Supply Chain Performance: A Review of Literature

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Abstract

Review papers are always proved to be a great help for the researchers in sailing their research in a direction that results in the upliftment of the level of the performance of a particular industry as well as the society as a whole. Thus, the importance of review papers in that continuation rises to a high level. In the present scenario supply chain management has significant role in improving the performance of a business unit. Therefore, it is imperative to have an insight of various factors affecting the performance of a supply chain and the methods of performance measurements. Aiming towards the same, this paper presents the summary of 151 research papers by renowned authors targeting to the area of supply chain performance in order to identify the variables affecting the performance of a supply chain and prevalent techniques of supply chain performance measurement.

Keywords: Supply Chain, Supply Chain Performance, BSC, SCOR, Information Sharing, Supply Chain Integration.

1. Introduction

Business organisations have always been receiving a continuous flow of innovative ideas and guidance from the researchers in order to fulfill their needs. For the last few decades, business firms have been paying deeper attention on supply chain to get a competitive edge.Supply chain management has become a key area of study since it focuses on material information and cash flow (Agrawal and Shankar, 2002).To increase competitiveness and profitability, supply chain management has to be the key area of focus (Gunasekaran, 2001). This has led to a large number of researches in the field of supply chain in last three decades (Gopal and Thakkar, 2012).

But journey is not over yet, there is growing need of quality researches in this field. To fulfill this need the researchers always need to look back to the previous researches to identify the gaps and come up with something which is new and more effective than previous ones. Review papers always serve as a great help for researchers in this context which has been the motivating factor for this study.

A large number of researches have been conducted inrecent years focusing on methodology of measuring performance in organisationsand it is important to look where we are and what are challengesin the environmentof the supply chain (Morgan, 2004).Also to the knowledge of researcher, there is no review paper on supply chain performance for last one year.In this paper a review of important research papers on supply chain performance is conducted and important aspects have been classified in a lucid manner. We alsotried to explore some areas which have not been given due attention by the researchers. This will give a great help for researchers to identify new avenues for future research and will ultimately contribute to the industry.

2. Methodology

An extensive literature survey of different journals of Emerald (International Journal of Operations & Production Management, Business Process Management Journal, International Journal of Productivity and Performance Management, International Journal of Physical Distribution and Logistics Management, Supply Chain Management: An International Journal, Industrial Management & Data Systems etc.), Science Direct (International Journal of Production Economics, European Journal of Operational Research, Computers & Industrial Engineering etc.), JSTOR (The Journal of the Operational Research, Strategic Management Journal, Transportation Journal, International Journal of Electronic Commerce etc.) and Google (International Journal of Business Research and Management, International Journal of Business and General Management etc.)was

done with keywords'supply chain performance' and around 300 papers were collected and reviewed. Again the papers of different peer review refereed journals were sorted out and finally the extraction of relevant papers was done to find the 151 final papers to be considered for the study. These papers were also classified on the basis of different relevant parameters to present them succinctly. Country-wise and journal-wise classification of papers aregiven in Table1and Table2. These tables are not exhaustive, only major and important countries and journals are mentioned.The classification was followed by the discussion and summarization of papers keeping different aspects in mind viz. measures and metrics to measure supply chain performance, various ways of improving supply chain performance, various variables considered by researchers in supply chain performance, models studied and tested etc.followed by findings and conclusion.Then some avenues were identifiedfor the future research and limitations of the study weregiven.

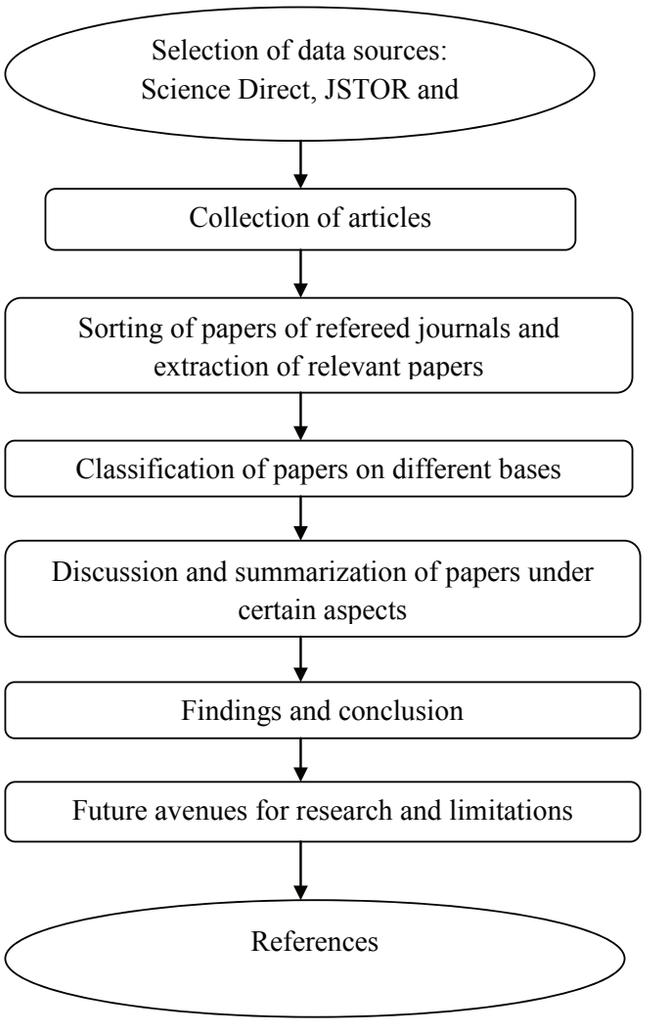

Figure 1. Methodology of Research

Table 1. Country-wise Classification of Papers

Country	No. of Papers
USA	38
UK	16
India	13
China	13
Taiwan	12
Sweden	7
Netherland	6
Malaysia	6
South Korea	4
Italy	4
Canada	3
Thailand	3
Brazil	3
Germany	2
Turkey	2
France	2
Norway	2
Austria	2
Others	13
Total	151

