Materiality analysis of SCM issues for Competitive Advantage: Study of an Indian FMEG Organization

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Abstract. Fast Moving Electrical Goods (FMEG) products represent the basic needs of its consumers in the modern society, influencing their lifestyle in every way from living room to drawing room, from kitchen to the bedroom. Globalization has resulted in fierce competition among the players of this fast growing sector. The only way therefore to sustain a profitable growth is to stay competitive in local and global market. However, given the legacies of past practices and old mindsets of Indian FMEG players, it is not easy for any organization to stay competitive unless it applies a systematic and scientific approach of supply chain management (SCM). This work attempts to analyse the issues of supply chain for competitive advantage of an Indian FMEG organization. The company under study has adopted a unique approach of materiality analysis that complemented seamlessly with the SWOT analysis to evolve its supply chain strategies and priorities. The process thus built around them has been evaluated against the performance in line with customer expectations. The case study offers an excellent framework to follow for any FMEG organization seeking competitive advantage in the face of current global challenges.

Keywords: FMEG; SCM; SWOT analysis; Competitive advantage; Materiality Analysis

1. Introduction
Fast-Moving Electric Goods (FMEG) is an emerging sector in present market scenario in India. With growth in infrastructure in areas of residential, commercial and industrial, the consumption of electric goods have increased in exponential ratio. This growth has fuelled the rise of FMEG industries in India with global and domestic players intensely involved to grab market shares. Cut throat Competition of domestic and global players has forced the Indian enterprises to adopt innovative supply chain strategies. Open market puts different set of challenges as compared to the protective environment of the past in Indian scenario. It is therefore crucial for FMEG industries to stay competitive both nationally and internationally and devise their strategies according to their relative position in the global and local network [1, 2, 3].
FMEG industries produce multiple products covering diverse socio-economic segments and geographic regions. Organized and unorganized areas with permanent and contractual workforces of FMEG sector make it more challenging. The Indian electrical industry is 40 billion USD that contributes to nearly 2% of India’s GDP. The growth of FMEG products in India has been sluggish form the last few years. The slowdown in construction industry is widely perceived as the main reason. However, new Government schemes such as Housing for All by 2022 (20 million houses for urban poor and 30 million houses for rural poor) and Smart Cities project promise to spur the demand of electrical products.

Further research paper has been organized as: Section two discusses literature review. Section three discusses research methodology. Section four discusses the case study. Conclusion has been discussed in section 5.

2. Literature review
Modern FMEG products penetrate deep into homes and lifestyles of the people. The consumer choice in electrical products and appliances are constantly evolving. India’s economic prowess is being driven by the huge population of the country fuelled with the purchasing power of a relatively rich and growing middle class as wealth always flows down to the bottom of the economic pyramid [4]. With the rapid rate of growth in demand for infrastructure development, demand for FMEG products have increased manifolds. Domestic industries are behind the schedule to ramp up capacity with increased production. They are focusing on innovative ways to achieve greater market share via more efficient channels of distribution. FMEG sector being exposed to products with short product life-cycle are prone to stiff competition. It is essential for organization to innovate continuously to maintain market share and sustain product line. One impact that potentially eventuating from the current market scenario is the need of innovation around brands in order to gain equity in market share. It is observed that electronically enabled information exchange systems improve the quality and velocity of information sharing through reciprocal interdependence and integrated coordination both across and within firms [5,6]. Re-order policy formulation, demand forecast information sharing mechanisms and demand behaviour are some of the strategic issues in SCM [7]. It is observed that the information sharing is a strategic factor for SCM issues like demand forecasting, optimizing excessive inventory and managing bullwhip effect [8]. Today’s retail consumer market is volatile, so it is necessary on part of organizations to make operations agile to market fluctuations. Supply chain need flexibility among all members of chain [9].

Government policy plays a significant role in growth of any type of industry in a country. The growth is based primarily on the policy being industry-friendly or not. Frequent regulatory changes affect channel and structure of marketing and distribution strategy and as a result it becomes a challenge to match according to market scenario. Consumer-centric observation and in-depth analysis of factors driving purchasing behaviour of consumer are among the most important core competencies required to build the winning strategies [10]. The market share of the product significantly depends on the brand knowledge and awareness of consumers on brand [11]. It is observed that higher value waste markets such as products with electrical & electronic wastes (e-waste) produce end-of-life materials are more suitable for re-manufacturing [12]. Innovation and product differentiation are challenging for fast moving electric industries [13]. Managing demanding customers, with high variety and short life of products is a challenge [14]. It is observed that fluctuating market raise the strong SCM for competitive advantages [15, 16]. Though supply chain management has been in focus for research from last many years, but SCM of FMEG still need attention [17].

