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**IIFT Alumni – Batch EPGDIB 17-19**



## **A DETAIL PROFILE REPORT ON BEML LIMITED**

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<b>Contents</b>	<b>Page No.</b>
1. Introduction.....	3-5
2. Key Milestones .....	6
3. Vision-Mission Analysis .....	7-8
4. Current situation of BEML .....	9-12
5. Analysis of strategic factors.....	12-13
6. TOWS Matrix.....	14
7. Porter's Diamond.....	15
8. Porter's 5 Forces.....	16
9. Value Chain Analysis.....	17-22
10. Business Level Strategy.....	23
11. BCG Matrix and Explanation.....	24-27
12. Nine Cell Analysis .....	27-29
13. Corporate Level Strategy.....	29-31
14. Conclusion.....	32
15. Bibliography.....	32

## **1. Introduction:**

BEML Limited (formerly Bharat Earth Movers Limited) was established in May 1964 as a Public Sector Undertaking for manufacture of Rail Coaches & Spare Parts and Mining Equipment at its Bangalore Complex. The Company has partially disinvested and presently Government of India owns 54 percent of total equity and rest 46 percent is held by Public, Financial Institutions, Foreign Institutional Investors, Banks and Employees. BEML Limited, a 'Miniratna-Category-1', plays a pivotal role and serves India's core sectors like Defence, Rail, Power, Mining and Infrastructure. The Company started with a modest turnover of Rs. 5 Cr during 1965 and today, thanks to its diverse business portfolio, the company has been able to achieve a turnover of more than Rs.3,500 Cr.

The Company operates under three major Business verticals viz., Mining & Construction, Defence and Rail & Metro. The three verticals are serviced by nine manufacturing units located at Bangalore, Kolar Gold Fields (KGF), Mysore, Palakkad and Subsidiary - Vignyan Industries Ltd, in Chikmagalur District.

BEML operates on three major business verticals for associated equipment manufacturing:

- Mining and construction
- Defence
- Rail and Metro

In addition to the above, there are three strategic business units (SBUs):

- Technology Division for providing end-to-end engineering solutions
- Trading Division for dealing in non-company products
- International Business Division for export of company products & services  
Mining & Construction

Business BEML Limited offers a comprehensive and diverse range of mining machinery for both opencast and underground mines. BEML products in this domain are: Electric Rope Shovels, Hydraulic Excavators, Bulldozers, Wheel Loaders, Wheel Dozers, Dump Trucks,

Motor Graders, Pipe Layers, Tyre Handlers, Water Sprinklers and Backhoe Loaders. Besides BEML also manufacturers mammoth Walking Draglines for cost-effective operations in the opencast mines. BEML has ventured into underground mining with products such as Side Discharge.

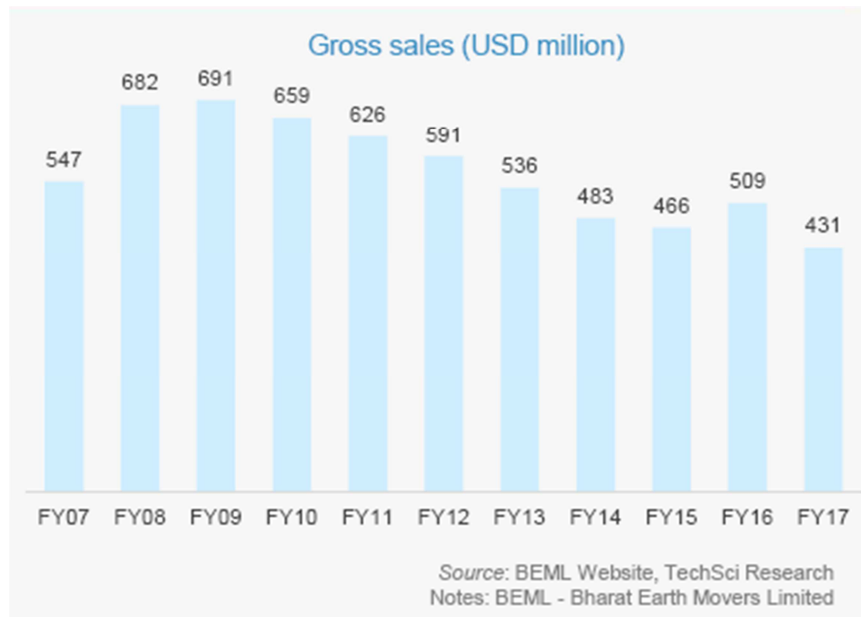
Being India’s leading Defence equipment manufacturer, BEML Limited keeps the Indian Army and other Defence forces abreast with state-of-the-art military equipment. The company manufactures variants of heavy duty Tatra vehicles for all terrain operations including Bridge Layer, Field Artillery Tractor, Medium and Heavy Recovery Vehicle, Pontoon Mainstream Bridge Systems, Crash Fire Tenders, Mobile Mast Vehicle etc. BEML also supplies engineering Mine Ploughs, Tank Transportation Trailers, Weapon Loading equipment, Armored Recovery Vehicle, Milrail Coaches and Wagons apart from Aircraft Weapon Loading Trolley and Aircraft Towing Tractor. BEML plays a stellar role in the country’s Integrated Guided Missile

Also, BEML supplies equipment to Indian Railways which include Integral Rail Coaches, Overhead Electric Inspection Cars(catenary cars),Postal Vans, AC/DC Electric multiple units, Diesel EMUs, Utility Track Vehicles, Track Laying Equipment, Broad-Gauge Rail bus, Treasury Vans, Spoil disposal Units etc.

**The products manufactured under the three Business Verticals are :-**

DEFENCE	MINING & CONSTRUCTION	RAIL & METRO
✔ Tatra based High Mobility Trucks	✔ Bull Dozers	✔ Integral Rail Coaches
✔ Recovery Vehicles	✔ Excavators	✔ Metro Cars
✔ Bridge Systems	✔ Loaders	✔ AC EMUs
✔ Vehicles for Missile Projects	✔ Pipe Layers	✔ OHE Cars
✔ Tank Transportation Trailers	✔ Wheeled Dozers	✔ Steel and Aluminium Wagons
✔ Milrail Wagons	✔ Tyre Handlers	✔ Track Laying Equipment
✔ Mine Ploughs	✔ Shovels	✔ Utility Vehicles
✔ Crash Fire Tenders	✔ Dumpers	✔ Treasury Vans
✔ Snow Cutters	✔ Water Sprinklers	✔ Spoil Disposal Units
✔ Aircraft Towing tractors	✔ Motor Graders	✔ Broad gauge Rail bus
✔ Aircraft Weapon Loading Trolley	✔ Under Mining Equipment	

BEML's products are sold and serviced through its large Marketing Network spread all over the Country and are exported to more than 67 countries. BEML's nationwide network of sales offices enables buyers with ready access to its wide range of products. Also, the full-fledged service centers and parts depots offer total equipment care, maintenance contracts and rehabilitation services. The company has a dedicated R&D infrastructure and team in line with consistent policy of the company to meet the technological demands through in-house R&D and strategic technical tie-ups with global players.



