

World Class Procurement Practices and Its Impact on Firm Performance: A Selected Case Study of an Indian Manufacturing Firm

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ABSTRACT

Purpose– Procurement Management has emerged as a key approach for enterprises seeking to become competitive in the long run. This paper aims to evaluate and describe world class procurement practices and impact on firm performance among various Indian manufacturing organizations.

In order to sustain competitive edge in extreme cut throat competition and also global recession has forced producers to reduce cost and improve profitability without compromising with quality of the goods/services which is finally delivered to the customer. Procurement has major impact on direct material costs which constitute around 40%-70% of the total cost of the goods sold (Aberdeen Group, 2006; Bumpas and Betsch, 2009). Thus, it is likely the way purchasing is managed can significantly impact a firm's financial performance.

Design/methodology/approach– Our research uses longitudinal case study methodology, which gives a possibility to be close to data, enabling in-depth insight into procurement practices. The study was conducted at a mining and bulk material handling equipment manufacturing company in India with multi location plants across the globe.

Findings– Procurement directly impacts on the corporate strategic planning process of the firm mainly with regard to aligning the strategic goals of procurement management with the firm strategy. To strategically manage supply, managers must examine the effect of procurement on competitive position and firm performance. Indian firms have increased their environmental awareness due to regulatory, competitive, and marketing pressures and drivers. However, this awareness has not been translated into strong GSCM practice adoption.

Research limitations/implications– The investigation and its findings are still relatively exploratory. Future research can investigate relationships identified in this work. A more broadly-based and random sample study across India would also provide a better picture of this situation.

Practical implications– Managers must understand the importance of procurement management and should adopt the world class purchasing practices to gain competitive advantage. Managers should use a specific framework for evaluating the purchasing performance.

Originality/value– This work is one of the few and pioneering efforts to investigate world class procurement practices in Indian manufacturing firms.

Keywords: Procurement, Strategy, Environment Performance, Financial Performance, COGS, Profitability.

1. INTRODUCTION

1.1 Overview

Decisions pertaining to procurement/in-house manufacturing and supplier management have been the focal point of study by many researchers. Previous studies have also conceptually linked procurement at the functional level with the business strategy of the firm. In the study con-

ducted by Day and Lichtenstein (2006); researchers have presented a theoretical model for conceptualizing the relationship between the management of purchasing and supply, strategic orientation at the business unit level and their proposed link with firm performance.

Procurement practices have a positive impact on the firm's financial performance in both small and large firms; also procurement and supplier involvement does affect the success of a new product introduction. Study

shows that a link exist between implementation of strategic procurement practices and achievements of a firm's comprehensive goals. It is stated in the report by Carr and Pearson (2002) that most firms recognize the importance of strategic procurement practices, because they spend a large percentage of their sales on procured inputs. Management should understand the importance of procurement, supplier involvement, strategic procurement practices and its relationships with firm's financial performance.

1.2 Motivation/Need for the research

Previous researchers have conceptually linked procurement at the functional level with the business strategy of the firm. However there are no conclusive studies that completely address the relationship between supply management, strategic orientation of the firm and its impact on financial and operational performance. (Tracey, 1998; Gilley and Rasheed, 2000; Das and Narshimhan, 2001; Park et al, 2001; Ellram and Lui, 2002, Ellram et al 2002)

1.3 Objective of the Study

The study is dedicated to investigate the determinants of world class procurement practices and its impact on supply chain performance of an organization.

2. LITERATURE REVIEW ON WORLD CLASS PROCUREMENT PRACTICES

Two decades back, true supply chain management was almost unknown within our Indian industry. When production department required materials or services, they relied on purchasing departments that were viewed primarily as order placers. These departments had little visibility, had little perceived value to the bottom line, and enjoyed little respect from other parts of the organization.

That picture has changed dramatically. Although few companies are as strategic as they need to be, and few apply best practices to maximum benefit, almost every company today understands the link between procurement management principles and strategic goals. They understand why integrating suppliers into new product development are important. Over time, the tactical purchasing function has given way to supply management processes in which highly trained professionals take

a systemic, strategic approach to the drivers of total value. Firms adopted best practices such as supplier development, cost management, supplier integration, strategic sourcing themselves and value engineering to stay ahead of competitors and position for future success. Other companies resisted change too long and were forced to make traumatic adjustments when competitive and economic challenges left them two choices: manage more efficiently or perish. There is a strong correlation between a world class procurement practicing organization and financial performance, which is reflected in higher annual price decreases, reduction of COGS and an increase in the EBITDA margin

Objective of the Literature Review:

- a. To identify the dimensions of procurement practices
- b. To identify the dimensions of global procurement practices
- c. To identify the dimensions of green procurement practices
- d. To identify the measures of buying firm performance

2.1 Procurement Practices

In every organization procurement function is taking on a more strategic role. The procurement manager has now become a manager of inter-firm information exchanges with responsibility for the selection and maintenance of the entire supplier value chain. The literature review carried out on procurement practices focus on identifying the dimensions of procurement practices.

