

Overcoming Supply Chain Challenges with Entrepreneurship & Networking Skills

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Abstract—Supply Chain Management (SCM) has been an integral part of the business world for as long as we can remember. As we move forward from the industrial revolution to the digital information era the importance of the supply chain process has become more and more vital for business sustainability. As the supply chain process of a business becomes more structured over time, it incorporates not only process and efficiency, but also relies on entrepreneurship and networking skills of the business operators. This particular study looks into the case of Bangladesh regarding SCM through an empirical study which was done on three growing sectors, namely Real Estate, Furniture and the IT sector. The research work is an attempt to shed some light into the gap in literature regarding supply chain process and how SC challenges can be overcome by using networking skill and other business strategies. Face-to-face interviews of over 536 business owners/CEOs/Managing Directors was employed to get a detailed picture of the challenges related to supply chain that they face from their business inception till date and how they use their entrepreneurship skills and the power of networking to mitigate those challenges. The sampling technique chosen was stratified random sampling as there were three different industries with small medium and large companies, all of which have their own business dynamics. Descriptive statistics are used to decipher the data and bring out a clear picture of how networking is used by these owners to build up their supply chain system. This study portrayed what type supply chain obstacles are evident for entrepreneurs, and how current entrepreneurs are overcoming those challenges. The study found that in the case of Bangladesh, despite the fact that there are not much institutional support, the courts system remaining a bottleneck due to a combination of red tape and hence not much enforcement of contracts and a shadow of lengthy process is evident in every sector at every level driving up operational costs; businesses in Bangladesh have continued to expand relying on brand value & reputation, reliance of professional networks, to some extent a competitive bidding process and the sheer determination and Entrepreneurs skills of Bangladeshi business owners. The results of this study directly contribute to the supply chain literature in Bangladesh to aid current and future entrepreneurs and policy makers in Bangladesh.

Keywords—*Networking, Entrepreneurship skills, Business Challenges, supply chain obstacles, Entrepreneurial traits*

1. Introduction

The concept of supply chain can be defined as a systematic and strategic co-ordination among the traditional business functions with a target to improve long term business performance of individual companies and the supply as a whole [5]. Supply chain can also be defined as those strategies which are taken to secure the procurement of raw materials and later transforming them into semi-finished and or finished goods. But the process doesn't stop there; these goods than have to be distributed to the end users to complete the entire chain [17].

It is because of this complex nature, the supply chain process incorporates multiple businesses simultaneously. Therefore to increase the supply chain efficiency of any organization, the company has to make sure that every other organization that is linked to their supply chain has to be operating at their individual optimal capacity. However, while doing that the business organizations face a lot of challenges related to different issues.

Hence, a growing concern for today's business managers along with the international research community has been the field of Supply Chain Management (SCM). In the cut throat global market managers are struggling to keep up with growing competition from local and foreign entrepreneurs. To cope with such pressures today's managers have to focus on increasing company efficiency through integration and co-ordination among all parties concerned.

When we look into the Bangladesh scenario, we see most organizations are doing business with only one or two suppliers, who they have learned to trust with quality goods and timely delivers after completing quite a number of transactions with each other over a period of two to five years. This implies that the current market mechanism in Bangladesh is dependent on strong ties among business partners. However, the present study focused on the challenges related to supply chain management (SCM) and ways of overcoming them which is the foremost requirement for any successful business.

2. Literature Review

According to some authors, a typical supply chain process usually go through such activities as securing raw materials, negotiation, receiving customers' orders, up to delivery of the goods. Traditionally these channels are quite rigid and are highly dependent on a long-term relationship among key players [6]. Ref [10] mentions several variables in SCM which could be considered as great indicators i.e., information sharing, long-term relationship and the integration process etc. The key activities required for successful SCM implementation are integrated behaviour, mutually beneficial information sharing, risks and rewards sharing, cooperation, common goals and common focus on consumers, process integration and partner building as well as maintaining long-term relationships [12].