3. Research Methodology
The advantage of a case study based research is that it allows an open minded observations and analysis. This leads to new insights in the subject under research. Authors have developed a framework of study as shown in Figure 1. Issues studied from literature and materiality analysis by discussion with senior management executives of the case organization were further analyzed by strength,
weakness, opportunity and strength (SWOT) techniques. Discussions with executives helped to identify different issues in a real scenario.

In the framework, strategy formulation has taken center stage. According to this model, the issues identified by materiality analysis will guide for supply chain strategy development. The implementation of supply chain strategies developed will leads to competitive advantages and sustainable performance improvement.

Finally, the current situation of case organization will be analyzed by studying different factors of strength, weakness, opportunities and threats by SWOT technique. The strategic fit between the SWOT factors and strategy that has worked for the organization is critically studied for the case organization [18]. The right strategic fit will lend much needed cutting edge to an FMEG supply chain. This will adequately illustrate the concept of building and sustaining the competitiveness of the company under study in particular and any FMEG supply chain in general. This company is described as XYZ in this work.

4. The Case study

4.1. Profile of organisation
XYZ is a leading FMEG company of India, trading in market from last 30 years. It is a listed company with one of the largest market cap in the country. The company has vast range of electrical products. Its recent acquisition of another leading brand has helped it penetrate further into consumer homes in the electrical domain. Case company is among the top three shares holders in product categories viz. microwave ovens, vacuum cleaners, exhaust fans, modular switches, power cables and air conditioners. The sales turnover of the company is over $ 1.2 Billion. The total numbers of employees are 10,000. The company has a vast clientele base, not only in the domestic market, but also in international markets including Indonesia Vietnam, Bangladesh, Sri Lanka, Dubai, Thailand, Saudi Arabia, Iran and South Africa. The XYZ Company is widely present in the consumer segment and has elaborated distribution system. The company has approximately 400 dealers well spread out in the country. The company aspires to penetrate deeper into home segment.

4.2 Enablers of the organization
The competitiveness of an organization can be derived through diverse enablers. The enablers can be tangible or intangible. Major enablers for XYZ Company are discussed in the following sections:

4.2.1 Cost control mechanisms.
The XYZ has certain unique cost control mechanisms the monitoring the financials of its supply chain [19]. Starting from Sales and distribution system, there are strict discount policies where approval comes from Strategic Business Unit (SBU) head in case any sales branch needs discount more than the policy discount. List price realization is tracked in monthly MIS that is generated for each product vertical. The credit limits to each dealer is assigned which is dynamically monitored based on the dealer performance. There are cost saving programs that are periodically launched and monitored at
the highest level. The company has saved approx. 275 crores through structured Value Analysis/ Value Engineering exercises, energy conservation measures, price negotiations and Productivity improvements. On supply chain front, the logistics department has developed a software based dashboard which facilitates the full truck loading (FTL) leading to enormous savings in transportations from manufacturing plants to warehouses.

4.2.2 Logistics factor.
In the last couple of years the case company has invested a lot of money on brand building, distribution enhancement, in year 2018-19, the company is increasing its advertisement spend in terms of percentage of revenue almost by 80-100 bps which is an indication that it is investing for the future and that result is coming in its overall sales growth. So, despite changing market trends, the company stands to achieve the growth because of its strong brand equity as well as distribution enhancement into tier two-tier three cities which brings in new growth for the company. To manage its distribution system, the company has adopted hub and spoke model for their supply chain operations that means:
- A class items are stocked at branches and billed to customer from there.
- B class items are stocked at hubs and billed to customer from hubs.
- C class items (generally customized items) are billed from plants directly.

This model facilitates immediate delivery of fast moving A class items, reduces inventory load at branches of B class items, full truck load from plants to hubs and hubs to branches and eliminates inventory load of slow moving or customized C class items. The company has a very dynamic logistics function. Post Goods and Services tax (GST); it was quick to conceive the compelling need to consolidate its all warehouses into single warehouse in national capital region (NCR). The company by way of its policy does not pay freight charges to its suppliers. Instead it gives business volume coupled with a vision of long term growth and profitability to its suppliers.

