Information Management and Business Review (ISSN 2220-3796)
Vol. 8, No. 2, pp. 20-25, April 2016

Effect of Supply Chain Management: Just in Time for Competitiveness and Corporate Performance in Industrial Area Manufacturing Company in Makassar

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Abstract: This research design using survey method with data collection in cross-section through a questionnaire. The samples using simple random sampling with the number of respondents is 132 Managers in Manufacturing Company in Makassar Industrial Area. Data analysis method used in testing the hypothesis was Structural Equation Modeling (SEM). The results of the study provide evidence that just in time has no significant effect on the performance of the company. Supply chain management and competitive advantage have significant influence on the performance of the company. Supply chain management has significant influence on the competitive advantage. Competitive Advantage is a complete mediation in describing just in time for the performance of the company while in explaining the effect of supply chain management on the performance of the company, acting as a competitive advantage partial mediation. The practical implications of this research may provide an improved understanding of managers in improving company performance through competitive advantages influenced by supply chain management and just-in-time. Limitations of this study on a sample size of only using the manager just limiting the generalization the research finding. Originality of this study provide a basis for the development configuration modeling using SEM and conceptual models that prove the influence of supply chain management and just-in-time to the improvement of the performance of the company by entering a competitive advantage as mediation relationships between variables, which in previous studies carried out separately.

Keywords*: Supply Chain Management, Just in Time, Competitive Advantage, Corporate Performance*

1. Introduction

Changes in the business environment and competition due to globalization requires companies to always be proactive in responding to the changing environment that is dynamic by creating and developing a business strategy (Wortzel & Wortzel, 1997). Global competition becomes something that must be faced by the company if it wants to survive and had to have a competitive advantage to compete in the global market (Porter, 1985). Global environment had an impact on changes in business strategy and objectives of the organization (Flaherty, 1996). Among the few changes; (1) that the company will compete in a variety of dimensions, not just one-dimensional so they have to continuously improve the Performance business and expanding product lines, (2) companies the opportunity to operate internationally and face greater pressure from competitors operates in several countries, (3) the company will be able to adapt and integrate a network of international operations in the country or have branches in other countries independently. Customers today feel not enough just to get cheap and quality products, but the variety of products is also becoming increasingly important as well as the demands of the customers on aspects of response speed, innovation and flexibility (Anatan & Ellitan, 2008). enterprise by establishing a system that is unique and has the advantage compared with competitors, and can be done by giving the best (as expected) to consumers efficiently and can be maintained (Heizer & Render, 2005). The present global conditions are in hyper competitive, characterized by high customer demand and product life cycles are getting shorter requires companies doing continuous innovativeness to create a product that is completely new and unique so that no other companies that manufacture these products. Products that are considered valuable are new and different products.

Formulation of the Problem: Based on the description of the background, there are various contradictions of theoretical and research on the application of supply chain management and just in time to enhance the competitive advantage (competitive) and corporate performance. The main problem in this research Does the

application of supply chain management, and just-in-time impact on competitive advantage (competitive) and corporate performance.

2. Literature Review

Operational Management is a set of activities that produce value in the form of goods and services by transforming inputs into outputs (Heizer & Rander, 2009: 4). Evans & Collier (2007) expressed the same view and that the operational management is the science and art to ensure that goods and services are created and successfully delivered to customers. Based on these definitions, it can be argued that the focus of operational management is the process of creating goods and services. Daft (2006: 216) defines operations management as a management area that specializes in the production of goods. This is the only operating activity focusing on the activity of producing goods and solves the problems related to the production sector. According to Sofjan (2004:12) the management of production and operation of the process of achieving resources to manufacture or produce goods or services that are useful as an effort to achieve the goals and objectives of the organization. Another view that emphasizes decision making process proposed by Slack et al. (2010) that, operations management took the decision in respect of an operation function and system transformation in the study of decision-making from an operating function. Krajewski et al. (2010) defines the operational management as a systematic design, direction, and oversight processes that transform inputs into outputs (goods and services) to internal, external, and consumer.translation strategic decisions in operational management includes ten (10) decisions of a strategic nature (Haizer & Render, 2009).

