

# **INDUSTRY REVIEW PROJECT**

## **Study on the Performance of the Engineering Industry**

*Submitted in partial fulfilment of the requirements for the award of the  
Degree of Bachelor of Business Administration (Business Analytics)  
Of Christ (Deemed to be University).*

**By**

**Sehej Gumber (21111547)**

Under the guidance of

**Dr. Benny Godwin**



**School of Business and Management**

**CHRIST (DEEMED TO BE UNIVERSITY)**

**PUNE, LAVASA**

**2021-22**



# CHRIST

(DEEMED TO BE UNIVERSITY)

PUNE LAVASA CAMPUS

The Hub of Analytics

## CERTIFICATE

This is to certify that the project report, titled “*Study on the Performance of the Engineering Industry*”, submitted to Christ (Deemed to be University), in partial fulfilment of the requirements for the award of the Degree of Bachelor of Business Administration (Business Analytics), is a record of original research work done by ***Sehej Gumber (21111547)***, during the period 2022–2023 of their study in the School of Business and Management at Christ (Deemed to be University), Pune, Lavasa Campus, under my supervision and guidance and the project report has not formed the basis for the award of any Degree/Diploma/Associateship/Fellowship or others similar titles of recognition to any candidate of any University.

Dr. Benny Godwin

**Date:** 6<sup>th</sup> July, 2022

**Place:** Pune, Lavasa

## DECLARATION

I, *Sehej Gumber (21111547)*, at this moment, declare that the project report titled “*Study on the Performance of the Engineering Industry*”, submitted to Christ (Deemed to be University), in partial fulfilment of the requirements for the award of the Degree of Bachelor of Business Administration (Business Analytics) is a record of original and independent research work done by me during 2022 – 2023 under the supervision and guidance of Dr. Benny Godwin, School of Business and Management at Christ (Deemed to be University), Pune, Lavasa, has not formed the basis for awarding any Degree/Diploma/Associateship/Fellowship or another similar recognition title candidate of any University.

*Sehej Gumber (21111547)*

**Date:** 6<sup>th</sup> July, 2022

**Place:** Pune, Lavasa

## ACKNOWLEDGEMENT

We want to express our profound gratitude to all those instrumental in preparing this project report. We wish to place our deep appreciation for my project supervisor, Dr. Benny Godwin, for his advice and help.

We would like to thank our Director and Dean, Dr. Fr. Jossy P George, our Academic Coordinator Dr. Fr. Justin P Varghese, and Dr. Parameswaran S, Head, School of Business and Management, Pune, Lavasa campus for their support.

Lastly, we would like to thank our friends for their constant support and help.

*Sehej Gumber (21111547)*

**Date:** 6<sup>th</sup> July, 2022

**Place:** Pune, Lavasa

## LIST OF TABLES

SR. NO	TITLE	PAGE NO.
1.	Table 1 - Market shares of major players	10
2.	Table 2 - Management Team	23
3.	Table 3 – Shareholding Pattern	24

## LIST OF FIGURES

SR. NO	TITLE	PAGE NO.
1.	Industry Growth	11
2.	Porter's Five Forces Framework	14
3.	Sterling and Wilson	16
4.	Founder	17
5.	Client Location Map	20
6.	Khurshed Yazdi Daruvala	21
7.	Pallon Shapoorji Mistry	21
8.	Keki Manchersha Elavia	22
9.	Rukhsana Jina Mistry	22
10.	Weekly Market Share	24
11.	Shareholding Pattern	25
12.	Achievements	29
13.	SWOT Analysis	31
14.	PESTLE Analysis	33
15.	McKinsey 7S Model	36

## TABLE OF CONTENTS

SR. NO	TITLE	PAGE NO.
<b>1.</b>	<b>Industry Profile</b>	
1.1	Evolution/History	6
1.2	Major players and their market shares	8
1.3	Industry growth and their market shares	11
1.4	Government regulations and policies	12
1.5	Porter's Five Forces Framework	14
<b>2.</b>	<b>Company Profiles</b>	
2.1	Company 1 – Sterling and Wilson Solar Ltd	
2.1.1	History/Founders profile	16
2.1.2	Product profile	18
2.1.3	Client profile	20
2.1.4	Organization structure	21
2.1.5	Present market share	24
2.1.6	Future strategies	25
2.1.7	Financial information	26
2.1.8	Achievements	29
2.1.9	SWOT Analysis	31
2.1.10	PESTLE Analysis	33
2.1.11	McKinsey7SFramework	36
2.2	Company 2 – BEML Ltd	
2.2.1	History/Founders profile	38
2.2.2	Product profile	40
2.2.3	Client profile	41
2.2.4	Organization structure	44
2.2.5	Present market share	47
2.2.6	Future strategies	49
2.2.7	Financial information	51

2.2.8	Achievements	54
2.2.9	SWOT Analysis	54
2.2.10	PESTLE Analysis	58
2.2.11	McKinsey7SFramework	55
2.3	Company 3 – Ashoka Buildcon Ltd	
2.3.1	History/Founders profile	62
2.3.2	Product profile	68
2.3.3	Client profile	68
2.3.4	Organization structure	63
2.3.5	Present market share	71
2.3.6	Future strategies	72
2.3.7	Financial information	73
2.3.8	Achievements	
2.3.9	SWOT Analysis	75
2.3.10	PESTLE Analysis	79
2.3.11	McKinsey7SFramework	83
3.	Comparative Analysis	84
4.	Conclusion	90
	References	91
	Annexures	92



# 1. INDUSTRY PROFILE

## *Evolution/history of the Engineering Industry*

The phrase "engineering industry" is typically used in a more limited meaning to define the industry committed to the construction of engines, machine-tools, and machinery. Engineering can take several forms, including civil, military, or mechanical.