Parties in the enterprise supply chain include raw material suppliers, manufacturer, wholesaler/distributor, retailer, and customers [1]. Customers have become more time-sensitive and as a result, reduced lead time is nowadays as crucial as improved quality and reduced cost in winning orders from buyers [4]. Another study identified the minimization of lead time as the foremost objective of an efficient supply chain [8]. A case study concluded that import dependency on backward linked industries is the main factor inducing long lead times [7]. Other studies have shown that efficiency in the supply chain can be achieved by ensuring efficiency and responsiveness of all parties involved although companies are often found to focus on self-improvement leaving aside their partners resulting in a partial efficiency only [11]. Another case study on the challenges to logistics development in Bangladesh, implied that the greatest obstacle to development or change is not accepting the need for it, and that competitive advantages are created and sustained through a highly localized process [13].

One study found that the effective SCM parameters include lower inventories, lower costs, higher productivity, greater agility, shorter lead times, higher profits and greater customer loyalty [2]. Another study proposed that cooperation arises immediately from both relationship trust and dedication [10]. The mutual dependence of a firm on an associate (interdependence) refers to the company's need to maintain a relationship with the companion to obtain its dreams. Mutual trust between the partners is required for each relationship [3], [18]. Trust is a behavioural aspect of both parties in a relationship and arises step by step in the interaction of both parties [16]. Mutual trust produces belief between the partners that one will not do anything against other.

It is also evident that proper information, provided at the right time, to the right management is vital for the entire supply chain process to become

more effective. According to a prominent theory, success of a company comes when it is able to sustain a competitive advantage from within its value chain [9]. Although that is easier to do for companies which have a higher degree of vertical integration, which is mostly the larger organizations, it is also possible for smaller firms with lower degrees of vertical integration depending on how strongly they can forge agreements with other members of the value chain they have to interact with. Again this would depend on the level of trust one company can put on their value chain members and also the how weak or strong are the personal ties among the entrepreneurs who are interlinked as a member of a value chain where they have to not only conduct their business together but put their trust in the other members and often times rely on their expertise to move forward with their business.

A perfect example of this chain operating efficiently could be found in organizations that are operating under the Just In Time (JIT) model which was developed in Japan [14]. For a country like Bangladesh it would seem to be near impossible to operate under such conditions. However, in a recent article it has been seen that, DADA Savar Ltd., a garments manufacturer, have been operating in Bangladesh for quite some time now and they are implementing a JIT model in their organization [15]. They have introduced a lean production system in their factories which substantially reduced their number of manual workers as a result of shifting to a more automated production chain. The review of related literatures shows us crucial factors related SCM and probable challenges entrepreneurs might face regarding SCM in Bangladesh. The study will focus into that gap and bring out the solutions based on the networking skills and entrepreneurship.

3. Methodology

The study is qualitative in nature though data was analysed both quantitatively and qualitatively. The researchers used the data collected and used by a mega research project conducted by Center for Enterprise and Society (CES) after getting proper permission of concerned authority.

Center for Enterprise and Society (CES) is an independent business research cell which is operated under University of Liberal Arts Bangladesh (ULAB). The center conducted a study named Overcoming Business Challenges Survey (OBCS) which was a primary research focusing on identifying relevant variables when it comes to operating a business in Bangladesh. The OBCS was a survey of 536 CEOs and Managing Directors from small, medium, and large firms across three very desperate industries, real estate development, information technology (IT), and furniture manufacturing. As the primary objective of OBCS was to understand major business challenges in Bangladesh, only three industries were selected to

minimize intra-industry variation. Based on primary analysis, these industries were selected based on their importance and operational diversities (for more detail please see OBCS survey report). The study, a joint project of the Center for Enterprise and Society at the University of Liberal Arts and Sirius Marketing and Social Research Ltd

3.1 Development of the survey instrument

The survey instrument was primarily devised to understand how entrepreneurs in Bangladesh are overcoming their business challenges. Based on the primary literature reviews and Key Informative Interviews (KII), the survey instrument focused on finance, human resource managements, supply chain managements and other entrepreneurial traits. Based on major factors, the survey instrument was primarily designed in English, consisting both factual and perceptual questions.