3. Supply Chain Performance: Measures and Metrics

Beamon (1999) identified three types ofperformance measures in a supply chain that were resource, output and flexibility. Gunasekaran(2001)emphasized on suppliers, delivery performance, customer service, inventory, and logistics cost as supply chain performance measurements. Ohdar and Ray (2004)developed an algorithm-based methodology with fuzzy approach to measure the performance of suppliers in the supply chain.Hoek(1998) gave a preliminary framework based on customer service, integration, cost effectiveness, and strategic sophistication to measure the supply chain performance.

Chan, Felix and Qi(2003) produced a model using fuzzy set theory for measuring supply chain performance.Wickramatillake,Koh, Gunasekaran, and Arunachalam(2007) found eight key areas of concerns relating to supply chain performance measurement of a large-scale project. Wong and Wong (2007) proposed a supply chain performance measurement systemusing DEA (Data Envelopment Analysis) modeling. Sharma and Bhagwat (2007)developed an integrated Balanced Scorecard (BSC), Analytic Hierarchy Process (AHP)

approach for Supply Chain Management (SCM) evaluation, and also proposed a method for setting priorities of different performance levels in an organisation using AHP methodology.

Theeranuphattana and Tang (2008) gave a conceptual model by combining Chan and Qi's model and the Supply Chain Operations Reference (SCOR) and concluded that these models complement each other while measuring supply chain performance. Varma,Wadhwa and Deshmukh (2008) found purity of product, market share, and steady supply of raw material and use of information technology to be most important factors in that order for measuring supply chain performance. Soni and Kodali (2010) explained the importance of internal benchmarking in evaluation of supply chain performance. Chia, Goh and Hum, (2009); Bigliardi and Bottani, (2010);and Bhagwat and Sharma (2007) advocated the use of balanced scorecard approach to measure the supply chain performance.

Wu Dong, Fan and Liu (2012) suggested keeping assembly structure in mind while doing the performance evaluation of supply chain networks. Cho Lee, Ahn and Hwang(2012) discussed different measures and metrics and developed a framework of service supplychain performance measurement, based on the strategic, tactical and operational level performance.Lai,Ngai, and Cheng (2002) developed a 26 item measurement instrument for supply chain performance in transport logistics based on the Supply Chain Operations Reference Model(SCOR) and other measures. Baiman, Fischer and Rajan(2001) highlighted the interaction between the performance metrics in the supply chain, the architecture of the product and the incentive efficiency of the chain.

Gloria and Talavera (2010) studied the measurement system of supply chain performance of Philippine manufacturing companies and found that they measure supply chain performance through measures like order to delivery time, order fulfillment performance etc. Baç and Erkan(2011) proposed a mathematical model to evaluate supply chain performance by using some key performance indicators and described its scope extended to the evaluation of the flexibility characteristics of logistic, market, supplier, machine, labor,information system, and routing of the supply chain.

4. Improving Supply Chain Performance

Berry, Evans, Mason and Towill (1999) advocated BPR to improve the performance of supply chain.Collaborative forecasting and planning yields a significant increase in the supply chain performance which also leads to increased responsiveness,product availability assurance, optimized inventory and associated costs and increased revenue and earnings (McCarthy and Golicic, 2002;Thron, Nagy and Wassan,2006;Forslund and Jonsson, 2007; Aviv, 2001). Interacting with suppliers and with customers on quality management issues, the organisation wouldimprove its time performances indirectly (Salvador, 2001).

Lockamyand McCormack(2004) in their study that was based on the four decision areas provided in SCORModel Version 4.0 viz. Plan, Source, Make and Deliver, found that collaboration is the most important in the Plan, Source and Make areas whereas process integration, and information technology were found to be most critical in supporting the Deliver planning decision areas.Cadden, Marshall and Cao (2013) in their study, approved the significant influence of organisational culture on performance of supply chain based on six dimensions of organisational culture.Information systems of an organisation play an important role in determining the performance level of its supply chain, and information sharing substantially raises the level of supply chain performance (Lyons, Coleman, Kehoe and Coronado,2004;Zhao, Xie and Jhang,2002;Fawcett, Osterhaus, Magnan, Brau and McCarter, 2007;Stewart, 1995).

Agrawal and Shankar (2002) proposed an Analytic Network Process (ANP)-based model providing framework for analyzing and prioritizing the alternatives affecting supply chain performance.Stewart(1995) identified four key operational areas to improve the supply chain performance viz. delivery performance, flexibility, logistics cost, and assets management. Partner relationships, information sharing, and supply chain integration can represent the processes through which e-procurementcontributes to supply chain performance (Chang, Tsai and Hsu,2013;Fabbe-Costes, and Jahre,2007).Kotzab (1999)advocated critically the improvement of supply chain through Efficient Consumer Response (ECR). Zhao, Xie and Jhang, (2002);Zelbst, Green, Sower and Baker,(2010); and Thonemann, (2002) found that information sharing significantly impacts the supply chain performance in terms of both total cost and service level.

Lau, Xie and Zhao(2008) found that the inventory policy used by the retailers, information sharing,and early order commitment can significantly influence the performance of the supply chain. There is a positive and significant relationship between ERP system i.e. (integration, material management, production planning,and controlling), and

SCM performance(Shatat and Mohamed, 2012). Yang, and Su, (2009); Forslund, (2010); Forslund, and Jonsson, (2010);Jonsson, Seth and Gunnarsson, (2005) advocated the use of internet technology to improve supply chain performance.Zailani, S. and Rajagopal (2005) identified the need to react to market changes and integrating the supply chain for improved performance.

