# Supply Chain Strategies and Responsiveness: A Study on Retail Chain Stores

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**Abstract:** This study aims at empirically analyzing the impacts of supply chain strategies in influencing the retail supply chain responsiveness. For the purpose of the study, the researchers collected the data with a structured questionnaire from 115 outlets managers of some selected retail chain stores in Bangladesh. Collected data were analyzed using Partial Least Squares Method with smart PLS Software Version 2.0M3. The present study has shown some meaningful findings regarding the determinants of retail supply chain performance. Firstly, it is found in the study that agile supply chain strategy is the most pivotal factor influencing retail supply chain responsiveness. The lean strategy was also found to be a contributor to the retail supply chain responsiveness but insignificant while hybrid strategy was found to exhort very weak influence in increasing the responsiveness of retail supply chain. The findings of this study can benefit the supply chain managers involved in retailing. From this study, retail managers can know which strategy they should adopt to bring forth substantial advantage for the companies by maintaining responsiveness in their supply chain. With the application of supply chain strategy, retailers can make a wise decision to increase organizational performance and to remain responsive to customer preferences. This study is one of the novelties in supply chain management research because it explored the influence of supply chain strategies as the determinants of retail supply chain responsiveness.

**Key words:** Supply chain strategies, responsiveness, retail chain stores, PLS, Bangladesh

## INTRODUCTION

Supply chain strategy consists of a set interrelated issues employed to incorporate suppliers, manufacturing, warehouses and stores so that products are made and distributed at the right quantities to the right location at the right time in order to lessen system-wide costs while satisfying service level requirements (Smichi-Levi and Kaminsky, 2000). Currently, organizations are thinking supply chain strategies as a way of increasing their performance and achieving long term goals. This supply chain strategy helps the supply chain process in the movement and storage of raw materials, work-in-process inventory and finished goods from point of origin to point of consumption. Firms adopt these strategies to manage the integration of all the supply chain activities through better supply chain relationships to achieve a competitive advantage for the supply chain. As retail supply chain is some what different in the sense that they are mostly dependent on suppliers for their finished products, supply chain strategies here act as a catalyst for success. In the face of global competitive business environment, big retailers are utilizing supply chain strategies to beat the competitors. For this reason, the strategic view of managing supply chains has assumed utmost importance, especially since such a complex environment has effectively shifted the attention of competition from a firm versus-firm paradigm to a supply chain-versus-supply chain paradigm (Li et al., 2006; Tan et al., 2002).

Managers can effectively manage their retail outlets if they are apt in choosing the right supply chain strategy. As the retail chain stores deal with the fast moving consumer goods, supply chain strategy for the mrequires a system that focuses on integration of business processes throughout the value chain with the aim of providing maximum value to the end-customers (Wisner et al., 2005). While, developing strategy for retail supply chain, the retailers must first consider the nature of demand for the products they are selling. Then, the organizations can fix their objectives with the market situation and design a supply chain strategy that best matches with preferences of customers and organizational goals.

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Supply chain responsiveness is the promptness and the degree to which the supply chain can address variations in customer demand (Holweg, 2005; Prater *et al.*, 2001; Lummus *et al.*, 2003). At present customers are very much demanding and for this reason increased emphasis on availability of products and services as well as on time delivery creates unique needs for a volume flexible response (Vickery *et al.*, 1999). If supply chain responsiveness increases, it obviously brings benefits to organizations and in the long-term have a positive impact on a firm's performance. In a rapidly changing competitive business world, organizations have to design their supply chains in ways that are meaningfully more flexible and responsive than the existing ones.

Firms need to know what strategies are important to respond to changing customer needs so as to succeed in today's uncertain environment (Gerwin, 1987; Narasimhan and Das, 1999; Ward *et al.*, 1998) as well as any disruptions in supply (Germain, 1989; Lee, 2004; Christopher and Peck, 2004). Though, supply chain strategies are considered as the building blocks of success, very few empirical studies done as to their impact on retail supply chain performance. The few studies done in this area divulged inconsistent findings regarding the impact of supply chain strategy on supply chain performance and firm benefits.

