

---

## Strategic Cost Management - A Right Tool for Supply Chain Management

Dr. R. Swamynathan\*

Dr.Sudharani Ravindran†

---

### Abstract

A supply chain could be referred as a process umbrella under which the products are manufactured and delivered to the customers at the right time with the right quality. To practice Supply Chain Management (SCM) effectively, it is essential to have an effective well-aligned and implemented cost management strategy. The current research aims to study the strategic cost management practices adopted by the garment industry in Tirupur. Tirupur has emerged as India's leading cotton knitwear export centre. This research work done in the garment industry is significant to explore the strategies adopted for acquiring competitiveness in the turbulent times of garment business. For the research work, the Tirupur Exporters Association (TEA) constituted by 423 registered members, was considered as the sample frame for the survey. From the sample frame fifty percent i.e. 214 members were selected as the respondents for the study. Regression analysis was used to study the cause and effect relationship between the variables to establish the relationship between Strategic Cost Management practices (dependent variable) and others viz., Flexibility in Supply Chain, Marketing Information System, Performance of IT and Vendor Relationship practices (independent variables). The study concludes that the independent variables have their influence upon the dependent variable to a significant level in the garment industry.

**Key Words:** Tirupur, garment industry, Strategic cost management, Supply Chain Management.

### INTRODUCTION

India's Supply Chain Management (SCM) industry has started growing at a tremendous pace. Supply chain is an advanced network of relationship that organizations maintain with their trading partners to source, manufacture, and deliver the products. Supply Chain Management refers to the coordination of material, information and financial flows between and among all the participating enterprises. A supply chain could be referred as a process umbrella under which the products are manufactured and delivered to the customers at the right time with the right quality.

*"SCM deals with the control of material and information flows, the structural and infrastructural processes relating to the transformation of the materials into value added products, and the delivery of the finished products through appropriate channels to customers and markets so as to maximize customer value and satisfaction"* (Narsimhan & Kim, 2001)

---

\* Senior Lecturer, PSG Institute of Management, Coimbatore

† Assistant Professor. PSG Institute of Management, Coimbatore

---

Continuing emphases on time, cost, and quality improvements have sharpened the need to coordinate and co-operate with trading partners. This has helped the business-world to achieve its objectives such as retention of customers. The competitive and global nature of the businesses has dictated that this transformation towards SCM would take place in an efficient and effective way to the extent possible. A supply chain consists of all the entities necessary to transform the ideas into products and services and, the Supply Chain Management (SCM) directs the transformation of resources to design, to purchase, to produce and to deliver high-quality goods and services. As goods and services flow from supplier to producer, from producer to customer, and from customer to final user, SCM was particularly concerned about the interfaces between organizations. SCM, in a way could be viewed as the management of links between the organizations. SCM has focused on the integration of activities across several companies to manage the flow of products, services, people, equipment, facilities and other resources. SCM is also concerned with recycling, reuse, and final disposal of products. The success of any industry in SCM implementation depends largely on the strategies adopted towards the cost management policies. To practice SCM effectively, it is essential to have an effective well-aligned and implemented cost management strategy.

This research work done in the garment industry is significant to explore the strategies adopted for acquiring competitiveness in the turbulent times of garment business. Strategic cost management has become an essential focus area of businesses. While formulating the strategy for the accomplishment of organizational objectives, different cost drivers should be clearly identified. Identification of key cost drivers insist the companies to focus on key activities that will constitute almost 90% of the total costs. This implies that organizations should be installing appropriate framework of strategic cost management to reduce its costs in key areas on which the success of organization is heavily dependent.

**1.1 Strategic Cost Management Practices:** The strategic cost management issues in a firm usually arises in a number of functional areas like,

- Purchase & supply of raw materials
- Shop layout & manufacturing processes
- Design of the products manufactured
- Mode of transportation
- Warranty & return services
- Employee training methods
- Types of information technologies used
- SC audit of the members and their capabilities
- Market forecast and research

These areas are constantly observed by the firms for control of the costs strategically and for the improvement of profit in the business on a sustainable basis.

