

The impact of logistics management on supply chain capabilities, strategies and performance: A Resource-based View

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Abstract

Nowadays, competition amongst individual firms has been replaced with competition amongst supply chains. To improve sustainable competitiveness, a certain framework needs to be used. Resourced-based view, which analyzes resources, capabilities and competencies to increase sustainable competitive advantage, can be employed as a framework to analyze how to achieve sustainable competitiveness of a supply chain (SC). This paper provides a framework to describe how logistics management can improve capabilities, strategies and performance of SC employing a resource-based view.

Based on data collected from surveying supply chain and logistics managers in steel industry in Iran, the present study sheds light on these issues. The findings indicate that logistics management have a positive and significant impact on SC capabilities (respectively important as SC coordination, information sharing in a SC, SC integration, and SC flexibility) and SC capabilities have a positive and significant impact on SC competitive strategies (id est. SC responsiveness and efficiency) and on the other hand, SC competitive strategies have also a direct and significant impact on SC performance.

Keywords: SC, resource-based view, SC capabilities, sustainable competitiveness

1. Introduction

A supply chain (SC) aims mainly to increase competitive advantage. Barney is the first who provided a formal conceptual definition of sustainable competitive advantage: "A firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy" (Barney, 1991). Similarly, Hoffman offered a formal conceptual definition of sustainable competitive advantage based on Barney's definition of the term: "An SCA is the prolonged benefit of implementing some unique value-creating strategy not simultaneously being implemented by any current or potential competitors along with the inability to duplicate the benefits of this strategy" (Hoffman, 2000).

Resource-based view considers an organization as conjoint series of resources and capabilities which are not easily purchased and sold in the market (Conner, 1991; Wernerfelt, 1984). Therefore, competitors cannot gain these specific resources and their associated financial revenues and are considered as effective resources for an organization to achieve sustainable competitive advantage. A firm's resources are comprised of tangible properties (e.g., equipments) and intangible properties (e.g., information) which enable the firm to produce and deliver its products and services (Penrose, 1959, Grant, 1991, Amit and Schemaker, 1993).

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Resource-based view emphasizes on "competition for the future" as an aspect of competitive advantage (Hamel and Prahalad 1994) that is often overlooked when analyzing a firm's performance about its SC. According to resource-based view, a firm should not be assessed only based on its short term profitability or its intermediate-range growth but its future situation and competitive advantage resources play an important role (Carr and Pearson, 2002). Therefore, a firm needs certain capabilities to ensure it can achieve competitive advantage and increase its SC competitive advantage. Also, logistics cost in some industrial companies is about 30 percent of finished goods and logistics management is a key factor in competitive advantage. This research presents a framework to describe how logistics management can improve SC sustainable competitive advantage using resource-based view.

2. Resource-based view and Sustainable Competitive advantage of SC

According to the resource-based view, sources of competitive advantage begin with the meaning that firm resources may be heterogeneous and immobile (Barney, 1991). Performance Differences are fundamentally due to the specific resources and capabilities that are valuable, rare, difficult to imitate and non-substitutable (e.g., Barney, 1991; Wernerfelt, 1984). Furthermore, a firm's competitive advantage can be sustained when it implements a strategy that is not easily duplicated by its competitors (Barney, 1991). How to leverage resources in creating and sustaining competitive advantage for a firm has become more important for marketing scholars that link various types of market-based assets (Srivastava, Shervani, & Fahey, 1998; Srivastava, Shervani, & Fahey, 1999) and capabilities (e.g., Day, 1994) with the ultimate marketing performance (Wu et al., 2006) financial performance (e.g., Hunt & Morgan, 1995; Srivastava, Fahey, & Christensen, 2001) of a firm.

Primary key to sustainable competitive advantage is creating more value for customers compared to other competitors (Delvin, 2001). Logistics is the main activities of the Porter value chain that include a third of the value of the goods or services (Aaker, 1994). Therefore, for better competitive advantage in an open economy, the logistics is a factor that can reduce costs, increase revenue and gain competitive advantage. The purpose of logistic management in this study is a part of the SC process that Includes plans, implementation and control of resources for effective and efficient flows of goods and related information from iron ore to steel products.

2.1. SC capabilities

SC capabilities denote an organization's capabilities to specify devise and use its internal and external resources to facilitate all the activities in the SC (Wu et al., 2006). SC capabilities are considered as a secondary structure comprising of four dimensions; coordination, integration and unity, information sharing, and flexibility. The reason for the selection of these four is because they represent all the activities involved in a SC process. Each of these four dimensions denotes multi-functionality in inter-organizational activities involved and needed in a SC.

2.1.1. SC coordination

Inter-organizational coordination refers to a firm's ability to coordinate interactions with its SC partners (Clemons & Row, 1993; Malone, Yates, and Benjamin, 1987; Shin, 1999). Coordination with SC partners includes coordination in material supply, finance,

human resource, and capital equipments starting from taking orders and ending to delivering the orders (Sahin & Robinson, 2002). Improved coordination amongst SC partners can contribute to a decrease in interaction costs and improvement of operational efficiency amongst SC partners. Thus, it is considered to be a key indicator in assessing the strength of a SC (Sahin and Robinson, 2002; Shin, 1999).