### Manufacturing Facilities

BEML has 9 manufacturing units spread over the following locations:

- Kolar Gold Fields (KGF) Complex (around 100 Km from Bangalore)
  - Earth Movers Division
  - Hydraulics & Powerline Division
  - Rail Coach Unit - II
  - Heavy Fabrication Unit
  
- Mysore Complex (around 130 Km from Bangalore)
  - Truck Division
  - Engine Division
  
- Bangalore Complex - Rail & Metro Division
- Palakkad Complex
- Vignyan Industries Limited, a subsidiary located at Tarikere (around 300 km from Bangalore)

➤ **Key Milestones :**

1964 - Incorporation of our company as a private limited company with the registered office at Bangalore. Simultaneously, we took over as a going concern the rail coach division of Hindustan Aeronautics Limited in Bangalore

1968 - Establishment of the heavy earthmoving equipment division at Kolar Gold Fields.

1979 - Collaboration agreement entered into by us with Komatsu Limited, Japan for technical know-how in the manufacture of a wide range of earthmoving equipments such as bulldozers

1985 - Dump truck division established at Mysore

1986 - Received National Import Substitution Award from Ministry of Science Technology, GoI

1987 - An exclusive hydraulics and powerline division and a full fledged research and development center set up at Kolar Gold Field

- Purchase of Mysore complex unit

1990 - Asia's largest 170 ton electric dump truck assembled and launched

1991 - Engine division set up at Mysore for manufacturing heavy-duty diesel engines

1992 - Conversion of our Company into a public limited company

1996 - Major counter trade agreement with Syria executed against import of rock phosphate

1997 - Recipient of award for Best Employer of the Physically handicapped from Ministry of Welfare, GoI

2003 - Manufacture and supply of hi-tech stainless steel metro coaches to DMRC

2005 -BEML signs MoU with Rotem for Aerobridges

2014 -BEML rolls out 136th Metro Car to Delhi Metro RS6 Project 2015

2017 – Govt of India announce strategic sales of controlling shares to private.

## **Mission and Vision:**

Vision:

Become a market leader, as a diversified Company, supplying quality products and services to sectors such as Mining & Construction, Rail & Metro, Defence & Aerospace and to emerge as a prominent international player.

Mission:

- Improve competitiveness through collaboration, strategic alliances and joint ventures, to sustain and enhance market share in product groups BEML operates.
- Grow profitably by aggressively pursuing business and market opportunities in domestic and international markets by pursuing atleast 10% of sales in exports.
- Adoption of state-of-the-art technologies and bring in new products through Transfer of Technology and in-house R&D.
- Continue to diversify and grow addressing new products and markets with turnover from in-house R&D developed products at 60%.

The mission statement of a company is analyzed on the following 9 parameters using Mission Statement Matrix.

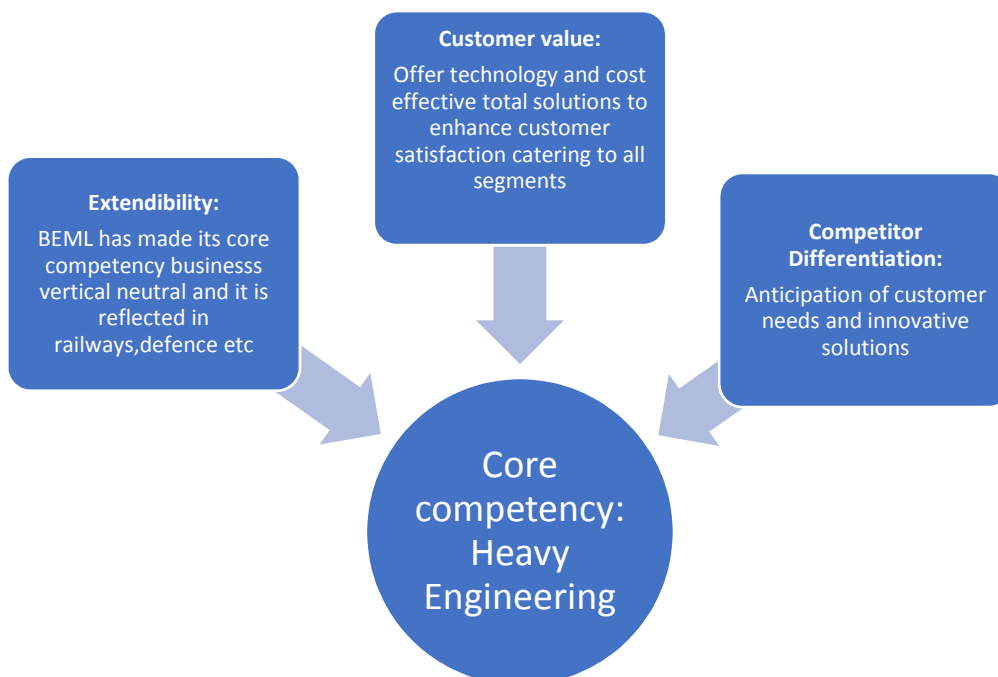
## **Mission Statement Evaluation Matrix:**

Components									
Organization	Customers	Product Services	Markets	Concern for survival, growth, profitability	Technology	Philosophy	Self Concept	Concern for Public Image	Concern for Employees
<b>BEML</b>	YES	YES	YES	YES	YES	NO	YES	NO	YES

## BEML Value Statement



## CORE COMPETENCY OF BEML:





## **Current Situation of BEML:**

### **Performance Evaluation(2017-2018):**

Market Cap: 3,394 crores

Revenue from Operations: 3,305.42 crores

PAT:1 29.4 crores

Market Cap: 3,394 crores

EPS:31.08

Price/Book: 1.54

Exports: Rs 20.18 crores

Industry P/E : 22.42

- To achieve 'Very Good' rating for FY 2017-18, the MoU targets proposed are Rs.2,900 crores for Revenue from Operations and 0.8% of the Revenue from Operations as Operating Profit.
- In 2016-17 BEML placed orders for goods and services to the extent of Rs.303.93 crores from MSEs which constituted 20.42% of the total procurement value of Rs.1488.14 crores and 32.93% of indigenous procurement of Rs.922.90 crores.
- Government was in favour of strategic disinvestment to sell 26% stakes to private sector

### **Review Corporate Governance:**

- Faced issue of disinvestment by government.
- Fingers raised in quality and performance issues of defense equipment
- Management was put under scanner for shady business deals. Faced legal actions
- Rigid hierarchical structure and bureaucratic nature of organization
- Project centric approach

## **External Environment:**

### **Scan and access External Environment:**

Societal:

- During 2012-14, construction market in India registered sluggish growth owing to low confidence amongst investors resulting in delay in construction projects

coupled with clearance issues and land acquisition delays, thus affecting overall demand for construction equipment.

- The government approved a significant number of SEZs across the country for the engineering sector
- Government of India launched the Make in India plan in 2014 with the aim of enhancing the manufacturing facilities and employability in India.
- The government has eliminated tariff protection on capital goods

**Task:**

- India's Construction Equipment Market is an import driven market, especially in higher-tonnage load capacity segment.
- Threat of China-low cost operations and equipments
- Threat of new competitors in market like Bombardier Transportation, Alstom.

