skill workers is in itself not sufficient; the sector must offer opportunity to the unskilled laborers to acquire skills while being employed in the sector. This skill development in turn, if sufficiently rewarded, may allow the workers to work themselves out of poverty (Bekkers 2009).

Thus, to ensure productive pro-poor employment, a sector must have a threshold employment elasticity of growth. Too high employment elasticity in a sector would usually imply higher job creation for any given growth by drawing less-skilled workers from the informal economy, but most likely will take place at the expense of productivity. In the economics literature we find that employment elasticity that exceeds unity is often associated with low-productivity jobs (Rahman and Islam 2003). But it has also been suggested that employment elasticities in developing economies should ideally be around 0.7 until these economies attain upper-middle-income status (Kapsos 2005, Khan 2001). Based on this that Rahman and Islam (2003) suggested that the furniture sector of Bangladesh should be identified as one of the thrust sectors for poverty reduction; the study found that it has an employment elasticity of 0.65. There are roughly in excess of 70,000 enterprises in the furniture sector, employing over 300,000 mostly unskilled laborers (BBS 2007, Khan 2011).

The furniture sector therefore offers scope for productive employment and with high presence of low skilled poor workers, it has significant pro-poor growth potential Figure 1. In the following section, we will develop the context and the framework of the study based on which we



Figure 1: Potential for poverty alleviation

can analyze the furniture market system in Bangladesh.

3 Analytical Framework and Methodology

In order to understand the dynamics of the furniture sector and the key constraints, a sector analysis using in-depth interviews with structured questionnaire was conducted covering 111 enterprises in 10 selected districts (17 Clusters) of the country, of which 91 were furniture enterprise of different categories and 20 were carpenters. Furthermore, key informant interviews of members of Bangladesh Furniture Industries Owners Association (BAFIOA) national and local chapters at the cluster level were undertaken in order to estimate the nature of distribution of furniture enterprises. The study was funded and guided by *Katalyst*; which is a development project under the Ministry of Commerce (MOC) of the Government of Bangladesh and implemented by Swisscontact and GIZ International Services. The project is jointly funded by SDC, DFID, CIDA and the Embassy of the Kingdom of the Netherlands.

Katalyst has been working in the furniture sector since 2004 with a cluster specific approach, mainly in Mirpur, with emphasis on productivity and domestic trade promotion. Over the years *Katalyst* has expanded its activities and has started operating nationally by working with stakeholders like Bangladesh Furniture Industries Owners Association (BAFIOA), Export Promotion Bureau, etc. *Katalyst* has already undertaken some critical work in the field and there has been significant improvement in the sector due to long and deliberate effort by the project.⁴

In this paper, furniture firms have been subdivided into five categories. The categories are not neatly divided and

hence some degree of judgment was involved in classification of surveying firms. The classification of firms is based on a combination of factors: size, the number and type of machinery used, and how it positions itself in the furniture market – as a brand, a generic ‘traditional’ manufacturer, or as a subcontractor (Bekkers 2009). All these factors influence a company’s absorption and scope for productive employment opportunity. Size may translate into higher demand for labor, but not always; for instance in a more modernized factory, mechanization may translate into a demand for specific technical skills and therefore may reduce the importance of manual skills (Bekkers 2009). The Table 1 portrays the salient features of the furniture firms under different classification:

Based on the study, the Table 2 provides an estimate of the scale and size of the furniture industry based on the aforesaid classification. The number of enterprises seems to be plausible because we get similar figures when we look at the Business Registry (BR) 2007 which has the only ‘nationally relevant’ estimate of the size of the furniture manufacturing industry. The values in BR 2007 are updates of the Economic Census 2001–2003. The Table 3 gives a summary of the relevant table pertaining to the furniture industry.