2.1.2. Information sharing

Information sharing refers to a firm's ability to share knowledge with its SC partners in an efficient and effective way. Shared information in a SC conversational system includes the information amongst the direct partners and also the whole SC network (Clemons & Row, 1993). The information needs to be shared in a way so that a firm can utilize it efficiently and effectively. This information should be transmitted from authentic sources in a suitable form (Mohr & Sohi, 1995). Effective information sharing is considered as one of the most critical capabilities of SC process (Shore & Venkatachalam, 2003).

2.1.3. SC integration

Firms unite their activities both internally and amongst their partners (Clark & Stoddard, 1996). However, in this research, the integration amongst partners is emphasized. The integration amongst firms is viewed as a bidimensional process; inter-firm technological integration and activity integration. Technological integration represents the unidirectionality of technology and partners while activity integration represents a firm's way of coordination about strategic activities amongst its partners through planning and prediction with its SC partners (Bowersox et al., 1999). The existing research background considers the distinction between the two as difficult. The distinction is important for a higher degree of activity integration leads to a desirable output of technological integration amongst the SC partners. Firms need to fundamentally shift their way of businesses with their partners from discrete interactions to continual and compatible interactions to allow them to coordinate their activities with their partners (Clark & Stoddard, 1996). Therefore, the level of activity integration is a suitable indicator of SC capabilities.

2.1.4. SC flexibility

Flexibility refers to a firm's ability to adjust itself to fluctuations in time and volume of orders by suppliers, producers and customers. In fact, flexibility is a critical feature of SCs since there is uncertainty in any environment (Slack, 1991). Sawhney believes that proactive flexibility creates competitive advantage for firms. He offers a model based on resource-based view which not only formulates simultaneous effective applications for both proactive and reactive purposes but also makes it possible for the opportunities and uncertainties along the SC to be seen (Sawhney, 2006). A SC may currently utilize its resources efficiently and yield desirable output but is this SC capable of adapting itself to future changes such as product demand changes, unreliability of production, production of new products, or suppliers' delinquencies? Thus, flexibility plays a very important role in SC performance.

2.2. SC strategies

The SC strategy reflects the “nature” of the specific SC and establishes its distinctive objectives and goals (Lee, 2002 and Fisher, 1997). Classifications of SC strategies

suggest that SCs can be mainly focused on cost efficiencies and leanness, on flexibility and quick response, or on a contingent mix of both (Qrunfleh and Tarafdar, 2012; Brusset, 2016). In this study, we will focus on two specific SC strategies: Lean and Agile SC strategies. Table 1 summarizes differences between Lean and Agile SC strategies.

Table 1. SC strategy: Lean and agile (Qrunfleh and Tarafdar, 2012).

SC strategy	Lean	Agile
Objective	Focuses on cost reduction and incremental improvements for existing products Focuses on elimination of waste and non-value added activities across the SC	Tracks and understands customer requirements by interfacing closely with the market Aims to produce in any volume (and not just the optimal capacity utilization volume) and deliver simultaneously to a wide variety of markets Provides customized products at short lead times (i.e. focuses on responsiveness)
Inventory strategy	Generates high inventory turnover and minimizes inventory through the SC	Deploys significant stocks of parts to tide over unpredictable market requirements
Lead time focus	Shortens lead-time only so long as doing so does not increase delivery or inventory costs	Reduces lead times to customer specifications and requirements
Manufacturing focus	Maintains high average capacity utilization rate	Deploys excess/buffer capacity to ensure that raw material/components are available to manufacture the product according to market requirements
Product design strategy	Reduces the cost of production	Produces to modular designs, by using a limited number of basic components and processes that can be assembled into different products

2.2.1 Agile SC

An “Agile” SC strategy is aimed at achieving flexibility and adaptability in the face of changing customer needs and competitive environments through quick, dynamic and continual response (Qrunfleh and Tarafdar, 2012, Gunasekaran et al., 2008 and Lin et al., 2006). SC agility takes the dynamic nature of SC capabilities into account. This provides a firm with the possibility of developing and recreating its peculiar competencies and responding to environmental changes in a better way (Collis, 1994; Teece et al., 1997). Today's sophisticated market needs continual and efficient and responses by all the SC members (Rogers, Daugherty, & Stank, 1993) to be able to constantly act and react to the gathered information intermittently (Sinkula, Baker, & Noordewier, 1997). Hence, Agile SC is considered as a SC strategy. So, SC strategies would fulfill their purposes more successfully when SC capabilities work well.

2.2.2. Lean SC

A “Lean” SC strategy is one aimed at creating a cost efficient SC, with a focus on reducing inventory lead times and waste (Qrunfleh and Tarafdar, 2012, Vonderembse et al., 2006 and Wang et al., 2004). This strategy works well where demand is relatively stable and predictable, and product variety is low (Qi et al., 2009). The issues which are to be handled in the matter of lean SC are continual reduction of purchasing the needed materials, reducing the cost of production, etc. for all the SC members. Differently put, each of the members tries to reduce its cost instead of producing a product with a higher

cost and selling that product to the other members of the SC. This brings a reduction in the cost price of the product produced by this SC and improves the firm's performance.