Procurement function encompasses both soft and hard dimensions. Human aspect is an important part of procurement. Tassabehji and Moorhouse (2008) has conducted a study to explore the current status of purchasing professionals role and identify the skills they need to develop in order to effectively manage the dynamic environment and further proposed a skills effectiveness framework. Feisel, Hartmann and Giunipero (2011) found that organizations apply a broad variety of HRD instruments to improve performance at different levels and also to improve internal support and integration. HRD instruments used are: 1. Recruitment, 2. Performance appraisal, 3. Personal development plans, 4. Coaching and mentoring, 5. Training, 6. Standardized job profiles, 7. Standardized procurement processes, 8. IT tools, 9. Top management support, 10. Assignment of new chief procurement officer, 11. Organization of Procurement function;

Table 1: Procurement Practices**Research in Procurement Practices**

<i>Sl.No.</i>	<i>Author(S), Year</i>	<i>Objective</i>	<i>Major Findings</i>
1.	Feisel, Hartmann and Giunipero (2011)	To better understand the development of the human aspect in the Purchasing and Supply Management function	PSM organizations apply a broad variety of HRD instruments to improve performance at different levels and also to improve internal support and integration.
2.	Carter and Guinipero (2010)	To examine supplier Financial and Operational risk management programs in leading companies	1. Time and resources are required to power the program, 2. SRM is a cross functional activity, 3. A good process is required to guide these activities, 4. Quick responses will be the key to minimizing the damage to sourcing plan, 5. No one metric will adequately measure risk, 6. It is not necessary to closely monitor all suppliers, 7. Critical suppliers must be identified for continual monitoring, 8. There is a relation between supplier's financial risk and its operation risk, 9. Good risk management will include both financial and operational measures, 10. Third party providers of supply risk management services can bring value to the risk management process.
3.	Micheli, Cagno and Giulio (2009)	To assess the expected positive impact of Risk-efficiency-based-supplier selection on the average total cost of supply in the EPC industry under uncertainty environment	Risk-efficiency-based-supplier selection is a sound alternative to the traditional TCO
4.	Dabhilkar et al (2009)	To determine factors of performance improvement when outsourcing manufacturing	Supplier operating capabilities are more important than supplier relationship strategies when outsourcing manufacturing
5.	Ramsay and Wagner (2009)	To enhance understanding in the Purchasing field of supplier behavior by exploring their needs, wants and preferences	Forty Nine elements in buyers' purchase offerings, behaviors and characteristics that suppliers regard as important was identified
6.	Essig and Amann (2009)	To explore the construct of supplier satisfaction as a factor of buyer-supplier relationship quality	Important factors are: Order Process, Delivery Process, Communications, Conflict management and Intensity of cooperation
7.	Large and Konig (2009)	To develop an instrument for the measurement of the internal service quality of purchasing departments	Result of the analysis is helpful in detecting weak points and sources of internal customers' dissatisfaction
8.	Bernades and Zsidisin (2008)	Impact of Strategic Supply Management on firm performance	Organizations who have implemented SSM are able to directly achieve greater levels of customer responsiveness by scanning their supply base network and building relationship ties with them
9.	Ellram and Stanley (2008)	To examine the possible competitive advantages when organizations integrate strategic cost mgmt in the simultaneous design of products, process and supply chains	There is a positive relationship between the customer's and supplier's extent of participation in new product development, supplier development practices and the integration of strategic cost mgmt practices with three dimensional concurrent engineering
10.	Nollet et al (2008)	To understand the complexity of implementing a cost savings measurement system in purchasing	It is easier to begin by measuring hard savings, followed by soft savings when the system is running well