However, while the Economic Census-2001/2003 covered micro, small, medium and large enterprises, BR-2007 excluded micro enterprises. To address this, the micro enterprise numbers were estimated by means of extrapolation. This extrapolation is based on the observed compound annual growth rate of the number of ‘small’ enterprises, those with ‘headcount’ of between 10 and 49, and then applying that growth rate to the number for micro enterprises as of 2001/2003. As we can see, based on different classifications, the total number of furniture

Table 1: Classification of furniture firms

Category	No. of workers	Tools and Equipment	Annual Production	Sales (avg.) per year
Large	More than 150	Have back process facility (own sawmills & seasoning plants) and equipped with all small, medium and heavy machines.	More than 3000 Pcs of furniture	USD 1.4 million
Medium 1	71 to 150	Totally equipped with power tools and with small and some medium to heavy stationary machineries.	2000 to 3000 Pcs of furniture	USD 250 thousand
Medium 2	26 to 70	Use at least 80% power tools and some small to medium stationary machineries.	1000 to 1950 Pcs	USD 110 thousand
Small	10 to 25	Some 20% power tools (e.g. hand sanding machine, hand drills, hand routers), basic forms of stationary machines (locally produced drills, molders, sanding machine, circular saw, etc.)	Up to 1950 Pcs	USD 110 thousand
Micro	Less than 10	No power tools, only hand tools	No definite number	\$25,000
Carpentry Households	1 to 3	Hand tools Only	Order based, no showroom or works at clients home or office	No definite sale

Table 2: Size of furniture industry

Category	Number	Average Employment	Total Employment
Enterprises			
Micro	7,961	5.6	44,184
Small 2013	1,676	16.6	27,822
MSM2	276	39.5	10,909
MSM1	40	88.9	3,556
Large	35	524.6	18,360
All	9,913		104,830
Free Lance Carpenters	74,926	2.1	154,285
Total Employment			259,115

Table 3: Furniture industry as per BR 2007

Firm size classes	Micro	Small	Medium	Large	Total
Furniture making	69,695	1,258	47	34	71,034

enterprises in 2007 was around 70,000, while the current survey shows it is around 85,000. In the following section, based on the present study, we will look into key characteristics of different categories of furniture enterprises.

4 Characteristics of Furniture Enterprises

The enterprises surveyed were principally sole proprietorship companies (90%), apart from some partnership companies (4%) and private incorporated companies (5%). The carpenters surveyed were found to be not registered businesses. This distribution of ownership structure is common across other industries of Bangladesh, especially ones which are at a transitional phase moving from a cottage to a more industrial structure. The production spaces were found varying (on average 462, 1,583, 2,614, 9,440 and 26,000 square feet for micro, small, MSM1, MSM2 and large enterprises, respectively).

There is a significant suboptimal usage of floor space utilization in the furniture sector, even among large enterprises. In most cases it was found that locker boxes for laborer were placed on the ground. These boxes, although varying in size, individually occupied almost 2.5 square feet of space and that means in a factory of 20 workers, almost 50 square feet was lost to these boxes. Instead of lining them up on the factory floor space, they could easily have been stacked up. Similar situation was observed in regards to placement of finished or semi-finished goods. They were placed haphazardly across the floor or lined up; instead of this arrangement, the goods could have been stored in a much more optimal position. Most manufacturers raised the issue that the high cost of land, civil construction, or rental tariff are too high and they cannot afford the space they need to manufacture products conveniently. Given such wanton inefficiency in space utilization, it is no wonder that they face soaring production cost.

Furthermore the machine layout is also inefficient, which results in workers running back and forth during the production process resulting in time loss and inefficiency. Inputs are stocked haphazardly and as a result, there is significant wastage. For instance, wood and other board materials were found in most cases to be stacked together, rather than being stacked according to different sizes and types. As a result, some workers might cut a 10 feet long wood plank and take a 8 feet chunk, leaving the 2 feet as waste, where there probably was an 8 feet plank in the stack to begin with. Hence proper inventory management is a significant requirement for these enterprises.

