THE EFFECTS OF INBOUND LOGISTICS CAPABILITY ON FIRM PERFORMANCE-A STUDY ON GARMENT INDUSTRY IN BANGLADESH

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ABSTRACT

Capabilities are the complex bundles of knowledge and skill applicable in management for effective and efficient utilization of assets in the organization. Logistics capabilities are the ability to exploit firm resources acquiring competitive advantage for the superior firm performance. The purpose of this research is to examine the effects of inbound logistics capability on firm performance in terms of tangible and intangible benefits. A quantitative method has been used and also identifies Confirmatory Factor Analysis (CFA) to test the relationship between observed variables and latent constructs. This research employs SPSS version 20 And Structural Equation Model (SEM) based on AMOS version 23 to analyze the data surveyed in the 120 garment factories located in export processing zone as well as domestic factories of the capital city–Dhaka, Bangladesh. The results found that inbound logistics capabilities are positively associated with tangible firm performance e.g. ROA, reduced cost and improve productivity whereas negatively associated with intangible firm performance e.g. customer satisfaction. The findings of research highlight about up gradation of inbound logistics capabilities in the garment industry. The result of this study provides valuable insights into logistics capability constructs for the policymakers, academics, and other users to improve firm performance.

Keywords: Inbound logistics Capability, Procurement Capability, Inventory Management Capability, Service Capability, Process Capability and Firm Performance.

INTRODUCTION

Over the last few years, the significance of the global supply chain has shaped differently the key position of logistics service in the manufacturing industry in both scale and boundary (Kumar et al., 2011). Logistical services encompass inventory management, delivery order management plans, warehousing, quality conformation, transportation, and compliance related to import and export. It also provides receiving customers' orders and make invoice once goods have been acquired. Therefore, logistical services that are high quality in nature provide additional benefits that lead to the availability of the product which keeps manufacturer having the leading position of their competitors (Li & Warfield, 2011; Li, 2011).

Readymade garments industry has great involvement in the economy of Bangladesh in a unique way. Bangladesh is the second largest exporting country in the world (Alam & Natsuda, 2016). The export value of garments industry is $28 billion in Bangladesh whereas in China number one exporting country has a market of $130 billion (BGMEA, 2016). Nevertheless, how top countries maintain their achievement in the competitive world is the current question. The answer may be a logistics capability. There is deficiency about vertical integration in Bangladesh

due to insufficient production of raw material which encourages purchasing fabrics from other countries and finally requiring higher lead time to fulfil the order (Alam & Natsuda, 2016). There is also a lack of superior grade of infrastructure that leads to shipment delay (Saxena & Salze-Lozac'h, 2010). However, previous empirical findings have limited concentration on logistics capability in Bangladesh but special concentration on logistics capability in western countries e.g. USA and Canada. This study utilizes the Resource-Based View (RBV) theory by Barney (1991) to identify the association between logistics capability and firm performance.

LITERATURE REVIEW

RBV can be described as a competitive advantage in which firms apply a bundle of interchangeable, tangible and intangible resources to influence firm performance (Wernerfelt, 1984). Amit & Schoemaker (1993) concluded that resources are tradable and include such as assets, information's, competencies and capabilities. Capabilities are the outcomes of resource positioning, organizational procedures with dynamic characteristics (Amit & Schoemaker, 1993). So, capabilities should be considered individually from resources. RBV has been observed in various empirical studies in the context of particular industries (Ray et al., 2004; Chi-Chang & Po-Lin, 2017; Schmitz & Platts, 2004). Therefore, RBV enabled a sound theoretical underpinning for this study.

There are researchers who have elaborately described the process capability and performance of the firm (Morash et al., 1996; Lynch et al., 2000; Daugherty & Pittman, 1995). Process capability was identified at the operational level through process elasticity, simplicity and customary attributes (Daugherty & Pittman, 1995). Dröge et al. (1994) evaluated various logistics capability and found process capability as one of the important influential factors to secure the competitive advantage of the firm.