In particular, while some studies (Lee, 2002; Christopher and Towill, 2001; Qi *et al.*, 2009) show positive associations between supply chain strategy and supply chain responsiveness, others (Narasimhan *et al.*, 2008) show that supply chain strategies do not directly bring benefits for the firms but that they need supports from other factors to do so (Hsu *et al.*, 2011). However, literatures regarding the supply chain strategies and responsiveness for retailing are scarce. So, the present research initiative can pave the ways to minimize the literature gap by exploring the impact of supply chain strategies on retail supply chain responsiveness.

**Literature review:** Supply chain strategy deals with the procurement of raw materials, transportation of materials to and from the company, product or manufacture of the operation to provide the service and distribution of the product to the customers, along with any follow-up service and a specification of whether these processes will be performed in-house or outsourced. The supply chain strategy of the retailers refers to the strategic goals and objectives of their supply chain. The process of supply chain strategy starts with the business value proposition to customers, based on core competencies and identified market winners and shows how the supply chain can contribute to achieving business goals.

Naylor *et al.* (1999) and Towill and Christopher (2002) suggest three types of supply chain strategies which are agile supply chain, lean supply chain and hybrid supply chain that affect supply chain performance. They have done some case studies and merged the lean and agile supply chains to form a strategy referred to as a hybrid supply chain strategy. However, Naylor *et al.* (1999) integrated both the lean and agile supply chain and used the term of legible to increase supply chain performance. Different supply chain strategies are used for different products (Ayers, 2006; Croxton *et al.*, 2001; Sadler, 2007). Supply chain strategies may be designed to be more efficient or to be more responsive (Hines, 2004) also the combination of both. Different types of supply chain strategies are discussed below.

**Agile strategy:** While lean strategy focuses on waste minimization, agile strategy concentrates on meeting customers' needs on demand. Agile supply chain strategy aims at being responsive to customer needs as well as being flexible (Lee, 2002). This agile supply chains are most appropriate for products having uncertain demand (Seuring, 2003; Towill and Christopher, 2002). It is apt in time compression, quick response and eliminating the barriers to quick response. Fisher (1997) was one of the first scholars who considered agility in the supply chain management context.

Subsequently, researchers gave importance on supply chain agility as a business wide capability, enabling the firm to respond to changing market environments (Braunscheidel and Suresh, 2009; Lee, 2004; Swafford *et al.*, 2006). As such, agility is characterized by flexibility and speed/responsiveness and spans organizational structures, processes, information systems and mindsets (Christopher and Towill, 2001). For this reason, the scope of supply chain agility extends beyond a single firm and includes association with major customers and suppliers (Braunscheidel and Suresh, 2009). Swafford *et al.* (2006) tried to investigate the relationship between flexibility and supply chain agility and to examine the link between integration and supply chain agility. They stressed on research in supply chain agility and noted the limited amount of empirical evidence relating to its study.

Agile strategy gives emphasis on flexibility and timely action in response to fast changing demand environments (Christopher and Towill, 2001). It aims to address uncertain and highly variable demand where customers nevertheless require short order fulfillment lead-times. For this reason, agility requires investment in shorter lead-times and building up processes that can respond quickly to unusual customer demand. The agile

systems focus on flexible, efficient response to unique customer demand. It uses a Make-To-Order (MTO) process for manufacturing and order fulfillment. Instead of relying on speculative notions of what might be demanded, the quantity of demand and the location of that demand, agility employs a "wait-and-see" approach to demand not committing to products until demand becomes known. Under uncertain and changing business environment supply chain agility is not only a source of competitive advantage but also a weapon for the organizations for the long-term sustainability (Lee, 2004). As such, firms need to work proactively in the competitive business environment and adapt not only to changing customer preferences and transforming supply environments but also to the existing possibility of supply chain disruptions (Wagner *et al.*, 2011).

Supply chain agility refers to a company's capability, in conjunction with its key suppliers and customers to rapidly and successfully react to changes in its environment (Braunscheidel and Suresh, 2009). Inherent in this conceptualization is also the organization's flexibility and its ability to quickly and effectively reconfigure key resources with the aim to remain competitive. The idea of supply chain agility represents a dynamic capability able to positively influence the operational performance of the firm. Operational performance includes a firm's competitive position in terms of supply chain cost, customer service (delivering the right quality and right quantity at the right time), service level performance (on-time-in-full deliveries) and supply chain flexibility (Beamon, 1999; Gunasekaran *et al.*, 2001; Ho *et al.*, 2010).