Gimenez, Vaart and Donk (2012) concluded that supply chain integration increases performance if supply complexity is high, but for low complex supply chain, integration has little or no impact on performance. Oosterhuis, Vaart and Molleman (2012) explained the importance of operational communication between upstream and downstream partners of supply chain. Ritchie and Brindley (2007) presented a framework for integrating the dimensions of risk and performance in supply chains.Bartlett, Julien Baines (2007) andCaridi, Crippa, Perego Sianesi and Tumino (2010) considered visibility in the supply to be an important factor for its performance.

Jeong and Hong (2007) advocated the importance of customer orientation in the context of value chain framework. Sezen (2008) found the supply chain design to be the most important factor in determining the performance of supply chain and also concluded that integration and information sharing impact performance in considerable low measure than supply chain design. Fabbe-Costes and Jahre (2008) did a literature review and found that more Supply Chain Integration(SCI) does not always improve performance.

Lin and Ho (2009) and Visich, Li, Khumawala and Reyes(2009) found a positive association between thewillingness to adopt RFID technology and supply chain performance and suggested use of RFID to improve supply chain performance. But in the views of Zelbst, Green, Sower and Baker (2010) RFID technology utilization does not directly impact supply chain performance. Adoption of RFID technology, however, leads to improved information sharing among supply chain members, which in turn leads to improved supply chain performance. Jones and Towill(1999) advocated the use of information decoupling point to improve supply chain performance.

Zhang, Dong and Vaart (2011) did a literature review and concluded that papers reviewed by themshow that generally there is a positive direct or indirect effect of Information and Communication Technology(ICT) on performance of SCM.Whitten, Green and Zelbst(2012) concluded that triple-A(agility, adaptability, and alignment) supply chain strategy positively impacts supply chain performance.

Green, Whitten and Inman(2012) indicated that alignment of the marketing strategies by the partners throughoutthe supply chain is positively associated with supply chain performance. Panayides and Lun (2009)supported the positive effects of trust and innovativeness as prerequisites to higher performance in the supply chain.. Trkman, Mc Cormack, Oliveira and Ladeira (2010) found the moderation effect of information systems support much stronger than the effect of business process orientation on supply chain performance. Thonemann and Bradley (2002) supported the positive impact of product variety on supply chain performance. Chen, Yang and Li(2007) described Collaborative Planning, Forecasting and Replenishment (CPFR), as an important factor in supply chains which deepens the partnerships and increases its performance.Kim (2007) concluded that a dynamic and extensive approach in reaching the best organisation type for SCM performance is necessary.

Jammernegg and Reiner (2007) showed that a coordinated inventorymanagementandcapacitymanagementwillresult in improved performance of supply chain. Lin, Wang and Yu (2010) found asignificant relationship between market orientation and supply chain performance. Paulraj, Chen and Flynn (2006) concluded that strategic purchasing can have a profound impact on supply chain performance for both buyer and supplier firms. Ainapur, Singh and Vittal (2011) applied Theory of Constraint (TOC) management philosophy to develop the constraints, and suggested that on improving those constraints supply chain performance can be enhanced. Ganeshan, Boone and Stenger (2001) studied the sensitivity of supply chain performance on three parameters of inventory planning viz. the forecast error, the mode of communication between echelons, and the planning frequency and concluded that all the three parameters have a significant effect on supply chain performance.

5. Industries of focus

A large number of industries were approached by the researchers to study the supply chain performance which is depicted in Table 3. Among those, manufacturing industry was the one which got attention of most of the researchers. This also indicates a need of exploring the other industries more.

Table 2. Journal-Wise Classification of Papers

Journal Name	Total No. of Papers
International Journal of Production Economics	22
Supply Chain Management: An International Journal	19
International Journal of Operations & Production Management	11
Industrial Management & Data Systems	9
Benchmarking: An International Journal	8
European Journal of Operational Research	6
Journal of Enterprise Information Management	5
The International Journal of Logistics Management	5
International Journal of Productivity and Performance Management	4
International journal of physical distribution & logistics Management	4
The Journal of the Operational Research Society	4
Business Process Management Journal	3
Journal Of Business & Industrial Marketing	3
Journal of Manufacturing Technology Management	3
Computers & Industrial Engineering	3
Supply Chain Management	2
Measuring Business Excellence	2
Industrial Marketing Management 19	2
Decision Support Systems	2
Information & Management	2
Others	41
Total	151

Table 3. Industry-wise classification

Industry	Total No.
Manufacturing	48
Logistics	8
Food	6
IT	7
Retail	5
Automotive	4
Electronic	3
SME	4
Petroleum	2
Diversified	11
Others	53
Total	151

6. Variables for The Supply Chain Performance

If we take a look on the different variables taken into consideration by different researchers, we get a large list but some of them which were given considerable importance by them are exhibited in Table 4.

7. Models studied and tested

Different models were found to be studied and tested by different researchers among which SCOR and BSC models seem to have found greater attention. This can be seen in Table 5.