**Internal Environment:**

**Scan and access Internal Environment:**

a) Corporate structure and culture

- Beml consist of a full-time Chairman and Managing director who is assisted by ten Directors of whom five are whole time(Marketing,Finance,Production.R & D and HRD)
- Rigid hierarchical structure of company
- Bureaucracy and delayed decision making
- Unexplored new markets
- Lethargic work culture and delayed decision making
- Poor forecasting leads to first mover advantage in many segments
- At BEML, a Corporate Quality Policy emphasizing Total Quality Management ensures that quality system adopted results in products, services and processes that meet stringent standards and requisite performance criteria
- Business philosophy: Project based approach

b) Marketing:

- BEML Ltd has nationwide network for After sales and service of Mining & Construction Equipment spread across India, with 12 Regional Offices and 20 Distinct Offices most of them at close proximity to customers.
- The company takes up Maintenance and Repair Contracts, Annual maintenance contract and GPCC suiting customer requirement to ensure equipment availability.

- 'Service Training Centres" located at manufacturing divisions impart training to operators and technicians on scheduled calendar of events.
- BEML is India's leading Mining & Construction Equipment manufacturer
- Differentiated product
- Price sensitive
- Company endeavours to procure materials and services through e-procurement platform on ERP system. During 2016-2017, about 70% of the total requirements were sourced through e-procurement.
- The international presence of the Company increased to 67 countries with the entry to Benin during 2016-2017.

c) Finance:

- In India's Construction Equipment Market, construction vehicle segment accounted for largest revenue share, followed by earthmoving equipment, concrete equipment and material handling
- BEML achieved gross revenue of Rs.2836.98 crores in 2017 including the value of consortium supplies against Rs.3422.92 crores of corresponding value in the previous year
- The revenue from operations stood at Rs.2834.66 crores as against Rs.3284.33 crores in the previous year, registering decline in growth of 13.69%
- Sales fall was mainly due to drop in order from Indian Railways and also drop in contract by Coal companies
- Receivables decreased a lot
- Government was in favour of strategic disinvestment to sell 26% stakes to private sector
- Company has put in place adequate Internal Financial Controls (IFCs) with respect to Financial Statements which looks after transparency in financial matters.

d) R & D:

- R&D activities were started in KGF & Bangalore divisions during mid 70's and at Mysore during mid 80's. The initial focus was on Technology absorption and indigenisation.
- R&D Division is equipped with CAD Centre and dedicated Laboratories in the areas of FluidPower, Power Train, Structural Engineering and Material Science.
- R&D develops new and innovative products & technologies for entering new / existing markets
- R&D Centres at KGF, Mysore & Bangalore are recognized by the Department of Science & Technology, Govt. This Centre is making

vital contribution towards strengthening the Earthmover and related industries in the country

e) Operations:

- BEML has manufacturing plants in Kolar Gold Fields, Bengaluru, Palakkad and mysore. It has numerous regional offices throughout the country.
- KGF unit is the main unit accounting for the manufacture and assembly of a wide array of earth-moving equipment such as bulldozers and excavators.
- Rail coaches are made in the Bangalore complex, and the Mysore facility makes dump trucks and engines of various capacity.
- Wide range of products
- Rail coaches are made in the Bangalore complex, and the Mysore facility makes dump trucks and engines of various capacity.
- Vendor development remains the “focus area” to improve quality of supplies made by the vendors. Revised vendor registration procedure and applicable formats have been uploaded on Company’s website to enable the new vendors for fast and easy registration.

### **Analysis of Strategic factors:**

#### **SWOT:**

##### **Strengths:**

- 1) Huge infrastructure and manufacturing facilities (largest R&D and manufacturing set up for Heavy Earthmoving Equipment).
- 2) Wide sales, service and parts depot network.
- 3) Wide product ranges.
- 4) High performing PSU under Ministry of defence. Strong government support.
- 5) Strong experience and set ups for indigenization.
- 6) Strong track record, knowledge and presence in key strategic sectors in heavy engineering.
- 7) Very competitive price due to domestic manufacturing with indigenous products.

##### **Weakness:**

- 1) Orthodox and Slow management efficiency in line with Government.
- 2) High overhead cost.
- 3) Lack of talent acquisition and young generation from reputed colleges.
- 4) Conventional Technology.
- 5) Delay in decisions due to bureaucratic procedures (under CVC, Govt protocol etc), manager and employees are working in silos.
- 6) Low Product reliability, Quality issues.
- 7) Bureaucratic Corporate & HR policy.
- 8) Lack of dynamism.
- 9) Rigid procurement process with L-1 vendor selection through tender.
- 10) Not proven in high capacity of equipment like >200T Dump truck, >180T Excavator, Rope shovel, walking draglines etc.

**Opportunities:**

- 1) Rapid growth in Infrastructure development under Government initiative like Smart city, Road projects, contract mining etc.
- 2) FDI in defence sector open up huge potential for indigenization.
- 3) Need of advance technology in Indian Railway & Metro industry.
- 4) Opportunity in Bullet train projects.
- 5) Make in Initiative by Govt of India in manufacturing.

**Threats:**

- 1) Entry of Hitech greater quality of products in M&C equipment sector.
- 2) Entry of Global multinational manufacturers in M&C sector.
- 3) Mining Customers are going for Higher capacity of equipment (>200T Dumper etc)
- 4) Global OEM and Chinese players entry in Metro business.
- 5) Increase of Pvt customer due to contract mining.
- 6) Govt permitting private sector for manufacturing and supplying railway & defence equipment.

**TOWS MATRIX:**

<p><b>Internal Environment</b></p>	<p><b>Strength</b></p> <ul style="list-style-type: none"> <li>• Refer above</li> </ul>	<p><b>Weakness</b></p> <ul style="list-style-type: none"> <li>- Refer above</li> </ul>
<p><b>Internal Environment</b></p> <p><b>Opportunity:</b></p> <ul style="list-style-type: none"> <li>• Refer above</li> </ul>	<p><b>S-O Strategy :</b></p> <ul style="list-style-type: none"> <li>- Huge infrastructure and world class facility is capable to meet ongoing demand for equipment.</li> <li>- Wide ranges of products can be used for various application.</li> <li>- Strong lobby &amp; support from Govt can capture the potential of make in India drive in Railway &amp; Metro, Defence and Mining sector.</li> <li>- Low priced domestic equipment shall get advantages in open tenders.</li> <li>- Huge facilities and Govt support may attract Global OEM to come forward for tie ups with BEML for upcoming projects like Bullet train, high speed train, combat vehicles, bio diesel Bus etc.</li> </ul>	<p><b>W-O Strategy :</b></p> <ul style="list-style-type: none"> <li>- Wide opportunity in large private customer brings dynamism in BEML operational &amp; functional process.</li> <li>- Rapid market expansion/growth creates impulse to adopt advance technology and talent.</li> <li>- Govt policy towards indigenising imported engineering products motivates BEML to diversify and introduction of new and heavy capacity of products (increase range of products).</li> </ul>
<p><b>Threat:</b></p> <ul style="list-style-type: none"> <li>- Refer above</li> </ul>	<p><b>S-T Strategy :</b></p> <ul style="list-style-type: none"> <li>- Indigenous manufacturing with wide local sources helped them to be competitive over MNC/imported equipment.</li> <li>- World class facility is capable to introduce new ranges of equipment and product development with advanced features to compete the rivals.</li> <li>- Domestic &amp; international private players for manufacturing of HEMM/Railway/Defence equipment can be attracted towards BEML facilities which may enable to establish business understanding with them.</li> </ul>	<p><b>W-T Strategy :</b></p> <ul style="list-style-type: none"> <li>- More thrust required to develop indigenous source</li> <li>- Bureaucratic policy to be end</li> </ul>