3.2 Sampling and Survey Methodology

The study used stratified random sampling procedure to select the targeted sample. Membership lists of prominent business associations were considered as the sampling frame for selecting the sample. In the due process, a list of 1231 firms was provided by Bangladesh Furniture Association, a list of 1110 firms was obtained from REHAB and a list of 517 firms was obtained from BASIS. For cross classifications, small, medium and large industries were considered as well. The following table provides an insight about the sample;

Table 1: Target Stratified sample distribution across industries and their sizes

Firm Size (No of employees)	Industry		
	Real Estate	Furnitur e	IT
Small (5-25)	110	110	110
Medium (25-100)	40	40	40
Large (>100)	25	25	25
Total	175	175	175

Even though the target was to collect data from 525 firms, the survey team collected data from 536 firms. However, due to lack of information, it is fairly difficult guarantee whether the sample is truly representative. Each respondent was interviewed by an individual data enumerator during the data collection process. It is important to note that, a profession data collection company, MRB Bangladesh, was employed.

3.3 Analytical Framework

This study is primarily based on previous literature reviews, meta-analysis and OBCS survey data on supply chain management of Bangladesh. The research was exploratory in nature and employed both quantitative and qualitative frameworks to reach conclusions.

4. Findings

4.1 Quantitative Analysis on Supply Chain Management

This section take a careful consideration into primary data collected from over 500 CEOs from various sectors which highlights their perceptions on the sector potentials for the near future and its long term goals while indicating some of the major challenges they have faced in operating their business. The sectors studied includes Real Estate, which is considered to be the financial pillar of Bangladeshi economy, Furniture sector which not only has a growing local market, but can also be considered to be the next big export of Bangladesh and of course the IT sector which has generated thousands of entrepreneurs and professionals.

Table 2: Entrepreneurs Perceptions towards supply chain issues in Bangladesh.

Issues	N	Mean	Std. Deviation
How easy to find a trustworthy client?	531	4.52	1.77
Efficiency of the court system adjudicating business disputes.	514	2.63	1.73
How easy it is to find trustworthy suppliers?	530	4.59	1.88

On an average it found that majority (Mean=4.5 in a 1 to 7 scale) of the business leaders of the above mentioned sector agreed that despite their massive challenges, they were able to find trustworthy suppliers from both backward and forward linkages of the value chain. Most of the business owners agree that it took longer to build up a relationship with their suppliers to the extent that they can trust them enough to do business on a regular basis. Primarily the delay is due to a lack of systemic value chain which is lacking in Bangladesh. However, the show much go on and businessmen find themselves with people of similar mentalities, those who want to grow their business and are willing to compromise, work together, support each other financially and eventually help each other's business grow to their full potential.

On the flip side majority of the business owners are not reliant on the efficiency of the court system. They believe that the system has been too lengthy and cumbersome, so they have learned to continue their business without the existence of the court system. (Mean=2.6).

Table 3: Sources of Products for Domestic Production: Furniture and Real Estate Firms

Product sources	Frequency	Percent
100 percent produced domestically	258	72.3%

<i>Some produced domestically some imported</i>	69	19.3%
<i>100% imported</i>	29	8.1%
<i>Total</i>	356	99.7%

Among the sectors the study has considered, it was found that in most cases Bangladesh has local sources (72%) to support the domestic production. Another 19% of the businesses mentioned that some of the production is done locally and a portion is imported. However, only about 8% of the production is completely imported. Therefore, it can be inferred that Bangladesh has a competitive advantage in many of these sectors such as Real Estate where majority of their raw materials such as cement, bricks and steel are produced locally. Even the IT sector is producing local programmers who are competing internationally and bringing in outsourcing work from abroad, contributing to the foreign reserves.

Table 4: Selection of Suppliers Through Formal Tendering Process: Real Estate & Furniture industry

<i>Tendering process exists or not</i>	<i>Frequency</i>	<i>Percent</i>
<i>Yes</i>	66	18.5%
<i>No</i>	291	81.5%
<i>Total</i>	357	100.0%

Again we see that in Bangladesh the human networking is more openly relied on when it comes to looking for suppliers instead of going for formal tendering process. According to the business owners, since the systemic infrastructure is inadequate and have remained so for such a long time, they have developed their own coping mechanisms in order to keep their business going instead of relying on faulty and inefficient institutional systems. About 82% of the businesses select their suppliers based on informal networks build over time.