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Sl.No.	Author(S), Year	Objective	Major Findings
11	Tassabehji and Moorhouse (2008)	To explore the current status of purchasing professionals role and identify the skills they need to develop in order to effectively manage the changes they are experiencing	A Procurement Skills Effectiveness framework is presented to enable managers to assess the likely sophistication level of procurement and its impact
12	Bakker and Kamann (2007)	To study the influence of four factors on Perception and Supply Relationship Management: 1. membership of social networks,2. the organizational view of purchasing,3. the position of positioning in the organizational hierarchy 4. critical incidents	Results indicate that: Social factors influence individuals' perception and they are relevant to explain how supplier relations are managed in practice
13	Ogden et al. (2007)	To explore differences in three antecedents of strategic purchasing between North American and European countries. Factors are: 1. Professionalism: Purchasing's skills, knowledge and Professionalism 2. Status: Purchasing's status within the organization 3. Supply Mgmt: purchasing's sophistication in managing external relationships	Results indicate that differences exist among several countries within these three strategic purchasing factors
14	Zheng,et al.(2007)	This paper considers a broad and rather fragmented body of empirical evidence and analyses 42 relevant empirical studies on the future of purchasing and supply management	1. Less strategic purchases can be automated or outsourced while more strategic task to be tackled by smaller no of professionals with highly developed broader skill sets 2. More emphasis on teamwork in the skill sets for purchasing professionals
15	Day and Lichtenstein (2006)	To study the relationship between supply mgmt practices, strategic orientation and their impact on organizational performance	Variables considered in the proposed model: Strategic Orientation, Supply Mgmt Practices, Strategic Orientation, Firm Characteristics, Industry Characteristics, Firm Performance

Hard dimensions revolve mainly around risk management. Carter and Guinipero (2010) examined supplier Financial and Operational risk management programs in leading companies and suggested that good risk management must include both financial and operational measures. Organizations practicing world class procurement practices emphasizes on both hard and soft dimensions of procurement function.

2.2 Global Procurement Practices

In order to leverage global cost differentials, companies are increasingly turning to global procurement practices.

As reported extensively in academic literature, companies have been forced by increasing global competition to devise and pursue global procurement strategies that hinge on reducing prices and optimizing quality, fulfillment, production cycle times, responsiveness and financial conditions. As a result, procurement management has turned to improve internationalization to support companies' globalization processes.

The undertaken literature review reveals the significance of global procurement as a key competitive factor for companies seeking globalization, considering such strategy to be a strategic approach focusing on supplies from vendors in the world market, rather than restricted exclusively to domestic offerings.

2.2 Green Procurement Practices

Green procurement is the complex of mechanisms implemented at the corporate and plant level to assess or improve the environmental performance of a supply base (Gavronski et.al, 2011).

Many case studies are available; world-wide in diversified field [BMW, TOYOTA, ACC, TATA (hotels business) etc.], which indicate that it is better to understand GSCM concept with all functions of traditional supply chain. It is also observed that there is always scope for improvement at functional level so performance measurement becomes an integral part of the system. Green procurement is the affirmative selection and acquisition of products

Table 2: Global Procurement Practices**Research in Global Procurement Practices**

<i>Sl.No.</i>	<i>Author(S), Year</i>	<i>Objective</i>	<i>Conclusion</i>
1	Lintukangas.et.al (2010)	To examine the effects of long term planning, collaborative supplier relationships and supply management capabilities on the status of purchasing and supply management (PSM)	Finland and Russia were chosen for the study and the results showed that these elements positively influence the status of PSM in both countries
2	Hartmann.et.al. (2008)	To explain organizational design implications of global sourcing strategy and to derive explanations for application of different control mechanisms in global sourcing context	Study conducted at eight MNCs' suggest that variations in control mechanisms can be explained by two contingencies 1. Corporate organizational structure 2. Distribution of purchasing expertise among subsidiaries
3	Steinle and Schiele (2008)	This paper argues for the inclusion of an analysis of industry clusters when making sourcing decisions	This paper contributes a new and more differentiated approach to global sourcing decisions by integrating the cluster concept
4	Knudsen and Servais (2007)	To identify configurations of connections between import and export activities of firms and to analyze the distinguishing features of the resulting configurations	Results showed that close relationships are more important for globals and sourcers compared to locals and sellers
5	Ogden et.al (2007)	To explore differences in three antecedents of strategic sourcing in international environment.	Purchasing's professionalism, purchasing's status within the organization and purchasing's sophistication in managing external relationships are the three strategic purchasing factors and results indicate that differences exist among several countries within these three factors
6	Quintens. et.al (2006)	This paper presents a review of published research on global purchasing in the period 1990-2005	The antecedents, drivers, success factors and performance outcomes are described and an emphasis is led on the process of global purchasing
7	Gelderman and Semeijn (2006)	To gain insight in the organization and development of differentiated purchasing strategies by means of a portfolio approach in a global sourcing context	The purchasing portfolio tool appears to facilitate internal coordination, providing a framework for analyzing purchasing problems and possibilities. Purchasing goals and purchasing strategies are clearly connected to the results of the different portfolio matrices
8	Jahns et.al. (2006)	To present an explicit definition of offshoring along with the dimensions of contractual/legal arrangement and geographic location. To analyze the driving forces of offshoring on the environmental and company levels.	Offshoring can comprise business models such as offshore outsourcing, offshore development centers and captive shared services to be delimited from each other by the contractual/legal and geographic dimension, Impact of four environmental segments-economic, political legal, socio-demographic and technological driving forces was explained
9	Agndal (2006)	To study international purchasing market entry process of 10 industrial SMEs	Foreign purchasing market entry process is primarily need driven and opportunity driven. International purchasing among SMEs is more reactive than proactive in nature