Liu et al. (2013) examined the information technology capability in terms of Return on Asset (ROA), profit and cycle time percentage. In another study, Lee et al. (2014) showed the IT and its effect on internet enable supply and demand process integration. Technology capability assists to cut down cost, keep inventory level at the minimum level with lead time reduction (Lee et al., 2014; Shang & Marlow, 2005; and Zhao et al., 2001). Rashed et al. (2010) narrowly described the information sharing capabilities and strategies that had negative effects on firm performance. Bangladesh readymade garments were developed with unproductive and outdated technology (Chowdhury et al., 2006; Nuruzzaman, 2013). This study tries to fill out the gap of information and technology as well as procurement capability for the betterment of the firm performance.

Bin Syed et al. (2016) observed inventory management capability at textile industry in Malaysia and revealed problems related to inventory management capability e.g. undisciplined inventory, not up to date the recording system and high amount of days on inventory due to unproductive employees. Shin et al. (2015) evaluated the inventory management in the area of the margin of inventory.

Hypothesis Development

Liu et al. (2013) examined the information technology capability and found positive effects on firm performance. Notably, Zhao et al. (2001) revealed information technology capability had negative effects on firm performance. However, Shang & Marlow, (2005) found that IT capability had no relation to firm performance. Liu & Luo (2012) stated the positive

relationship between process capability and firm performance in terms of Return on Investment (ROI), Return on Assets (ROA) and market share. Value-added service capabilities were able to improve firm performance in the field of logistic services (Ho & Chang, 2015). Lynch et al. (2000) found a positive relation between value-added service capability and firm performance. Namusonge et al. (2017) revealed a significant relationship between procurement capability and firm performance. Magad & Amos (1989) stated that the objective of inventory management was to provide the service of customers. Eckert (2007) evaluated inventory management and its significance for the development of customers and also dictated the positive relationship between customer satisfaction and inventory management. Lai et al. (2006) identified procurement practices based on customer satisfaction. Based on RBV, the following hypothesis can be drawn (Figure 1):

H1: Logistics capabilities have direct and significant effect on benefit performance (Tangible).

H2: Logistics capabilities have direct and significant relationship on the performance benefits (intangible).
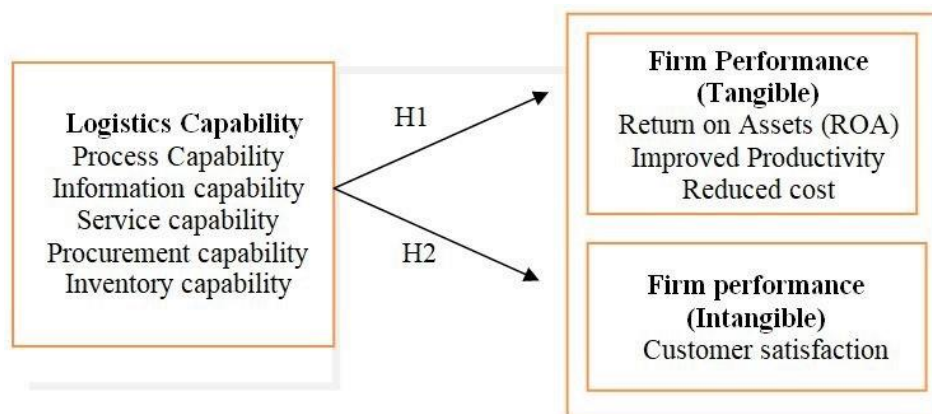
FIGURE 1
DESIGNING CONCEPTUAL FRAMEWORK

RESEARCH METHODOLOGY

A survey of the questionnaire was executed to a garment industry in Bangladesh. The hypothesis above was tested on 120 firms from garment industry located in Adamjee EPZ and Savar EPZ Dhaka, Bangladesh. The questionnaires were given to the senior managers of 120 garments and considered such people as a suitable respondent due to their knowledge about logistics capability and strategy of the firm (Liu & Luo, 2012). The item consists the procurement, service, information and technology, inventory management and process capabilities were based on previous studies (Lynch et al., 2000; Liu & Luo, 2012; Droge et al., 2012; Savitskie, 2003; Sar, 2017). Five-point Likert scale type was used. Respondents were solicited about identifying their level of judgments on each item, where 1 corresponded to *"strongly disagree"* and 5 represented *"strongly agree"*.