**1.2 Literature Review on Strategic Practices for Cost Management:** Tan et al., (1998) have commented in their research that, SCM initiatives alone cannot provide the guarantee for the efficient SCM implementation. At the same time, SCM practices could provide a framework within which it is possible to implement a well-conceived SCM strategy. SCM strategy process is more concerned to the fostering of SCM with business strategy and how adaptive it is to be implemented in an organization. Vokurka and Lummus (2000), in their research have noted that the success of any SCM practice lies in its ability to link the supply chain strategy with the overall business strategy. Carter and Narasimhan (1994) have viewed that explicit SCM

---

strategies and goals are vital for the success of any SCM practice. Thomas (1999) opined that lack of clarity in the supply chain strategy may end up with the failure in the implementation of information systems like ERP system and other SCM software. As Ernst & Young LLP and Stevens Institute of Technology (1998) and Tamas (2000) clarifies, an unsuccessful SCM implementation usually is not a consequence of outdated technology but the consequence of failure to align SCM strategy and processes along-with business strategy. A strategy for the maintenance of supplier partnership has yielded benefits in terms of improved productivity, competitive advantage, and financial performance (Lamming, 1993; Stuart, 1993; Varadarajan & Cunningham, 1995; Stuart, 1997; Tan et al., 1998; Carr and Person, 1999; Stanley and Wisner, 2001).

**1.3 Problem Definition of the Study:** The current research aims to study the strategic methods of cost management adopted by the Tirupur garment industry. Tirupur has emerged as India's leading cotton knitwear export centre, manufacturing garments which are sold by recognized high street retailers in Europe and USA. In other words it's a miniature Manchester of the South India.

**1.4 Tirupur – The Boom Town of Export Excellence:** The term Tirupur is synonymous to spinning in Tamil and is studded with knitted garments. Tirupur, the “Boom Town” (Cawthorne, 1995) of India, is a small bustling town, located 50Kms east of Coimbatore city, at Tamilnadu occupying a vast expanse over 44 square kilometers, noted for its economic growth over the past three decades. This town is surrounded by the cotton belt of Tamilnadu, and is a cotton trading hub for at-least the past one century. Tirupur was initially a handloom promotion center. Tirupur reigns supreme as the second town in India, after Kolkata, to start cotton knitwear units, since 1920. In 1925, the first hand-operated knitwear machinery was setup in Tirupur. The vantageous milieu with its hot climate and availability of groundwater and river water supported bleaching and dyeing of knitwear clothes. The first knitting machine brought to Tirupur in 1925 marked the advent, developed into five knitting firms in the town in 1932. There were two registered knitting firms in 1942 multiplied in arithmetic proportion in 1961 and further swell into 438 in 1961. Until late 1960's, Tirupur was a single product manufacturer with white cotton Men's vests. In 1968, firms started working on other knitwear products too, like cotton briefs, ladies wears, etc. In 1974 it swelled rapidly and secured its first export order through its teeming employees. In the year 1980, Tirupur was reportedly employing around 1 lakh people directly and 1, 50,000 people indirectly in the knitwear sector (Swaminathan and Jeyarajan, 1994). The volume of business had been increasing stupendously in Tirupur cluster. In the 1980's the overall export of garments were around 50 crores of Indian Rupees and currently the industry exports around Rs.10,000 crores annually.

The production units are linked with a large number of textile related activities with both backward and forward production activities like cotton ginning, yarn spinning, cloth dyeing, bleaching, calendaring, specialist tailoring and screen printing. A large number of ancillary units like button houses, elastics, spinning cones, clothing labels, packaging supplies, and the like are integral (Cawthorne, 1990.) Skilled labour force with specialized sector knowledge and technical know-how on cloth making and processing was an added advantage. A broad network of firms like knitting units, garment units, dyeing units, bleaching units, printing units, embroidery units, logistics firms, and packaging units contribute their major share to its booster as a world class manufacturing center to the world markets. In the year 2001, Tirupur held 52 percent of total knitwear exports of India. (TEA Bulletin, Volume 7, No.1 May 2002). Tirupur has become a model town of an industrial cluster. This cluster focused on both a mass

---

of small scale units at each stage of an integrated production line, and of a scatter of towns and villages, a network of collaborative manufacture, linked to household production.