## **Porter's Diamond: (Macro Environment Analysis)**

### 1. Factor conditions:

- Strong human resource base in India – young generation with technical capabilities
- Growing Indian economy, giving boost to infrastructure manufacturing, favourable for utilities sector
- Raw materials availability is still an issue.
- There has been cumulative FDI inflow of USD24.28 billion in earth-moving machinery between April 2000 & December 2016

### 2. Demand conditions:

- Huge demand for heavy machineries in road utilities sector. Ever increasing demand in railways and defense.
- Large domestic as well as international market for niche equipments.
- Equipment rental & leasing business in India is small relative to developed markets & has a strong growth potential

### 3. Related and supporting Industry:

- Service/maintenance industry as well as spare parts industry have been set up in India for supporting utilities and infrastructure sector
- Land acquisitions, pollution clearances, transport in rural areas etc are some of the concerns

### 4. Firm strategy, Structure and Rival:

- Companies today emphasize on mechanization to suit the needs of changing Indian mining industry.
- In order to move up the value chain and become a one-stop shop, companies form JVs with international players for technology transfer
- Government has regulations set for power sector.
- Few major players due to capital intensive nature of the sector. So quite high rivalry.

## 5. Government:

- The material handling equipment industry is de-licensed & 100 per cent FDI is allowed under direct route
- 'Make in India' pitch to boost investments

## **PORTER'S FIVE FORCES:**

### Bargaining Power Supplier:

- Volume is critical to suppliers
  - Inputs have little impact on costs
  - Large number of substitute inputs
  - High price sensitivity
  - Low switching costs for buyers
- So, Bargaining power low for suppliers

### Bargaining Power Buyer:

- Product is important to customer
  - Limited buyer choice
  - Low dependency on distributors
  - Few firms do majority of bulk buying
- So, Bargaining power is high for buyers.

### Threats of Substitutes:

- Substitute product is inferior
- Limited number of substitutes
- Maintenance and up gradation requires long term contract with the firms

So, Threat of substitutes is low.

### Competitive Rivalry:

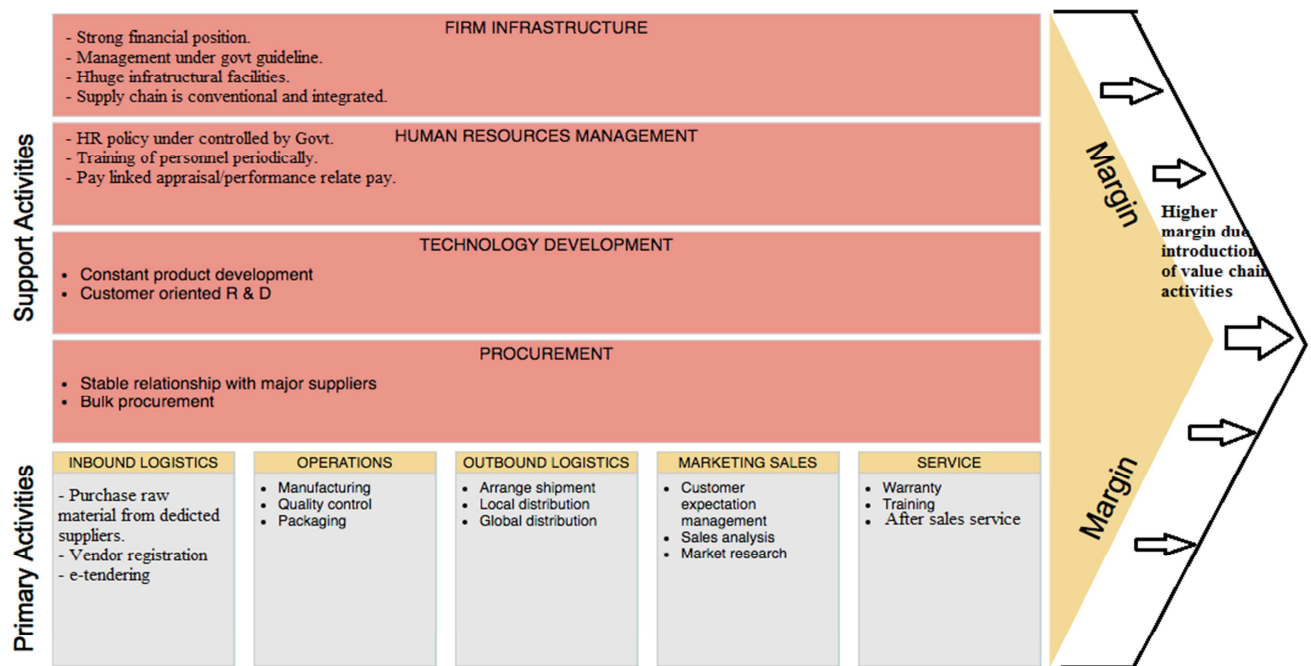
- Relatively few competitors
  - Large Industry size
  - High fixed cost
  - High exit barriers
  - Competition is deep as companies fight with each other on the quoted price to win a contract amid high price sensitivity
- So, Low switching costs from buyers increase competition.



**Threat of New Entrants:**

- High capital requirements given the nature of industry
  - High switching costs
  - Need high EOS to recover fixed costs
- So, this is not easy for new entrants to enter the industry easily.

**VALUE CHAIN ANALYSIS:**



• **PRIMARY ACTIVITIES :**



1. **Inbound logistics** : - Purchasing systems- BEML as a Govt undertaking PSU is liable to procure any item through tenders which is more time taking process. However, after implementation of e-tendering activities, the purchasing time as well as indirect cost also reduced subsequently.

Transportation – BEML finalises transportation through yearly rate contract agreement with various transporters shortlisted by tenders.

2. **Operations:** The operational efficiency in BEML has improved after implementation of SAP. All the modules from Production (MM) to HR has been implemented to BEML which brought complete operational efficiency to the company.

The inventory management is controlled by SAP. BEML maintain centralised spare parts and semi finish goods inventory at every production plant. Apart from this, they runs spare parts depots in various states in India to mainly cater Mining customers. They also established consignment stock depots at Coal Indian subsidiaries premises to run MARC (Maintenance and Repair Contract). Therefore, the inventory cost in BEML is very high.

3. **Outbound logistics:** BEML mainly deals with capital equipment to cater large customers. The Railway and defence products are being handed over to the customer after inspection clearance and proper documentation by customer appointed inspection agencies/customer's representatives like CQA/DRDO (defence), RDSO/RITES (Railway) etc. Mining & construction equipment also to be followed same procedures and most of the private customers order are being executed by in-house quality assurance and testing. Some of the cases like in Defence project where multiple value addition required by multiple manufacturers, BEML despatches finished equipment (defence trucks) to other manufacturer's /vendor's plant where utilities like crane/super structures/guns etc are mounted. Therefore, the outbound logistics in this case is very complex and costly affairs.

4. **Sales, Marketing & Service :** BEML comes under B2B activities. Therefore, sales & marketing activities are based on mainly conventional practices.

- The Railway & Metro division caters Indian railways, metro rail corporations etc. In this segment, BEML is basically depend on product sales and the opportunity from service/spares is very less. Sales activity is based on tendering and the key strategy to win/increase revenue is to technical tie ups, productivity increase, technology transfer etc.