Table 4. Variables Responsible for Supply Chain Performance

Variable	Used in No. of Papers
Information	34
Cost	30
Inventory	24
Capacity/Resource Utilization	20
Integration	19
Delivery	17
Quality	16
Efficiency	15
Collaboration	13
Flexibility	11
Lead Time	8
Responsiveness	8
Partnership	8
Benchmarking	7
ERP	6
Coordination	6
Forecasting	6
Visibility	4
RFID	3

Table 5. Models studied

Model	No. of Papers
SCOR	8
BSC	7
AHP	2
DEA	2
ANP	1

8. Findings and Conclusion

Manufacturing sector has been the prime area of focus for research. Information sharing, inventory planning, collaboration, cost reduction, flexibility, delivery, integration and resource utilization have been key drivers of supply chain performance. USA, UK, India and China are the major producers of researches in the field. Organisations need to improve their information system to achieve a higher supply chain performance. Balanced Scorecard (BSC) and Supply Chain Operations Reference (SCOR) models are the most commonly used to measure the performance of supply chain. Researchers have diversified opinions on the impact of integration on supply chain performance and needs a clearer view which in turn creates avenues for future research. Moreover the measures and variables mentioned in this paper that seem to have not received due attention can further be tested and verified by future researches.

9. Limitations of the Study

The study was conducted under certain limitations such as limited access to sources of research papers, time and space constraints etc.

References

Ainapur, B., Singh, R., &Vittal, P.R. (2011).TOC Approach for Supply Chain Performance Enhancement. *International Journal of Business Research and Management, 2*(4), 163-178.

Agarwal, A., & Shankar, R. (2005).Modeling supply chain performance variables.*Asian Academy of Management Journal, 10*(2), 47–68.

Agrawal, A.,& Shankar R. (2002).Analyzing alternatives for improvement in supply chain performance.*Work study, 51*(2), 32-37.

Arlbjørn, J.S., &Lu¨thje, T. (2012). Global operations and their interaction with supply chain performance. *Industrial Management & Data Systems,112*(7), 1044-1064.

Atilgan, C., & McCullen, P. (2011). Improving supply chain performance through auditing: a change management perspective.*Supply Chain Management: An International Journal, 16*(1), 11–19.

Aviv, Y. (2001). The effect of collaborative forecasting on supply chain performance.*Management Science, 47*(10), 1326-1343.

Bac, U., & Erkan, T.E. (2011).A model to evaluate supply chain performance and Flexibility.*African Journal of Business Management, 15*(11), 4263-4271.

Baiman, S., Fischer, P.E., & Rajan, M.V. (2001). Performance measurement and design in supply chains. *Management Science, 47*(1), 173-188.

Banomyong, R., &Supatn, N. (2011).Developing a supply chain performance tool for SMEs in Thailand. *Supply Chain Management: An International Journal, 16*(1), 20–31.

Bartlett, P. A., Julien, D. M., & Baines, T. S. (2007). Improving supply chain performance through improved visibility. *The International Journal of Logistics Management, 18*(2), 294-313.

Beamon, B. M. (1999). Measuring supply chain performance. *International Journal of Operations & Production Management 19*(3), 275-292.

Berry, D., Evans, G.N., Mason-Jones, R., & Towill, D.R. (1999). The BPR SCOPE concept in leveraging improved supply chain performance. *Business Process Management Journal, 5*(3),254-274.

Bhagwat, R., & Sharma, M.K. (2007). Performance measurement of supply chain management: A balanced scorecard approach.*Computers & Industrial Engineering, 53,* 43–62.

Bichescu, B.C., & Fry, M.J. (2009). A numerical analysis of supply chain performance under split decision rights. *The International Journal of Management Science, 37,* 358 – 379.

Bigliardi, B., & Bottani, E. (2010). Performance measurement in the food supply chain: a balanced scorecard approach, *Facilities, 28*(5/6), 249-260.

Bollapragada, R., & Rao, U.S. (2004).Managing inventory and supply performance in assembly Systems with Random Supply Capacity and Demand. *Management Science, 50*(12), 1729-1743.

Brewer, P.C., & Speh, T.W. (2000).Using the balanced scorecard to measure supply chain performance. *Journal of Business Logistics, 21*(1), 75-93.

Cadden, T., Marshall, D., & Cao, G. (2013). Opposites attract: organisational culture and supply chain performance. *Supply Chain Management: An International Journal, 18*(1), 86–103.

Cai, J., Liu, X., Xiao, Z., & Liu, J. (2009). Improving supply chain performance management: A systematic approach to analyzing iterative KPI accomplishment. *Decision Support Systems, 46,* 512–521.

Caridi, M., Crippa, L., Perego, A., Sianesi, A., & Tumino, A. (2010).Measuring visibility to improve supply chain performance: a quantitative approach. *Benchmarking: An International Journal, 17*(4), 593-615.

Chae, B. (2009). Developing key performance indicators for supply chain: an industry perspective. *Supply Chain Management: An International Journal, 14*(6), 422–428.

Chaharsooghi, S. K., & Heydari, J. (2010). LT variance or LT mean reduction in supply chain management: Which one has a higher impact on SC performance? *International Journal of Production Economics, 124,* 475–481.

Chan, Felix, T.S., & Qi, H.J. (2003).An innovative performance measurement method for supply chain management. *Supply chain management: an International Journal,8*(3), 209 -227.

Chan, F.T.S., & Zhang, T. (2011), The impact of Collaborative Transportation Management on supply chain performance: A simulation approach Expert Systems with Applications, *38,* 2319–2329.

Chang, S.L., Wang, R.C., & Wang, S.Y. (2007). Applying a direct multi-granularity linguistic and strategy-oriented aggregation approach on the assessment of supply performance. *European Journal of Operational Research, 177,* 1013–1025.

Chang, H.H., Tsai, Y., & Hsu, C. (2013). E-procurement and supply chain performance. *Supply Chain Management: An International Journal, 18*(1), 34–51.

Charan, P. (2012). Supply chain performance issues in an automobile company: a SAP-LAP analysis. *Measuring Business Excellence, 16*(1), 67-86.