In terms of usage of machinery in the production process, there seems to be a great dearth. Most firms still employ rudimentary technologies and only in the last couple

of years, have small power tools gained some traction in the market. Even so the distribution of such machineries seems to be highly concentrated among Chittagong and Dhaka furniture clusters. In these two clusters, almost all micro and small units use power/electricity driven drills and hand routers, but just a tiny minority of them use such powered equipment as electric planer, circular saw, joiner, etc. Medium scale (MSM1) and large manufacturers in Dhaka and Chittagong use stationery powered tools (comparatively heavy and expensive) like circular saw, zig saw and/or table saw, planer, thicknesser, sanding machine, panel saw, etc. Most of them have also increased the number of compressor supported lacquer sprayers. Katalyst played a key role in promoting the uptake of lacquer technology among manufacturers in Bangladesh. This has reduced the pressure on demand for solid wood based furniture and shifted it towards lacquer finished products. The Table 4 gives an overview of the scale of mechanization within the furniture industry.

Carpenters on the other hand mostly use indigenous developed carpentry tools (e.g. hammer, chisel, hand saw, hand planner, hand drill, screwdrivers & bits, steel tapes, wooden or steel scale, etc.). However around 25%-40% of them, with previous work experiences in larger enterprises, reported of having the skill to operate electrical router, drill, planner or thicknesser, etc. Bulk of the respondents, around 69% (33-100% depending on location), identified capital shortage as the main barrier to the use of equipment. Low level acquaintance (as reported by some 35% respondents) with the modern carpentry equipment seems to be another major cause. However, in more advanced clusters like Bogra, Dhaka and Chittagong, where machineries have been adopted on a large scale, nearly one fourth of the respondents (23.08%) blamed lack of training as a barrier to enhanced use of modern tools.

Most surveyed respondents recognized that they were getting low prices for poor or low quality of their products. The major reasons for this, according to them, were low quality input (low quality timber wood, unseasoned wood, poor or no anti-weevil treatment), minimal use of equipment, lack of designs, poor knowledge about color development or finishing/coating, lack of skilled workers, lack of knowhow regarding joinery. Another cause for failing to produce high quality products may be because they require high level skills for particular types of products. Additionally most manufacturers follow a production oriented management strategy rather than looking at the sector as a lifestyle-oriented customer driven sector. Hence with their primary focus on production, most manufacturers fail to grasp evolving customer preference and demands. In terms of lead-time (the period between order placing and delivery), the average (for average order size) was found to be increasing with company size. While this

Table 4: Use of equipment by enterprises⁵

Type of firms	Drill Machine	Jointer	Moulder	Circular Saw	Router	Zig Saw	Lacquer Sprayer	Planner	Thicknesser	Table Saw	Sanding Machine	Panel Saw	All Others
Micro	1.08	0.18	0.08	0.13	0.20	0.10	0.05	0.10	0.00	0.05	0.05	0.03	0.05
SSM	2.11	0.44	0.36	0.58	0.61	0.39	0.42	0.39	0.11	0.39	0.39	0.06	0.08
MSM2	3.14	0.43	0.86	0.43	1.14	0.57	0.29	0.71	0.43	0.57	0.29	0.14	1.14
MSM1	4.50	1.75	1.25	1.75	2.00	2.50	7.75	0.50	1.25	0.75	2.75	0.75	1.75
Large	12.75	1.50	2.00	3.00	7.75	3.25	4.75	2.00	2.25	3.25	7.25	1.75	5.00

may seem contrary to expectations, one has to take into account that larger companies usually get bulk orders and hence it takes them longer to deliver than SSM category firms. Also larger companies take more time when processing customized orders and usually discourage such behavior among customers, even though this is greatly ingrained among our customer psyche. The Table 5 gives an overall lead time scenario across categories of firm.

Most manufacturers agreed that lack of skilled workers and minimal use of machines were primarily responsible for stretched lead time apart from electricity problems and lack of supply of proper inputs. Around 60% of respondents suggested that these were also the reason for low quality of finished output. Thus availability of quality inputs, skilled workforce, and increased usage of power tools can significantly impact not only productive efficiency, but also quality of the product.

One of the major inputs in the furniture production process is labor. The industry is characterized by high degree of labor mobility. Workers often move upward from MSM2 to MSM1 and from MSM1 to large category firms. This movement is driven primarily by search for better wages and better working conditions. Typically a worker will move into the same position in a bigger company. Conversely, there is also a downward movement of mainly more skilled (assistant) operators and carpenters with exposure to new techniques from Large to MSM1 and MSM 2 category firms. These workers are typically promoted into higher positions within the small category companies (Bekkers 2009).