3. Hypothesis development

This research provides a framework to describe how logistics management can improve sustainable competitive advantage of SC employing a resource-based view. Figure 1 shows the research conceptual model. The research hypotheses can be classified into the two classes: the main hypotheses and the subordinate hypotheses. Each of the arrows in Figure 1 represents the research's subordinate hypotheses. The research hypotheses are reviewed next.

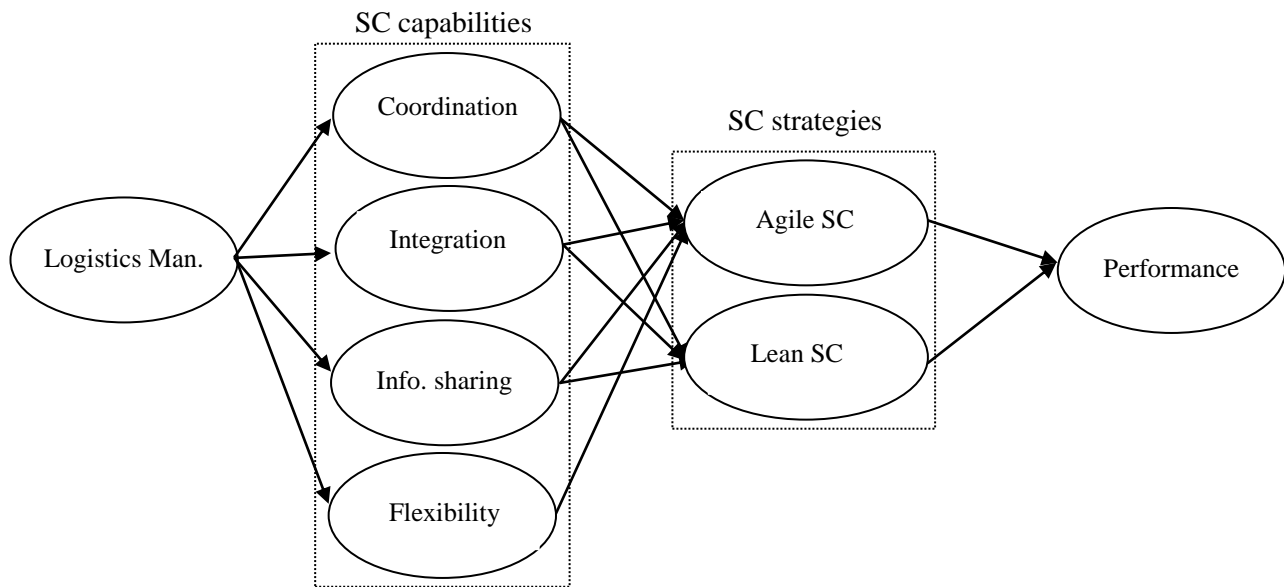


Figure 1: Research theoretical framework

3.1. Hypotheses H1: the effect of logistics management on the SC capabilities (coordination, integration, information sharing, and flexibility)

The delivery of the logistics service effectively entails improvements across the SC. Delivering the logistics service effectively will also have an influence on the performance of an organization. This is because an LSP that keeps its clients satisfied with its ability to solve problems, keep accurate records, deliver services on time and communicate effectively can increase performance (Leuthesser & Kohli, 1995 and Panayides, 2007).

While the role of logistics on firm performance has been well researched in a traditional context (e.g., Morash and Clinton, 1997, Wisner, 2003; Green et al., 2008, Wong and Karia, 2009, Yang et al., 2009 and Ramanathan, 2010), the impact of logistics in SC capabilities has received relatively less attention. Traditionally, logistics services are built to facilitate efficient flow of goods, information, and cash. So it can improve the SC capabilities (coordination, integration, information sharing and flexibility). We therefore hypothesize that:

H1: The logistics management is associated with higher levels of SC capabilities.

H1a: The logistics management is associated with higher levels of SC coordination.

H1b: The logistics management is associated with higher levels of SC integration.

H1c: The logistics management is associated with higher levels of SC information sharing.

H1d: The logistics management is associated with higher levels of SC flexibility.

3.2. Hypotheses H2: the effect of SC capabilities on the SC strategies (agile and lean)

In this paper, we proposed that SC capabilities serve as a mediating role between logistics management and SC strategies and SC performance. Wu et al. analyzed the role of SC capabilities as a mediating variable between IT advancements and organizational performance and concluded that SC capabilities had the ability to move IT associated resources to a higher level of value (Wu et al., 2006).

SC coordination, integration, information sharing and flexibility improves communications among the firm's departments, and externally, with customers and suppliers. For example, using ERP-enabled workflows to co-ordinate materials' ordering between purchasing and production functions can result in lower raw material inventory. ERP software is typically used to execute integrated workflows across SC functions such as procurement and production planning. The synergistic benefits achieved through an integrated system allow a firm to respond better to customer problems and requests (Rogers et al., 1993). For example, through its interface with customer relationship management system, an SCCS allows a firm to: respond to customer inquiries, track customer orders, and provide better after-sale service (Bowersox et al., 1999). The Lean SC strategy requires appropriate and timely intra- and inter-organizational communication of information about inventories, capacities, delivery plans, and exceptions, within the framework of just-in-time (JIT) principles. The notion of agility in SCs can be recognized as a strategy for increasing flexibility in production and delivery processes. In terms of information processing support, the agile SC strategy requires the firm to analyze data on customer trends, competitor action, and product-market strategic options (Wu et al., 2006).