- Defence division caters the Indian army, border road organisations, HAL, BEL, DRDO etc. The opportunity in spares business is huge. Sales activity is based on tendering. Technical tie ups, business tie ups, technology transfer, product development etc are the key driver for sales-marketing in this segment.

- Mining & Construction division is very competitive and it is mainly dominated by PSUs and large corporates. BEML has got huge sales & distribution network PAN India basis with spare parts depot and service centers which is an ultimate example of vertical integration in Sales & marketing. However, they introduced dealership scheme to deal with small & medium ranges of construction equipment although the same was not successful. Due to lack of technological advancement, moderate quality with more downtime and slow responsiveness after sales service, the market share is gradually decreasing. Customer overall feedback is not very sound compare to other MNC manufacturers.

## **SUPPORTIVE ACTIVITIES :**

### **1. Administration and Infrastructure :**

The company has production units at Kolar Gold Fields, Mysore, Bangalore and Palakkad and is certified under ISO-9001-2008 quality standard. These production units have state of the art manufacturing facilities like CNC machines, hi-tech welding equipment and flexible manufacturing systems to turn out cutting edge technology products.

BEML Limited (formerly known as Bharat Earth Movers Limited) as a full-fledged corporation was established in 1964 with Bengaluru Complex as the

mother unit. The Bengaluru Complex (the then Rail Coach Factory) was in existence from 1947 as a part of Aircraft Factory (currently Hindustan Aeronautics Limited). Initially, the division was manufacturing Rolling Stock producing various models of Broad Gauge Coaches. Subsequently, over the years, the metro coaches and some of the defence products manufacture also has been added in this complex.

Earth Movers Division (EMD) at Kolar Gold Fields (KGF) is located about 100 Kms from Bangalore. It is the biggest manufacturing plant of BEML and was established in 1964. It caters to Design & Development, Manufacturing, Testing and After-Sales-Service of Earth Moving Equipment and its aggregates. The Division is accredited with ISO 9001 – 2008 & ISO 14001 - 2004 Certificate for QMS by BVCI. The Division is spread over 2980 acres of land well connected by roads and rail sidings enabling easy transport of heavy equipment & structures through special rake, trailers etc. The Division is equipped with one of the best R&D Centres in Asia with modern infrastructural and testing facilities. Also, the Division has one of the biggest Machine Shops in Asia housing machine tools of different types and varieties with dedicated product lines, Gear Shop, Fabrication Shops with latest welding facilities including Robotic, Plate Preparation Shop and an exclusive Heavy Equipment Shop to handle major fabrication of structures weighing up to 100 T.

BEML set up a new plant in Mysuru initially for manufacturing engine and Mining rucks. Engine Division manufactures heavy duty Diesel Engines for application on a wide variety of Earth Moving, Mining and Construction Machinery and Defence Equipment. Apart from these, the truck division produces mining trucks ranges from 35 Ton to 200 Ton. Mysore division has got huge testing tracks for trucks.

The green field project at Palakkad, Kerala was put on stream on 16th May 2010, in record time of less than 6 months with an outlay of Rs 260 crore. The plant was set up to cater to the requirements of Defence Ministry & Indian Railways. Since inauguration the Palakkad complex has supplied 150 Rail coach Shells and Bogie Frames and 500 Tatra Trucks.

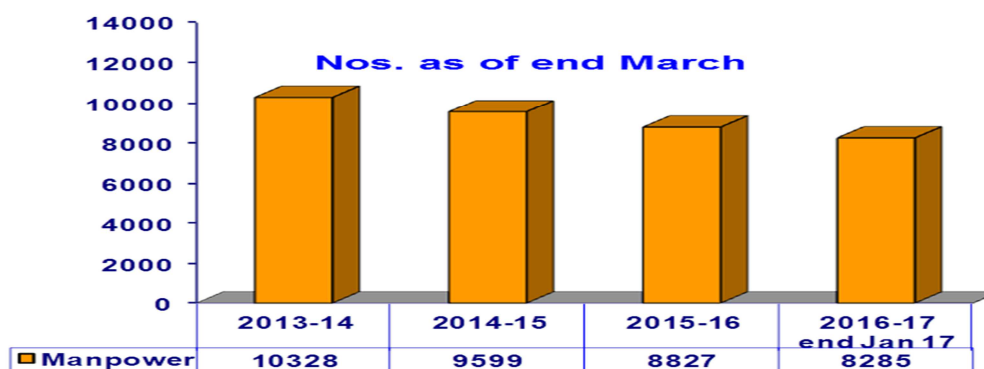
Apart from above, BEML has got one subsidiary Vignan Industry, windmill areas, regional-district offices and service & spares depot etc.

## 2. Human Resources :

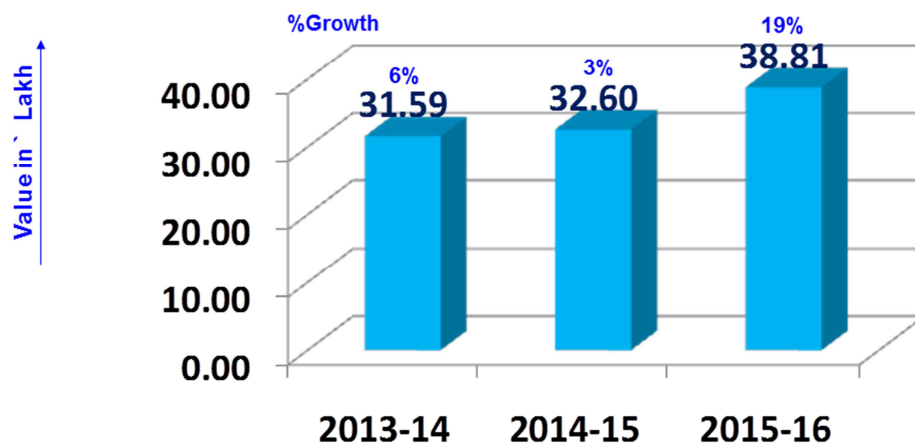
BEML HR is operating autonomously based on business direction of company. However, HR policies are being vetted Or, in line with the direction of concerned holding Ministry, Govt of India, e.g; Ministry of defence. The pay package, increment, welfare scheme etc are in line with Govt direction. However, keeping in view of dynamism in HR process and to retain talents, company has introduced various schemes like Performance related pay, parallel recruitment of experienced executives, transparent and online appraisal system etc.

To cut the overhead cost, BEML has taken initiative to replace direct manpower by contract manpower after superannuation. Fresh recruitment in employee categories are almost stop and executive cadres are being introduced through GET Or, management trainee concept by recruiting fresh & young candidates from reputed engineering colleges, B-Schools etc.

### Manpower :



### Sales per Employee :



### 3. **Product** : BEML is product diversification is huge.

- M&C Products : Various ranges of Bulldozers, Excavators, pipe layers, grader, loader, Dump trucks, Shovels, Underground mining equipment etc.
- Railway & Metro : Coaches, Metro, Sky bus, trajery van, BFAT wagon etc.
- Defence & Aerospace: TATRA trucks 4x4, 6x6, 8x8, 12x12; Missile carriers, Mobile bridges, Aircraft Towing Tractor, landing gear mechanism etc.
- Trading division : Online coal analyser, amphibious excavator & vehicle etc.

### 5. **Technology and Development** :

R&D activities were started in KGF & Bangalore divisions during mid 70's and at Mysore during mid 80's. The initial focus was on Technology absorption and indigenisation. Subsequently products and aggregates were taken up for design and development.