There were 237 garments available in Adamjee and Savar EPZ area (BGMEA, 2016). To operate smoothly, four or five senior managers are required in garment industry. Simple random sampling was used in this study. By using Cochrun formula 385 sample size were selected from (237×4) 948 senior managers of the garment firms. From the 385 sample questionnaires, 35 questionnaires were withdrawn due to an extreme outlier of the data. Therefore, 350

questionnaires were elaborately discussed. The total 400 questionnaires were distributed and 14 questionnaires were not returned. So, the response rate in this study was 400/386=96.5% that fulfil the Bowersox et al. (1999). Table 1 represented detailed descriptions of demographic characteristics. From this study, 45% of the sampled firm had more than 2000 employees (Table 1). Most of the sampled firms in this study were established between the years 2001-2005. Senior managers had more than 10 years' experience and most of the senior manager's possessed diploma and bachelor degree.

Table 1 DEMOGRAHIC ASPECT ABOUT RESPONDENTS		
Demographics	Description	Percentage
Employees	<1000	4%
	1000-1999	16%
	2000-2099	45%
	>3000	35%
Experience of managers	<1 year	20%
	>1 year but <10 years	27%
	>10 years	53%
Establishment year	<1995	22%
	1996-2000	11%
	2001-2005	45%
	2006-2010	22%
Educational qualification	Diploma	39%
	Bachelor	38%
	Masters	23%

Empirical Analysis

This study followed the structural equation modeling using two-step methods (Garver & Mentzer, 1999). Firstly, the study evaluated the measurement model in terms of validity. It involves reliability, unidimensionality, discriminant validity, convergent validity through confirmatory factor analysis. After assessment of the measurement model structural equation model can be used to identify the structural model (Wisner, 2003).

Reliability and Validity: Confirmatory Factor Analysis

To determine the effects of logistics capability on firm performance, factor analysis has been used. Factor analysis is widely used as a multivariable statistics approach that alters correlated variables into low factors in numbers which were also significant. The findings of the Bartlett test were significant at p=0.000 levels and the values were 3223.065. The sample sufficiency of Kaiser-Meyer-Olkin (KMO=0.711) was sufficient. The attained values disclose that the data is appropriate for factor analysis.

Factor rotation was used to obtain factor analysis and $vari_{max}$ rotations were applicable for principal components analysis. Factor loading below 0.50 and covariance (communality) below 0.65 were not considered in this study. The first-factor procurement capability explains 7.24% of

total variance; information and technology capability 7.738%, service capability 6.054%; inventory management capability 10.203% and process capability 5.792% of total variances. Convergent validity and unidimensionality were considered acceptable limit due to the goodness of fit index (0.916), Tucker-Lewis index (0.915), comparative fit index (0.932) and root mean square error of approximation (0.066) assured the cut-off standard. There were no standardizing residual values (Hair et al., 1998). Expected parameter changes seem to be smaller than ± 0.3. Reliability was identified based on R^2 (item reliability), reliability construct and extracted variance. All squared multiple correlations were greater than 0.30 that represents the reliability items were supported (Koufteros, 1999). For discriminant validity, the chi-square test was performed and found that all latent variables are satisfactory (p<0.05) (Anderson & Gerbing, 1988) (Table 2).