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<i>Sl.No.</i>	<i>Author(S), Year</i>	<i>Objective</i>	<i>Conclusion</i>
10	Mol et al (2005)	To identify effects of technological contingency factors on international outsourcing	Technological uncertainty and the degree of product innovation are most positively associated with a high scope. Low depth type of international outsourcing are negatively associated with a low scope-high depth type
11	Quintens. et.al (2005)	To study similarities and differences in the perception of US and Belgium companies on global purchasing opportunities and their reactions	The ways companies are organized run parallel to both sides of the Atlantic. However New York cases rely much more on intermediaries for their international purchasing than Belgium firms
12	Kaufmann and Carter (2000)	To identify:- Drivers of international purchasing systems, -Features of an individual transaction,-Factors which lead to successful international purchasing transactions	Various situational factors such as the complexity and dynamics of business environment, strategic importance of international purchasing, lack of alternative resources as well as cost and non-cost driven motives tend to drive the six components of an international purchasing system
13	Smith (1999)	To decide which items to procure locally/ globally	The international purchasing decision is examined and a model is presented to identify those items which can be procured from abroad and which are best obtained locally
14	Arnold (1999)	To create concrete recommendations about how to organize global purchasing. This paper focused on structural aspects of global purchasing	Three organization models for global sourcing are developed and which gives suggestions for different types of organizations to meet the structure-strategy fit, the intra-strategy fit and the intra-structure fit.

and services that most effectively minimize negative environmental impacts over their life cycle of manufacturing, transportation, use and recycling or disposal. There is a range of green procurement strategies available to companies. Different strategies have different effects on the environmental behavior of suppliers. The strategies can be grouped into three major categories: product standards, behavior standards, and collaboration, Green et.al., (1998).

The first step in greening of any firm is to adopt green procurement practices. Green manufacturing capability depends on green procurement; Gavronski et.al (2011).

The drivers of green procurement are buying firms' environmental collaboration with suppliers which positively and significantly impacts their adoption of green procurement and top management commitment also positively and significantly impacts environmental collaboration with suppliers; Yen and Yen (2011). Other drivers are government regulations, customer pressure, expected business benefits, and firm ownership, Tayeb et al (2004)

Green procurement is dependent on factors such as product performance, purchase price, organization's

environmental concerns, Trading partners, Health-safety issues, Salam(2008);

Galle (2001), concluded that firms with a large purchasing volume is more inclined towards green purchasing than one with lower purchasing volume.

Moreover with increased concern over environmental liabilities, firms which take environmental regulatory compliance more seriously tend to get involved in green purchasing practices. Also firms recognizing cost savings opportunities of waste separation in the beginning of the supply chain tend to take interest in adopting green procurement practices, Galle (2001). Green procurement is one dimension of world class procurement practices and is viewed as the need of the firm in improving environmental and financial performance.

2.3 World Class Procurement Practices and Measures of Firm Performance

Previous researchers have used both financial and non-financial measures for measuring firm performance. The financial measures include return on assets, market share, Return on Investment, Operating Profit, growth rates in domestic and export sales growth.