Chen, M.C., Yang, T., & Li, H.C. (2007). Evaluating the supply chain performance of IT-based inter-enterprise collaboration. *Information & Management, 44*, 524–534.

Cheung, K.L., &Hausman, W.H. (2000).An exact performance evaluation for the supplier in a two-echelon inventory system. *Operations Research, 48,* 646-653.

Chia, A., Goh, M., & Hum, S.H. (2009). Performance measurement in supply chain entities: balanced scorecard perspective. *Benchmarking: An International Journal, 16*(5), 605-620.

Cho, D.W., Lee, Y.H., Ahn, S.H., & Hwang, M.K. (2012). A framework for measuring the performance of service supply chain management. *Computers & Industrial Engineering, 62,* 801–818.

Cirtita, H. & Glaser-Segura, D.A. (2012), Measuring downstream supply chain performance. *Journal of Manufacturing Technology Management, 23*(3), 299-314.

Cuthbertson, R., &Piotrowicz, W. (2011). Performance measurement systems in supply chains: A framework for contextual analysis. *International Journal of Productivity and Performance Management, 60*(6), 583-602.

Danese, P., & Romano, P. (2011). Supply chain integration and efficiency performance: a study on the interactions between customer and supplier integration. *Supply Chain Management: An International Journal, 16*(4), 220–230.

Deshpande, A. (2012). Supply chain management dimensions, supply chain performance and organizational

performance: An integrated framework. *International Journal of Business and Management, 7*(8), 2-19.

Dong, M., & Chen, F.F. (2005). Performance modeling and analysis of integrated logistic chains: An analytic framework. *European Journal of Operational Research, 162*, 83–98.

Estampe, D., Lamouri, S., Paris, J.L., & Djelloul, S.V. (2013). A framework for analyzing supply chain performance evaluation models. *International Journal of Production Economics, 142,* 247–258.

Fabbe-Costes, N., & Jahre, M. (2007). Supply chain integration improves performance: the Emperor's new suit? *International Journal of Physical Distribution & Logistics Management, 37*(10), 835-855.

Fabbe-Costes, N., & Jahre, M. (2008). Supply chain integration and performance: a review of the evidence. *The International Journal of Logistics Management, 19*(2), 130-154.

Fantazy, K.A., Kumar, V., & Kumar, U. (2009). An empirical study of the relationships among strategy, flexibility, and performance in the supply chain context. *Supply Chain Management: An International Journal, 14*(13), 177–188.

Fawcett, S. E., Osterhaus, P., Magnan, G. M., Brau, J. C., & McCarter, M. W. (2007). Information sharing and supply chain performance: the role of connectivity and willingness. *Supply Chain Management: An International Journal, 12*(5), 358–368.

Field, J. M., & Meile, L.C. (2008). Supplier relations and supply chain performance in financial services processes. *International Journal of Operations & Production Management, 28*(2), 185-206.

Fleisch, E. & Tellkamp, C. (2005). Inventory inaccuracy and supply chain performance: a simulation study of a retail supply chain. *International Journal of Production Economics, 95*, 373–385.

Forslund, H. (2012). Performance management in supply chains: logistics service providers' perspective. *International Journal of Physical Distribution & Logistics Management, 42*(3), 296-311.

Forslund, H. (2010). ERP systems' capabilities for supply chain performance management. *Industrial Management and Data Systems, 110*(3), 351-367.

Forslund, H., & Jonsson, P. (2010). Selection, implementation and use of ERP systems for supply chain performance management. *Industrial Management & Data Systems, 110*(8), 1159-1175.

Forslund, H., & Jonsson P. (2007).The impact of forecast information quality on supply chain performance. *International Journal of Operations & Production Management, 27*(1), 90-107.

Ganga, G. M., & Carpinetti, L.C.R. (2011).A fuzzy logic approach to supply chain performance management. *International Journal of Production Economics,134,* 177–187.

Ganeshan, R., Boone, T., & Stenger, A.J. (2001). The impact of inventory and flow planning parameters on supply chain performance: An exploratory study. *International Journal of Production Economics, 71,* 111-118.

Garcia, F.A., Marchetta, M.G., Camargo, M., Morel, L., & Forradellas, R.Q. (2012).A framework for measuring logistics performance in the wine industry. *International Journal of Production Economics, 135,* 284–298.

Gavirneni, S. (2006). Price fluctuations, information sharing, and supply chain performance. *European Journal of Operational Research, 174,* 1651–1663.

Gilmour, P. (1999). A strategic audit framework to improve supply chain performance. *Journal of Business & Industrial Marketing, 14*(5/6), 355-363.

Gimenez, C., Vaart, T.V., & Donk, D. P. (2012). Supply chain integration and performance: the moderating effect of supply complexity. I*nternational Journal of Operations & Production Management, 32*(5), 583-610.

Gloria, M., & Talavera, V. (2010). Measuring supply chain performance in selected Philippine manufacturing companies.*Philippine Management Review, 17*, 52-65.

Gopal, P.R.C., & Thakkar, J. (2012). A review on supply chain performance measures and metrics: 2000-2011. *International Journal of Productivity and Performance Management, 61*(5), 518-547.

Green, K. W., Whitten, D., & Inman, R. A. (2012). Aligning marketing strategies throughout the supply chain to enhance performance. *Industrial Marketing Management, 41,* 1008–1018.

Guiffrida, A.L., & Nagi, R. (2006), Cost characterizations of supply chain delivery performance. *International Journal of Production Economics, 102,* 22–36.

Gunasekaran, A. (2001). Performance measures and metrics in a supply chain environment. *International Journal of Operations & Production Management, 21*(1), 71-87.

Gunasekaran, A., Patel, C., & McGaughey, R.E. (2004). A framework for supply chain performance measure-

ment. *International Journal of Production Economics, 87,* 333–347.