## 2. RESEARCH METHODOLOGY

The study was descriptive in nature. The collection of data and analysis tools was planned accordingly to draw conclusions about the role of supply chain management practices in the Tirupur garment industry. The various aspects of the methodology adopted in the study are as discussed below.

**2.1 Research Design:** This study has descriptive research design.

**2.2 Area of Study and Duration of the Research:** The Tirupur garment cluster known as the highest contributor of cotton garment exports from India was chosen as the area of study for the research on the supply chain management practices of the garment industry. The data was collected between the years of 2005 and 2008.

**2.3 Population:** All the organized and unorganized exporters of the Tirupur garment cluster

**2.4 Sample Frame and Sample Size:** For the research work, the Tirupur Exporters Association (TEA) constituted by 423 registered members, was considered as the sample frame for the survey. From the sample frame fifty percent i.e. 214 members were selected as the respondents for the study.

**2.5 Sampling Technique:** Based on the nature of the study, the characteristics of population and the scope of the results to be obtained, the simple random sampling method under the probability sampling technique was adopted. The technique, especially for this research had satisfied the Principle of Statistical regularity and the Principle of Inertia of large numbers of the validity theory of sampling for the social researches. The samples were obtained using the lottery method of sampling.

**2.6 Data Collection Procedure and Instruments:** Considering the nature, objectives and scope of the research, the primary data was obtained with the help of a structured questionnaire and interview schedule from the respondents. A number of internal and external sources, which included the Tirupur Exporters Association (TEA) contributed to the secondary data. TEA publications, TEA membership manuals, TEA bulletin, internet, journals, existing research reports, magazines, newspapers, etc., were used for the reinforcement of the secondary data for the study.

**2.7 Statistical Tools Applied:** In order to analyze the data with respect to the objectives of the study, several appropriate statistical methods and qualitative tests were used. The methods and tests selected were based on the requirements of the problem.

**Multiple regression analysis:** The stepwise regression calculations were made with **SPSS 11.0** and final iterations are given in this paper.

**F test:** F test is used in this analysis for testing the null hypothesis that all regression coefficients are zero in the model.

**t test:** t test is used in this analysis for testing the null hypothesis that the partial regression coefficients is zero for the individual construct (latent variable).

**R<sup>2</sup>:** This is called multiple correlation or coefficient of determination for testing the fitness of model.

---

**Cronbach  $\alpha$ :** It is one of the reliability coefficients to test the integrity of constructs which has different dimension of questions.

**2.8 Measurement of Variables and Reliability of the Constructs:** The following constructs are used as measurements in this study with the valid theoretical background which was obtained by several literatures and by explanatory qualitative study in the garment field.

**Performance of IT** – This construct was measured with the following indicators (in Lickert's Scale of measurement). Quick decision making, Utilizing intranet communication, e-communication with suppliers, e-commerce and Effective communication tool. The Cronbach alpha reliability co-efficient of this construct was 0.81

**Strategic practices for cost management-** This construct was measured with the following indicators (in Lickert's Scale of measurement). Priority to SCM, Assignment for cost responsibility, Purchase procedures, Cost management goals in production area, Rational purchase decisions, Inventory management strategies, e-monitoring of production, e-Supplier performance appraisal, Recognition of cost management and, Customized software usage. The Cronbach alpha reliability co-efficient of this construct was 0.80.

**Vendor Relationship Management-** This construct was measured with the following indicators (in Lickert's Scale of measurement). Yarn procurement, Quality of yarn, Yarn Supplier participation, Supplier improvement programs, Joint problem solving, Risk sharing, Relationship satisfaction and, Yarn Supply punctuality. The Cronbach alpha reliability co-efficient of this construct was 0.72.

**Marketing Information Systems and Practices-** This construct was measured with the following indicators (in Lickert's Scale of measurement). Interaction on future trends, Sharing of new techniques in production, Advance information through buying houses Mutual share of property information, Reliable information exchange, IT benefits on information exchange, and Utilization of logistics for storage and transport. The Cronbach alpha reliability co-efficient of this construct was 0.71.