This movement provides a pathway out of poverty for most workers. However small and micro enterprises are disconnected from this labor movement. Thus workers in such small enterprises are usually stuck and cannot acquire the necessary skills to upgrade themselves. Hence increased usage of machinery and standardized production processes may benefit workers in the long run, as it will give them transferable and tradable skill sets. Most large, MSM 1 and 2 category firms have subcontracting arrangement with small manufacturers. This is a common practice and is even prevalent in the export oriented furniture industry of Indonesia. In line with this reality, aspirations of workers in smaller firms are not to move into

bigger firms, but to set up their own mobile work units or workshop.

Bekkers (2009) identifies carving as the most demanding section in the production process. Carving is about drawing intricate designs on wood and the workers usually learn as apprentices, taking over 6 years to become master carvers. With increasing focus on mechanization and sleek designs, the traditional carving industry in Bangladesh is rapidly becoming obsolete. Then there are the traditional carpenters who require less skill than carvers. With increasing usage of machinery and a move towards more production orientation, carpentry based furniture enterprises are losing ground. In the current scenario, workers include machine operators, helpers, lacquer painters, etc. with comparatively specialized skill sets. However, there remains a significant dearth of skilled manpower and enterprises rarely wish to invest in training as, due to stiff competition, other companies usually poach on such workers. Thus the industry is caught in a low level equilibrium trap with everybody demanding skilled workers but nobody investing in skill improvement training.

The average salary received by a worker is a little over BDT 4,600 per month. Unskilled workers' (newly recruited workers/helpers) salary is around BDT 1,800 per month. Senior and highly skilled workers/carpenters often known as Head Mistri earn BDT 8,000 to 30,000 per month. Majority of the enterprises provide a single bonus per year, which is on average 35% of the salary. More than one third of micro and small enterprises do not give any bonuses; they just give some *Bakshis* before Eid festival. No provision of participatory provident fund (PF) could be found in the enterprises. On average, the holidays are about 71 days in a year, including Fridays, festivals and national holidays. Apart from few large companies, most factories have very little HR expertise and thus employee motivation and efficiency is rarely addressed. In addition, average working hours was found to be around 10.5 hours per day and average overtime of 2.51 hours per day. Most companies also don't focus on health and safety issues related to furniture production. Thus it comes as no surprise that average absenteeism is around 19%, while labor turnover was 37%. In relation to output, it is difficult to

Table 5: Lead time across firms (days)

Micro	Small	MSM2	MSM1	Large
12	16	16	21	31

gather data on sales and profit margins as companies are often reluctant to share such sensitive information. Hence survey results were supplanted with key informative interviews in order to get a reliable picture. Sales growth over the last 3–4 years has been modest and has hovered around 10% annually. Average annual sales and profit margin per enterprise according to different categories are given in Table 6.

While the aforesaid information has to be taken with a grain salt because of the variation in data, it is evident that firms in this industry enjoy economies of scale with both profit and sales increasing with size. But this implies that firms will face strong entry barriers and only when they expand will they enjoy higher sales and profits. Although having 25% gross profit margin with an annual turnover of 5 million BDT is significant, one can see the potentially important role that low interest rate SME loan financing can play in this industry by encouraging small enterprises to invest more and becoming more profitable. The Table 7 shows the average annual investment (Capital Investment and Working Capital), of which working capital investment forms the larger part (63% to 91%) depending on the category of enterprises.

Fixed investments entail annual new investment for machine/tools, land/building expansion, utility connection cost, other development cost, and/or annual fixed rent, etc. As can be seen, working capital is a major component of the furniture industry and thus high cost of capital can significantly affect the operation of the sector. All micro, most of the small, and a few MSM2 units reported that they face difficulties in managing working capital financing from commercial banks and often have to resort to less secure credits from friends and family members.