Harrison, A., & New, C. (2002). The role of coherent supply chain strategy and performance management in achieving competitive advantage: An international survey. *The Journal of the Operational Research Society,53*(3), 263-271.

Hoek, R.I.V. (1998). Measuring the unmeasurable –measuring and improving performance in the supply chain. *Supply Chain Management, 3*(4), 187–192.

Hofer, C., Jin, H., Swanson, R.D., Waller, M.A., & Williams, B.D. (2012). The impact of key retail accounts on supplier performance: A collaborative perspective of resource dependency theory. *Journal of Retailing, 88*(3), 412–420.

Hull, B. (2005). The role of elasticity in supply chain performance. *International Journal of Production Economics, 98,* 301–314.

Hult.G.T.M., Ketchen, D.J., & Arrfelt, M. (2007). Strategic Supply Chain Management: Improving Performance through A Culture of Competitiveness and Knowledge Development, Strategic Management Journal, 28(10), 1035-1052.

Hult, G.T.M., Ketchen, D.J., & Chabowski, B.R. (2007). Leadership, the buying center, and supply chain performance: A study of linked users, buyers, and suppliers. *Industrial Marketing Management, 36,* 393–403.

Hwang, Y.D., Lin, Y.C., &Lyu, J. (2008). The performance evaluation of SCOR sourcing process—The case study of Taiwan's TFT-LCD industry. *International Journal of Production Economics, 115,* 411– 423.

Ip, W.H., Chan, S.L., & Lam, C.Y. (2011). Modeling supply chain performance and stability. *Industrial Management & Data Systems, 111*(8), 1332-1354.

Jammernegg, W., & Reiner, G. (2007). Performance improvement of supply chain processes by coordinated inventory and capacity management. *International Journal of Production Economics, 108,* 183–190.

Jeong, J. S., & Hong, P. (2007). Customer orientation and performance outcomes in supply chain management. *Journal of Enterprise Information Management, 20*(5), 578-594.

Jones, R., & Towill, T. D. (1999). Using the information decouling point to improve supply chain performance. *The International Journal of Logistics Management, 10*(2), 13-26.

Jonsson, S., & Gunnarsson, C. (2005). Internet technology to achieve supply chain performance. *Business Process Management Journal, 11*(4), 403-417.

Kim, S. W. (2007). Organizational structures and the performance of supply chain management. *International Journal of Production Economics, 106,* 323–345.

Kleijnen, J.P.C., & Smits, M.T. (2003). Performance metrics in supply chain management. *The Journal of the Operational Research Society, 54*(5), 507-514.

Klein, K.K. (1996). An evaluation of supply chain performance in the Canadian pork sector. *Supply Chain Management, 1*(3), 12–24.

Kotzab, H. (1999). Improving supply chain performance by efficient consumer response: A critical comparison of existing ECR approaches. *Journal of Business & Industrial Marketing, 14*(5/6), 364-377.

Lai, K.H., Ngai, E.W.T., & Cheng, T.C.E. (2002).Measures for evaluating supply chain performance in transport logistics, *Transportation Research, 38,* 439–456.

Lai, K.H., Ngai, E.W.T., & Cheng, T.C.E. (2004).An empirical study of supply chain performance in transport logistics. *International Journal of Production Economics, 87,* 321–331.

Lambert, D.M., & Pohlen, T.N. (2001). Supply chain metrics. *The International Journal of Logistics Management, 12*(1), 1-19.

Lau, R.S.M., Xie, J., & Zhao, X. (2008). Effects of inventory policy on supply chain performance: A simulation study of critical decision parameters. *Computers & Industrial Engineering, 55,* 620–633.

Lee, W. C., Kwon, I. G., & Severance, D. (2007). Relationship between supply chain performance and degree of linkage among supplier, internal integration, and customer. *Supply Chain Management: an International Journal, 12*(6), 444–452.

Li, G., Yang, H., Sun, L., &Sohal, A.S. (2009).The impact of IT implementation on supply chain integration and performance.*International Journal of Production Economics, 120,* 125–138.

Li, X., & Marlin, T.E. (2009).Robust supply chain performance via Model Predictive Control.*Computers and Chemical Engineering, 33,* 2134–2143.

Lin, C.Y., & Ho, Y.H. (2009). RFID technology adoption and supply chain performance: an empirical study in China's logistics industry. *Supply Chain Management: An International Journal, 14*(5), 369–378.

Lin, F.R., Sung, Y. & Lo, Y.P. (2005).Effects of trust mechanisms on supply-chain performance: A multi-agent simulation study. *International Journal of Electronic Commerce, 9*(4), 91-112.

Lin, Y., Wang, Y., & Yu, C. (2010). Investigating the drivers of the innovation in channel integration and supply

chain performance: A strategy orientated perspective. *International Journal of Production Economics, 127*, 320–332.

Lockamy, A., & McCormack, K. (2004).Linking SCOR planning practices to supply chain performance: An exploratory study. *International Journal of Operations & Production Management, 24*(12), 1192-1218.

Lockamy, A., & Smith, W.L. (2000). Supply-Chain excellence for accelerated improvement. *Interfaces, 30*(4), 22-31.

Lorentz, H., Yli, J.T., Solakivi, T., Linen, H.M.H.,& Ojala, L. (2012). Effects of geographic dispersion on intra-firm supply chain performance. *Supply Chain Management: An International Journal, 17*(6), 611–626.

Lusine, H. A., Alfons, G.J.M., Oude L., Jack, G.A.J., Vorst, V., & Kooten, O. V. (2007). Performance measurement in agri-food supply chains: a case study. *Supply Chain Management: An International Journal, 12*(4), 304–315.