Fully equipped R&D Centre with facilities for design, simulation and testing was established in 1984 at KGF with an investment of INR 50 crores and further upgraded over the years, and is one of the biggest

development centres in India. R&D Centres at KGF, Mysore & Bangalore are recognized by the Department of Science & Technology, Govt. This Centre is making vital contribution towards strengthening the Earthmover and related industries in the country. R&D Division is equipped with CAD Centre and dedicated Laboratories in the areas of Fluid Power, Power Train, Structural Engineering and Material Science.

R&D division is manned by highly qualified engineers with specialisation in advanced fields of mechanical design, engine technology, structural engineering, material science, fluid power and electronics and have gained significant experience and technical knowhow in design and development of complete machinery as well as the aggregates.

#### **6. Procurement :**

BEML Ltd, being a Govt undertaking company goes through stringent Govt guideline towards transparent procurement policy. The company mainly follows standard tender norms and hierarchical approval of procurement strategy. This conventional model is more time taking and less productive. Also the lowest bid concept affects them to maintain quality which is a key factor towards non meeting of super quality finished goods compare to their rival MNCs. However, BEML has put their every effort to bring more dynamism in procurement system by introducing e-tender through SRM platform, online vendor registration, online bill tracking etc

#### **Business Level Strategy:**

<i>Target Scope</i>	<i>Advantage</i>	
	Low Cost	Product Uniqueness
Broad (Industry Wide)	Cost Leadership Strategy	Differentiation Strategy
Narrow (Market Segment)	Focus Strategy (low cost)	Focus Strategy (differentiation)

- **Mining & Construction Business :**

The M&C Business was into Broad market segment whereas the same is coming down due to loosing competitiveness. They focus to cost advantage along with technology up gradation to win the competition. But the market has become very competitive and every MNC has got their competitive advantages in a particular segment of products. Therefore, as an obvious case the M&C share is going down and profit generation is affected badly which affects he overall company performance.

- **Railway & metro Business :**

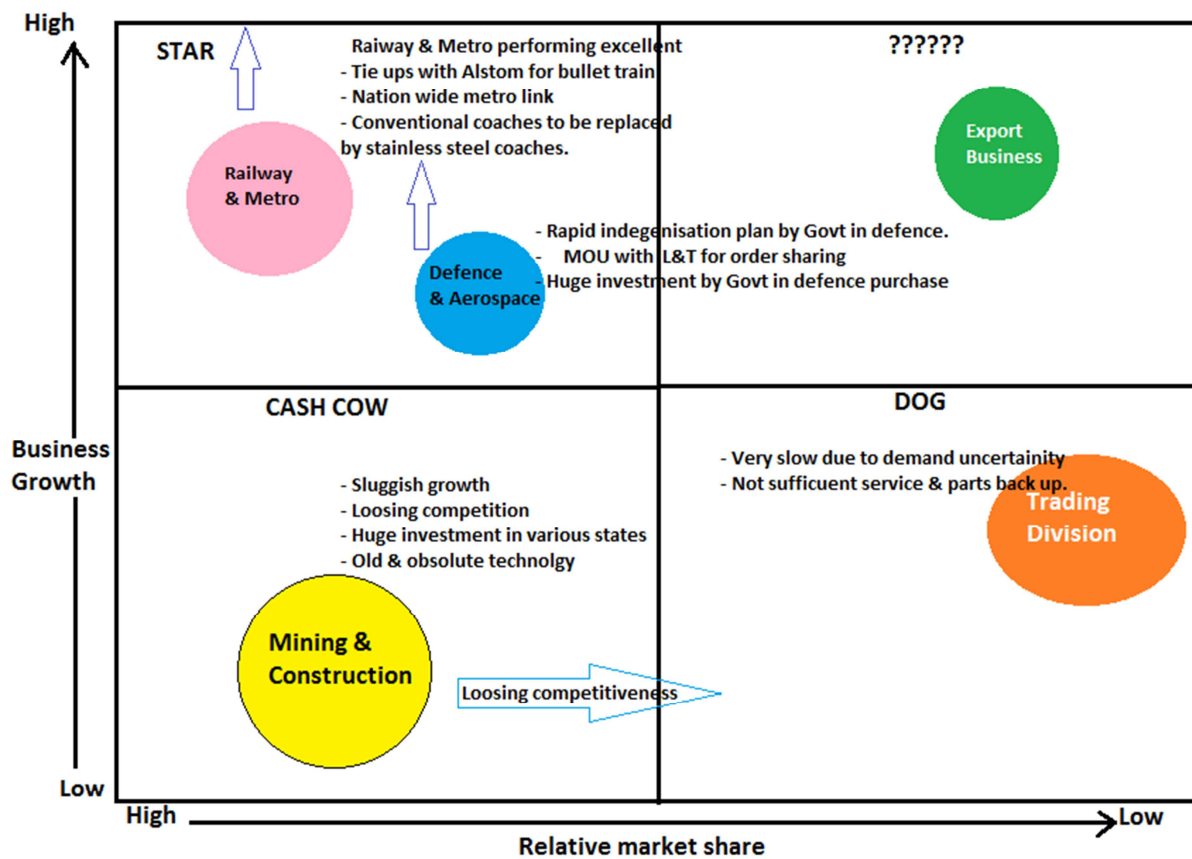
BEML has got already a competitive and first mover advantage in Railway & Metro business. So, cost leadership/cost cutting and continuous development shall be there key strategic movement to create barrier to the new entrants.

- **Defence & Aerospace Business :**

BEML was enjoying monopoly in TATRA truck segment which was completely imported. Now, after pressure from Govt, they started their own which has got two parallel effects, e.g; Cost reduction (Narrow focus) and Indigenisation (differentiation strategy).

**BCG MATRIX – BEML LIMITED :**





**BCG MATRIX EXPLANATION :**

• **Mining & Construction business division :** This business division contributes largest share in total turnover of company. However, this division is going through a tough market environment due to dumping of world class equipment by global MNCs and low value Chinese manufacturers. The company is continuously suffering by conventional technology, moderate quality, non-aggressive after sales services and high overhead cost for which they are gradually losing their control from the market which affects their business growth and market share both.

The company has established huge networks nationwide with 12 nos regional office, 19 nos and 5 nos district offices to cater customers belongs to M&C business. Therefore

the overall profit of the company is being largely affected by the huge overhead from this vertically integrated Regional & District offices and operations.

• **Defence & Aerospace business division** : Defence production is the prime concern of Government resulting which creates tremendous opportunities for indigenisation of defence equipment. BEML Ltd being a PSU under defence ministry, already earned competitive advantage towards making high end defence equipment by the collaboration of reputed global manufacturers. Now further expansion in defence equipment purchase policy, adds an extra feather to the mission of defence business of the company. BEML has taken a strategy to tie ups with every potential domestic & international manufacturers who are into defence equipment technology. On July' 2018, BEML signed a MOU with L&T to jointly capitalise on the emerging opportunities in the domestic and export markets for defence products and systems

• **Railway & Metro business division** : BEML is the only Non-Railway PSU which manufactures wide varieties of coaches along with wagon & multi utility of railway equipment apart from Indian Railways. Therefore, it has got permanent foothold in railway business. The main entry barrier to this segment is very low margin in passenger coaches as Indian railway provide raw materials and they fixes prices for a certain period. However, new policy towards modernisation in railway coaches brings remarkable potential to the company. The rapid revolution may occur in Coach building industry due to policy implementation towards replacement of old coaches by stainless steel coaches which shall bring a huge potential for the company.