SC coordination, integration, information sharing in the SC may reduce demand uncertainty, and the cost of inventories in the process of matching supply with demand in the SC network (Frohlich, 2002). It can also help a firm produce and deliver products or services to customers at lower cost and higher speed through the improvement in coordination between SC partners (Lin, Huang, & Lin, 2002). In addition, a seamless SC system simplifies the organizational process and reduces lead times with suppliers (Christopher & Ryals, 1999, Wu et al., 2006, Qrunfleh and Tarafdar, 2012). It allows a firm the ability to adjust its strategies and implement them throughout the SC ahead of competitors when opportunities arise. We therefore hypothesize that:

H2: The SC capabilities are associated with higher levels of SC strategies.

H2a: The SC coordination is associated with higher levels of agile SC.

H2b: The SC integration is associated with higher levels of agile SC.

H2c: The SC information sharing is associated with higher levels of agile SC.

H2d: The SC flexibility is associated with higher levels of agile SC.

- H2e: The SC coordination is associated with higher levels of lean SC.
H2f: The SC integration is associated with higher levels of lean SC.
H2g: The SC information sharing is associated with higher levels of lean SC.

3.3. Hypotheses H3: effect of SC strategies on the SC performance

The Lean SC strategy focuses on efficiently managing the SC by eliminating waste and employing continuous improvement techniques, thus improving the quality of parts, reducing delivery times and minimizing inventory. This strategy involves the focal firm working in a collaborative mode with suppliers on key operational parameters such as inventory levels and lead times, to implement practices such as mass-production and just-in-time (Qi et al., 2009, Thun, 2010). By eliminating excess inventory and improving the quality of parts, the SC is able to reduce set-up time, adjust capacity, enhance product quality and respond quickly to the customer. As a result SC performance is enhanced (Wang et al., 2004; Vonderembse et al., 2006). A higher degree of leanness is thus expected to be associated with better SC performance. The agile SC has a higher capacity for effectively adapting to changes in customer demand and preferences (Qi et al., 2009; Vickery et al., 1999). It does so by, for example, implementing capacity buffers to handle market uncertainties, which increases its responsiveness (Qi et al., 2009, 2011). Lee (2004) argues that agility in the SC can help it respond quickly to changes in customers' demand, handle the uncertainty in the market more effectively, and deliver a higher level of product customization. We therefore hypothesize that:

- H3: The SC strategies are associated with higher levels of SC performance.
H3a: The lean SC strategy is associated with higher levels of SC performance.
H3b: The agile SC strategy is associated with higher levels of SC performance.

4. Research methodology

4.1. The sampling frame and data collection

The current research is practical regarding its purpose and descriptive and correlational regarding its way of data gathering. The dimensions of SC coordination, dimensions of SC integration, dimensions of information sharing in a SC, and dimensions of SC flexibility are considered as independent variables and dimensions of agile SC and dimensions of lean SC are considered as mediating variables and dimensions of SC performance are studied as dependent variables.

This research studies the SCs of Esfahan's Mobarakeh Steel Company, Khouzestan Steel Company and Esfahan Steel Company and the opinions of 95 managers and specialists associated with the SCs of these companies were gathered as a statistical sample.

4.2- Reliability and validity

A second-order confirmatory factor analysis was used (Bentler, 1989) to investigate the convergent and discriminant validity of each construct. The measurement model including all constructs was fitted by the elliptical reweighted least squares (ERLS) procedure of the EQS program (Bentler, 1989). The results of the analysis are shown in Table 1. The model provides an excellent model fit ($\chi^2 = 389.04$ with 450 df, CFI=0.99, NNFI=0.99, NFI=0.90, RMSEA=0.01) given the complex nature of the second-order confirmatory factor analysis (Bentler, 1989). All items loaded on their respective constructs and were statistically significant. Further, the composite reliability for all

constructs was above the 0.7 level suggested by Nunnally (1978), indicating adequate reliability. Table 1 describes the measures and the reliability of each construct.

Convergent validity was established by examining significant factor loadings on each construct. Following Anderson (1987), convergent validity is suggested when items load significantly on their designated latent variables. The standardized CFA loadings in Table 1 present evidence of convergent validity.

Cronbach's Alpha is used to determine the test reliability. It is calculated to be 0.935 for the questionnaire and is over 0.65 for each of the factors.