Table 5: Reliance of Reputation & Brand: Furniture and Real Estate Industry.

<i>Brand Reliance</i>	<i>Frequency</i>	<i>Percent</i>
<i>Yes</i>	242	67.8%
<i>Somewhat</i>	80	22.4%
<i>No</i>	33	9.2%
<i>Don't Know</i>	2	0.6%
<i>Total</i>	357	100.0%

When these businesses are looking for their suppliers they are looking for well-known and reputed brands (about 67.8%) as established brands bring a sense of reliability and hence quality in their

product offering. This strategy seems quite logical to assume that established brands have built up their reputation over a long period of time only by constantly offering a certain standard of quality in their product offering and they will try their best and are willing to invest to hold on to that brand value. For instance furniture sector builds up their brands by constantly providing good quality wood and updated design. Likewise they will look for suppliers of wood who are providing only good quality wooden materials. Similarly the real estate industry can only build up their reputation by providing the best quality cement, bricks and steel that last the test of time and for the sake of their own survival will look for only the best of materials.

Table 6: Disputes with Suppliers: Real Estate and Furniture Industry

<i>Dispute level</i>	<i>Frequency</i>	<i>Percent</i>
<i>No</i>	318	89.1%
<i>Yes, a small dispute(s)</i>	37	10.4%
<i>Yes, a major dispute(s)</i>	2	0.6%
<i>Total</i>	357	100.0%

Surprisingly, majority of the business owners (89%) have mentioned that they have not had any major disputes which they could not look pass for the sake of their business growth. Although about 10% have mentioned that there were small disputes, however they were mitigated internally as they valued their business relationship more. As these relationships were built over time both parties preferred to continue to do business with a known business/owner instead of looking for another supplier all over again.

Table 7: Perceptions Towards Suppliers : Trustworthiness

<i>Trustworthiness</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>
<i>How much you can trust a supplier</i>	357	5.41	1.14
<i>How much you can trust a client</i>	357	5.37	1.205

Regarding the trust issue it was found that (Mean=5.4 in a scale of 1 to 7) most of the businesses trusted their suppliers and clients. The relationship built over time is much stronger than minor disputes. Trust in each other helped them to move forward with their relationships and establish a mutual trust mechanism.

Table 8: Satisfaction Level of Entrepreneurs with Suppliers

Level of Satisfaction	N	Mean	Std. Deviation
How satisfied are you with the quality of the goods provided by this supplier	357	5.96	.99
How satisfied are you with the price you pay for the goods provided by this supplier	356	4.86	1.47
How satisfied are you with the timeliness and availability of deliveries from this supplier	356	5.55	1.27
How would you rate your overall satisfaction with this supplier	356	5.56	1.04

Looking onto the overall satisfaction of the business owners with their suppliers and their products, it was found that the Mean=6 which is significantly high. This indicates that they are happy with the quality of products they are receiving from their suppliers and they are satisfied with their choices of suppliers even though they have selected them informally relying on their networking and relations.

However, regarding the prices they are receiving from their suppliers, there is room for improvement. Although the majority (Mean=5) are saying that they are happy with the prices they are getting, it is always better to get a more competitive price which would significantly help both parties out in their business.

Overall the delivery time taken by their current suppliers, most of the businesses are happy with their services as the Mean=5.5 which is above average. To sustain the businesses of both parties the suppliers ensure a reasonable timeline of delivery. This in turn helps the businesses to maintain their delivery on time and keep their customers satisfied in the long run.

Table 9: Dispute Resolution Mechanisms

Mechanism	Frequency	Percent
Yes, I will go to court	54	15.1%
I would likely go to court	60	16.8%
Unlikely to go to court	125	35.0%
No, not going to court	108	30.3%
I will discuss	1	0.3%
Refusal/NA	9	2.5%
Total	357	100.0%

When the business owners were asked if they would to settle a dispute in court only about 15% actually opted for the court and another 17% mentioned that they would like to go. However majority of them preferred not to go to court and

drag it out among themselves (65%). They would rather work it out themselves, preferably because they need each other to continuously support each other and move forward towards growth and expansion, as they tend to be beneficial for both parties.