Based on the development of Supply Chain Management by Movahedi et al. (2009) were grouped into six major movements were observed in the evolution of supply chain management studies, that era: Creation, Integration, Globalization, Specialization Phases One and Two, and SCM 2.0. Supply chain management is an approach that is used to achieve the integration of more efficient organization of suppliers, manufacturers, distributors, retailers, and customers. This means that goods produced in the right quantity, at the right time and the right place with the aim of achieving the cost of the overall system minimum and also achieve the desired service level (Simchi-Levi et al., 2000). The goal of the Supply Chain Management is to maximize the overall value generated to meet the needs and demands of customers. On the other hand, the goal is to minimize the overall costs (fees, storage costs, raw material costs, transportation costs, etc) (Chopra & Meindl, 2004). Supply Chain Management (Supply Chain Management) is an overarching process in which the products are created and delivered to the consumer from a structural point. A supply chain (supply chain) refers to a complex network of relationships that sustain the organization with business partners to source production in conveying to the consumer. Kalakota, 2000: 197) Supply Chain Management (SCM) is the management of a network of interconnected businesses involved in the provision of end product packages and services required by the final consumer (Harland, 1996). More general definition and acceptable supply chain management is, Supply chain management is the coordination, systemic strategic traditional business functions and the tactics across business functions within a particular company and across companies in the supply chain, for the purpose of increasing the long-term performance of individual companies and supply chain as a whole (Mentzeret al., 2001).

Supply chain system must be responsive to customer needs (Hines et al., 2004: 76). Supply chain management is the integration of key business processes across the supply chain for the purpose of creating value for customers and stakeholders (Lambert, 2008). In essence, supply chain management integrates supply and demand management within and across the enterprise. Krajewski et al. (2010) suggests that supply chain management is the process of synchronization of the company with suppliers and customers to match the flow of materials, services, and information based on customer demand. The concept of supply chain management is relatively new, is actually an extension or development of logistics concepts. Logistics management is more focused on setting the flow of goods in the supply chain management while the company considers that internal integration is not enough. Company relative to be able to achieve a high degree in the internal integration (cooperation and coordination between internal processes) and external (cooperation and coordination with suppliers and customers) after applying supply chain management (Stevens, 1989; in Gimenez and Ventura, 2005) , Supply chain is an extension of the concept of logistics. Only logistics management is more focused on setting the flow of goods within the company, while supply chain management considers that it is not enough internal integration (Indrajit, 2002; Anatan & Ellitan, 2008).

Integration should be achieved for the entire chain from upstream to downstream. Therefore, supply chain focused on setting the flow of goods between related companies, from upstream to downstream. Supply chain is a network of companies which together work to create and deliver a product to the hands of the end user (Indrajit & Djokopranato, 2005; Pujawan, 2005; Anatan & Ellitan, 2008). These companies typically include suppliers, manufacturers, distributors, store or retail, as well as companies support such as logistics services company Supply chain is the physical network, the companies involved in the supply of raw materials, produce goods, and submitting it to the end user.

According Simamora (2002: 106), just in time is a manufacturing management system and comprehensive inventory where raw materials and various spare parts purchased and produced at the time will be produced and the time will be used in every stage of the production process and manufacturing. Meanwhile, according to Garison et al. (2006: 16) states, just-in-time is a system of inventory control and production requires raw materials purchased and units produced only limited needs of consumers. The goal of a just-in-time is to produce and deliver the product at the time will be sold profitably, and to purchase raw materials and spare parts at the time will be placed into the manufacturing process

3. Methodology

Quantitative research with analysis of Structural Equation Model (SEM) analysis technique used in this dissertation research is Structural Equation Modeling (SEM) using Moment of Structural Analysis program (AMOS). The reasons underlying the use SEM (AMOS) are: (1) the study using latent variables were measured through indicators, SEM is one of the multivariate analysis techniques that enable analyzes a series of several latent variables simultaneously so as to provide statistical efficiency. (3) The purpose of this research is to test and analyze and explain the phenomenon being studied or problems investigated.Variable in this study indicate the variables group of interconnected either directly or indirectly through intervening therefore to test a series of relationships of interdependence between the variables simultaneously. Hair et al. (2010) indicated that due diligence equivalent models with confirmatory analysis, test parameters that are equivalent to the estimated regression, and determine the dominant path equivalent to the path analysis.