In terms of customer segments, households form the overwhelmingly largest segment accounting for more than 78% of products sold. Offices, shops, schools, factories, apartment builders and other entities (except households) together purchase the rest. More than 80% of the goods purchased by various entities/organizations (other than households) are sold through furniture wholesale traders/suppliers or middlemen. Larger enterprises also have large institutional buyers and some like Otobi and Navana have niche segments like the medical furniture market. With increasing competition, driving down prices in the household market, large furniture manufacturers are now increasingly focusing on institutional buyers like ho-

tels, offices, real estate developer companies, etc. Additionally there may be scope for working with the growing export-oriented shipbuilding export industry in the country by providing furniture for ships that are being built in the country. In the following section, we will use the market system approach to analyze the furniture market in Bangladesh.

5 Understanding the Furniture Market System

The market system approach, or as it commonly referred to as ‘Making Market work for the Poor’ (M4P) framework, draws on learning from other areas like Value Chain Analysis, Business Development Service Framework, New Institutional Economics and others. The central idea is that the economically deprived individuals are dependent on market systems for their livelihoods. Hence transforming these market systems, so that they work more effectively and sustainably, will consequently improve the livelihoods of the economically deprived, ipso facto reducing poverty (M4P 2008). The framework has been actively applied across various regions of the world by donor agencies like DFID, SDC, SIDA, AusAID and others. They have launched numerous M4P projects around the world; Katalyst is one of the longest running and among the most successful M4P project in the world and is considered by DFID to be a flagship program (DFID 2012).

The market system approach has been found to be helpful in identifying underlying constraints in sectors, and in developing market driven solutions which can stimulate systemic change rather than distorting the market. In this paper, we analyzed the furniture market of Bangladesh from a market system point of view and offered solutions or recommendations which are sustainable and systemic in nature. Too often there has been a failure to position businesses in a market context. In most cases we have asked “what problems do businesses or sectors have and how can we solve them?” rather than the more relevant and systemic questions: “why isn’t the market environment providing solutions?” and “How can one deal with these underlying constraints that prevent it from effectively doing so?” (M4P 2008). M4P strives to achieve systemic changes, which means when donor driven support is withdrawn, there are market players who can con-

Table 6: Enterprise profit and sales

	Micro	Small	MSM2	MSM1	Large
Annual Sales Turnover (Million BDT)	1.88	5.12	8.57	19.35	104.10
Annual Net Profit (in %)	10%	12%	14%	15%	16%
Annual Gross Operational Profit (in %)	21%	25%	30%	33%	39%

Table 7: Average annual investment per enterprise (BDT)

Type of Investment	Micro	Small	MSM2	MSM1	Large
Fixed	203,959	312,278	475,833	2,012,500	3,977,000
Working (Revolving)	339,000	837,500	1,516,667	13,625,000	37,900,000
Total Investment (Fixed+Working)	540,109	1,141,444	1,992,500	15,637,500	41,877,000
Percent of Fixed investment	38%	27%	24%	13%	9%
Percent of Working Capital	62%	73%	76%	87%	91%

tinue to evolve and grow the change inspired, resulting in a sustainable inclusive market system that continues to benefit the poor at scale.

Thus a M4P project addresses symptoms of market failure by addressing the root constraint that lies in the market system. The following diagram provides a stylized view of a generic market system. There are three main elements to a market system — core, rules and supporting functions.

In practice, one can view all market systems through the aforesaid lens (Figure 2) consisting of different sets of functions and players. The *core* is where the transaction or exchange between supply side and demand side takes place. This could be furniture seller and buyer, if we are looking at the primary furniture market system. However markets are invariably interconnected and therefore cause of one market's weak performance frequently lies in related markets. Thus there could be a labor market system where the core comprises of individual laborers as suppliers and furniture manufacturers as buyers of this factor of production. Rules act to shape market outcomes and govern participation and behavior in markets. They can be either formal rules (policy, statutes, standards) or more informal in nature like tradition, norms, cultural values, etc. *Supporting functions* are essentially requisite for the sustenance growth and better functioning of core exchange. For example, in the core furniture market of furniture buyers and sellers, supporting functions may entail trade promotional services for sellers, engineering consultancy services for manufacturers, consumer rights related information for buyers, etc.