4.2.3 IT applications.
The case company has adopted IT technologies as a proactive approach to meet long term strategic vision. Information technology is being utilized in its various day-to-day operations. The entire gamut of operations viz. order booking, production planning, purchase planning, quality inspections, aging analysis for inventory management, storage control, billing and dispatches are conducted in the enterprise resource planning (ERP) system. There are dedicated modules for commercial activities such as financial accounting, controlling, asset management, product costing in the ERP system. The company has a portal system in which each employee can view and execute transactions such as:
- leave applications and approval,
- Tax planning
- Monitoring of legal compliances
- Performance Management system.
- Claims of travel expenses and many others.

The attendance punching, monitoring and salary processing is carried out at Bio Matrix system. There is companywide database management to capture sustainability parameters according to GSI guidelines is handled through software called TREENI. Interplant and inter-branches interactions take place through audio and video conferences. Another area in the IT where company has focused with great results is the Sales force automation (SFA) which is an integrated application of customizable customer relationship management (CRM) tools that automate and streamline sales inventory, leads, forecasting, performance and analysis. In summary, the extensive IT applications lends a solid platform to the company for data collection, compilation, collation and thereby decision making in operational and business activities [20].

4.3 Materiality Analysis
The XYZ Company has unique practice of conducting what is known as materiality analysis to understand the core issues of concern of the organization as shown in Figure 2. Structured stakeholder surveys with management and staff including senior leaders and employees were conducted at various levels. The responses from these surveys enabled the company to gain deep understanding of its business performance against the key concerns of the company and make improvements accordingly. Every year since then, internal stakeholders are engaged to pro-actively address issues that are of the topmost concern to them. In the reporting year, the company undertakes a rigorous materiality assessment exercise. The issues that emerged from this assessment forms the basis for company strategy development for long term sustainability and its road-map for the future.

![Materiality Analysis](image)

**Figure 2. Materiality Analysis**
4.3.1 Objectives of Materiality Assessment. The assessment is conducted with following objectives in mind:
- Identify significant operational and governance risks and opportunities for company.
- Identify areas for target setting to improve business and sustainability performance
- Communicate a broader business strategy

4.3.2 Materiality Assessment Methodology
- Identification of potential issues
- Surveys with employees and management
- Analysis of responses received
- Material Issues identified and presented to senior management

4.4 Supply Chain Strategy Development

The relevant issues obtained from the materiality analysis are then analyzed by calculating and comparing the weighted average of participant's response to each issue and ranking these issues subsequently on the basis of the weighted average score achieved by each issue. Based on the responses, each material issue was assigned a separate score as shown in figure 2. After mapping responses in order of priority from both management and employees, 13 core issues are identified as most critical and of the highest priority for XYZ. These material issues are finally presented to top management for planning and implementing actions. The Materiality matrix shows the issues plotted against relevance to business and to stakeholders of the company.

4.5 Sustainable Supply chain priorities

The supply chain priorities are based on the core issues identified through materiality analysis and the company’s intent to address them is given in the Table 1:

4.6 Collaboration Priorities

The company approach to make business competitive stems from consistent and extensive engagement with key stakeholders. By regularly gathering this feedback through materiality analysis, it is always working to address issues of concern and improve its business operations. Having decided the sustainable supply chain priorities, the organization has established and implemented standard operating procedures that are water tight and sacrosanct for compliance to effectively address all of them. Some of these procedures are discussed in the following sections:

4.6.1 Training and skill development process. The training needs of each staff personnel are identified through personal feedback and performance appraisal system. Training needs thus captured are compiled and consolidated into an annual training plan. Trainings are conducted and effectiveness of these trainings is evaluated for possible changes in the training content and training plans. To develop and imbibe multiskilling to workmen, all the departments maintain skill matrices. The skill matrix has 4 distinct stages of learning each skill set that are as under:
1. The operator under training
2. The operator is independent but needs supervision
3. The operator is independent
4. He can train others.