Lyons, A., Coleman, J., Kehoe, D., & Coronado, A. (2004). Performance observation and analysis of an information re-engineered supply chain: a case study of an automotive firm. *Industrial Management and Data Systems, 104*(8), 658–66.

Mbaga, M., Al-Shabibi, M.S.R., Boughanmi, H., & Zekri, S. M. (2011). A comparative study of dates export supply chain performance: the case of Oman and Tunisia. *Benchmarking: An International Journal, 18*(3), 386-408.

McCarthy, T.M. & Golicic, S.L. (2002).Implementing collaborative forecasting to improve supply chain performance. *International Journal of Physical Distribution and Logistics Management,32*(6), 431- 454.

McCormack, K., Ladeira, M.B., & Oliveira, M.P.V. (2008). Supply chain maturity and performance in Brazil. *Supply Chain Management: An International Journal, 13*(4), 272–282.

Menon, S.T. (2012). Human resource practices, supply chain performance, and wellbeing. *International Journal of Manpower, 33*(7), 769-785.

Morash, E.A. (2001). Supply chain strategies, capabilities, and performance, transportation Journal, 41(1), 37-54.

Morgan, C. (2004). Structure, speed and salience: performance measurement in the supply chain. *Business Process Management Journal, 10* (5), 522-536.

Morgan, C. (2007). Supply network performance measurement: future challenges. *The International Journal of Logistics Management, 18*(2), 255-273.

Ohdar, R., & Ray, P.K. (2004).Performance measurement and evaluation of suppliers in supply chain: an evolutionary fuzzy-based approach. *Journal of Manufacturing Technology Management,15*(8),723–734.

Oosterhuis M., Vaart, T. V., & Molleman, E. (2012).The value of upstream recognition of goals in supply chains. *Supply Chain Management: an International Journal, 17*(6), 582–595.

Panayides, P.M., & Lun, Y.H.V. (2009).Impact Of trust on innovativeness and supply chain performance. *International Journal of Production Economics, 122,* 35–46.

Papakiriakopoulos, D., & Pramatari, K. (2010). Collaborative performance measurement in supply chain. *Industrial Management & Data Systems, 110*(9), 1297-1318.

Paulraj, A., Chen, I.J., & Flynn, J. (2006). Levels of strategic purchasing: Impact on supply integration and performance. *Journal of Purchasing & Supply Management, 12*, 107–122.

Pero, M., Rossi, T., Noe, C., & Sianesi, A. (2010).An exploratory study of the relation between supply chain topological features and supply chain performance. *International Journal of Production Economics, 123,* 266–278.

Persson, F., & Olhager, J. (2002), Performance simulation of supply chain designs, International Journal of Production Economics, 77, 231–245.

Prajogo, D., & Olhager, J. (2012). Supply chain integration and performance: The effects of long-term relationships, information technology and sharing, and logistics integration. *International Journal of Production Economics, 135,* 514–522.

Prasad, V. S. N. V. (2012). Multiple performance dimensions to measure Supply Chain Performance. *International Journal of Business and General Management, 1*(1), 40-55.

Ramanathan, U., Gunasekaran, A., & Subramanian, N. (2011). Supply chain collaboration performance metrics: a conceptual framework.*Benchmarking: An International Journal, 18*(6), 856-872.

Ritchie, B., & Brindley, C. (2007). Supply chain risk management and performance: A guiding framework for future development. International *Journal of Operations & Production Management, 27*(3), 303-322.

Ritchie, B., & Brindley, C. (2007).An emergent framework for supply chain risk management and performance measurement. *The Journal of the Operational Research Society, 58*(11), 1398-1411.

Ross, A.D. (2000). Performance-based strategic resource allocation in supply networks. *International Journal of Production Economics, 63,* 255-266.

Ryu, I., Hu So, S., & Koo, C. (2009).The role of partnership in supply chain performance.*Industrial Management & Data Systems, 109*(4), 496-514.

Saad, M., & Patel B. (2006). An investigation of supply chain performance measurement in the Indian automotive sector. *Benchmarking: An International Journal, 13*(1), 36-53.

Salvador, F. (2001). Supply chain interactions and time-related performances: An operations management perspective. *International Journal of Operations & Production Management, 21*(4), 461-475.

Sambasivan, M., Mohamed, Z.A., & Nandan, T. (2009). Performance measures and metrics for e-supply chains. *Journal of Enterprise Information Management, 22*(3), 346-360.

Sambasivan, M., Nandan, T., & Mohamed, Z.A. (2009). Consolidation of performance measures in a supply chain environment. *Journal of Enterprise Information Management, 22*(6), 660-689.

Saranga, H. & Moser, R. (2010), Performance evaluation of purchasing and supply management using value chain: DEA approach. *European Journal of Operational Research, 207,* 197–205.

Sezen, B.L. (2008). Relative effects of design, integration and information sharing on supply chain performance. *Supply Chain Management: An International Journal, 13*(3), 233–240.

Sharma, M. K., & Bhagwat, R. (2007).An integrated BSC-AHP approach for supply chain management evaluation. *Measuring Business Excellence, 11*(3), 57-68.

Shatat, A.S., & Mohamed Udin, Z. (2012).The relationship between ERP system and supply chain management performance in Malaysian manufacturing companies.*Journal of Enterprise Information Management, 25*(6), pp. 576-60.

Shepherd, C. (2006). Measuring supply chain performance: current research and future directions. *International Journal of Productivity and Performance Management, 55*(3), 242-258.

Shin, H., Collier, D.A., & Wilson, D.D. (2000). Supply management orientation and supplier-buyer performance.*Journal of Operations Management, 18,* 317–333.