To be truly agile, a supply chain must possess a number of distinguishing characteristics. Firstly, the agile supply chain is market sensitive. By market sensitive we mean that the supply chain is capable of reading and responding to real demand. Most organizations are forecast-driven rather than demand-driven. Agile strategy makes decision on the basis of data on actual customer requirements not forecasting based upon past sales or shipments and converts these forecasts into inventory. The use of modern IT helps gather data on demand directly from the sales points and it enables the organization to hear the voice of the market and to respond directly to it. Electronic Data Interchange (EDI) and now the internet have enabled partners in the supply chain to act upon the same data, i.e., real demand, rather than be dependent upon the distorted and noisy picture that emerges when orders are transmitted from one step to another in an extended chain (Hewitt, 1999).

There is a growing recognition that individual businesses no longer compete as stand-alone entities but rather as supply chains. We are now entering the era of "network competition" where the prizes will go to those organizations that can better structure, co-ordinate and manage the relationships with their partners in a network committed to better, closer and more agile relationships with their final customers. It can be argued that in today's challenging global markets, the route to sustainable advantage lies in being able to leverage the respective strengths and competencies of network partners to achieve greater responsiveness to market needs. And agile strategy is a major catalyst of supply chain responsiveness. Thus, it is hypothesized as follow:

- $H_1$: agile strategy positively influences the retail supply chain responsiveness

**Lean strategy:** Lean strategy focuses on the elimination of waste with a bias towards "pulling" goods through the system based on demand. In retailing, lean strategy is employed to diminish costs and wastages. This strategy requires the retailers to anticipate the market demand and assemble the products so that customers get the maximum value at reasonable costs. It is through this holistic, enterprise-wide approach to lean implementation that the theory extends beyond functional strategy to a broader supply chain strategy employed by the company.

A lean supply chain works to reduce cost and waste (Vitasek *et al.*, 2005) by eliminating non-value-added activities, pursuing scale economies and deploying optimization techniques to get the best capacity utilization in production and distribution (Lee, 2002). The objective of this strategy is to achieve the most efficient methods of production and delivery of products by reducing waste in the value creation process. As retail managers can discern the demand in advance, they can plan and assort the necessary products in efficient batches to customer orders. So, there is relatively less waste and inventory at least inbound in the supply chain. The strategy is however, prone to excessive inventories of finished product outbound. Usually in manufacturing firms, bulk auto products are manufactured by using this strategy. "Lean thinking" can help organizations in the reduction of waste in its various forms. This strategy focuses on the elimination of those activities that consume resources but create no significant value in the eyes of customers (Womack *et al.*, 1990).

The aims of a lean strategy are to do every operation using less of each resources-people, space, stock, equipment, time and so on that best match with retail supply chain. It systematizes the efficient flow of materials to reduce waste give the shortest lead time, minimum stocks and minimum total cost. Waters

summarized the approach of lean manufacturing into five main principles: value-designing products that are valuable to customers. Value stream-making products using the best process by setting effectively the requirements. Value flow-making the flow of materials through the supply chain by ensuring an efficient flow of materials, eliminating waste, interruptions, waiting and detours. Pull-making only those products that have customer demand by using the JIT principles. Aim of perfection-striving for continuous improvements to get closer to the aim of perfect operations by continuously trying to identify areas of waste and eliminating them.

Townsend says that all organizations are at least 50% waste-waste people, waste effort, waste space and waste time. In retailing, this wastages are most likely to occur in the following areas of the supply chain. Quality of products that is so poor that it can't satisfy customers. Improper warehouse management-having warehouse capacity that is currently unnecessary. Poor process having unnecessary too complicated or time-consuming operations. Waiting for finished products or materials to arrive and assemble for equipment to be repaired and so on. Inventory holding too much inventory, increasing complexity and raising costs. A lean strategy looks for ways of eliminating these wastes. So, the retailers can increase supply chain performance by eliminating operations that ad no value, simplifying movements, reducing unnecessary inventory, using higher technology, looking for economies of scale, locating outlets near to customers and removing unnecessary links from the supply chain. On the basis of previous literatures, it can be hypothesized in this study that:

- $H_2$: lean strategy is positively correlated with retail supply chain responsiveness