To promote creativity and involvement, the company has 45 Nos of quality circles that make regular presentations. The Best quality circle is awarded and the members are sent for external events organized by industry associations such as CII, FICCI, ELCOMA and the like.
### Table 1 Sustainable Supply Chain Priorities

| S.N. | Core issue                              | Company Intent                                                                                   |
|------|-----------------------------------------|-------------------------------------------------------------------------------------------------|
| 1    | Energy consumption and efficiency       | Foster a culture of energy efficient practices at manufacturing plants and develop products that reduce energy footprint during their use phase |
| 2    | Regulatory compliance                   | To stay updated and strictly adhere to all applicable laws as applicable across different spheres of our business |
| 3    | Renewable Energy sources and use        | Explore, evaluate and bring in use greener sources of energy with the aim of reducing reliance on fossil-fuel sources, and thereby reducing our carbon footprint in the process. |
| 4    | Environment Impact of Product and services | Creating products that are responsible and efficient in their use, and have minimal impact on the environment during and post their use life. |
| 5    | Input materials used                    | Focus on greater resource efficiency through better material management; waste reduction; waste reuse; and increasing use of recycled or alternative materials in our production. Reducing dependency on virgin materials and working towards phasing out of hazardous materials. |
| 6    | Revenue Generation                      | Focus on reducing manufacturing costs improving margins; increasing community investments etc.    |
| 7    | Wealth Distribution and Impact          | Contributing significantly to national and local economies through doing business responsibly with our suppliers, paying wages and salaries, paying taxes, and making long term capital investments. |
| 8    | Customer Satisfaction Practices         | Best in-class customer management practices with focus on customer support and timely redressal |
| 9    | Employment Turnover                    | Ensuring business growth through hiring and retention of skilled manpower. Keep employees motivated through human resource practices, and strive to become a preferred employer of choice. |
| 10   | Employee Benefits                       | Ensuring best in-class perks and incentives suite offered to employees, along with leading skill development programs, thereby retaining the best talent that can contribute to the continuous growth of the organization. |
| 11   | Training and skills Development        | Build an organizational culture that strengthens the core competencies of our employees and has a direct impact on our sustainability |
| 12   | Health and safety Assessment of products | Investment in R&D and Testing practices for proper due diligence during product development phases, and rigorous in-house checks and balances for ensuring our products are safe for usage during and after their use life |
| 13   | Occupational health and safety          | Providing and maintaining a safe and secure workplace for our employees, free from health, safety, and harassment related risks. |

### 4.6.2 New Product development.

The company follows a systematic new product development process that is known as 7 gate system. The new product development process has to pass through 7 distinct stages before it can commercially enter the market. The 7 stages are as follows:

- Idea and concept generation
- Prototype development
- Detailed design
- Tooling and part approval
- Pre-production corrections
- Production
- Evaluation

Each of these stages has well defined milestones and deliverables and is mapped in design and development software called Pro-E. The designer cannot cross over to the next stage unless all the necessary design documents are uploaded in the software system. Critical factors to evaluate the design performance are lead time to market, Field performance in PPMs for first six months. Product benchmarking is the main tool for the R & D to keep abreast with design features and functions offered by competitors. Competitors’ samples are picked up from market and they are completely dismantled in an exercise called teardown analysis. The opportunities for improvement are jotted down in this collective session and actions are taken to take the product design to the next level. Design for assembly (DFA) and Design for Manufacture(DFM) are the driving tenets to make subassemblies and final assemblies easier to fabricate in the shop floor.

4.6.3 Product Regulatory Compliances
The XYZ Company makes industrial products that are driven by stringent specifications. There is focus of specification compliances not only by the top management but also by the owners of the company as part of their commitment to meeting all laws and regulations of the land. The materials are specified by design team and validated by a dedicated material specifications cell to ensure that product meets all International Electro technical Commission (IEC) compliances. The company owns a short circuit lab up to 50 KVA. Whenever applicable, the product compliance certificate are obtained from third party agencies such as CPRI, ERDA, ERTL who test the products as per the applicable standards and grant the certificate after careful evaluation of compliance.