As discussed in the previous section, the furniture industry in Bangladesh, despite its significant pro-poor growth potential, is inefficient in nature and faces a myr-

riad of constraints. Some of the major constraints are low usage of machinery, lack of knowledge in regards to new designs and techniques, unskilled workforce, lack of finance, improper utilization of space and industrial layout. These constraints are more symptomatic in nature and are results of underlying market constraints. The Table 8 gives a snapshot of key symptoms and their major underlying constraints.

As mentioned before markets are interconnected and most often constraints in secondary markets result in inefficiency in the primary market. Thus a low skilled workforce is a result of market failure in the training system market. There are very few formal training providers in the furniture industry. Currently there are eight private institutes, providing skill development training on wood-working, The Bangladesh Sweden Polytechnic Institute in Kaptai being the best one in the field. Most vocational institutes under Bangladesh Technical Education Board (BTEB) do not offer such courses, and even if they do, few trainees take them up as they rarely advance in their careers. The critical role that vocational training institutes can play cannot be underestimated. Furniture is an over \$2 billion export-oriented industry in Indonesia. There the long standing GIZ funded PIKA Semarang, an autonomous vocational institute, has played a crucial role in being a trend setter among training institutes resulting in wide availability of trained workers. Figure 3 is a snapshot of the interconnected or supporting markets where the key constraints lie.

Lack of private sector friendly policy has been an impediment for many industries. The solution that often has been sought is to correct the policy; however this is myopic in nature. For any industry to thrive in this era of globalization, it has to cooperate with its government.

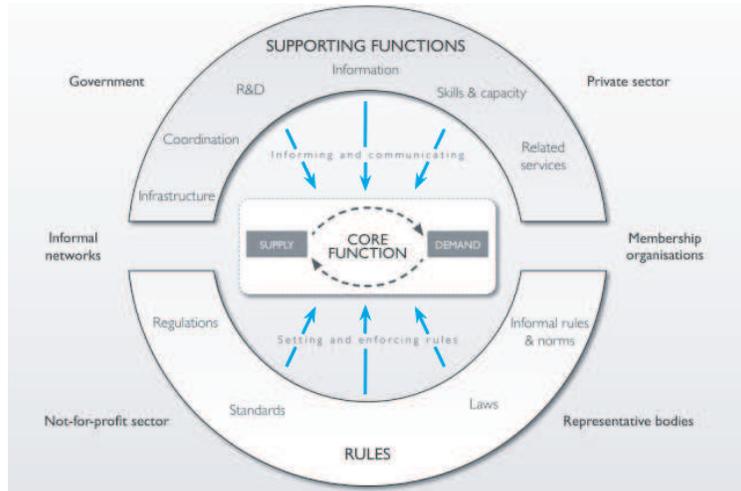


Figure 2: A schematic diagram of a market system⁶

Table 8: Symptoms and constraints

Symptoms	Initial Cause	Underlying Constraints
Low level of productive efficiency	Limited usage of machinery	Lack of knowledge regarding machine usage High cost of capital discourages investments Unskilled workforce cannot operate new machineries
	Sub optimal production layout	Absence of commercial engineering consultancy service
	Unskilled workforce	Lack of marketable and relevant training programs
	Unfavorable import tariff structure	Lack of capacity for advocacy by association
Low customer responsiveness	High cost of finance	Inability and lack of understanding of the sector by commercial banks
	Limited application of market research and trade promotional activity	Lack of linkages between marketing companies and furniture industries
Poor design	Limited understanding of customer preference	Lack of linkages between marketing companies and furniture industries