Table 3: Green Procurement
Research in Green Procurement

<i>Sl.No.</i>	<i>Author(S), Year</i>	<i>Objective</i>	<i>Conclusion</i>
1	Gavronski. et.al. (2011)	To provide a framework for development of green supply management framework	Authors provide a model that explains the linkages between the green manufacturing capabilities to green supply management capabilities.
2	Large. and Thomsen, (2011)	To form a structural model explaining the environmental performance and the purchasing performance	The degree of green supplier assessment and the level of green collaboration exert direct influence on environmental performance and the environmental performance has a positive impact on purchasing performance
3	Yen and Yen, (2011)	To study the impact of critical drivers such as top management commitment to new regulatory requirements, customer pressure, and suppliers' opportunities to adoption of green purchasing	1. Buying firms' environmental collaboration with suppliers positively and significantly impacts their adoption of green purchasing, 2. Top management commitment also positively and significantly impacts environmental collaboration with suppliers 3. Regulatory pressure does not influence green purchasing significantly 4. Customer pressure does not significantly and positively influences firms' adoption of green purchasing
4	Bjorklund, (2011)	To investigate the character of different factors that can influence the environmental purchasing of transportation services	The environmental purchasing of transportation services are greatly influenced by management, company image, customers, carriers and control applied by government authorities
5	Tripathi and Petro (2010)	To develop a generic framework for effective implementation of green and environmentally sensitive procurement in any organization.	A model was proposed which presents the way of implementing the Green Procurement strategies at the functional level with consideration of linkages at the other levels.
6	Dada et.al. (2010)	Researcher consider procurement as an example of business operation and show how capturing previously-unknown material parameters in the respective information system can significantly increase the achievable optimizations	The proposed solution is that companies capture certain material-dependent parameters in their information systems, thus making the variations of environmental impact visible and the resulting optimizations achievable.
7	Salam(2008)	To Study relationship between Green Procurement adoption and the following parameters:- 1. Product performance, 2. Purchase price, 3. Organization's environmental concerns, 5. Trading partners, 6. Health-safety issues (study conducted in Thai electronic companies)	Research findings reveal that successful Green Procurement adoption is dependent on the four independent variables.
8	Bala.et.al (2008)	To analyze the power and effectiveness that a public university can have in introducing green initiatives to its suppliers of goods and services.	According to results obtained in this research it cannot be said that a regular pattern for predicting success when trying to implement a suppliers' greening program in public universities exists. However, contract specifications, process implementation, market characteristics, supply chain profiles, and supplier characteristics are factors that must be taken into account.

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<i>Sl.No.</i>	<i>Author(S), Year</i>	<i>Objective</i>	<i>Conclusion</i>
9	Ambec.et al (2008)	A. The aim of this paper is to review empirical evidence of improvement in both environmental and economic or financial performance by adopting green procurement practices	Positive links was found between Environmental and Economic performance : - 1. Opportunities for increasing revenues-Better access to certain markets-Differentiating products-Selling Pollution control technologies 2. Opportunities for reducing costs-Risk management and relations with external stakeholders -Cost of materials, energy, and services -Cost of capital -Cost of labor
10	Walker and Philips (2004)	To investigate the emerging issues involved in sustainable purchasing by focusing on four themes. (1) Moving from an environmental focus to social and economic objectives, (2) Sustainability and innovation, (3) Ethical supply issues (4) Measurement issues.	Challenges were identified and solutions to overcome these were proposed.
11	Tayeb.et.al (2004)	a. To examine the effect of four drivers, namely regulations (RG), customer pressures (CP), social responsibility (SR), and expected business benefits (EBB) on green purchasing (GP) in the Malaysian manufacturing sector	Green Purchasing is affected by the following drivers: -Regulations -Customer Pressure-expected business benefits -Firm ownership.The results also suggest that, although Malaysian firms show a high level of SR, it does not constitute a genuine driver for these firms to adopt GP.
12	Carter.et.al (2000)	To explore the effect of environmental purchasing on Firm performance	Environmental purchasing is significantly related to both Net income and Cost of goods sold after controlling for firm size, leverage and primary earnings per share
13	Zsidin and Siferd (2000)	To examine environmental research in the SCM literature in order to establish a framework for current and future development of environmental purchasing theory	Linkages of environmental purchasing with transaction cost analysis are established
14	Min.et.al (1997)	To identify environmental factors that may reshape supplier selection decisions. To explore the effects of green purchasing on packaging decisions.	A. Green marketing efforts cannot be successful without integrating the company's environmental goals with purchasing activities. B. Low-density and biodegradable packaging are seldom used by purchasing professionals as an important part of green purchasing strategy.
15	Galle.W.	To examine factors that influence firms' willingness to adopt a green purchasing strategy	Drivers of green procurement were identified

Similarly, the non-financial measures of performance include management's perception of productivity, profitability, market share, and customer satisfaction relative to competitors. The possibility of using non-financial performance measures was suggested by Dess and Robinson (1984) if the accurate objective measures are unavailable.