Table 1. Results of confirmatory factor analysis

Item	Std. loading	t value	Composite reliability
<i>Logistics Management:</i>			0.5
My company plan is to reduce the number of days delayed customer orders	0.71	3.49	
My company plans to evaluate logistics service providers and reduce the cost of logistics per ton	0.68	3.69	
My company plan is to to increase rates of timely plans between SC partners	0.70	3.82	
My company control the flow of goods and services and supplies more efficiently with our partner than do our competitors with theirs	0.60	3.76	
<i>SC capabilities:</i>			
-Coordination			0.64
My company is more efficient in coordination activities with our partner than are our competitors with theirs	0.75	4.98	
My company conducts transaction follow-up activities more efficiently with our partner than do our competitors with theirs	0.38	3.02	
My company spends less time coordinating transactions with our partner than our competitors with theirs	0.56	4.21	
My company has reduced coordinating costs more than our competitors	0.50	3.89	
-Integration			0.62
My company develops strategic plans in collaboration with our partner	0.76	5.58	
My company collaborates actively in forecasting and planning with our partner	0.57	4.57	
My company projects and plans future demand collaboratively with our partner	0.47	3.80	
Collaboration in demand forecasting and planning with our partner is something we always do in my company	0.61	4.83	
-Information sharing			0.7
My company exchanges more information with our partner than our competitors do with their partners	0.81	5.98	
Information flows more freely between my company and our partner than between our competitors and their partners	0.64	5.17	
My company benefits more from information exchange with our partner than do our competitors from their partners	0.49	4.09	
Our partners exchange any information that may be related to each other	0.52	4.30	
-Flexibility			0.68
The ability to change production levels according to fluctuations in market demand	0.87	6.91	
The ability to change production mix according to fluctuations in market demand	0.54	4.80	
The ability to produce new products according to customer needs	0.51	4.48	
The ability to change the delivery time according to market demand and price changes	0.46	4.02	
<i>SC strategies:</i>			
-Agile SC			0.85
Compared to our competitors, our SC responds more quickly and effectively to changing customer and supplier needs	0.84	--	
Compared to our competitors, our SC develops and markets new products more quickly and effectively	0.72	7.74	
Monitoring customer satisfaction and corrective action after notice of customer dissatisfaction	0.69	7.32	
Continuously measure customer satisfaction	0.65	6.77	

-Lean SC Continuously planning to reduce production costs compared to competitors Annually reduce of Human resources to sales ratio Higher capacity utilization rates than competitors, according to the standards Simultaneously attention to cost and quality in supplier selection	0.84 0.72 0.66 0.78	-- 7.63 6.83 5.58	0.91
<i>SC performance:</i> -performance Our SC reduce the cost of the waste SC rather than competitors Reduce cash to cash cycle time SC Increase the average margin of SC Market share growth	0.89 0.65 0.75 0.73	-- 6.99 8.77 8.40	0.94
<i>Model fit statistics:</i> χ^2 statistic (df) Bentler– Bonett nonnormed fit index (NNFI) Bentler– Bonet normed fit index (NFI) Comparative fit index (CFI) Root mean square error of approximation (RMSEA)			389.04 (450) 0.99 0.90 0.99 0.01

“--” indicates a fixed scaling parameter.

All items were measured using a 5-point Likert scale ranging from 1=strongly disagree to 5=strongly agree.

6. Results

Fuzzy screening is applied to the first questionnaire which is designed for the experts to reduce the number of the indicators and for the second questionnaire, confirmatory factor analysis is applied to test the measurability of the indicators first and then, structural equations modeling is applied for model evaluation.

The overall fit statistics indicate an excellent model fit for the full model ($\chi^2 = 389.04$ with 450 df, CFI=0.99, NNFI=0.99, NFI=0.90, RMSEA=0.01). Figure 2 demonstrates the results of the path analysis for the conceptual model in the standard estimation mode and Figure 3 demonstrates the significance values of the path analysis for the conceptual model.