**Flexibility in supply chain practices-** This construct was measured with the following indicators (in Lickert's Scale of measurement). Flexibility in production, Handling of special orders, Quality improvements, Buyer specifications and, Product variety and lead time. The Cronbach alpha reliability co-efficient of this construct was 0.76.

**Buyer relationship practices-** This construct was measured with the following indicators (in Lickert's Scale of measurement). Order procurement strategies, Communication methods with buyers, Lead time, Interaction with buyers, Buyer evaluation and, Order punctuality. The Cronbach alpha reliability co-efficient of this construct was 0.60.

### **3. STRATEGIC COST AND ITS IMPACT ON SUPPLY CHAIN PERFORMANCE**

Supply Chain Management has been both a challenge and an opportunity for the garment sector. Companies have observed that supply chain innovations, not only had reduced the operations cost, but also has generated increased revenue by achieving greater levels of customer satisfaction. The supply chain issues have become the vital business agenda for the strategic reduction in the cost of operations in businesses. The productivity issues were highly related to the costing issues in the garment industry where almost 60% of the total cost was in the form of raw materials and around 20% of the cost was involved in the processing of the materials. Therefore, the garment industry has to control the cost of purchases and the cost of

processing materials in every unit of garment manufactured for domestic or export purposes in Tirupur.

Regression analysis was used to study the cause and effect relationship between the variables to establish the relationship between Strategic Cost Management practices (dependent variable) and others viz., Flexibility in Supply Chain, Marketing Information Systems, Performance of IT and Vendor Relationship practices (independent variables).

**Table 3.1 : The model summary of the regression equation for Strategic cost and its impact on Supply Chain performance**

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. Change
.677(d)	.458	.448	4.37030	.038	14.830	1	213	.000

**Table3.2: ANOVA for final model of the regression equation for Strategic cost and its impact on Supply Chain performance**

ANOVA for Final model					
Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3434.631	4	858.658	44.957	.000*
Residual	4068.194	213	19.100		
Total	7502.826	217			

**\*Significant**

**Table 3.3: The coefficients of the regression equation for Strategic cost and its impact on Supply Chain performance**

Coefficients					
Final model	Un-standardized Coefficients		Standardized Coefficients	T	Significant
	B	Std. error	Beta		
(Constant)	8.832	2.670		3.308	.001
Flexibility in supply chain	.552	.120	.285	4.595	.000
Marketing information systems	.312	.096	.197	3.258	.001
Performance of IT	.326	.078	.237	4.165	.000
Vendor relationship practices	.272	.071	.216	3.851	.000

From Table 3.1, it could be inferred that all the partial regression coefficients were highly significant and the model has R = 0.677 and R<sup>2</sup> = 0.458. It can be proved that approximately 46% of the variance in the strategic cost was explained by the variables, flexibility in supply chain, marketing information systems, performance of IT and vendor relationship practices. The fitted model was

*Strategic Cost management = 8.832 + 0.552 Flexibility in supply chain + 0.312 Marketing information systems + 0.326 Performance of IT + 0.272 Vendor relationship practices.*



Hence, from the managerial point of view, it was evident that the strategic cost management practices were influenced almost 46%, of the decisions and practices of SCM in general and particularly related to flexibility in supply chain, market information, Information technology and vendor relationship. Therefore, to shape the result briefly, it could be concluded that, cost management strategies would work in a garment export business firm only if the cost is controlled in every other aspect of the supply chain process of the business.

#### 4. TOTAL LEAD-TIME OF AN EXPORT ORDER AND ITS IMPACT ON SUPPLY CHAIN PERFORMANCE

Lead time is the amount of time spent by an export house towards every process in the production area on performing an export order. This 'time' would be used in finalizing the time and cost of operations in the production process. The lead time would also have a direct impact on the product delivery. In the competitive field of garment exports, lead-time had become important and more supervisory time has been spent on this issue.

A regression analysis was used to study the relationship between the Total lead time of an export order (dependent variable) and other variables viz., Total number of days required to complete an order (TOT\_DRCP), total idle time in a production process (TOT\_IDLE), Flexibility in supply chain (FLEX\_T), Vendor relationship practices (VRP\_T), Performance of IT (IT\_T), Marketing Information Systems (MIS\_T), Strategic cost management practices (STCOST\_T) and Buyer relationship practices (BUYR\_T) (independent variables).