Subjective measures of performance have been used by several researchers (e.g. Li, 2000, Akimova, 2000). Studies has revealed that in order to improve firm performance (both profitability and market) manufacturing companies in India need to improve their functional competencies (sourcing, manufacturing, marketing, logistics and human resource), Dubey (2011).

Estampe.et.al. (2010) have analyzed various supply chain evaluation models that are being used to evaluate supply chains. In the study they have highlighted specific characteristics and application in different contexts. The models are: Activity Based Costing (ABC), Framework for Logistics Research (FLR), Balanced Scorecard (BSC), Supply Chain Operations Reference Model (SCOR), GSCF framework, ASLOG audit, Strategic Audit Supply Chain (SASC), Global EVALOG (Global MMOG/LE), World Class Logistics Model (WCL), AFNOR FD X50-605, SCM/SME, APICS, Efficient Customer Response (ECR), EFQM-Excellence Model, Supply Chain Advisor Level Evaluation (SCALE), Strategic Profit Model (SPM). Chopra and Meindl (2007) have defined six major drivers for supply chain performance: transportation, inventory, facilities, information, pricing, and sourcing.

Supply chain performance measurement models developed in recent years include Supply Chain Operation (SCOR) (Lockamy and McCormack, 2004), Global Supply Chain Forum (GSF) (Cooper et al., 1997) and Efficient Consumer Response (ECR) (ECR, 2010). Gunasekaran et al. (2004) has defined the evaluation of supply link:

Traditionally supplier performance measurement were mainly based on criteria such price variation, rejects on receipts and on time delivery, also emphasis was much on price competition than on quality and reliability of suppliers. More recently drastic changes has occurred in this area and the evaluation of suppliers in the context of the supply chain (efficiency, flow, integration, responsiveness and customer satisfaction) involves measures important at the strategic, operational and tactical level. Strategic level measures include lead time against industry norm, Quality level, Cost saving initiatives, and supplier pricing against market. Tactical level measures include the efficiency of purchase order cycle time, booking in procedures, cash flow, quality assurance methodology and capacity flexibility. Operational level measures include ability in day to day technical representation, adherence to developed schedule, ability to avoid complaints and achievement of defect free deliveries.

Purchasing managers must evaluate on an episodic basis their supplier abilities to meet the firm's long-term needs. The areas that need particular attention include the supplier's general growth plans, future design capability in relevant areas, role of purchasing management in the supplier's strategic planning, potential for future production capacity and financial strength to support such growth. Performance evaluation of buyers or suppliers is simply not enough—relationships must be evaluated. The parameters that need to be considered in the evaluation of partnerships are the ones that promote and strengthen them.

Purchasing activity are grouped into four categories that relate to the purchasing–supply base interface:- Supply base leveraging, buyer–supplier relationship development and supplier performance evaluation are separate categories of externally facing purchasing practices, Narasimhan and Das (2001). In contrast, purchasing integration refers to an internally focused set of practices that involve the integration and alignment of strategic purchasing practices and goals with that of the firm.

M. Day, S. Lichtenstein (2006) extends Das and Narasimhan's (2001) research model by:

- i. Extending purchasing practices to include a new construct supply management practices,
- ii. Introducing the new construct of strategic orientation,
- iii. Specifying a research model and propositions based on an explicit perspective of the interaction between supply management practices and firm strategy,
- iv. Extending the performance construct to include financial as well as operational measures of performance.

The literature review reveals the significance of world class procurement practices as a key competitive factor for manufacturing firms seeking world class supply chain and supply chain excellence. Organizations practicing best procurement practices such as supplier relationship management, vendor management inventory, global and green procurement with a proper vendor rating and evaluation system will be sustainable in the long run.

3. METHODOLOGY

Here longitudinal case study methodology has been used, which gives a possibility to be close to data, enabling in-depth insight into purchasing issues. The study was conducted at a mining and bulk material handling equipment manufacturing company in India with multi location plants across the globe. The research covers the time period 2000-2012. The data for the years 2000-2010 are primarily taken from documentation and minute meetings. From 2010-2012 empirical data were collected both through expert interviews and observations.

A single case is used in this research study. In line with previous purchasing research, our view is to start analyzing one organization's strategic purchasing practices before looking at other organizations'. It is true that single case study suffers from the problem of generalization but the issue here is that single case studies do not rest upon generalization in the statistical sense, towards samples and universes. The in depth understanding that is possible to gain from a single case study can be used for analytical generalization, i.e. generalization towards theory.