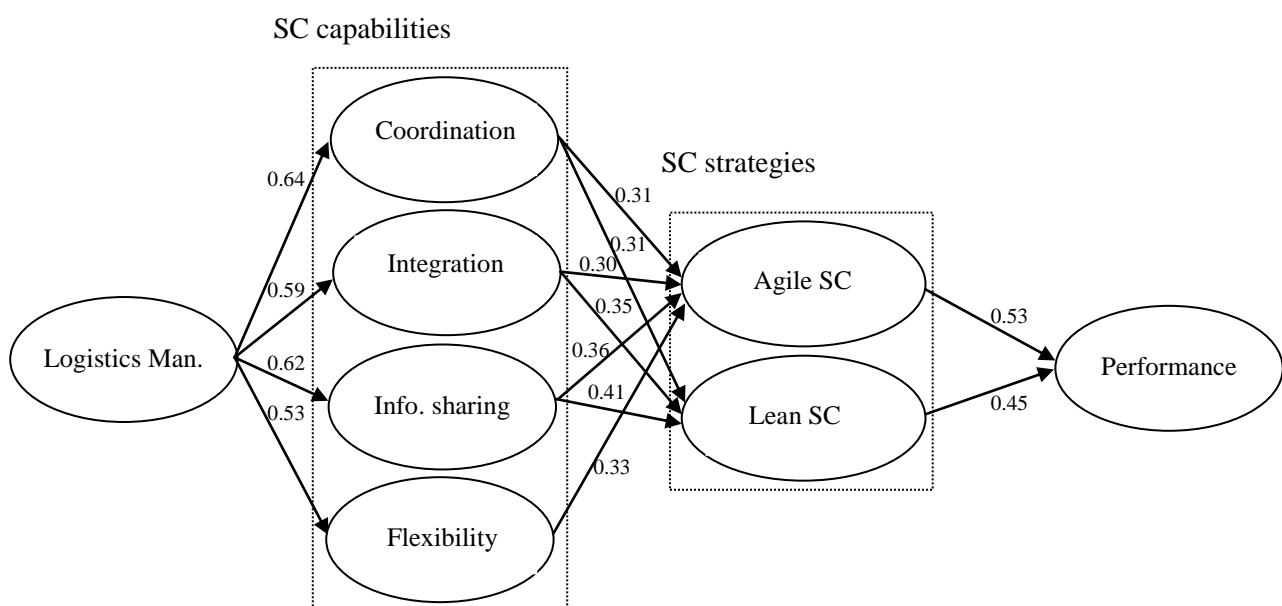


Figure 2: Path analysis of the model in the standard estimation mode

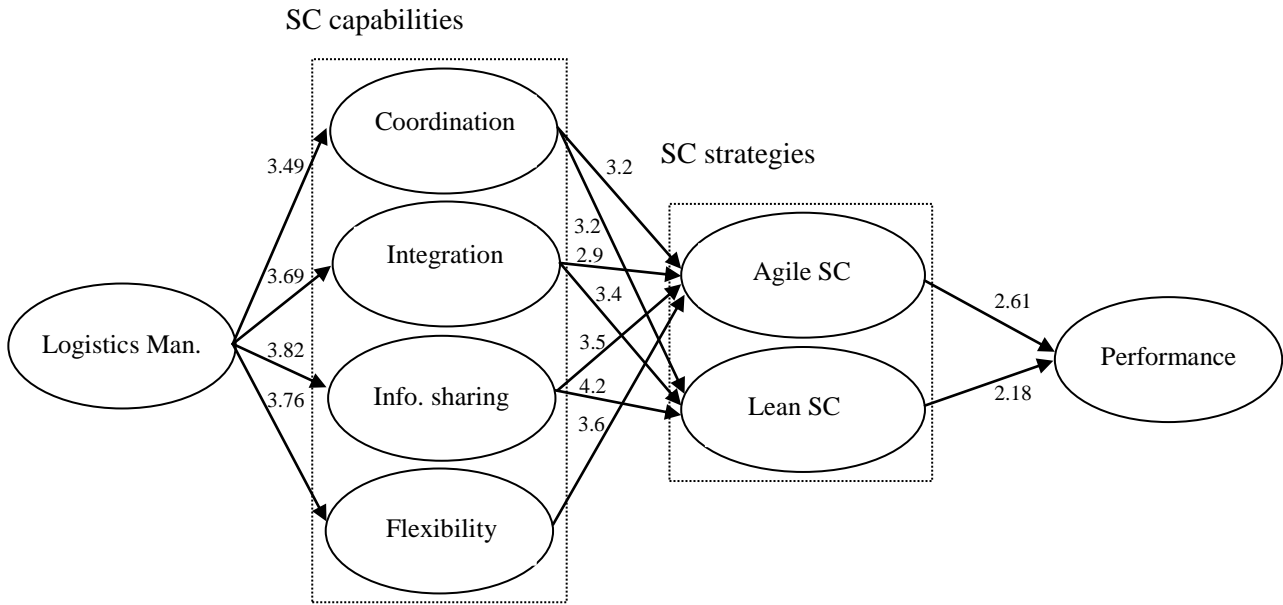


Figure 3: Path analysis of the model in the significance values mode

6.1. First main hypothesis

As is shown in the path analysis, the effect levels of the logistics management on the SC capabilities (coordination, information sharing, integration, and flexibility) are respectively 0.64, 0.59, 0.62 and 0.53. Based on the above results, the logistics management has the positive and significant impact on the SC capabilities. Since the t values for all of them exceed 1.96, the four subordinate hypotheses associated with the first main hypotheses are confirmed.

6.2. Second main hypothesis

As is shown in the path analysis, the SC coordination has a positive and significant impact on the agile SC at a 0.31 level. The SC integration has a positive and significant impact on the agile SC at a 0.30 level. The SC information sharing has a positive and significant impact on the agile SC at a 0.36 level. The SC flexibility has a positive and significant impact on the agile SC at a 0.33 level.

The SC coordination has a positive and significant impact on the lean SC at a 0.31 level. The SC integration has a positive and significant impact on the lean SC at a 0.35 level. The SC information sharing has a positive and significant impact on the lean SC at a 0.41 level. Since the t values for all of them exceed 1.96, the seven subordinate hypotheses associated with the second main hypotheses are confirmed.

6.3. Third main hypothesis

As is shown in the path analysis, the effect levels of the SC strategies, namely the agile SC and lean SC, on the supply performance are respectively 0.53 and 0.45. Based on the above results, the agile SC has the most positive and significant impact on the SC performance. Since the t values for both the two dimensions of the SC strategies exceed 1.96, the two subordinate hypotheses associated with the third main hypotheses are also confirmed.