Table 2
ESTIMATED AND STANDARDIZED LOADING, STANDARD ERROR AND CRITICAL RATIO IN MEASUREMENT TABLE

Factors and items	Estimated loading	Standardized loading	Standard error	Critical ratio
Process capability (α=0.80)				
PC1	1.798	0.724	0.198	9.081
PC2	1.158	0.600	0.132	8.787
PC3	1.000	0.654	-	-
Information/Technology capability (α=0.84)				
ITC1	1.000	0.785	-	-
ITC2	1.037	0.768	0.085	12.265
ITC3	0.815	0.629	0.075	10.921
ITC4	0.787	0.600	0.080	9.786
Value added service capability (α=0.83)				
VSC1	1.054	0.634	0.105	10.012
VSC2	1.000	0.636	-	-
VSC3	1.227	0.641	0.128	9.611
VSC4	1.412	0.822	0.128	11.071
VSC5	1.369	0.744	0.126	10.836
Procurement capability (α=0.79)				
PRCC1	1.000	0.844	-	-
PRCC2	0.761	0.685	0.083	9.206
Inventory management capability (α=0.84)				
IMC1	0.785	0.912	0.033	23.662
IMC2	1.000	0.880	-	-
IMC3	0.930	0.891	0.041	22.954
Firm performance tangible (α=0.85)				
RC	1.122	0.741	0.045	8.563
ROA	0.655	0.589	0.035	11.437
IP	0.560	0.678	0.060	9.556
Firm performance intangible (α=0.85)				
CS1	0.740	0.834	0.066	9.765
CS2	0.920	0.786	0.055	8.436

RESULTS

All the requirements for full model development were fit including bootstrap samples (Chi-square=273.151; df=109). It satisfied the fit indexes (TLI=0.915; CFI=0.932; and RMSEA=0.066) which recognizes that the model estimated was a good model fit (TLI is near

about 0.92). After model fit evaluation, modification index and standardized residuals were investigated. There were no larger modification indexes and expected parameter changes. It is a steady model due to Expected Cross-Validation Index (ECVI) and Consistent Akaike Information Criterion (CAIC) values are not large in comparison to the original hypothesis (Browne & Cudeck, 1989) (Figure 2).
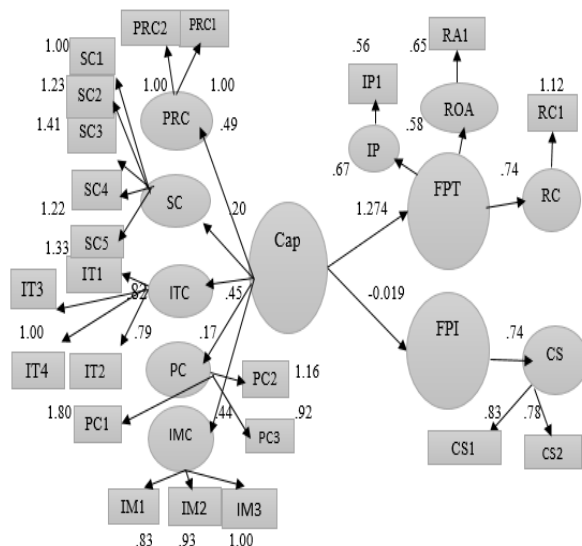
FIGURE 2
SUMMARY OF FINDINGS
(Chi-square=273.15; df=109; TLI=0.915; CFI=0.932; and RMSEA=0.066)
(p<0.05)

Hypothesis Testing

Hypothesis (*H1*) showed that logistics capability directly affected the tangible firm performance by postulating positive value 1.274 (Table 3). It revealed t-value 4.093, standard error 0.421 and p-value 0.001 which supported the hypothesis. So, it can be explained that capability has positive effects on firm performance tangible. Hypothesis (*H2*) suggested that logistics capability has a negative effect on intangible firm performance. For this hypothesis, the indirect effect is -0.189, standard error 0.159, t-value is 1.342 which is not significant as p>0.05. It clearly suggested that capability has a negative relationship with intangible firm performance and not support the hypothesis (*H2*).