The unit of analysis is the strategic/ world class procurement practices and we chose to study this at a manufacturing company in India which is operating in a highly competitive industry across the globe. The studied company manufactures rubber with metal bonded products such as liners, screens, hydrocyclones, impact

pads and offers total solutions for the mining industry. The company has a highly organized procurement function involved in strategic procurement.

The industry where the company operates is mature and has a complex supply network. Therefore probability to explore the determinants of world class procurement and its impact in this environment was greater because this firm has experience in dealing with procurement issues over a longer period and which lead to development of best procurement practices.

Data collection method was mainly personal interviews. Interview methodology was used to gain an in depth picture of the procurement practices. We have completed 30 semi-structured interviews with 10 involved senior level executives. The respondents were from procurement, production, R&D, marketing and logistics. All interviews were transcribed immediately after interview to maximize recall and to facilitate follow up and filling gaps in the data.

We have used several methods of data collection such as interviews, observations and documents and have tried to validate the data through triangulation.

Another approach to ensure that data are valid is by using respondent validation in which researcher shows the results to the respondent involved in the study through presentations and written reports. Both formats of respondent validation are used in our study.

4. THE CASE

Company: ABC Industries Ltd

4.1 Introduction

ABC Industries Ltd is the flagship company of the ABC Group of companies, a name synonymous with pioneering achievements in the mineral processing, mining, material handling and environment industries.

ABC Industries Ltd has adopted a "TOTAL SOLUTIONS" approach for servicing its customers by leveraging its in-depth knowledge of mining beneficiation processes. Company's present focus is on being a solution provider rather than only selling products to the customers. The Company operates in a high entry barrier segment supplying non-cyclical products thus enjoying high sustainable margins and enjoys impeccable goodwill with customers for high quality solutions; has product approvals from all major mining and mineral processing companies globally.

ABC Industries Ltd is an ISO-9001 certified company and now products are well accepted around the globe. ABC has an extensive sales and distribution network through branches and subsidiaries spread across various jurisdictions across the globe. This has been due continuous in-house R&D activity and an enduring commitment to quality standards. The company believes in continuous innovations and has several patents in its name and has some patent applications which are pending grant.

4.2 World class Procurement Practices in ABC Industries Ltd

A. Top Management Support

In today's competitive environment it is important for procurement function to be competent and without top management support successful implementation of strategic practices at the operational level is impossible. In ABC industries the environment is favorable for procurement function because MD and CFO directly pay attention and also companywide recognition is given to the department. CPO is a part of the top management and participates in meetings for strategic decision making.

B. Procurement structure

ABC Industries limited have implemented a center-led organization network. Essentially, procurement benefits from strong functional leadership at the center, with actual procurement execution (transactions) delegated to operating divisions. The head of the central procurement function is responsible for establishing procurement policies and direction, upgrading and maintaining the skills of the procurement staff, establishing and influencing the career path for procurement professionals, and fostering cross-unit and -functional coordination. This model relies on a relatively small, high-powered procurement team at the center with the bulk of the procurement personnel spread around the operating units.

Establishing the credibility of a small procurement leadership group requires considerable authority to overcome well-entrenched, old style procurement habits and attitudes. Therefore ABC authority has enforced corporate contracts, formed cross functional taskforces to work on specific strategic opportunities, established systems and measures of performance for the procurement functions.

C. Supplier Management

Simplifying the contractual relationship with suppliers ABC Industries has a good supplier base and here suppliers are dealt in a very different approach. Since true relationships are based on trust and mutual win-win situation. Contract are no more like old days; contracts now are very short –no more than a few pages written in a simple way to ensure that supplier meet the expected performance. ABC has undergone rate contact with suppliers who are involved in complete supply/job work. Supplier selection is based on free capacity and every time job is divided among vendors to ensure timely delivery. This process is followed to save time in getting quotations and negotiation activities. Even concurrent engineering concept is followed in many cases where the initial drawings by design department are sent to vendor to start the manufacturing and later complete drawing is sent. This leads to fast progress of work without wasting much time. This is mostly done in case of mould and die manufacturing. More emphasis is given on developing relationships with vendors and they are seen as business partners. At instances joint decision is taken to make the product better. Vendor managed Inventory is followed within the plant to ensure that the critical item stock is maintained and production is never affected.

D. Maximizing Technology

ABC Industries have implemented SAP in 2005 and starting from checking indent, raising purchase order, release of purchase order is done in SAP by purchase. Records are maintained in SAP for future reference.