4. Discussion of Results

Deepening study on the development of operational management in manufacturing companies in the Industrial Area of Makassar associated with variables research is an attempt to shoot a good position or a bad supply chain management and just in time as well as high and low competitive advantage and company performance. Explanation of the measurement model causal relationship between constructs or variable supply chain management, just-in-time, competitive advantage and corporate performance are the way down to the model studies it appears that the goodness of fit index has an acceptable / appropriate, further interpreted to explain the causal relationship between the constructs or latent variables. Thus the discussion of the results of this study combined with theory, the results of previous empirical research and empirical facts that occurred on the object to be studied to determine whether the results of this study support or reject the theory and the results of previous studies or the renewal of the research results. Design constructs built in this study refers to the phenomenon by analyzing empirical / filling the research gap the company's performance through the use of competitive advantage variables which act as variables that mediate the effect of supply chain management and just-in-time to the company's performance in previous studies are generally conducted separately- separation (partial). Such conditions led to the desire of researchers to examine the relationship of these variables by inserting variable competitive advantage as antecedent variables of the company's performance. Grand theories used to design variable-latent variables and indicators of this research is the theory of operational management which states that the supply chain management and just-in-time is a strategic decision in operational management, key to increase competitive advantage and performance of the company lies in the ability of the company to build effectiveness the relationship between business partners.

The success of a company is determined not only the performance of the company itself, but is also determined by the performance of the entire network (Haizer & Render, 2010; Ramarapu et al., 1995). Based on this theory, the company is said to have the performance, if the company has a competitive advantage

(Gimenez and Ventura, 2005). Past research has shown supply chain management as a major driver of corporate performance (Kannan & Tan, 2005), as well as just-in-time (JIT), that in order to face global competition, every company is required to always improve competitive advantage, both in the domestic market as well in the global market. To improve competitive advantage, many companies implement various management models, one of them just-in-time. Some studies suggest that successful implementation of JIT in the company can improve the quality of products and services produced, reduction in operational costs, and increase customer satisfaction that affect the improvement of financial performance (Flynn et al., 1995; Golhar & Stamm, 1991). The study results Flynn et al. (1995) suggested that companies that use just in time to improve the performance of product quality by improving the quality of inputs and processes. In manufacturing, JIT role in reducing inventory costs and improve customer service levels through the leveled production, reducing set up time, and lot sizes. Similarly, a study conducted by Golhar and Stamm (1991), concluded that the application of JIT provide the benefit of reducing inventory costs; improve productivity and better product quality.

Findings Chi et al. (2009) stated that the problem of the supply chain to improve the performance of the company lies in the problem of competitive advantage. High competitive advantage can directly increase the company's performance; the statement is supported by the results of the study (Li et al., 2006; Gimenez, 2004; Gimenez and Ventura, 2005). There are gaps of research on testing the effect of competitive advantage to the company's performance. Chi et al. (2009) suggest there is a significant correlation between the competitive advantages of the performance of the supply chain is only accepted at the high performance of the company but rejected the company's performance is low. The argument put forward by the researchers is that the companies that have low performance have a low ability to perform cost reduction, quality improvement, and a low priority delivery performance. Based on the findings of previous studies, separately stated that the antecedents of the company's performance is supply chain management and just in time as well as a competitive advantage (Golhar & Stamm, 1991; Ramarapu,et al., 1995; Flynn et al., 1995; Sakakibara et al., 1997; Gimenez and Ventura, 2005; Kannan & Tan, 2005; Kim, 2006; Li et al., 2006; Chi et al., 2009; Ou Chin et al., 2010; ALshbiel & Al-Awawdeh, 2012; Danese et al., 2012). Referring to these ideas, the main purpose of this study was to examine and analyze empirically the effect of supply chain management and just-in-time to the company's performance in mediation by the competitive advantage. In this study conducted an analysis of the effect of the direct effect and the indirect effect between variables. Based on the results of data analysis in this study, the discussion of the results of this research combines theory, the results of previous research and empirical facts that occurred on the object to be studied to confirm the results of this study reinforce or reject the theory as well as the results of previous studies or the result of new findings.