Sodhi, M.M.S., & Son, B.G. (2009).*Supply-Chain Partnership Performance Transportation Research, 45,* 937–945.

Soni, G., & Kodali, R. (2010). Internal benchmarking for assessment of supply chain performance. *Benchmarking: An International Journal, 17*(1), 44-76.

Stewart, G. (1995). Supply chain performance benchmarking study reveals keys to supply chain excellence. *Logistics Information Management, 8*(2), 38-44.

Thakkar, J., Kanda, A., & Deshmukh, S.G. (2009). Supply chain performance measurement framework for small and medium scale enterprises.*Benchmarking: An International Journal*, *16*(5), 702-723.

Theeranuphattana, A., & Tang C.S. (2008). A conceptual model of performance measurement for supply chains Alternative considerations. *Journal of Manufacturing Technology Management, 19*(1), 125-148.

Thonemann, U.W. (2002). Improving supply-chain performance by sharing advance demand information. *European Journal of Operational Research, 142,* 81–107.

Thonemann, U.W., & Bradley, J.R. (2002).The effect of product variety on supply-chain performance. *European Journal of Operational Research, 143,* 548–569.

Thron, T., Nagy, G., & Wassan, N. (2006). The impact of various levels of collaborative engagement on global and individual supply chain performance. *International Journal of Physical Distribution & Logistics Management, 36*(8), 596-620.

Trkman, T., McCormack, K., Oliveira, M.P.V., & Ladeira, M.B. (2010). The impact of business analytics on supply chain performance *Decision Support Systems, 49,* 318–327.

Vanichchinchai, A. (2012). The relationship between employee involvement, partnership management and supply performance: Findings from a developing country. *International Journal of Productivity and Performance Management, 61*(2), 157-172.

Varma, S., Wadhwa, S., & Deshmukh, S.G. (2008). Evaluating petroleum supply chain performance: Application of analytical hierarchy process to balanced scorecard. *Asia Pacific Journal of Marketing and Logistics, 20*(3), 343-356.

Vijayasarathy, L.R. (2010), An investigation of moderators of the link between technology use in the supply chain and supply chain performance. *Information & Management, 47,* 364–371.

Visich, J.K., Li, S., Khumawala, B.M., & Reyes, P.M. (2009). Empirical evidence of RFID impacts on supply chain performance. *International Journal of Operations & Production Management, 29*(12), 1290-1315.

Viswanadham, N., & Raghavan, N.R.S. (2000). Performance analysis and design of supply chains: A petri net approach.*The Journal of the Operational Research Society, 51*(10), 1158-1169.

Vorst, J.G.A.J.V., Beulens, A.J.M., Wit, W.D., & Beek, P.V. (1998). Supply chain management in food chains: Improving performance by reducing uncertainty. *International Transactions in Operational Research, 5*(6), 487-499.

Wang, E.G., Tai, J.C.F., & Wei, H.L. (2006). A virtual integration theory of improved supply-chain performance. *Journal of Management Information Systems, 23*(2), 41-64.

Whicker, A., Bernon, M., Templar, S., & Mena, C. (2009). Understanding the relationships between time and cost to improve supply chain performance. *International Journal of Production Economics, 121,* 641–650.

Whitten, G.D., Green, K.W. and Zelbst, P.J. (2012), Triple-A supply chain Performance, International Journal of Operations & Production Management, 32(1), 28-48.

Wickramatillake, C. D., Koh, S. C. L., Gunasekaran, A., & Arunachalam, S. (2007). Measuring performance within the supply chain of a large scale project. *Supply Chain Management: An International Journal, 12*(1), 52–59.

Wong, W. P., & Wong, K. Y. (2007). Supply chain performance measurement system using DEA modeling. *Industrial Management & Data Systems, 107*(3), 361-381.

Wong, W. P., & Wong, K.Y. (2008).A review on benchmarking of supply chain performance measures. *Benchmarking: An International Journal, 15*(1), 25-51.

Wu, Y., Dong, M., Fan, T., & Liu, S. (2012). Performance evaluation of supply chain networks with assembly structure under system disruptions. *Computers & Operations Research, 39*, 3229–3243.

Yang, C., & Su, Y. (2009).The relationship between benefits of ERP systems implementation and its impacts on firm performance of SCM. *Journal of Enterprise Information Management, 22*(6), 722-752.

Yeh, D.Y., Cheng, C.H., & Chi, M.L. (2007). A modified two-tuple FLC model for evaluating the performance of SCM: By the Six Sigma DMAIC process. *Applied Soft Computing, 7,* 1027–1034.

Zailani, S., andRajagopal, P. (2005). Supply chain integration and performance: US versus East Asian companies. *Supply Chain Management: An International Journal, 10*(5), 379–393.

Zelbst, P.J., Green, K.W., & Sower, V.E. (2009).Impact of supply chain linkages on supply chain performance. *Industrial Management & Data Systems, 109*(5), 665-682.

Zelbst, P.J., Green, K.W., Sower, V.E., & Baker, G. (2010). RFID utilization and information sharing: the impact on supply chain performance. *Journal of Business & Industrial Marketing, 25*(8), 582–589.

Zhang, X., Donk, D.P., & Vaart, T.V. (2011). Does ICT influence supply chain management and performance? *International Journal of Operations & Production Management, 31*(11), 1215-1247.

Zhao, X., Xie, J., & Jhang, W.J. (2002).The impact of information sharing and ordering co ordination on supply chain performance. Supply *Chain Management: An International Journal,7*(1), 24 -40.

Zhong, Y.G., & Zhou, Y.W. (2012).Improving the supply chain's performance through trade credit under inventory-dependent demand and limited storage capacity. *International Journal of Production Economics,* 1-7.