Table 10: BEST characterization of your approach to ensuring a good supplier

Traits	Frequency	Percent
I am thorough, I personally vet suppliers carefully, and I work hard	264	73.9%
I seek out colleagues, friends, and family that can help recommend suppliers	26	7.3%
I look for suppliers with a respected brand name or a good reputation	62	17.4%
I have a good set of tendering and contracting procedures.	3	0.8%
Supplier came to me and gave offer	1	0.3%
I make good reputation	1	0.3%
Total	357	100.0%

The business owners were also prompted on what they do from their end to ensure that their suppliers are trustworthy and dependable businessmen themselves. In regards to the question majority (74%) of them confirms that they thoroughly collect information on their potential suppliers, preferable from other businessmen who have had multiple interactions with them. Again the reliance on professional networking comes into play when selecting suppliers. In fact the reliance is not fully on professional networks only, but the business owners also seek out their friends and family (7%) who can connect them to potential suppliers. Furthermore, we also see that suppliers who have developed a brand image in the market are in high demand where about 17% of the businesses being studied under this research prefer to rely on established brands and tend to order from those suppliers who have a good market reputation, or supplies brand products, where both reputation and brand image are built over time. Regarding reliance on formal processes, once again we see that going through formal channels such as tendering is rarely used by these sectors regardless of the size of their businesses.

5. Discussion

When the study looked at the supply chain issues one of the major thinks this study focused on is the relationships among the value chain members.

Relationship in this context is talking about, to what extent one can rely on / trust their value chain partners to deliver the raw materials or goods within a given time period, at the right quantity and quality, at the right location and at a competitive price. When talking to the CEOs of different firms the study asked the owners about the level of dispute they usually have to deal with when it comes to suppliers. Surprisingly, the percentage was only about 14.3% who have reported having any disputes with their suppliers. The study also asked the owners how easy or hard it was for them to find trustworthy suppliers and clients. This was on a scale of 1 to 7 where 1 is very easy and 7 is very difficult. The Entrepreneurs reported an average of 4.6 & 4.5 respectively. Although it is clear that businesses in Bangladesh do not enjoy much institutional protections, except for maybe the RMG sector, these three sectors namely Real Estate Furniture & IT sectors all have managed to build up a reliable list of suppliers and clients. This was only possible after multiple small transactions which build up the trust among each other over a long period of time, which lead to a value chain where all the partners can carry out larger and larger transactions among each other; even providing long credits discounts to each other. Over time the businesses not only started to trust, but also became dependent on each other. Moreover, according to the business owners who are enjoying such credit advantages these days, would insist that these business advantages came over a very long period of time and that too is primarily due to their extra ordinary efforts to build on their business networks and learning to rely on each other with a common goal of moving the business forward.

One of the surprising information that came about from the OBCS study was that majority of the IT firms have mentioned that suppliers/clients were selected using a competitive bidding process (43%) rather than through networks, which some may assume to be the case for Bangladesh. When it comes to purchasing supplies, most firms rely on known brands (73%), which is their coping mechanism to ensure product reliability. The real estate sector in particular is relying on known brands when it comes to purchasing their raw materials. Another assumption that was taken up by the researchers of this particular study believed that personal networks, particularly with family and friends were more important when it comes to selecting suppliers / clients. The study found it otherwise, where professional networks were given more priority (50% using professional networks, whereas only 15% using personal networks when it comes to procuring suppliers/clients) and this was common among all three sectors being studied.

6. Conclusion

Therefore the study identifies, that in the case of Bangladesh, despite the fact that there are not much institutional support, the courts system remaining a bottleneck due to a combination of red tape and hence not much enforcement of contracts and a shadow of corruption in every sector at every level driving up operational costs; businesses in Bangladesh have continued to expand relying on brand value & reputation, reliance of professional networks, to some extent a competitive bidding process and the sheer determination and Entrepreneurs skills of Bangladeshi business owners. The success of certain industries are primarily due to the contribution of human capital where the business owners' ability to give the business his or her life and make it a successful venture on communication and networking has propelled us towards a steady growth.