**Table 3.4: The Model Summary of the regression equation for Total lead time of an export order and its impact on supply chain performance**

R	R Square	Adjusted Square	RStd. Error of the Estimate
.703	.494	.475	40.49704

**Table 3.5: ANOVA for the final model of the regression equation for Total lead time of an export order and its impact on supply chain performance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	335254.751	8	41906.844	25.553	.000*
Residual	342762.214	209	1640.011		
Total	678016.964	217			

**\*-significant**

From Table 3.4, it could be understood that all the partial regression coefficients were highly significant and the model has  $R = 0.703$  and  $R^2 = 0.494$ . It was also found that approximately 50% of the variance in the total lead time of an export order was explained by the variables total number of days required to complete a process, total idle time in a production process, flexibility in supply chain, vendor relationship practices, performance of IT, marketing information system, strategic cost management practices and buyer relationship practices. The fitted model was,

<p><i>Total lead time of an export order = 64.385 +0.912 Total number of days required to complete a process +0.919 total idle time in a production process + 1.043 Flexibility in supply chain -0.980 Vendor relationship practices -1.387 Performance of IT - 0.141Marketing Information Systems -0.141 Strategic cost management practices -0.695 Buyer relationship practices.</i></p>
--

**Table 3.6: The coefficients of the regression equation for Total lead-time of an export order and its impact on supply chain performance**

Coefficients					
Final model	Un-standardized Coefficients		Standardized Coefficients	t	Significant
	B	Std. Error	Beta		
(Constant)	64.385	26.146		2.463	.015
Vendor Relationship Practices	-.980	.770	-.082	-1.274	.204
Buyer relationship practices	-.695	1.673	-.029	-.415	.678
MKIS	.528	.953	.035	.555	.580
Flexible SCM practices	1.043	1.210	.057	.862	.390
IT practices	-1.387	.762	-.106	-1.820	.070
Cost Management practices	-.141	.636	-.015	-.221	.825
Total production time	.912	.125	.362	7.292	.000
Total idle time	.919	.074	.618	12.457	.000

Hence, it can be statistically proven that for the garment industry almost 50% of the total lead time of an export order was influenced by the important supply chain parameters as mentioned above. Every firm in the garment field could therefore learn the importance of the effect in following the supply chain management principles, which would have a positive impact on reducing their lead time and thereby the cycle time of the product.

#### 5. TOTAL NUMBER OF DAYS REQUIRED TO COMPLETE AN EXPORT ORDER AND ITS IMPACT ON THE SUPPLY CHAIN PERFORMANCE

The total number of days required to complete an export order is an area of benchmarking for every garment firm. This industry has around 40% of its jobs done through outsourcing. Therefore, any change in the estimate of requirement of days would always be noted as an important issue by the companies. A regression analysis was done to study the relationship between Total number of days required to complete the process (TOT\_DRCP) (dependent variable) with Total lead time required to complete a process (TOT\_LEAD), Total idle time in a production process (TOT\_IDLE), Flexibility in supply chain (FLEX\_T), Vendor relationship practices (VRP\_T), Performance of IT (IT\_T), Marketing Information System (MIS\_T), Strategic cost management practices (STCOST\_T) and Buyer relationship practices (BUYR\_T) (independent variables).

**Table 3.7: The model summary of the regression equation for total number of days required to complete the process and its impact on the supply chain performance**

R	R Square	Adjusted Square	RStd. Error of the Estimate
.660	.436	.414	28.75013

**Table 3.8: ANOVA for the final model of the regression equation for total number of days required to complete the process and its impact on the supply chain performance**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	133491.254	8	16686.407	20.188	.000*
	Residual	172753.173	209	826.570		
	Total	306244.427	217			

\*-significant



**Table 3.9: The coefficients of the regression equation for total number of days required to complete the process and its impact on the supply chain performance**