BEML is currently enjoying largest market share in Metro coaches segment in India. Most of the state Govt & Centre Govt policy towards intercity metro link has brought a tremendous business growth potential for BEML. Apart from domestic market, company has also focused to the Global market by stepping to oher Asian countries which are having substantial potential for metro coaches.

BEML also entered into agreement with Alstom for manufacturing bullet train in line with the similar business model they followed in case of Metro business (tied up with M/s Hyundai Rotem). This segment may bring an extra mileage to the company in future.

- **International division** : Multi engineering products of BEML helps them to expand in International market mainly to focus Asian and Africal market. However, company's moderate quality products (Mining & Construction) are not able to capture sufficient export potential which results many overseas offices closure of BEML in past. BEML established manufacturing & assembly plant in Brazil to cater Latin American market which also proved wrong and resulted closure of operation. However, BEML contribution in Railway and Defence has got a huge potential in International market either through direct export/Indian line of credit/any other suitable modes. Therefore, instead of making it a separate division it is advisable to merge with respective business division as explained above.

- **Trading division** : Trading division was made keeping in view of catering mainly existing domestic customers by way of meeting their various requirement apart from the regular requirement of BEML equipment, e.g; Coal Analyzer for Mining & Power companies, Amphibious excavators/skeed loaders/wheel mounted excavator etc for Construction companies, Amphibious vehicles/multi utility jeep/bullet proof vehicle etc for defence & security forces etc. But, the culture and core competency of the company could not support the tactics of running a trading division/company. Therefore, in spite of holding a competitive brand image, BEML could not get success in the trading business which is much away from their core business of interest & areas. Resulting this, the company has faced many problems like short closure of contracts, contracts broken with global OEM, losses from operation etc. The image of company also gets suffered due to various products which doesn't have sufficient spares & after sales back up. Company finally has decided to run this business without making it as strategic business division. However, it is advisable to completely stop operation and focus to the core business activities of the company.

- **Nine Cell Matrix – Analysis** :

		Industry Attractiveness		
		High	Medium	Low
Business Strength	Strong	Railways and metro 	Mining and construction equipments 	
	Average	Defence and Aerospace 		
	Weak			

- **Sinking of Mammoth of M&C Business :**

- 1) M&C Business group was a core business group of BEML although it is a Defence Organisation.
- 2) M&C Business contributes largest shares in total business turnover of the company
- 3) The company shown outstanding performance in M&C till it's coalition with Komatsu, Japan.
- 4) BEML has got technical collaboration with Komatsu, Japan. After it's break up with Komatsu, the quality of BEML manufactured M&C equipment started deteriorate .
- 5) On 1998, Komatsu has formed a JV with L&T and L&T-Komatsu JV started supplying Komatsu model equipment to Indian market.
- 6) Other MNC like Catterpillar, Hitachi etc are also started investing in Indian market and domestic set ups of them creates new benchmark of cost economic products for Indian market.
- 7) In construction equipment segment, a revolution came through the entry of various MNCs like JCB, Hyundai, Volvo, Kobelco etc which made the tough platform for BEML to compete.
- 8) Gradually from 2008, BEML share in M&C sector in India started falling massively.

- **Rise of Railway sector :**

- 9) BEML formed from HAL to produce coaches for Indian Railway as an additional production unit.
- 10) Low cost coaches never allowed the company to earn a humble profit in spite of healthy orders in hand every year.
- 11) BEML started converting its competency in Rolling stock technology to produce profitable Hi end metro coaches with the collaboration with Hyundai Rotem, S Korea.
- 12) BEML bagged prestigious Delhi metro orders and after that there was no look back.
- 13) BEML core competency has become a key success factor for the Metro coaches business which has got a huge potential in India and Asian market. BEML had a first mover advantage in this sector.
- 14) BEML's credential and infrastructure for low cost and high end metro coach production has reached them to the most promising position for which MNC are getting attracted to have tie ups with them for meeting upcoming requirement of GOI, e.g; Bullet train, high speed train, rapid transport system etc.
- 15) Presently this segment is contributing almost half of the total revenue of the company.

- **Self-reliance in Defence Sector :**

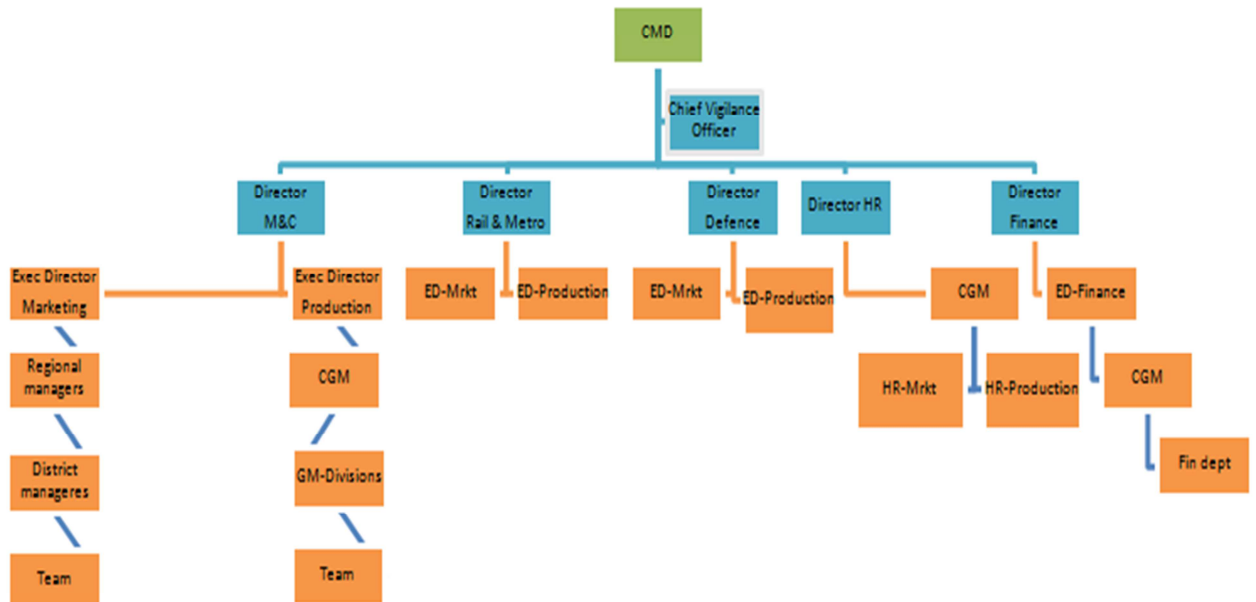
- 16) BEML, being a defence PSU always got an added advantage to acquire defence project.
- 17) M/s TATRA Czech had collaboration with BEML for supply of special categories of trucks to meet the critical purpose of Indian army.
- 18) BEML witnessed various stellar performance in Defence projects, like Sarvatra, Brahmos missile, Prithvi missile, PINKA, PMS bridge etc.
- 19) From inception, BEML defence sector shown profits and infuses healthy working capital due to 95%-5% payment policy by Ministry of Defence.
- 20) BEML launched Aerospace division to cater country's huge demand of Aerospace.
- 21) The setback in defence started when former BEML CMD V.R.S Natarajan was suspended for scam and BEML was forced to indigenise trucks.
- 22) Though this incident brought various setbacks to BEML for which BEML could not materialise existing order and also couldn't receive new order from MOD for almost two years. However, its dependency on own domestic technology ultimately brought them success on long run basis. BEML rolled out its first "make in India" trucks dedicated for Indian army from its Palakad plant.
- 23) Ministry started clear all the outstanding orders to BEML for supply of indig Trucks.