*Before the 18th century*, these products were typically made by artisans working in their own forges or workshops, such as blacksmiths and millwrights. However, the rapid expansion of industrialization processes in Britain encouraged the emergence of the modern engineering industry, with power-operated machine-tools brought together in factories and supported by forges, foundries, and carpenters' shops that prepared metal and wood parts for processing and assembly. The factory Matthew Boulton built in Birmingham's Soho neighbourhood to produce the *steam engines* his colleague James Watt wanted was perhaps the first coordinated collection of similar facilities. Similar businesses were established by other steam-engine manufacturers, as well as some engineers started producing textile machines and machinetools.

Whitworth, who rose to prominence in British engineering in the middle of the *19th century* and received awards at the Great Exhibition of 1851 for his incredible machines, also made significant strides toward standardising screws and other essential machine components. Due to the emergence of *mass production*, whereby machines could be built from kits of similar parts, this was made practicable. To build their renowned block-manufacturing workshop in the royal dockyard at Portsmouth, Marc Brunel and Henry Maudslay established these procedures at the start of the 19th century.

The advent of systematic assembly procedures based on the moving assembly line, with all the processes connected in a "flow" pattern, marked the next step in the evolution of the engineering industry and made it possible to build a complex product like a car swiftly and efficiently. Once this was accomplished, it was able to gradually add more automation into how the *assembly line* performed its tasks.

With the times changing and the rapid development of technology and the *digital age*, the traditional meaning of engineering has evolved. There are more opportunities now than there were five years ago for software developers to create software for modern media (apps, online,

and cloud) and connect it to electronics that the same developer has created. This is happening because technology isn't constant, and each change in technology necessitates a change in the kind of resources needed. The field of engineering is no longer just associated with industry and production. The business community is paying more attention to how we affect the environment and how adaptive technologies might be used to lessen it.

In a nation like India, where the engineering industry has experienced unparalleled growth in recent years, it is essential for the expansion of other industrial sectors of the economy. As of December 2013, 63% of all international collaborations were with the Indian engineering sector, which makes up 27% of all industrial sector factories.

One of the major contributors to exports, accounting for 25.1% of all exports in 2014–15, is the engineering sector. India's engineering exports in 2014–15 totaled \$78 billion, an increase of 10.7% over the same amount in 2013–14.

Demand for engineering services is being driven by capacity expansion in industries like infrastructure, electricity, mining, oil and gas, refinery, steel, automotive, and consumer durables.

### ***Major Players and Their Market Shares***

Through the millennia, technological developments have been observed and the engineering sector is not far behind. Over time, the industry has undergone a thorough transformation. This has resulted in the creation of some cutting-edge machinery and equipment as well as the identification of some outstanding service providers and engineering firms. Some of which are:

- **GE Energy Company** - When it comes to planning, producing, installing, and maintaining wind, coal, and nuclear power plants as well as natural gas and steam-driven power plants, GE Energy is a world leader. The GE Energy division, which serves industrial, utility, and governmental customers globally, is their largest division.  
It offers a variety of goods, including compressors, valves, instrument transformers, turbines, and generators.
- **Siemens AG Company** - Siemens has established itself as one of the top 10 engineering firms in the world when it comes to industrial and electronics engineering. It operates segments in the power & gas industry where it is a formidable force when it comes to Wind Power & Renewable energy.
- **China State Construction Engineering Corporation (CSCEC)** – The CSCEC is the largest construction contractor & real estate developer in the world. Key interests are in design, survey, and construction of major engineering and structures which include hotels, skyscrapers, hydroelectric plants, airports, and railways.
- **Bosch Corporation** - German engineers work for Japanese automakers at this firm. Therefore, by creating and manufacturing parts for gasoline and diesel engines, it serves the well-known Japanese automotive sector. Along with doing car maintenance, Bosch imports and exports aftermarket components. Honda, Nissan, Fuji Heavy Industries, Toyota, and Mitsubishi Motors are a few of its clients.
- **Hitachi Company Ltd** - Information & Telecommunications Systems, which makes mainframes, servers, semiconductors, and ATMs, is the company's largest engineering segment. The next in line is its Social Infrastructure division, which makes elevators, industrial equipment, and escalators.