				S.C			
Hypotheses	**Structural relationship**	**t-value**	**p-value**	**Direct**	**Indirect**	**SEM Test**	**Justification**
H1	Cap- FPT	4.093	0.001	1.90	-0.630	Support	Reject Null
H2	Cap- FPI	1.342	0.18	0.171	-0.189	Not Support	Accept Null

TABLE 3
RESULTS OF HYPOTHESIS

DISCUSSION

The hypothesis (*H1*) indicated the positive (+ve) relationship between logistics capabilities and tangible firm performance (β=1.90, t=4.093, p $\leq$ 0.001). This hypothesis was supported by the previous study conducted by many researchers (Morash et al., 1996; Lynch et al., 2000; Daugherty & Pittman, 1995). The plausible explanations might be that process capability deals with attaining the minimum cost of logistics by effective operation or economies of scale, simplifications about the process of logistics and always giving regular support regarding fulfilling key processes. Value-added service capability also related to offering services in case of interruption or stock out and very often create special provisions for the safety of goods from destroying. Procurement capability deals with ability regarding knowledge and skill about the functions of procurement that will lead the firm to achieve competitive advantage. The result is realistic for garment manufacturers as logistics capability which has the maximum estimation on tangible performance is paramount for the survival in the long run.

The hypothesis (*H2*) suggested the negative (-ve) association between logistics capability and intangible firm performance (β=0.171, t=1.342, p=0.180). This hypothesis was not relevant and contrasted by previous researchers (Moyadh & Amos, 1989; Eckert, 2007; Li, 2014; Yee-loong Chong & Ooi, 2008; Janakova, 2018). The plausible clarifications for negative relations were that there was limited use in IT for the customers in Bangladesh. There was no specialized expertise in technology. No person was assigned to maintain the highly advanced technology. Proper maintenance was not taken after purchasing the machinery. Firms were using backdated technology and management of the firms were reluctant to allocate budget for computer hardware and software installation (Nuruzzaman, 2013).

From this study, several contributions can be generated to both practice and theory of logistics. Firstly, the study develops a theoretical framework in addition to an existing framework that interlinks logistics and strategic management by considering additional variables e.g. internal forces, the flow of information and professional workforce. These variables can serve as fundamental guidelines to improve firm performance. Internal forces involve standardized coordination that provides more emphasize on proper utilization of logistics capability based on rapid speed in the production process and achieve minimum cost to improve the responsiveness of the firm. The flow of information is crucial to management for improving productivity, cost reduction and return on assets. In logistics, the value of information contributes to developing better relationships, providing increased coordination and responsiveness. Professional workforce develops a person who does a job that requires outstanding training, intellectual skill or special education. Secondly, this research identifies the sample from the garment industry in Bangladesh, generating an opportunity to evaluate logistics in a different context since the previous study based on Canada and the USA. This study contributes to the new knowledge of the garment industry and RBV researches. Thirdly, this study employs structural equation model for hypothesis testing that underpins the reliability about the clarification of results. Fourthly, the study emphasizes managers to devote watchful concentration to the internal forces which may maintain to reduce costs that enable Bangladesh garment industry to hold the position in the global market. So, this study contributes to a new framework to build the advanced development of the garment industry in Bangladesh.

CONCLUSION

It is vital to address that there are some limitations. Firstly, the study focused on inbound logistics e.g. reduction process and not covered the whole process. Secondly, the findings of this study were concerned with garment industry especially export-oriented firms utilizing the cutting, making and packaging systems. To some extent, few variables were limited in the questionnaire e.g. return on assets, total cost reductions and improve productivity. Thirdly, data was collected based on the senior manager's perceptions using five-point Likert scales because of data confidentiality.

Logistics capabilities are the ability to employ logistics capacities to attain the desired level of goals with the least cost possible. This study considered as an effort to elucidate the comprehensive view of logistics capabilities with firm performance through the lens of RBV. Based on this premise, this study investigated the logistics capabilities as the process, value-added service, information and technology, procurement and inventory management capabilities. These findings strengthen the significant position of inbound logistics capability towards improving firm performance. These results also reinforce the proper strategy formulation that assists to achieve the sustainable development goal for Bangladesh. This study emphasizes the Bangladesh government to upgrade information technology to influence foreign investors. Various stakeholders e.g. manufacturers, senior managers, initiators of industry and government are accountable for sharing information through IT practices. Firms should have some different constituents to compete within the same industry that develops the rare capabilities of the firms. Bangladesh garment industry requires developing the procurement capability for the betterment of the firm performance. For managerial implications, this study suggests improving online transactions and installation of the upgraded software system to improve further regarding the procedure of raw materials importation. Result also suggests that managers need to careful consideration of the installation of machinery with local expertise. The software application and information strategy are limited due to semi-skilled operators. To be skilled operators, management needs to focus on various training activities as well as outsourcing activities.