Reference

- [1] Agami, N., Saleh, M. and Rasmy, M. *Supply Chain Performance Measurement Approaches: Review and Classification*. Journal of Organizational Management Studies, Vol. 2012 (2012), Article ID 872753, 20 pages DOI: 10.5171/2012.872753. 2012
- [2] Ali, M. and Habib, M. M. *Supply Chain Management of Textile Industry: A Case Study on Bangladesh*. Int. J Sup. Chain. Mgt Vol. 1, No. 2.2012.
- [3] Aloini, D., Dulmin, R., Mininno, V. and Ponticelli, S. "Key antecedents and practices for supply chain management adoption in project contexts", International Journal of Project Management, Vol. 33 No. 6, pp. 1301-1316. 2015.
- [4] Asgari, B. and Hoque, A. *Lead-time management in Bangladesh garments industry: A system dynamics exploration*. Asia Pacific Business & Economics Perspectives, 1(2). 2013.
- [5] Benjamin S. Blanchard, *System engineering management*. Vol. 4. Wiley, 2006.
- [6] Hoover, W. E., Eloranta, E., Holmström, J. and Huttunen, K. *Managing the Demand Supply Chain: Value Innovations for Customer Satisfaction*, John Wiley & Sons, New York. 2001.
- [7] Islam, M. S. and Liang, G. Q. *Supply Chain Management on Apparel Order Process: A Case Study In Bangladesh Garment Industry*. Asian Journal of Business and Management Sciences, 2 (8): 60-72.2015.
- [8] Kader, S. and Akter, M. M. K. *Analysis of the factors affecting the lead time for export of*

- readymade apparels from Bangladesh; proposals for strategic reduction of lead time.* European Scientific Journal. Vol. 10.2014.
- [9] Khasru, Jalil & Kundu, *Rural Market Development Using Corporate Approach in Value Chain Analysis*, SSRN Electronic Journal .2008.
- [10] Morgan, R. and Hunt, S. *The commitment-trust theory of relationship marketing*, Journal of Marketing, 58 (3): 20-38. 1994. International Journal of Physical Distribution and Logistics Management, 31 (4): 247-265
- [11] Power, D. J., Sohal, A., & Rahman, S. U. (2001). *Critical success factors in agile supply chain management: an empirical study*.
- [12] Putra, I., Sunarsih, N., Novitasari, L., & Setini, M. *Exploring the relationship between social capital, innovation capability and innovation during the coronavirus pandemic*. Uncertain Supply Chain Management, 8(4), 857-864. 2020.
- [13] Razzaque, M. A. *Challenges to logistics development: the case of a Third World country-Bangladesh*. International Journal of Physical Distribution & Logistics Management, 27 (1): 18-38.1997.
- [14] Riazi, S. R. M., Nawi, M. N. M., Salleh, N. A., & Ahmad, M. A. *Collaborative Supply Chain Management (SCM) Tools for Improved Teamwork in Construction Projects*. International Journal of Supply Chain Management, 8(5), 473-480. 2019
- [15] Salma. A. *Supply Chain Management for the New Millennium: A Case for Micromax Information*, A Journal of Management, Vol.5 No.2, Dec.-2012.
- [16] Su, Q., Song, Y., Li, Z. and Dang, J. (2008), *"The impact of supply chain relationship quality on cooperative strategy"*, Journal of Purchasing & Supply Management, Vol. 14 No. 4, pp. 263-272.
- [17] Swaminathan J.M. and. R. Tayur. *Managing broader product lines through delayed differentiation using vanilla boxes*. Management Sci. 44 161–172. 1998.
- [18] Tomkins, C. *"Interdependencies, trust and information in relationships, alliances and Networks"*, Accounting, Organizations and Society, Vol. 26 No. 2, pp. 161-191. 2001.