Coefficients					
Final model	Un-standardized Coefficients		Standardized Coefficients	t	Significant
	B	Std. Error	Beta		
(Constant)	-24.317	18.754		-1.297	.196
Vendor relationship practices	.444	.548	.055	.811	.418
Buyer relationship practices	1.143	1.185	.070	.964	.336
MKIS	-.334	.677	-.033	-.494	.622
Flexible SCM practices	-.951	.858	-.077	-1.108	.269
IT practices	1.111	.540	.126	2.058	.041
Cost mgt practices	.214	.451	.033	.473	.637
Total idle time	-.462	.094	-.273	-4.908	.000
Total lead time	.463	.037	.690	12.457	.000

From Table 3.7, it could be inferred that the partial regression coefficients were highly significant for IT\_T , TOT\_IDLE and TOT\_LEAD and the model has R = 0.660 and R<sup>2</sup> = 0.436. It was shown that approximately 44% of the variance in the total number of days required to complete a process of an export order was explained by the variables total lead time, total idle time in a production process, flexibility in supply chain, vendor relationship practices, performance of IT, marketing information system, strategic cost management practices and buyer relationship practices. The fitted model was

*Total number of days required to complete a process = - 24.317+0.463 Total lead time of an export order +0.462 total idle time in a production process -0.951 Flexibility in supply chain +0. .444 Vendor relationship practices + 1.111Performance of IT -0.334 Marketing Information Systems +0.214 Strategic cost management practices + 1.143 Buyer relationship practices.*

Hence, from the respondents' view it could be inferred that, to a very noticeable extent the total time taken to complete an export order was influenced by the lead time of that order, idle time in the production line, flexibility in the supply chain, vendor relationship practices and such other parameters of the supply chain. This result has again proved that, a concentration on the supply chain aspects in the garment industry would always be beneficial to the business community in terms of a better product cycle time and increased productivity.

## 6. CONCLUSION

This study on strategic cost management practices has revealed the cause and effect relationship between the variables and their relationship with the Strategic Cost Management practices (dependent variable). The independent variables especially, the flexibility in supply chain, marketing information systems, performance of IT, vendor relationship practices, total production time, total idle time etc have their influence to a significant level in the garment industry. The managerial point of discussion from the study could be concluded as such that, a careful diagnosis of every functional area of business is necessary to achieve the cost efficiency in a strategic way and the supply chain management tools could be effectively exploited for the same.

---

## 7. SCOPES FOR FURTHER RESEARCH

This research on strategic cost management is one of the pioneering efforts in the field of garment industry. The study had enabled the researcher to impart a vital knowledge on the efficiency improvement of a competitive industry like that of garment exports. This work would be a small but significant step of reference for future researchers on the garment industry. The findings of this study can also be applied on other textile and garment clusters of India.

## REFERENCES

- Aczel A.D. and Sounderpandian J. (2002), "Business Statistics", Tata-McGraw-Hill Publishing Company Limited, New Delhi, pp. 498-597.
- Aggarwal, S. (1997), "Flexibility Management: the Ultimate Strategy", *Industrial Management*, 39(1), pp.26-31.
- Alvarez, D. (1994), "Solving the Puzzle of Industry's Rubic Cube-effective Supply Chain Management", *Logistics Focus*, 2(4), pp. 2-4.
- Ayers, J. (1999), "Supply Chain Strategies", *Information Systems Management*, Springer, pp.72-79.
- Baganha, M. P., & Cohen, M. A. (1998), "The Stabilizing Effect of Inventory in Supply Chains", *Operations Research*, 46(3 supp), S72-S83.
- Bahadur U.(2002), "Supply chain management in Indian steel plants : some strategic issues", *Supply Chain Management : in the twenty first century*, Macmillan (India), pp.57-64.
- Baiman S., Fischer P.E. and Rajan M.V, (2001), "Performance Measurement and design in supply chains", *Management Science*, Vol.47, No.1, pp.173-188.
- Carr, A. S., and Person, J. N. (1999), "Strategically Managed Buyers-Seller Relationships and Performance Outcomes", *Journal of Operations Management*, 17(5), pp.497-519.
- Carter, J. R. and Narasimhan, R. (1994), "The Role of Purchasing and Materials Management in Total Quality Management and Customer Satisfaction," *International Journal of Purchasing and Materials Management*, 30(3), pp.3-13.
- Chen F., Drezner Z., Ryan J.K. and Simchi-Levi D. (2000), "Quantifying the bullwhip effect in a simple supply chain : The impact of Forecasting, Lead times, and information", *Management science*, Vol.46, No.3, pp.436-443.
- Chen, F., & Samroengraja, R. (2000), "Information and Incentives in Supply Chain Management: The Stationary Beer Games", *POMS*.
- Chizzo, S. A. (1998), "Supply Chain Strategies: Solutions for the Customer-Driven Enterprise", *Software Magazine. Supply Chain Management Directions Supplement*, pp 4-9.
- Choi, T. Y. and Hartley, J. L. (1996), "An Exploration of Supplier Selection Practices Across the Supply Chain", *Journal of Operations Management*, 14, pp.333-343.
- Errol D'Souza, (2004) "The WTO and the Politics of India's Textile Sector: From Inefficient Redistribution to Industrial Upgradation".
- Haan J.D., Groot G.D., Loo E and Ypenburg M. (2003), "Flows of goods or supply chains; lessons from the natural rubber industry in Kerala, India", *International Journal of Production Economics* 81-82 pp.185-194
- Hammond, J. H. (1994). *Barilla SpA* . Harvard Business School: Case Number 9-694-046.
- Lamming, R. (1993), "Beyond Partnership: Strategies for Innovation and Lean Supply", Prentice-Hall, New York.
- Lee, H. L., & Whang, S. (1999b). "Information Sharing in a Supply Chain", *International Journal of Technology Management*.