4.6.4 Supplier development Process.
The company’s Code of Conduct enables supply chain partners to follow its principles of corporate governance built on trust and transparency. A "Code of conduct" is signed with all suppliers for statutory compliance with applicable laws of environment health & safety act, child labour act, contract labour regulations and prohibition act, etc. This Code is integrated into the day-to-day procurement and operations and is an integral part of our vendor qualification, development, and evaluation requirements. A significant number of suppliers are small producers with limited time and resources. They lack the means to enhance strategic learning to improve quality & productivity. To address this issue, the company formed the society named as XYZ association of business innovation & transformation. As part of this group, the lean manufacturing consultants provide guidance to the suppliers and connect them with government-based financing for capacity building. Currently the company is supporting six vendor clusters (comprising of 57 suppliers) on the following manufacturing techniques:
- 5S System
- Standard Operating Procedures (SOP)
- Kaizen Blitz or Rapid Improvement Process
- Value Stream Mapping
- TPM (Total Productive Maintenance)
- Single Minutes Exchange of Dies/ Quick Changeover
- Visual Control
- Just in Time (JIT)
- Cellular Layout
- Poka-Yoke or Mistake Proofing
- Kanban System
On cost front, the ERP system enables the consistency of costing for same or similar parts. The suppliers are persuaded to commit to clean sheet costing method in which individual cost elements such as gross weight, Net weight, rate per machine stroke, conversion cost, machine hourly cost, packing and freight charges are clearly captured.

4.6.5 Manufacturing facilities and processes.
XYZ Company has become the market leader through its world-class manufacturing processes and technologies. It has the manufacturing capability to produce good quality products at the right time and with cost efficiency. It has an automatic production line, which is developed by the company automation engineers indigenously. All the testing of the circuit breakers is done by the Special Purpose Machines (SPMs) without manual intervention and all the SPMs are interfaced so that the real data are transferred to the computer with the help of Programmable Logic Controllers (PLCs). Based on this real data (no one can manipulate the data in the system), the different quality tools (e.g., FMEA, 7QC tools, root cause analysis) are applied on relevant areas to reduce the chance of failure.

XYZ Company has the best tool-room facility, which includes CNC wire-cut, Electro discharge Machines (EDM), CNC Milling Machines with other conventional machines. Worker involvement and empowerment practices have been established in the company to implement Poke-yoke. As an example, every product is marked with a unique bar code system, which is read by the bar code reader before doing the testing of the product, and data are transferred to the server with the help of the communication port through PLCs; if a product is not OK or not tested at the previous stage, it will not be accepted by the next machine.

4.6.6 Inventory management.
This process covers all stages of material flow in the supply chain viz. raw material, components, work in progress, finished goods at plant and finally the finished good stock at sales branches. The suppliers are given firm schedules monthly and the tentative schedules for one quarter. They are supposed to keep safety stock of 15 days to one month depending upon the lead time of raw material and components. The procurement managers have their targets for keeping raw material & work in process (WIP) inventory less than 25 days. The production managers circulate their WIP levels at the end of each month as part of their product MIS. Since the production and purchase planning is ERP based, the ordering of material and dispatch of finished goods is based on the orders based on the system leaving little chance for inventory to build up in Finished Goods (FG) stores. Plant FG has therefore minimal inventory. The safety stocks are maintained at branches and hubs based on the predefined levels.

4.6.7 Energy Efficient Processes
Lowering the energy footprint has been company’s top environmental agenda for last 5 years. This year, it reduced its energy consumption by approximately 2 million units across all plants and installed solar photo- voltaic systems with a combined capacity of 2.3MW at two of its plants. This renewable energy investment lowered the dependence on fossil-fuel based energy and brought down Green House Gases (GHG) emissions, which is equivalent to planting 90,000 trees. The data reported on the environmental and social sustainability indices is based on the company’s integrated data management system. Strict internal controls are exercised to collect and analyze the data to support all disclosures in this report. The company management believes that third party assurance not only leads to continual improvements but also helps in building confidence with key stakeholders. The whole data in the annual Sustainability Report is therefore externally audited and assured by KPMG.

4.6.8 Total quality management.
The company has embraced ZED model of business excellence made under make in India scheme of Govt. of India meant to place the companies on the path to become world class companies. This is
widely perceived as Mini Deming model of TQM. The adoption of this standard has brought in all round improvements in all the functions and departments of the XYZ Company. The 50 parameters of this model cover the entire gamut of company operations. Broadly, there are 36 enablers to strengthen the overall working and 14 outcomes to measure the overall output performance for which company has devised a unique implementation strategy. The company leadership has split these 50 parameters into 7 pillars as given in Figure 3. Each pillar has been assigned a leader and his team. The structure is shown in figure 3 below.