Results of testing the feasibility of structural model designed and proven to be estimated in this study are in accordance with the data of observation. Conclusion: Based on the results of discussions and research findings, some conclusions can be stated as follows: Just in time is either not significant influence on the company's performance, competitive advantage is just in time mediation influence on company performance. That is the relationship between just in time directly did not significantly affect the increase in the company's performance, but just in time take effect on firm performance when no competitive advantage is high, so it can be explained that the responsibility for the production employees to control the products are not able to increase profits (profit) and expanding market share (market share) directly but through the provision of products that comply with the wishes and needs of customers, then just in time significantly affect the company's high performance. Supply chain management is well proven to improve the performance of the company. These results indicate that the better the interactions made by the company with customers in setting standards of delivery, and response to customers to increase profits (profit) and expanding market share (market share) of the company which is the embodiment of the company's performance. Supply chain management is getting better, the higher the company's competitive advantage. It means that customer well established relationship between companies and customers can enhance the company's ability to innovate products.

Suggestions: For the management of manufacturing enterprises should improve inventory control of raw to avoid waste (just in time) so that the company's performance can be increased toward the high, but it is not independent of the management of the supply chain (supply chain management) is good and also cannot be separated from the company's competitive advantage. For the government, the company manufactures in its

management have a variety of problems that impede its growth, such as the provision of infrastructure, the availability of gas, electricity and conducive investment climate, for the government is expected to give full attention to the problems faced so that the manufacturing sector are believed to be able to play a greater role in promote national economic growth. For advanced researchers are expected to develop this research by adding multiple constructs (variables) or object of research that have differences in terms of the characteristics of the company.

References

ALshbiel, S. O. & Al-Awawdeh, W. M. (2012). JIT Production System And Its Effect On Achieving Competitive Advantage For Public Shareholding Industrial Companies In Jordan. *Interdisciplinary journal of contemporary research in business*, 4(6), 883 – 89.

Anatan, L. & Ellitan, L. (2008). Supply Chain Management Teori dan Aplikasi. Alfabeta, Bandung.

Ariani, (2003). Just-In-Time, Penerbit Ghalia Indonesia,Edisi 1, Jakarta.

Chi, T., Kilduff, P. P. & Gargeya, V. B. (2009). Alignment between business environment characteristics, competitive priorities, supply chain structures, and firm business performance. *International Journal of productivity and performance management*, 58(7), 645-669.

Chin, K. S., Tummala, V. R., Leung, J. P. & Tang, X. (2004). A study on supply chain management practices: the Hong Kong manufacturing perspective. *International Journal of Physical Distribution & Logistics Management*, 34(6), 505-524.

Chopra, S. & Meindl, P. (2004). Supply Chain Management: Strategy. Planning, and Operation, Upper Saddle River.

Daft, R. L. (2006). *The new era of management*: International Edition. Mason: South-Western Thomson..

Danese, P., Romano, P. & Bortolotti, T. (2012). JIT production, JIT supply and performance: investigating the moderating effects. *Industrial Management & Data Systems*, 112(3), 441-465.

Evans, J. R. & Collier, D. (2007). Operations Management: Integrated Goods and Services Approach WITH Student CD-Rom AND Microsoft Project. South-Western Publishing/Thomson Learning.

Flaherty, M. T. (1996). Global Operations Management. New York: McGraw-Hill.

Flynn, B. B., Sakakibara, S. & Schroeder, R. G. (1995). Relationship between JIT and TQM: practices and performance. *Academy of management Journal*, 38(5), 1325-1360.