Logistics is a new area of research in Bangladesh and have many avenues for future research. Analysis of factors related to the outbound logistics activities and their effects on firm performance could be exercised as future research. Investigations about shipping and container capacity, port facility, customs clearance performance might be considered as further study.

REFERENCES

Alam, M.S., & Natsuda, K. (2016). The competitive factors of the Bangladeshi garment industry in the post-MFA era. *Canadian Journal of Development Studies, 37*(3), 316-336.

Amit, R., & Schoemaker, P.J. (1993). Strategic assets and organizational rent. *Strategic Management Journal, 14*(1), 33-46.

Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99-120.

BGMEA. (2016). *Bangladesh garment manufacturers and exporters association.* Retrieved from http://www.bgmea.com.bd/

Bin Syed, S.J.A.N., Mohamad, N.N.S., Rahman, N.A.A., & Suhaimi, R.D.S.R. (2016). A study on relationship between inventory management and company performance: A case study of textile chain store. *Journal of Advanced Management Science*, *4*(4).

Bowersox, D.J., Closs, D.J., & Stank, T.P. (1999). *21st century logistics: Making supply chain integration a reality*.

Browne, M.W., & Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, *24*(4), 445-455.

Chi-Chang, L., & Po-Lin, L. (2017). Evaluating logistics capabilities on firm performance of the photonics industry in Taiwan. *International Journal of Supply Chain Management, 6*(1), 186-201.

Chowdhury, M.A.M., Ali, M.M., & Rahman, R. (2006). WTO, post-MFA era and the Bangladesh RMG sector: An assessment of performance and challenges. *South Asian Journal of Management*, *13*(1), 76.

Daugherty, P.J., & Pittman, P.H. (1995). Utilization of time-based strategies: Creating distribution flexibility/responsiveness. *International Journal of Operations & Production Management*, *15*(2), 54-60.

Dröge, C., Vickery, S., & Markland, R.E. (1994). Sources and outcomes of competitive advantage: An exploratory study in the furniture industry. *Decision Sciences*, *25*(5-6), 669-689.

Eckert, S.G. (2007). Inventory management and its effects on customer satisfaction. *Journal of Business and Public, 1*(3), 1-13.

Garver, M.S., & Mentzer, J.T. (1999). Logistics research methods: Employing structural equation modeling to test for construct validity. *Journal of Business Logistics*, *20*(1), 33.

Hair, J.F., Anderson, R.E., Tatham, R.L., & Black, W.C. (1998). *Multivariate data analysis.* Prentice Hall. Upper Saddle River, NJ.

Ho, L.H., & Chang, P.Y. (2015). Innovation capabilities, service capabilities and corporate performance in logistics services. *International Journal of Organizational Innovation*, *7*(3).

Janakova, M. (2018). CRM & social networks. *Academy of Strategic Management Journal, 17*(5).

Koufteros, X.A. (1999). Testing a model of pull production: A paradigm for manufacturing research using structural equation modeling. *Journal of Operations Management*, *17*(4), 467-488.

Kumar, P., Shankar, R., & Yadav, S.S. (2011). Global supplier selection and order allocation using FQFD and MOLP. *International Journal of Logistics Systems and Management*, *9*(1), 43-68.

Lai, F., Zhao, X., & Wang, Q. (2006). The impact of information technology on the competitive advantage of logistics firms in China. *Industrial Management & Data Systems*, *106*(9), 1249-1271.

Lee, K.L., Mohamed Udin, Z., & Hassan, M.G. (2014). Global supply chain capabilities in Malaysian textile and apparel industry. *International Journal of Supply Chain Management, 3*(2).