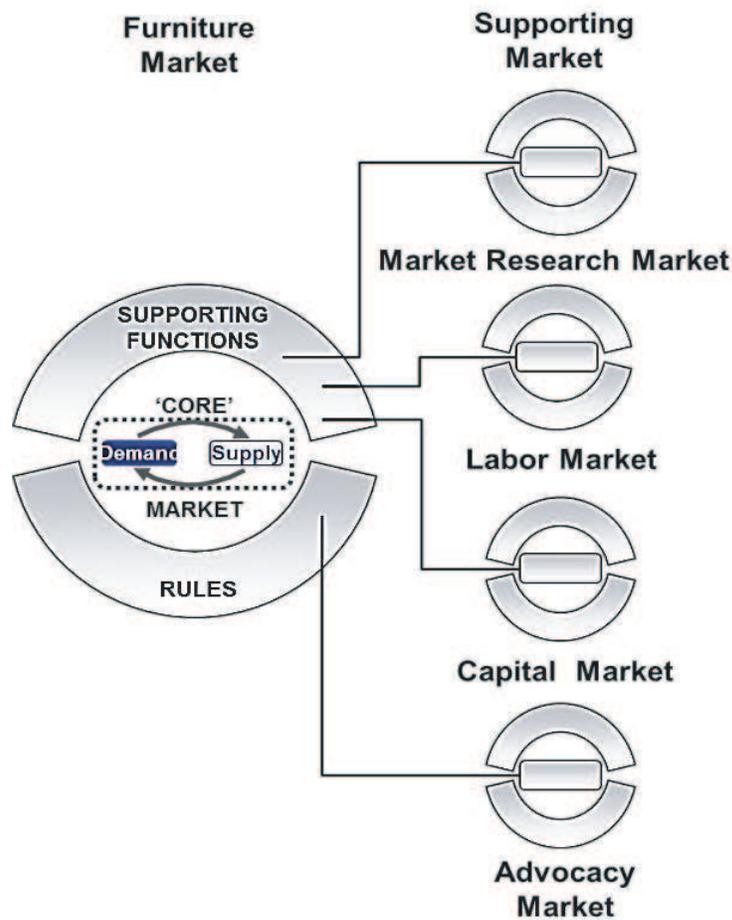


Figure 3: Key interconnected markets

Thus a key success factor is a well-organized and resilient association which represents its members and can advocate to the government on a regular basis. Apart from the local example of associations like BGMEA in RMG and BPGMEA in plastic, we can also cite Indonesia where the Association of Indonesian Furniture Industry and Handicraft (ASMINDO) works as the backbone of furniture export. Due to heavy dependence on imported raw materials (30 types including timber), the Total Tax Incidence (TTI) ranges from 29–91%, and thus price of locally produced furniture becomes higher than imported ones. Furniture is considered a cottage industry, but it does not receive any policy support under that category of industry. The sector is also not defined as an industry; hence it is not regulated under the National Industrial Policy and thus it is deprived from regulatory support and assistance. In some cases, the Forest Department stops the movement of finished furniture and asks for the transit pass for the wood which has been used to make that furniture, but this is absurd since they are not the collector of woods. Since government

has identified furniture as a thrust sector, it can take up a lead role in formulating better policies and mitigating these constraints.

Customer responsiveness is the core support function and requires not only understanding, but also responding to evolving customer preferences. In Bangladesh, the fast moving consumer good (FMCG) market is very well developed with multiple multinational companies operating nationwide. As such, market research related companies are numerous in number and similarly there is a plethora of activation companies who can launch and organize events. Unfortunately apart from the large furniture companies, very few are utilizing such expertise and as such find themselves out of sync with customer wants and needs. Similarly the market research and promotional companies have yet to target furniture manufacturers as a viable market for selling their expertise. This disconnect is causing serious impediment for the growth of the sector. Based on this discussion, the following section will discuss some possible solution and offer recommendations.

6 Recommendations

Based on the survey findings and by using the market system lens to analyze the constraints in the sector, the following recommendations are offered.