![ZED Excellence Focus Areas](image)

**Figure 3.** ZED Implementation Pillars

4.6.9 *Occupational health and safety processes.*
The company has adopted the OHSAS-18001 standard to address issues concerning health and safety. Under this umbrella standard, the company has established comprehensive framework of OHSAS policy, Procedures, Safety & health Management programs, Audit and review mechanisms. The company strictly follows all regulations dealing with child labour, forced and compulsory labour, disciplinary practices, working hours and remuneration. Again, in keeping with company practice, the OHSAS system is periodically audited by a certification body DNV. There have been no major or minor noncompliance reported in these audits for the last 3 years. Moreover, the statutory audits under factory act have never been a source of concern for company’s management terms of any penalty or notice that speaks of its satisfactory compliance status.

4.6.10 *Employee retention and welfare processes.*

**VIGILENCE**

XYZ’ whistle-blower policy ‘VIGILENCE’ empowers anyone associated with the organization to report unethical behaviour directly to the management. The reported issues may include actual or suspected fraud or violation of the company's Code of Conduct or ethics policy. There is one vigilance officer in each plant who reports to chief vigilance officer sitting in Head Office.

**KAIZEN XYZ ' KAIZEN '**
policy promotes a culture of innovative thinking and creativity in the organization. The policy promotes ideas across technical and non-technical areas such as commercial, general administration, employee welfare, manufacturing processes, and cost savings.

WOMEN EMPOWERMENT
XYZ is committed to provide a workplace in which the dignity of every individual is respected. To prevent issues of sexual harassment of women at the workplace, a complaint committee has been instituted in XYZ which is fully empowered to issue notices to the employee against whom the complaint has been filed. The Complaints Committee makes an annual report to the Audit Committee of the Board of Directors of the Company on the complaints received and action taken by them during the financial year.

4.6.11 Customer satisfaction processes.
On company’s Business Ecosystem, the professionals work closely with the business partners (dealers and suppliers) to serve their valuable customers to their utmost satisfaction, creating shared value for all. The supply-chain is resilient and can adapt quickly and efficiently to changing market conditions [21]. This sustainable value chain is backed by the skills of experienced workforce and trustworthy relationships that the company maintains with its business partners.

Brand loyalty is the engine that drives growth of this company. It is imperative to stay closely connected with the customer base and be very responsive to their feedback and needs. All call centers that operate in nine languages, provides regional, national and international support to the customers to ensure sustained value for them. The company has used the Net Promoter Score (NPS), an international indicator of customer satisfaction to measure how willing its customers would be to recommend the Company’s brand to others. The service department of XYZ Company has recently conducted a customer satisfaction survey with a total of 13,193 customers of which 89% reported satisfaction with the products.

4.7 Performance of the Company
Performance measurement is the process of quantifying the efficiency and effectiveness of the manufacturing system. As it has been mentioned earlier, the company has adopted a ZED model of business excellence which provides a framework of enabling and output parameters. Thus the company has built in system of measuring its performance through these sustainable supply chain management practices [22].

Performance data was collected for the 3 years to capture the effectiveness of established processes. On the basis of this data, performance of XYZ on some measures is given below:

- Direct online suppliers have increased from 35% to 65% over the last 3 years. This has resulted in the overall improvement in quality and delivery performance of the suppliers as reflected in the vendor rating data.

- The quality department monitors the low performing suppliers (LPS) for special focus. LPS suppliers giving more than 10000 ppm for consecutive 3 months have gone down to single digit figures from 19 to 8 in the last period Oct ’17 – March 18.

- The materials department has presented a saving of 3.5% over a spend base of 3800 crores in the year 2017 through proper costing, negotiations and alternative vendors.

- The sales growth of the company in the year 2017 -18 has been 11.5% whereas the inventory has increased only 8%. Moreover if the inventory in new products and high growth plan product verticals is factored as there was planned increase, the inventory has gone up by 5.5% only.

- The Overall equipment effectiveness (OEE), measure of availability, performance and quality produced by the machine has increased from 65% to 81%.

- Supply chain function centrally monitors the delivery performance of plants through two parameters viz production adherence and operational adherence. They are defined as follows:
Operational adherence = Total Dispatch quantity by manufacturing plants / Total stock orders by sales branches
Production adherence = Total dispatch qty. by plants / Plan uploaded by plants in ERP system.

- This delivery performance system was introduced by supply chain team in the beginning of financial year 2016-17. The operation adherence was 78% and the production adherence was 83%. Both operational and production adherence parameters have increased to 88% and 96% respectively in the financial year 2017-18.