- 
- Lee, H. L., Padmanabhan, V., Whang, S. (1997), "Information Distortion in a Supply Chain: The Bullwhip Effect", *Management Science*, 43(4), pp.546-558.
- Lee, H. L., So, K. C., & Tang, C. S. (1999), "The value of information sharing in a two-level supply chain", *Management Science*.
- Samar Verma, (2004), "Export Competitiveness Of Indian Textile And Garment Industry" NCAER.
- Stanley, L. L. and Wisner, J. D. (2001), "Service Quality along the Supply Chain: Implications for Purchasing", *Journal of Operations Management*, 19, pp.287-306.
- Stuart, F. I. (1993), "Supplier Partnerships: Influencing Factors and Strategic Benefits", *International Journal of Purchasing and Materials Management*, 29(4), pp.22-28.
- Swamynathan, R et al (2009), "Application of Visual PLS in the supply chain management with special reference to the trading practices in Tirupur garment industry" CECMAR contemporary issues in management research, Excel Books, PP 155 – 168.
- Tamas, M. (2000), "Mismatch Strategies: the Weak Link in the Supply Chain", *Supply Chain Management: An International Journal*, 5(4), pp.171-175.
- Tan K.C. Lyman S.B., and Wisner J.D., (2002), "Supply Chain Management : a strategic perspective" , *International Journal of Operations and Production Management* , Vol.22, No.6, pp.614-631
- Tan, K. C. (2001), "A Framework of Supply Chain Management Literature", *European Journal of Purchasing and Supply Management*, 7(1), pp.39-48.
- Tan, K. C., Kannan, V. R. and Handfield, R. B. (1998), "Supply Chain Management: Supplier Performance and Firm Performance", *International Journal of Purchasing and Materials Management*, 34(3), pp.2-9.
- Tan, K. C., Kannan, V. R., Handfield, R. B., and Ghosh, S. (1999), "Supply Chain Management: an Empirical Study of Its Impact on Performance", *International Journal of Purchasing and Material Management*, 19(10), pp.1034-1052.
- Thomas, J. (1999), "Why Your Supply Chain Doesn't Work", *Logistics Management and Distribution Report*, 38(6), pp.42-44.
- Varadarajan, P. R. and Cunningham, M. H. (1995), "Strategic Alliances: A Synthesis of Conceptual Foundation", *Journal of the Academy of Marketing Science*, 23(4), pp.282-296.
- Vesey, J. T. (1991), "The New Competitors: They Think in Terms of Speed-to-Market", *Academy of Management Executive*, 5(2), pp.23-33.
- Vickery, S., Droge, C. and Germain, R. (1999), "The Relationship between Product Customization and Organizational Structure", *International Journal of Operations Management*, 17(4), pp.377-391.
- Vijayabhaskar, M. 2002. Garment industry in India, in G. Joshi ed. *Garment Industry in South Asia: Rags to Riches: Competitiveness, Productivity and Job Quality in Post MFA Environment*, New Delhi, ILO, SAAT.
- Vivekanandan, K., Rajendran, R. (2006), "Export marketing and the world wide web: perceptions of export barriers among Tiupur Knitwear Apparel Exporters – an empirical analysis", *Journal of Electronic Commerce Research*, Vol. 7 No.1, pp.27-41.
- Vokurka, R. J. and Lummus, R. R. (2000), "The Role of Just-in-Time in Supply Chain Management", *International Journal of Logistics Management*, 11(1), pp.89-98.
- Vonderembse, M. A. and Tracey, M. (1999), "The Impact of Supplier Selection Criteria and Supplier Involvement on Manufacturing Performance", *Journal of Supply Chain Management*, 35(3), pp.33-39.