7. Conclusion

This paper provides a framework to describe how logistics management can improve sustainable competitive advantage of SC employing a resource-based view. The steel SCs need to select appropriate competitive strategies to achieve sustainable competitive advantage and a desirable level of performance. SC competitive strategies can be reviewed as both agile SC and lean SC. Both of them are important in the steel SC. However, agile SC is considered a better strategy. Since steel products are very diverse and these products are very different based on their quality degrees and since the customers would have different needs as the technology advances, the highly important issues are the SC's ability to react to the changes of customers and suppliers more rapidly compared to the competitors, periodic product revision to ensure that the firm meets customers' needs in the best way possible, inspection and taking corrective actions when in cases of customers' dissatisfaction and continuous measurement of customers' satisfaction.

Improvement of SC capabilities is of high importance to achieve the suitable SC strategies and increase the SC competitive advantage. Beside their mediating role, SC capabilities function as moderating factors among the SC logistic management and the SC strategies. Therefore, a SC which has been able to gain and manage more capabilities can choose and implement better competitive strategies relying on its capabilities. Respectively important, SC capabilities include SC coordination, information sharing, integration, and flexibility.

Also, effective and efficient logistics management leads to improved coordination, information sharing, integration and flexibility of the SC which increase sustainable competitive advantage of the SC.

8. References

- Aaker, D. (1994). Strategic market management. 4th, *McGraw Hill Inc.*
- Amit, R, Schoemaker, PJ H. (1993). Strategic assets and organizational rent. *Strategic Management Journal*, 14, 33–46.
- Barney, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage. *Academy of Management Review*, 11, 656–665.
- Barney, J. B. (1991). The resource based view of strategy: Origins, implications, and prospects. *Editor of Special Theory Forum in Journal of Management*, 17, 97–211.
- Barney, J. B. (2001). Gearing and Sustaining Competitive Advantage, Second edition. Reading, MA: *Addison-Wesley*.
- Barney, J. B. (2001). Is the Resource-Based ‘View’ a Useful Perspective for Strategic Management Research? Yes, *Academy of Management Review*.
- Barney, J. B., (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.
- Bowersox, D.J., Closs, D.J., Stank, T.P. (1999). 21st Century Logistics: Making Supply Chain Integration a Reality, Council of Logistics Management, *Oak Book*, IL.
- Bowersox, D.J., Closs, D.J., Stank, T.P. (1999). 21st century logistics: Making supply chain integration a reality. East Lansing: Michigan State University and Council of Logistics Management.
- Brusset X. (2016). Does supply chain visibility enhance agility?, *International Journal of Production Economics*, 171, 46–59.

Carr, Amelia S. and John N. Pearson (2002). "The Impact Of Purchasing And Supplier Involvement On Strategic Purchasing And Its Impact On Firm's Performance," *International Journal of Operations and Production Management*, 22, 1032-1055.

Chopra, S and Meindl, P (2007). Supply chain management, *Prentice-Hall publication*, 31-49.

Christopher, M., & Ryals, L. (1999). Supply chain strategy: Its impact on shareholder value, *International Journal of Logistics Management*, 10(1), 1 – 10.

Clark, T. H., & Stoddard, D. B. (1996). Interorganizational business process redesign: Merging technological and process innovation. *Journal of Management Information Systems*, 13, 9–28.

Clemons, E. K., & Row, M. C. (1993). Limits to interfirm coordination through information technology: Results of a field study in consumer packaged goods distribution. *Journal of Management Information Systems*, 10, 73– 95.

Collis, D. J. (1994). Research note: How valuable are organizational capabilities? *Strategic Management Journal*, 15, 143– 152.

Conner, K. (1991). Historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management*, 17, 121–154.

Delvin F. J. (2001). Consumer evaluation and competitive advantage in retail financial services, *European Journal of Marketing*, 35, 639-660.

Dierickx, J., and Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage . *Management Science*, 35, 1504 11.

Fisher, M.L. (1997). What is the right supply chain for your product?. *Harvard Business Review*, 75 (2), 105–116.

Frohlich, M. T. (2002). E-integration in the supply chain: Barriers and performance, *Decision Sciences*, 33(4), 537– 556.

Grant, R. M. (1991). The resource-based theory of competitive advantage: Implications for strategy formulation . *California Management Review*, 114-35.

Green Jr., K.W., Whitten, D., Inman, R.A. (2008). The impact of logistics performance on organizational performance in a supply chain context, *Supply Chain Management: An International Journal*, 13 (4), 317–327.

Gunasekaran, A., Lai, K., Cheng, E. (2008). Responsive supply chain: a competitive strategy in a networked economy, *OMEGA*, 36 (4), 549–564.

Ha, S. H., and Krishnan R. (2008). A hybrid approach to supplier selection for the maintenance of a competitive supply chain, *Expert Systems with Applications*, 34 (2), 1303-1311.

Hamel, G. and Prahalad, C. (1994). Competing for the Future, *Harvard Business School Press, Boston, MA*.

Hoffmann, N. P. (2000). An Examination of the "Sustainable Competitive Advantage Concept. *Academy of Marketing Science Review*, I. 4.

Lee, H.L. (2004). The triple-A supply chain, *Harvard Business Review*, 82 (10), 102–112.

Lee, H.L.(2002). Aligning supply chain strategies with product uncertainties, *California Management Review*, 44 (3), 105–119.

Leuthesser, L., & Kohli, A. K. (1995). Relational behaviour in business markets, *Journal of Business Research*, 34(1), 221– 233.