- 24) BEML has tied up with Public Private partnership for exploring it's defence business in Indian and overseas.
- 25) The large demand of "Make in India" initiative of GOI helped BEML to go forward.
- 26) BEML signed MOU with L&T for exploring business opportunity in domestic defence sector and export market.

### **CORPORATE STRATEGY:**

BEML Ltd is a multi-engineering company diversified into various heavy engineering products. The company is mainly operating through three business verticals which are made as SBU, e.g; a) Mining & Construction, b) Defence & Aerospace and c) Railways & Metro. Each Business vertical is headed by a Director who reports to the Chairman & Managing Director of the company.

### **Organisational structure :**

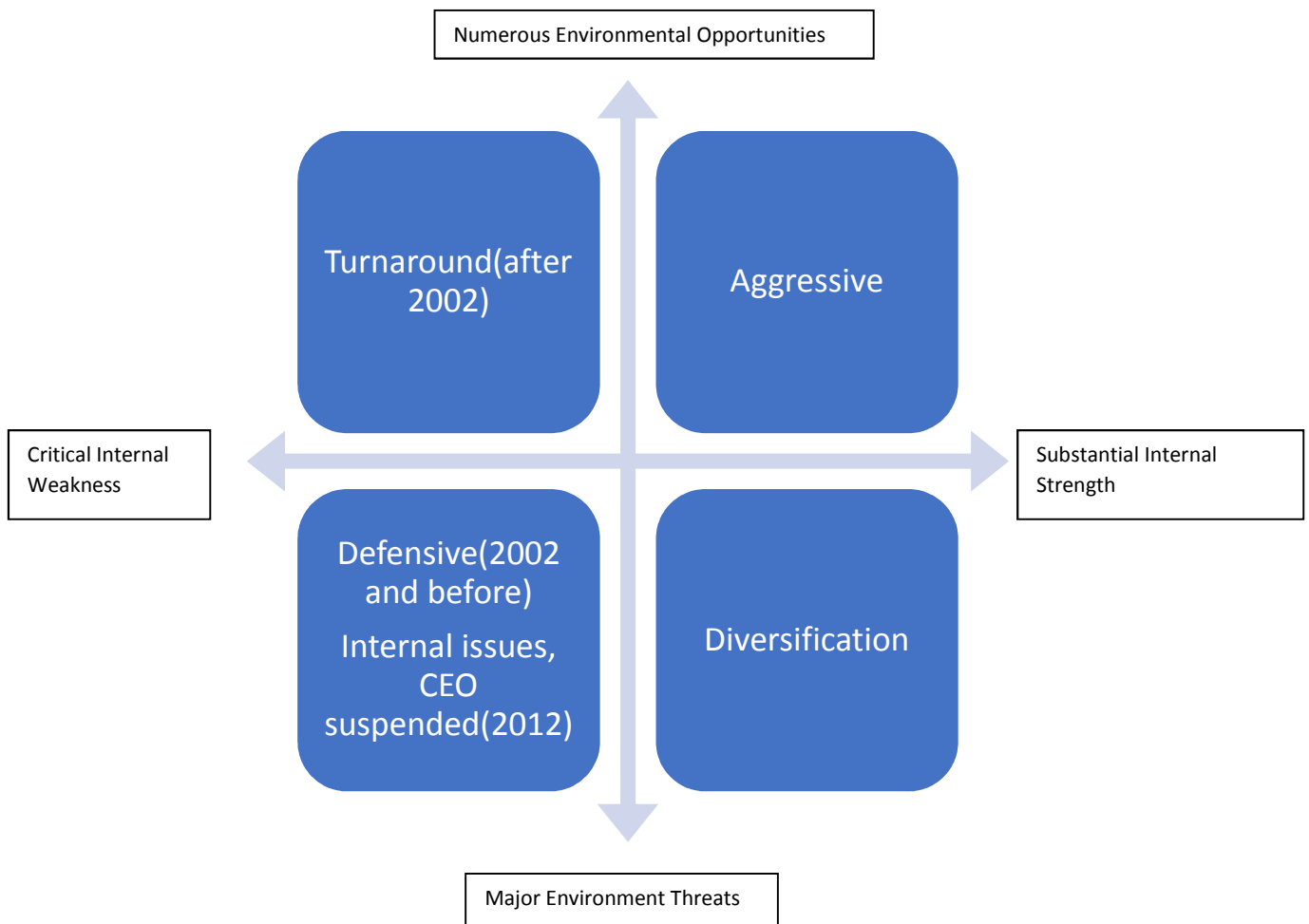


### Key points in Corporate structure :

- CMD and Directors are appointed by Govt of India (PESB) board. The independent directors are also appointed in Board followed by one Govt nominated director.
- Three key business divisions are headed by single director who are responsible for every business aspects of each SBU. Earlier there was a Director-marketing who used to take care of total business turnover of the company and similar to this production directors were also there in each division. But SBU concept ends this concept and the respective directors are responsible for marketing/turn over, production output etc by each division. This concept brought more dynamism to perform by each division.
- HR of respective SBU are dealt by group HR team headed by CGM/GM/DGM. The respective HR head functionally reports to respective director but administratively reports to Director-HR.

- Executive directors are chief of operation like- ED marketing is chief of marketing of respective division, ED production is the chief of respective manufacturing plant etc.
- Regional offices are headed by GM/DGM called Regional managers who reports to ED marketing.
- District offices are headed by District manager who reports to Regional managers.

**SWOT DIAGRAM**





## **CONCLUSION AND SUGGESTIONS:**

From this entire report, we have analysed BEML performance, road blocks, business strategy etc. BEML Ltd is a Heavy machinery manufacturing public company owned by Govt of India. Through analysis of various model, we tried to bring a current scenario of each business division of BEML and it's future position.

We understood that BEML is still holding a strong foothold in Indian manufacturing segment in the tough completion by domestic and International MNC/OEM. However, Govt control on BEML may slow down it's growth and create obstacle in the competition in this dynamic market situation. Core competency of BEML can be used more aggressively to meet the nation's need as well as to capture export market. However, bureaucratic culture and policy paralysis in management creates major issues towards their journey.

Recently the government of India, ministry of defence, has communicated 'in-principal' approval of the cabinet committee on economic affairs (CCEA) of the government of India, for strategic disinvestment of 26% equity shares in BEML Limited on basis of report submitted by Niti Ayog. However, no players shown interest to buy this controlling shares although many players like Reliance, L&T, Hitachi, Siemens etc shown interest to take over it's SBUs separately, e.g; Railway and Defence. The M&C division created huge network with high fixed cost although the earning per employee in this sector is very less compare to other two divisions. The demand sluggish and tough competition in M&C segment also demotivate investors to come forward.

In view of above, we strongly recommend to make separate this M&C division from other two divisions so that the M&C division can be taken over/merged with other potential OEM/Corporates.

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