**Hybrid strategy:** Organizations sometimes use a hybrid strategy where both lean and agile supply chains are utilized (Towill and Christopher, 2002). Hybrid or leagile supply chains, thus use a combination of lean and agile approaches within a supply chain strategy (Mason-Jones *et al.*, 2000) and exploit the benefits of both lean and agile supply chains (Towill and Christopher, 2002). The combined use of lean and agile method in hybrid strategy can take one of several approaches: for high volume and stable demand products, make to stock (lean strategy) is applicable and make to order (agile strategy) calls for flexible production capacity to meet unusual demand or unexpected requirements; use of postponement strategies where "platform" products are made to forecast and then final assembly and configuration done upon final customer order.

Supply chains utilize this hybrid solution by holding strategic inventory in some generic or unfinished form at the de-coupling point with final configuration made quickly once actual demand is known. Hybrid strategy aims at building an agile response upon a lean platform by seeking to follow lean principles up to the de-coupling point and agile practices after that point. Organizations wishing to increase performance through cost-efficient practices should operate at a location that offers low cost and develop strategies in line with the lean supply chain.

On the other hand, organizations that want to be competitive through innovation should use strategies more closely to the agile supply chain. This is empirically supported by a study done by Gunasekaran *et al.* (2001) that state the nature of supply chain strategy, aimed at an efficient cost is a lean supply chain. Furthermore, Fisher (1997) and Randall and Ulrich (2001) indicated in their study that generally profit in the supply chain investments will only be available if there are alignment between supply chain strategy with form of process or product requests.

Therefore, it is evident that final customers' needs for functional products with a predictable market demand should be met with efficient (or lean) supply chains and the needs for innovative products should be met with responsive (or agile) supply chains (Bruce *et al.*, 2004; Fisher, 1997; Swafford *et al.*, 2006). However, the present study tries to test whether this hybrid strategy can influence the retail supply chain responsiveness or not. Based on the findings of the mentioned studies that hybrid strategy has impact on supply chain performance, it can be hypothesized as follow:

- $H_3$: hybrid strategy positively influences retail supply chain responsiveness

## MATERIALS AND METHODS

**Instruments development:** The present study has three independent variables and one dependent variable. The items for the independent variables namely lean and agile supply chain strategy have been adopted from previous studies (Qrunfleh and Tarafdar, 2013) and items for supply chain responsiveness (dependent variable) were adopted from the studies by Bayraktar *et al.* (2010) and Qrunfleh and Tarafdar (2013). Items for the hybrid strategy were developed from existing literatures. Each item represents the content of definition for the respective constructs.

For the content validity of the items, a pre pilot study was conducted by three academicians and two senior supply chain mangers of retail chain stores to make

comments on the clarity and appropriateness of the measures developed for the study. After getting their feedback, the items were adjusted and used for pilot study and it revealed good reliability and validity of the items. The items were measured with 5-point Likert scale with response options ranging from strongly agree (5) to strongly disagree (1).

**Data collection and analysis techniques:** Data were collected from 115 managers of some selected retrial chain stores in Bangladesh. Among the total respondents, 107 were the outlet managers and the remaining 8 were the senior supply chain managers of different retail chain stores. For collecting the data, formal request letter was used for taking permission from the authority of the selected organizations. Then, the questionnaires were distributed among the respondents. Total 140 questionnaires were distributed and finally 115 were collected in usable condition. So, the total sample size in this study was 115. The survey was conducted in 2014. Mostly, the outlets managers were surveyed because they are closely linked to the overall operations of the respective stores.

The collected data were analyzed using Partial Least Squares (PLS) with the support of the Software Smart PLS 2.0M3 (Ringle *et al.*, 2005). The hypotheses of this study were tested based on empirical data by means of structural model of Partial Least Squares (PLS) Method. tructural equation modeling is a second-generation multivariate statistical analysis that has been gaining attention in the areas of both environmental management (Murillo-Luna *et al.*, 2008; Pereira-Moliner *et al.*, 2012) and operations management (Peng *et al.*, 2008). PLSs was used in this study as it is the most appropriate method of data analysis for small sample size (Qureshi and Compeau, 2009). In PLS, the test of a conceptual model involves two steps namely measurement model (outer model) and a structural model (inner model). The findings of measurement and structural models are presented in the next section.