- 
- Waller, M., Johnson, M. E., & Davis, T. (1999), "Vendor-Managed Inventory in the Retail Supply Chain", *Journal of Business Logistics*, 20(1), 183-203.
- Walton, L. W., (1996), "Partnership Satisfaction: Using the Underlying Dimensions of Supply Chain Partnership to Measure Current and Expected Levels of Satisfaction", *Journal of Business Logistics*, 17(2), pp.57-75.
- Watanabe R. (2002), "Supply Chain Management – The concept & Technology", *Productivity* , Vol. 42, No.4, pp.525-530.
- Whang, S., Gilland, W., & Lee, H. (1995), " Information Flows in Manufacturing under SAP R/3", Unpublished Paper, Stanford University, Stanford, CA.
- White R.e. and Pearson J.N. (2001), "JIT , System integration and customer service", *International Journal of Physical Distribution and Logistics Management* , Vol.31, No.5, pp.313-333.
- White, A. G. (1996), "Supply Chain Link Up Manufacturing Systems", 14 (10), pp.94-98.
- Williamson, O. (1986), "Economic Organization", Wheatsheaf Books, Brighton, Sussex.
- Wilson, D.T. and Vlosky, R. P. (1998), "Inter-organizational Information System Technology and Buyer-Seller Relationships", *Journal of Business and Industrial Marketing*, 13(3), pp.215-234.
- Wines, L. (1996), "High Order Strategy for Manufacturing", *The Journal of Business Strategy*, 17(4), pp. 32-33.
- Wold (1975), "Path Models with Latent Variables: The NIPALS Approach," in *Quantitative Sociology: International Perspectives on Mathematical Statistical Model Building*.
- Womack, J. and Jones, D. (1996), "Lean Thinking", New York, Simon and Schuster.
- Wood, A. (1997), "Extending the Supply Chain: Strengthening Links with IT", *Chemical Week*, 159(25), pp.25-26.
- Woolley, S. (1997), "Replacing inventory with information". *Forbes*, March 24, 54-58.
- Wright, C. (2001), "Supply Chain Management in the E-World", *Asiamoney*, 12(1), pp.78-83.
- Wu N.L. (2002), "SCM, ERP & the Internet", *Productivity* , Vol.42, No.4, pp.535-538.
- Xu.Y.Yen.D.C., Lin B. and Chou D.C. (2002) , "Adopting customer relationship management technology", *Industrial Management and Data Systems* 102/8, pp.442-452.
- Yadav D. (2002), "Strategic practices in Logistic management :A case of Maruti Udyog", *Supply Chain Management : in the twenty-first century*, Macmillan (India) , pp.69-87.
- Yahya S. and Goh W.-K. (2001), "The implementation of an ISO 9000 quality system", *International Journal of Quality & Reliability Management* , Vol. 18, No.9, pp.941-966.
- Yamin, S., Gunasekruan, A., and Mavondo, F. T. (1999), "Relationship Between Generic Strategy, Competitive Advantage and Firm Performance: an Empirical Analysis", *Technovation*, 19(8), pp.507-518.
- Zielke, A. and Pohl, M. (1996), "Virtual Vertical Integration: the Key to Success", *The Mckinsey Quarterly*, 3, pp. 160-163.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.