- Li, S., Ragu-Nathan, B., Ragu-Nathan, T.S. and Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance, *Omega*, 34, 107-124.
- Lin, C., Chiu, H., Chu, P. (2006). Agility index in the supply chain, *International Journal of Production Economics*, 100 (2), 285–299.
- Lin, F., Huang, S., & Lin, S. (2002). Effects of information sharing on supply chain performance in electronic commerce, *IEEE Transactions on Engineering Management*, 49(3), 258–268.
- Malone, T. W., Yates, J., & Benjamin, R. I. (1987). Electronic markets and electronic hierarchies. *Communications of the ACM*, 30, 484–497.
- Mohr, J., & Sohi, R. S. (1995). Communication flows in distribution channels: Impact on assessments of communication quality and satisfaction. *Journal of Retailing*, 71, 393–416.
- Morash, E.A., Clinton, S.R. (1997). The role of transportation capabilities in international supply chain management, *Transportation Journal*, 36 (3), 5–17.
- Panayides, Photis M. (2007). The impact of organizational learning on relationship orientation, logistics service effectiveness and performance, *Industrial Marketing Management*, 36, 68 – 80
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. New York: Wiley.
- Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal*, 14, 179-91.
- Qi, Y., Boyer, K.K., Zhao, X. (2009). Supply chain strategy, product characteristics, and performance impact: evidence from Chinese manufacturers, *Decision Sciences*, 40 (4), 667–695.
- Qi, Y., Zhao, X., Sheu, C. (2011). The impact of competitive strategy and supply chain strategy on business performance: the role of environmental uncertainty, *Decision Science*, 42 (2), 371–389.
- Qrunfleh, Sufian, Tarafdar, Monideepa (2012). Supply chain information systems strategy: Impacts on supply chain performance and firm performance, *International Journal of Production Economics*, 147, 340–350.
- Ramanathan, Ramakrishnan (2010). The moderating roles of risk and efficiency on the relationship between logistics performance and customer loyalty in e-commerce, *Transportation Research Part E*, 46, 950–962.
- Rogers, D. S., Daugherty, P. J., & Stank, T. P. (1993). Enhancing service responsiveness: The strategic potential of EDI. *Logistics Information Management*, 6, 27–32.
- Rogers, D. S., Daugherty, P. J., & Stank, T. P. (1993). Enhancing service responsiveness: The strategic potential of EDI, *Logistics Information Management*, 6(3), 27–32.
- Sahin, F., Robinson, P. (2002). Flow coordination and information sharing in supply chains: Review, implications and directions for future research. *Decision Sciences*, 33 (4), 505–536.
- Sawhney, R. (2006). Interplay between uncertainty and flexibility across the value-chain: Towards a transformation model of manufacturing flexibility, *Journal of Operations Management*, 24, 476–493.

Shang, Kuo-chung, Marlow, Peter B. (2005). Logistics capability and performance in Taiwan's major manufacturing firms, *Transportation Research, Part E*, 41, 217–234.

Shin, N., (1999). Does information technology improve coordination? An empirical analysis. *Logistics Information Management*, 12, 138– 144.

Shore, B., & Venkatachalam, A. R. (2003). Evaluating the information sharing capabilities of supply chain partners: A fuzzy logic model. *International Journal of Physical Distribution & Logistics Management*, 33, 804– 824.

Sinkula, J. M., Baker, W. E., & Noordewier, T. (1997). A framework for market-based organizational learning: Linking values, knowledge, and behavior. *Journal of Academy of Marketing Science*, 25, 305– 318.

Thun, J. (2010). Angles of integration: an empirical analysis of the alignment of internet-based information technology and global supply chain integration, *Journal of Supply Chain Management*, 46 (2), 30–44.

Vonderembse, M.A., Tracey, M. (1999). The impact of supplier selection criteria and supplier involvement on manufacturing performance, *The Journal of Supply Chain Management: a Global Review of Purchasing and Supply*, 35 (3), 33–39.

Vonderembse, M.A., Uppal, M., Huang, S.H., Dismukes, J.P. (2006). Designing supply chains: towards theory development, *International Journal of Production Economics*, 100 (2), 223–238.

Wang, G., Huang, S.H., Dismukes, J.P. (2004). Product-driven supply chain selection using integrated multi-criteria decision-making methodology, *International Journal of Production Economics*, 91 (1), 1–15.

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

Wisner, J., Leong G. K., and Tan, K. (2005). Principle of supply chain management, *Thomson publication*, 433-448.

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

Wong, C.Y., Karia, N. (2010). Explaining the competitive advantage of logistics service providers: a resource-based view approach, *International Journal of Production Economics*, 128 (1), 51–67.

Wu, F., Yeniyurt, S., Kim, D. and Cavusgil, T. (2006). The impact of information technology on supply chain capabilities and firm performance: A resource-based view, *Industrial Marketing Management*, 35, 493 – 504.

Yang, C.-C., Marlow, P.B., Lu, C.-S. (2009). Assessing resources, logistics service capabilities, innovation capabilities and the performance of container shipping services in Taiwan. *International Journal of Production Economics*, 122 (1), 4–20.