### RESULTS AND DISCUSSION

**Reliability and validity test:** The present study evaluated the measurement model by assessing the convergent and discriminant validity following the criteria suggested by Chin (1998). Cronbach alpha values were used to test the reliability of data. Table 1 shows that all the Cronbach alpha values are above 0.7 which represents a good internal consistency of data (Nunnally, 1967).

The loadings of each questionnaire item on its respective measure were computed for evaluating

convergent validity. The acceptable value for each item is 0.6 (Barki and Hartwick, 1994). Total three items were deleted due to their low factor loadings. Now all the loadings are above the 0.6 mark which is enough for convergent validity (Hair *et al.*, 2006). Twenty two of the 25 loadings were above the strict 0.60 criterion. This strongly supports the convergent validity of the items.

In addition to that the composite reliability for all the constructs is >0.70 which is above the acceptable level. Then, the Average Variance Extracted (AVE) for each construct is above 0.50 which also meets the criteria for convergent validity. So, the measurement model exhibits high convergent validity since all factor loadings are above 0.6, all AVEs are above 0.5 and all Composite Reliabilities (CRs) are above 0.7.

Table 2 shows the discriminant validity of the constructs taken in the present study. Discriminant validity is tested through Average Variance Extracted (AVE) suggested by Fornell and Bookstein (1982). Actually, a construct should share more variances with its indicators than the other constructs. This happens when the AVE is higher than the estimated correlations among each pair of constructs.

A measure showing discriminant validity should be composed of items with high loadings on their appropriate constructs (convergent) but with low loadings on other

Table 1: Reliability and validity test

| Constructs | Items | Factor loadings | Cronbach alpha | Composite reliability | Average variance extracted |
|---|---|---|---|---|---|
| Agile strategy | AS1 | 0.777 | 0.857 | 0.898 | 0.639 |
| | AS2 | 0.698 | | | |
| | AS3 | 0.773 | | | |
| | AS4 | 0.870 | | | |
| | AS5 | 0.870 | | | |
| Lean strategy | LS1 | 0.828 | 0.802 | 0.816 | 0. 528 |
| | LS2 | 0.685 | | | |
| | LS3 | 0.669 | | | |
| | LS4 | 0.882 | | | |
| | LS5 | 0.601 | | | |
| Hybrid strategy | HS1 | 0.653 | 0.705 | 0.842 | 0.524 |
| | HS2 | 0.813 | | | |
| | HS3 | 0.777 | | | |
| | HS4 | 0.647 | | | |
| Responsiveness | RS1 | 0.657 | 0.873 | 0.901 | 0.531 |
| | RS2 | 0.782 | | | |
| | RS3 | 0.759 | | | |
| | RS4 | 0.710 | | | |
| | RS5 | 0.771 | | | |
| | RS6 | 0.752 | | | |
| | RS7 | 0.730 | | | |
| | RS8 | 0.659 | | | |

Table 2: Discriminant validity

| Varialbes | AS | HS | LS | RS |
|---|---|---|---|---|
| AS | 0.799374 | - | - | - |
| HS | 0.623601 | 0.726636 | - | - |
| LS | 0.222615 | 0.101567 | 0.723878443 | - |
| RS | 0.751645 | 0.505961 | 0.286517000 | 0.72869747 |

constructs (Gefen *et al.*, 2000). The measurement model also demonstrates good discriminant validity since, the square root of the AVE for each construct was higher than its correlation with other factors.

**Correlations analysis:** In social science research, researchers usually use correlation analysis to show the relationship among the variables of the study. The relationship that exists between independent and dependent variables in the present study is shown in Table 3. Table 3 shows that all the independent variables are positively correlated with the dependent variable. It is clear from Table 3 that agile supply chain strategy is strongly correlated with supply chain responsiveness followed by lean strategy. On the other hand, hybrid strategy shows relatively weak positive correlation with supply chain responsiveness.

**Hypotheses testingbased on PLS structural model results:** Usually, PLS coefficient is used for hypotheses testing that indicate the strength of relationship between a pair of variables. The statistical significance of the

structure coefficients was explored in a boots trapping analysis similar to the procedure used above in evaluating the indicator weights of the measurement model. A precondition for a meaningful explanation of path coefficients is that the overall structural model's quality touches a standard level. The strength of relationship is expressed by $R^2$. The value of $R^2$ represents the percentage of variation in the endogenous variables caused by the exogenous variables taken in the study.