Li, L. (2011). Assessing the relational benefits of logistics services perceived by manufacturers in supply chain. *International Journal of Production Economics*, *132*(1), 58-67.

Li, L., & Warfield, J.N. (2011). Perspectives on quality coordination and assurance in global supply chains. *International Journal of Production Research, 49*(1), 1-4.

Li, X. (2014). Operations management of logistics and supply chain: Issues and directions. *Discrete Dynamics in Nature and Society*.

Liu, H., Ke, W., Wei, K.K., & Hua, Z. (2013). The impact of IT capabilities on firm performance: The mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems*, *54*(3), 1452-1462.

Liu, L., & Luo, D. (2012). Effects of logistics capabilities on performance in manufacturing firms. *Contemporary Logistics*, *9*(1), 8-14.

Lynch, D.F., Keller, S.B., & Ozment, J. (2000). The effects of logistics capabilities and strategy on firm performance. *Journal of Business Logistics*, *21*(2), 47.

Magad, E., & Amos, J. (1989) *Total materials management*. New York.

Morash, E.A., Dröge, C., & Vickery, S. (1996). Boundary spanning interfaces between logistics, production, marketing and new product development. *International Journal of Physical Distribution & Logistics Management*, *26*(8), 43-62.

Namusonge, E., Mukulu, E., & Iravo, M. (2017). Influence of procurement capabilities on firm performance of manufacturing entities in Kenya. *International Journal of Academic Research in Business and Social Sciences*, *7*(2), 507-520.

Nuruzzaman, M. (2013). *Improving competitiveness of Readymade Garment (RMG) industry of Bangladesh-analysis of supply chains.* Doctoral Dissertation, Curtin University.

Rashed, C.A.A., Azeem, A., & Halim, Z. (2010). Effect of information and knowledge sharing on supply chain performance: A survey based approach. *Journal of Operations and Supply Chain Management*, *3*(2), 61-77.

Ray, G., Barney, J.B., & Muhanna, W.A. (2004). Capabilities, business processes, and competitive advantage: Choosing the dependent variable in empirical tests of the resource-based view. *Strategic Management Journal*, *25*(1), 23-37.

Sar, A.K. (2017). The influence of management education on entrepreneurship success. *Journal of Entrepreneurship Education, 20*(2).

Savitskie, K.P. (2003). *The impact of logistics strategy and logistics information technology processes on service performance*. Doctoral Dissertation, Michigan State University. Department of Marketing and Supply Chain Management.

Saxena, S.B., & Salze-Lozac'h, V. (2010). Competitiveness in the garment and textiles industry: Creating a supportive environment. A case study of Bangladesh. *Occasional Paper,* (1), 6-35.

Schmitz, J., & Platts, K.W. (2004). Supplier logistics performance measurement: Indications from a study in the automotive industry. *International Journal of Production Economics*, *89*(2), 231-243.

Shang, K.C., & Marlow, P.B. (2005). Logistics capability and performance in Taiwan's major manufacturing f irms. *Transportation Research Part E: Logistics and Transportation Review*, *41*(3), 217-234.

Shin, S., Ennis, K.L., & Spurlin, W.P. (2015). Effect of inventory management efficiency on profitability: Current evidence from the US manufacturing industry. *Journal of Economics & Economic Education Research*, *16*(1).

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, *5*(2), 171-180.

Wisner, J.D. (2003). A structural equation model of supply chain management strategies and firm performance. *Journal of Business Logistics*, *24*(1), 1-26.

Yee-Loong Chong, A., & Ooi, K.B. (2008). Adoption of inter-organizational system standards in supply chains: An empirical analysis of RosettaNet standards. *Industrial Management & Data Systems*, *108*(4), 529-547.

Zhao, M., Dröge, C., & Stank, T. P. (2001). The effects of logistics capabilities on firm performance: Customer-focused versus information-focused capabilities. *Journal of Business Logistics*, *22*(2), 91-107.