Garrison, R., Noreen, E. & Brewer, P. (2006). *Managerial Accounting*. Eleventh edition. McGraw-Hill, Irwin

Gimenez, C. (2004). SCM Implementantion In the Spanish Grocery Sektor : An Exploratory Study, Universitat Pompeu Fabra. *Forthcoming in the International Journal of Logistik Management*, 25, 1-19

Gimenez, C. & Ventura, E. (2005). Logistics-production, logistics-marketing and external integration: their impact on performance. *International journal of operations & Production Management*, 25(1), 20-38.

Golhar, D. Y. & Stamm, C. L. (1991). The just-in-time philosophy: a literature review. *The International Journal of Production Research*, 29(4), 657-

Heizer, J. & Render, B. (2009). *Operations Management (Manajemen Operasi)*, Buku 1 Edisi 9 Penerbit Salemba Empat. Jakarta

Heizer, J. & Render, B. (2010). *Operations Management (Manajemen Operasi)*, Buku 2 Edisi 9 Penerbit Salemba Empat. Jakarta

Hines, P., Holweg, M. & Rich, N. (2004). Learning to evolve: a review of contemporary lean thinking. *International Journal of Operations & Production Management*, 24(10), 994-1011.

Indrajit, R. E. & Djokopranoto, R. (2002). Konsep manajemen supply chain. Cara Baru Memandang Mata Rantai Penyediaan Barang, Jakarta, Grasindo,

Indrajit, R. E. & Djokopranoto, R. (2005). Strategi Manajemen Pembelian dan Supply Chain. PT. Gramedia Widiasarana Indonesia, Jakarta.

Kalakota, R. (2000). Inter-enterprise fusion–the future of supply chains. *EAI Journal*, 2, 72-76.

Kannan, V. R. & Tan, K. C. (2005). Just in time, total quality management, and supply chain management: understanding their linkages and impact on business performance. *Omega*, 33(2), 153-162

Kim, S. W. (2006). The effect of supply chain integration on the alignment between corporate competitive capability and supply chain operational capability. *International Journal of Operations & Production Management*, 26(10), 1084-1107.

Krajewski, L. J., Ritzman, L. P. & Malhotra, M. K. (2010). *Operations management, Processes and supply chains*. Ninth Edition, Pearson.

Lambert, D. M. (2008). Supply chain management: processes, partnerships, performance. Supply Chain Management Inst.

Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S. & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.

Lin, Y. C. & Tsai, P. H. (2009). The impact of a global logistics integration system on localization service and business competitive advantage. *European Business Review*, 21(5), 418-437.

Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D. & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25

Movahedi, B., Lavassani, K. & Kumar, V. (2009). Transition to B2B e-Marketplace Enabled Supply Chain: Readiness Assessment and Success Factors. *The International Journal of Technology, Knowledge and Society*, 5(3), 75-88.

Ou, C. S., Liu, F. C., Hung, Y. C. & Yen, D. C. (2010*).* A structural model of supply chain management on firm performance. *International Journal of Operations & Production Management*, 30(5), 526-545.

Porter, M. E. (1985). Competitive Advantage. Creating and Sustaining Superior Performance. New York: Free Press.

Pujawan, N. I. (2005). *Supply Chain Managament*. Edisi Pertama. Penerbit Guna Widya. Surabaya.

Ramarapu, N. K., Mehra, S. & Frolick, M. N. (1995). A comparative analysis and review of JIT implementation research. *International Journal of Operations & production management*, 15(1), 3849.

Sakakibara, S., Flynn, B. B., Schroeder, R. G. & Morris, W. T. (1997*).* The impact of just-in-time manufacturing and its infrastructure on manufacturing performance. *Management Science*, 43(9), 1246-1257.

Simamora, H. (2002). Akuntansi Manajemen, UPP AMP YKPN, Yogyakarta

Simchi-Levi, D., Kaminsky, P. & Simchi-Levi, E. (2000). Design and managing the supply chain.Irwin, New York.

Slack, N., Chambers, S. & Johnston, R. (2010). *Operations management*. Pearson Education.

Sofjan, A. (2004). *Manajemen produksi dan Operasi*. Edisi Revisi, Lembaga Penerbit FEUI, Jakarta.

Wortzel, H. P. & Wortzel, L. H. (1997). Strategic Management in Global Company, Canada: John Wiley and Sons Inc.