- Cost of Poor Quality (COPQ) (External): Service cost in % to sales is 1.83% YTD Mar. 2018 against 2.07% same period FY16-17 (12% reduction). Overall service calls in % to sales quantity is 0.56% YTD Mar. 18 against 0.59% against same period FY16-17. Product related calls being 0.41%.

- COPQ (Internal): The internal rejections as reflected in the BIW reports of SAP system shows have shown improvements from 2.35% to 1.12% over the last 3 years. The rolling throughput yield has increased from 89% to 97% across all plants.

- Net revenue of the company increased from 4182 Crores in 2011-12 to Rs. 6135 crores in 2016-17. Thus company has made an average of 10% growth year on year in the last 5 years.

- The company has steadily improved its EBIDTA margin from 12.8% to 13.4% from 2013-14 to 2016-17. The PAT has increased from 10.9% to 13.5% in the same period.

- The service responses show that 85% of the service issues are resolved within 24 hrs. in the year 2017-18. This was 74% in the preceding year.

Above observations clearly indicate that the XYZ Company has improved its performance in terms of vendor development, Quality, Delivery, inventory management, maintenance, sales and overall profit.

4.8 SWOT analysis

The case study has followed the model shown in Fig-1 and thereby different issues of competitiveness such as core issues of concern through materiality analysis, strategy development, competitive advantage and sustainable performance were analyzed. This has helped us to identify major Strengths, Weaknesses, Opportunities and Threats (SWOT) for the company. They are all mapped in the Table-2 as under:

| Strengths | Weaknesses |
|-----------|------------|
| - Strong brand recall | - Lack of ecosystem for product innovation |
| - Vast network of loyal dealers | - Proper amalgamation of new and old manpower is missing. |
| - Elaborate service network through direct and franchise channels. | - Lack of succession planning |
| - Qualified and trained manpower and teamwork | - High employee turnover |
| - Lean manufacturing and ISO certified suppliers | - Weak government liaisoning |
| - Central and plant based R & D setups | - High Manpower cost |
| - Strong IT workforce and its penetration in operative areas. | |
| - Healthy & positive cash flow | |

| Opportunities | Threats |
|---------------|---------|
| - New acquisition has opened up new markets taking company deeper into consumer durables. | - Lack of skilled workforce given the labour intensive plant operations. |
| - Export avenues in the South Asian, | - Higher expectations of all stakeholders |
| | - High customer expectations on Quality |
African and European markets. and reliability due to invasion of
- Make in India schemes have opened up large infra sector for company product line.
- Multinationals in domestic market.

5.0 Conclusion
After the global meltdown in 2008, competitiveness of organizations has received considerable attention from researchers as it was seen as the only way to survive and make profits and growth. A unique step in this direction is that a sector specific study for FMEG companies has been conducted through this case study [23]. The present study relates to FMEG supply chain in particular as it starts with challenges that this sector faces and also identifies certain enablers to make FMEG companies competitive. The study adopted theoretical as well as practical approach for analyzing different issues of competitiveness through materiality analysis. Then case study was elaborated for better understanding of the core issues management by this FMEG company. Some of the major observations about competitiveness of XYZ are:
- It has a clear road map of growth and profitability and to achieve this they have identified the enablers and challenges to work on.
- The company has leaped across market segments and product categories through a rigorous commitment to innovation and conducting business with ethics and accountability to all our stakeholders.
- Board leadership, timely disclosures, transparent accounting policies and high level of integrity in decision-making are salient aspects of its governing approach
- It is committed to generating economic well-being by ensuring that we nurture our planet's natural and social capital.
- XYZ company has developed a responsible supply chain to minimize risks, conform to regulations, and realize efficiencies that lower costs and reduce natural resource pressures while developing products that are beneficial for society and the environment

XYZ has greatly raised its competitiveness and can be a benchmark for other organisations. Therefore, the above observations about XYZ can help other organisations in framing their strategies for competitiveness. Moreover, The Company has demonstrated a link between green supply chain practices and healthy economic performance. This will motivate other organizations to adopt such practices. However, competitiveness enhancement is a journey and not a destination. Organisations need to identify new aspects of competitiveness and build appropriate competencies from time to time. There had been survey based researches which established significant relationship between manufacturing strategy and performance of the firm. However, the case study presented in this paper will uniquely be used for building theories for sustained competitiveness for supply chains of different product segments.

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