E. Green Procurement

At ABC, environmentally hazardous substances are categorized into one of two categories, consisting of: (1) Chemical substances that have an environmental impact through release into the atmosphere or water during their use at plants, and (2) chemical substances that have an environmental impact when disposed of as part of a product. ABC actively promotes green procurement by using products that have a low environmental impact, in order to reduce the environmental impact of products as well as raw and supplementary materials used in the production of products at its plants. As part of its green procurement initiatives for both liner parts and raw and supplementary materials,

ABC practices entryway management of chemical substances by asking its suppliers to report the contents of substances of environmental concern in materials and must not include prohibited-use substances. ABC has created its own database to promote chemical substance control, which also led the firm to establish its strong R&D. Material safety data sheet is always asked from vendor for supply of any kind of chemicals. Idea of this special R&D team creation is to assess all supply related material composition so as to ensure that production/products comply with Central Pollutant Control Board guidelines, and it is also intended to support ABC suppliers in the broader sense.

Specific areas in which R&D carried out by the company

- a. Polyurethane screen for various applications are being developed
- b. Development of modular panel for both rubber and polyurethane

Benefits derived as a result of the above R&D

- a. Substitution of imported products
 - b. Improvement in quality and life cycle of product
 - c. Development of Environment friendly products
 - d. New applications have been developed
- F. Environment Regulations

For ABC suppliers, the implementation of Environmental Management Systems (EMS) is essential to the task of obtaining reliable data. Furthermore, the process of creating, operating, and strictly adhering to Environmental Management Systems and the challenge of achieving “zero emissions” shares many elements in common with the “ABC Production System,” which emphasizes the strict elimination of waste and continuous improvement of productivity. ABC recognizes that the adoption of Environmental Management Systems by its suppliers strengthens their management quality, and has requested that its designated suppliers acquire ISO 14001 certification by 2017.

G. Measuring Purchasing Efficiency

Measuring purchasing performance in terms of year-to-year total system cost, including purchase price, costs of scrap, rework, administrative handling, warranty, field failure, and incoming inspection.

In addition to cost measures, ABC procurement department measure their own efficiency against the best in the world

through benchmarking, ABC Industries Ltd even measures the performance of their procurement departments through the eyes of their suppliers. Each year suppliers complete confidential surveys on procurement performance. Suppliers also share their newest technology with the company. Feedback like this improves the procurement group's effectiveness and value to the company.

H. Impact of World Class Procurement on ABC Industries Performance

Improvement in customer satisfaction level was seen after implementation of such world class procurement practices. Sticking to procurement policy resulted in better supplier selection thus leading to better delivery performance and few or almost no rejection. Environmental initiatives helped in developing green products and thus gaining competitive advantages over its competitors. Company image has changed and customers are happy not only due to timely delivery, best quality and green products offerings by ABC but because of its brand image which really reflects TOTAL SOLUTION by ensuring high level of perfection in all aspects. Company financial reports show significant improvement in financial performance due to increase in sales and market share. This case clearly showed that effort focused on carefully managing supply management produced financial benefits for the firm. From a financial perspective alone, a proactive approach to purchasing and supply management is advisable for firms wanting to enhance competitiveness. All participants in the supply chain should be involved and committed to common goals, such as customer satisfaction throughout the supply chain and enhanced competitiveness.

5. CONCLUSION

In today's performance evaluation processes, companies tend to refer to several models that will differ in terms of corporate organization, the distribution of responsibilities and supply chain maturity. Literature suggests that effective procurement management help to strengthen supply chain and win customers and also improve customer service. To bring about improved performance in a supply chain, performance measurement and improvement studies must be done throughout the supply chain. A good SCM program will bring about improved cross functional and intra-organizational process planning and control and more complete supply chain integration. A supply chain wide performance measurement initiative would seem most appropriate. Procurement management directly impacts on the corporate strategic planning process of the firm mainly with regard to aligning the strategic goals of

purchase management with the firm strategy. To strategically manage supply, managers must examine the effect of supply management on competitive position and firm performance. Manager needs to understand the internal and external forces that drives the industry and a good procurement manager must be able to explain Porter's five competitive forces in the industry and its effect on the firm. When selecting suppliers always factors beyond price should be considered such as Suppliers financial capability, strategic alignment, speed of design and manufacturing capacity. If environmental performance is a competitive dimension of Supply chain and a performance objective, then environmental performance can be considered as one important criterion for supplier selection in addition to the traditional criteria.

6. FUTURE SCOPE OF THE PRESENT STUDY

While this study is able to provide additional insight into procurement competency and its relationship with supply chain firm performance of firm, it also revealed areas that would benefit from further research. The study can be carried out to develop a framework which can be generalized for all Indian manufacturing firms.

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