According to Chin (1998), $R^2$ values of atleast 0.19, 0.33 and 0.67 are treated as weak, moderate and strong, respectively. In the present study, the value of $R^2$ amounts to 0.583 (Fig. 1). It indicates that the value is very near to strong explanatory power. Thus, the supply chain strategies are overall adequately responsible for the variance share of retail supply chain responsiveness (Table 4).

Figure 1 shows that agile supply chain strategy highly coincided with better supply chain responsiveness for retail stores. The corresponding path coefficient of 0.68 exceeds the value of 0.1 which the literature proposes as the lower limit for practically meaningful

Table 3: Latent variables correlations

| Varialbes | Mean value | SD | AS | LS | HS | RS |
|---|---|---|---|---|---|---|
| AS | 3.9652 | 0.52399 | 1.0000 | - | - | - |
| LS | 4.0626 | 0.50078 | 0.2226 | 1.0000 | - | - |
| HS | 4.0152 | 0.43464 | 0.6236 | 0.1015 | 1.0000 | - |
| RS | 4.3250 | 0.46441 | 0.7516 | 0.5059 | 0.2865 | 1 |

Table 4: Output of structural model

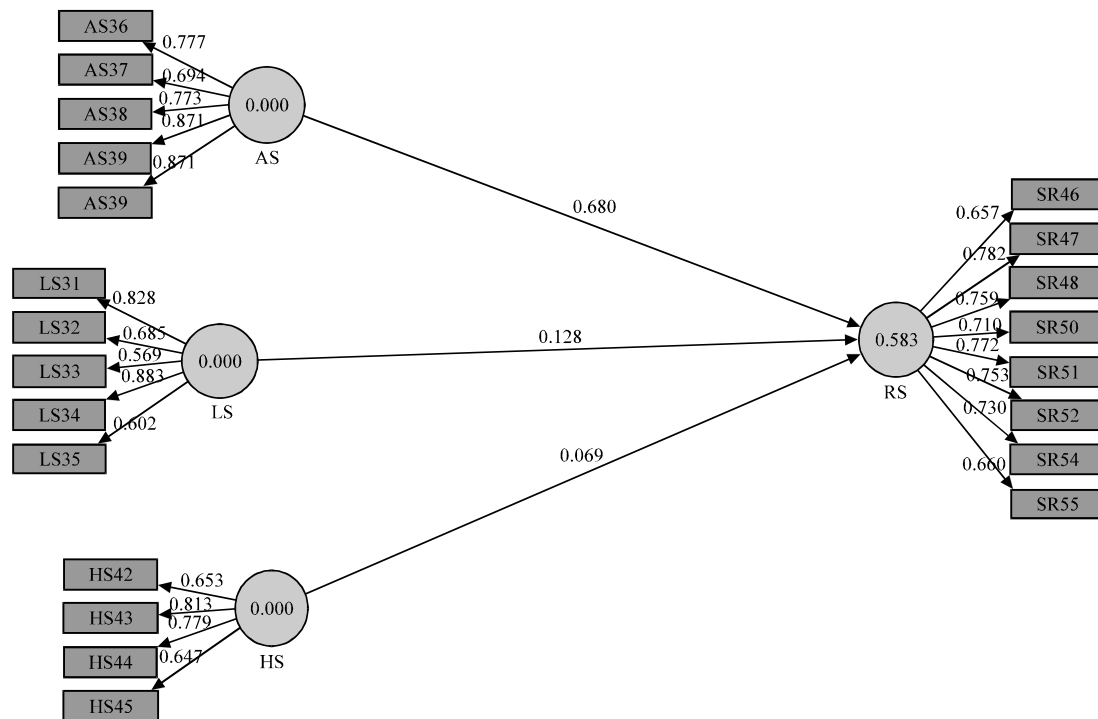| Models | Standardized coefficients | $R^2$ | t-statistics | p-values | Results of hypotheses testing |
|---|---|---|---|---|---|
| AS>RS | 0.680 | 0.583 | 7.6396 | 0.000 | $H_1$ accepted |
| LS>RS | 0.128 | | 1.5180 | 0.060 | $H_2$ accepted |
| HS>RS | 0.069 | | 0.8485 | 0.195 | $H_3$ accepted |



Fig. 1: Agile supply chain

paths. Therefore, $H_1$ receives strong support in the sample and it is accepted. Again the positive coefficient of 0.14 for the path with adopting lean strategy to enhance retail supply chain performance is in line with $H_2$. So, $H_2$ lean strategy can influence retail supply chain responsiveness is accepted. On the other hand, $H_3$ is not supported as the path coefficient demonstrates very low and insignificant value. So, hybrid strategy can't influence the retail supply chain responsiveness much.