6.1 Introduction of Furniture Relevant Courses

Capacity of existing training institutions (Vocational institutes under BTEB) should be improved so that they can supply skilled furniture workers. New curriculum should be developed by BTEB, an apex educational body, in collaboration with BAFIOA to ensure skills acquired by the trainees are applicable in the market. Diploma courses or regular courses may be launched in engineering universities targeting furniture and woodworking industries. This may be particularly suitable for regional engineering universities, like Rajshahi University of Engineering & Technology (RUET) or Shahjalal University of Science & Technology (SUST), which have students with greater professional career plans than academic plans. Such universities can also play a role by promoting internship programs in furniture industries. Both BAFIOA and BTEB have to closely collaborate to ensure that linkages are established between the training institutes and furniture firms. Some of the specific recommendations particularly pertaining to policy issues are listed here.

6.2 Improving Capacity of BAFIOA for Advocacy

There needs to be a constant engagement with the government of Bangladesh. BAFIOA has to be proactive in nature and has to coordinate with relevant government institutions (NBR, EPB, Ministry of Industries, etc.) to bring about positive policy level changes. It should work with Bangladesh Small and Cottage Industries Corporation (BSCIC) to get land for its industries within BSCIC areas; for instance, in Bogra while there is a large BSCIC area, the furniture cluster lies completely outside it and therefore does not get any of the benefits accrued to enterprises located inside that area. Given rising real estate prices, having a furniture park can be a significant boon to the industry as a whole. Other policy level issues have been mentioned, which the government and BAFIOA have to jointly work and resolve.

6.3 Access to Finance

As mentioned before, access to finance is a critical constraint in the furniture industry. Lack of working capital limits growth of smaller furniture companies and also limits their capacity to invest in machinery, thus curtailing their productivity. Since the industry enjoys increasing returns to scale, companies become more sustainable

and profitable when they grow. Currently the commercial banks are reluctant to make loans to such enterprises, as they have limited experience in assessing and dealing with small and medium size furniture manufacturers. Furthermore, the prevalent cost of capital is too high for small and medium category furniture manufacturers, as such government may promote disbursement of SME loans which are mandated by Bangladesh Bank and have much lower interest rate. Once companies invest in machinery and expand their production base, they can then target the commercial loans. Here collaboration between BAFIOA and Bangladesh Bank can significantly facilitate the process; however, for this to work BAFIOA has to engage Bangladesh Bank proactively. For instance, associations of garments and knitwear manufactures, BGMEA and BKMEA, have jointly organized meetings with Bangladesh Banks and other commercial banks in order to discuss banking complexities pertaining to their industries (BKMEA 2013).

6.4 Training by Suppliers

The input suppliers of the furniture industry, such as power tools importers or distributors, Medium Density Fiber Board importers, lacquer suppliers and market research companies, should move beyond sales oriented marketing strategy and become more 'customer' responsive. They should actively engage the furniture enterprises and develop customer loyalty. One of the key reasons why mechanization is low is that manufacturers are not aware of what kind of machinery they require and how to operate them. It is the role of the machinery importers to actively train their staff who can then demonstrate the efficacy of such tools and interact with these entrepreneurs. They should organize field demonstrations of machineries in different furniture clusters and also use testimonials of manufactures that have benefited from using such machineries. Similarly marketing consultancy firms should approach these organizations with products like consumer surveys or marketing strategy specifically tailored towards individual firms. While these services may initially be bought by large firms, the linkage needs to be established between the two industries and only gradually will the service market deepen and service demanded by smaller and medium category firms grow.

The furniture sector is a promising sector for the future of Bangladesh and can one day be another RMG sector in Bangladesh. However for this goal to materialize, it requires the constructive and active role of the government and BAFIOA. As long as these two institutions remain locked in their comfort zones, the sector will take a much longer route and time to develop. Given that we have an increasing urban surplus labor and the recent growing negative image of our RMG industries in the global

arena, it is critical that we try to ensure that sectors like furniture, with high absorption capacity of low skill labor, grow and expand quickly so as to diversify our export and manufacturing base.

Endnotes

1. National Board of Revenue, 2011.
2. National Board of Revenue, 2011.
3. According to Katalyst (2012), the total number of sawmills in the country is more than 1500 enterprises.
4. For greater details on extensive work by Katalyst in the sector, please visit www.katalyst.com.bd.
5. The table refers to Equipment/Furniture Tools used Per Surveyed Unit.
6. Source: M4P (2008).

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