The present study investigated the roles played by supply chain strategies to enhance the retail supply chain responsiveness. To remain responsive to customer demand, the retail supply chain mangers must think about the strategies along with other supply chain management practices. The present study has shown some meaningful findings regarding the supply chain performance of retail chain stores. Firstly, it is found in the study that agile supply chain strategy is a pivotal factor influencing retail supply chain responsiveness. It is because of the fact that agile strategy always seeks to maximize the satisfaction of customers by providing quick response. It is in line with the arguments by Braunscheidel and Suresh (2009) have posited that agility refers to the ability to quickly and effectively react to changes in market demand. To remain responsive to the preferences of customers, retailers must align agile strategy in their supply chain.

The lean strategy was also found to be a contributor to the retail supply chain responsiveness but insignificant. As the lean supply chain strategy mostly focuses on waste minimization, it is not possible for companies to gain responsiveness with this strategy. On the other hand lean strategy is appropriate for products having consistent demand and organizations employ this strategy for an efficient supply chain. So, the retailers should not concentrate on waste reduction for making their supply chain responsive.

However, hybrid strategy was found to be very weakly correlated with retail supply chain responsiveness. The present study has explored three supply chain strategies as the predictors of retail supply chain responsiveness. Out of these three strategies, agile strategy was found to be the most significant followed by lean strategy to influence the responsiveness of retail chain stores. Another predictor; hybrid strategy was found to exhort very weak effect in increasing the responsiveness of retail chain stores. So, retail managers trying to be responsive in the changing competitive market should design their supply chain with agility. Though, lean and hybrid strategies are not significantly influencing retail supply chain responsiveness, organizations can use them as a supplementary strategy when needed to increase the overall supply chain performance.

**Managerial implications:** This empirical research study reveals the significance of supply chain strategies in maintaining supply chain responsiveness of retail chain stores. Researchers around the world are very much concerned about the supply chain practices and performances of manufacturing firms but the empirical research literatures are very scarce in retail supply chain. Moreover, the supply chain strategies are hardly addressed in research as the predictors of responsiveness in retail settings. For this reason, this research work is noteworthy especially for the retailers. The findings of this study can benefit the supply chain managers involved in retailing. The results showed that retail stores can remain competitive and responsive by adopting agile supply chain strategy. The adoption of agile strategy might bring forth substantial advantage for the retailers to maintain responsiveness in their supply chain. The results might give some insights to achieve the two-fold goals of retail supply chain. With the application of supply chain strategy, managers can make a wise decision to satisfy customers' needs and maintain a responsive supply chain. This study also demonstrates that lean and hybrid strategies bear little importance in making the retail supply chain responsive. The study suggests that managers should not only emphasize on cost reduction and waste minimization to manage retail supply chain successfully, they should think about the strategy that might fit with the objective of the organization.

## CONCLUSION

The findings of this study can be important guidelines for the retail managers. On the basis of empirical findings, they can formulate strategies that might help them to achieve organizational goals by satisfying customers. Though, the findings of this research have some implications for the retail chain stores, it is not without any criticisms.

## LIMITATIONS

This study is done in a developing country whose infrastructures might not resemble with those of developed countries. Hence, the findings might not be fully generalizable to the developed economies retailing. Another limitation is that the data were collected from the capital city of Bangladesh and the outlets situated outside Dhaka have been excluded. So, the findings might not represent the picture of whole industry.

Furthermore, this study has only considered the supply chain strategies as the catalyst for responsiveness but there are some other factors that might help companies to make their supply chain responsive. Future,

researchers can include the supply chain management drivers and practices to investigate to what extent supply chain responsiveness is influenced by these factors. Further studies can be done with large samples as the present study was conducted with a relatively small group of respondents.

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