- **China Railway Group Limited (CREC)** - This Company is the best in the world at construction engineering, not just in China. The company's product line spans a variety of industries, including real estate, highways, and the railway sector. The organisation is well-liked in the market because of the excellent design, survey, and installation services it provides.
- **China Railway Construction Corporation (CRCC) Ltd** - The amount of civil and mechanical engineering firms in China is evidence that the country has made significant investments in the construction engineering companies industry. A corporation called CRCC provides products and services for railroad construction to a global market.
- **Honeywell International Inc** - For its design and production of thermostats and jet engines, Honeywell International has gained a lot of popularity. The major divisions of Honeywell, an industrial corporation with four distinct business lines, are the Automation & Control segment and the Aerospace section. Working landing systems, turbo engines, and flight safety are the focus of the aerospace segment.
- **ABB Company Ltd** - Engineers from ABB work in a variety of industries to provide utility, commercial, and industrial clients with power and automation solutions. Some of their items include switches and robots, and they also offer virtually all other electrical goods that fall between the two.
- **ACS** - ACS comes in at number 10 in the list of the biggest engineering companies in the world. A Spanish firm that specialises in engineering and building works in important economic sectors like energy and infrastructure. The business, which was established in 1997, is present in many countries, including the United States, the United Kingdom, and the APAC area.

SR. NO	COMPANY NAME	REVENUES (Billions)	SHARE PRICE (Current share price – in euros)
1.	GE Energy Company	74.2 (USD)	0.78
2.	Siemens AG Company	74.44 (USD)	99.84
3.	CSCEC	293.7 (USD)	0.79
4.	Bosch Corporation	78.7 (Euros)	200
5.	Hitachi Company Ltd	10,264.6 (Yen)	46.82
6.	CREC	1073.3 (Yuan)	9.77
7.	CRCC Ltd	157.81(USD)	1.16
8.	Honeywell International Ltd	34.392 (USD)	170.18
9.	ABB Company Ltd	28.9 (USD)	32.17
10.	ACS	27.84 (USD)	21.69

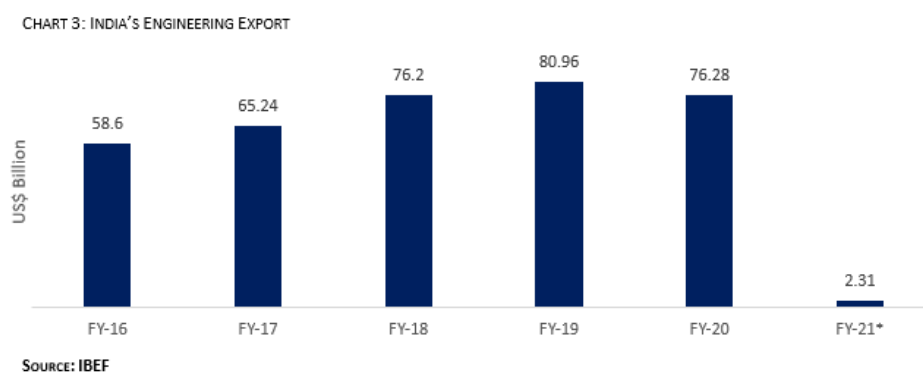
*Table 1 – Major players and their market shares*

*Source - finance.yahoo.com*

## *Industry Growth and Turnover*

The industry has accounted for the largest share of India's total merchandise exports, accounting for 2.5 percent of the country's GDP. Furthermore, India's engineering industry accounts for 27% of all factories in the country's industrial sector.

The capital goods market is being propelled forward by rapid industrialization and economic development. India's engineering sector has expanded dramatically in recent years, owing to increased investment in infrastructure and industrial production. The engineering sector, which is intertwined with manufacturing and infrastructure, is critical to the Indian economy.



*Figure 1 – Industry Growth*

In a country like India, where the engineering sector has experienced unprecedented growth in recent years, the engineering sector is critical to the development of the country's other industrial sectors. As of December 2013, India's engineering industry accounted for 27% of total industrial factories and 63% of total foreign collaborations. Engineering is a significant export contributor, accounting for 25.1 percent of total exports in 2014-15. In 2014-15, India's engineering exports totaled \$ 78 billion, a 10.7 percent increase over the previous year. Infrastructure investment is also increasing, which will drive demand for capital goods, engineering, and electronics in general, as well as indirectly drive further expansion of bank credit growth into the sector, as capacity expansion and overall growth would be funded by credit from banks and financial institutions.

Annually, the Engineering Industry produces INR 5,46,55 Bn (US\$ 726 Bn) of goods through various sectors. Engineering exports from India, which primarily include transport equipment, capital goods, other machinery/equipment, and light engineering products, increased at a CAGR of 6.81 percent between FY16 and FY20, reaching US\$ 76.28 billion in FY20.

The capital goods industry is expected to generate US\$ 92 billion in revenue in 2019 and US\$ 115.17 billion by 2025. India's engineering R&D market will expand from US\$ 36 billion in FY19 to US\$ 63 billion by FY25. India will require Rs. 235 trillion (US\$ 3.36 trillion) in infrastructure investment over the next decade (2020-29). Exports of engineering goods are expected to reach \$200 billion by 2030.

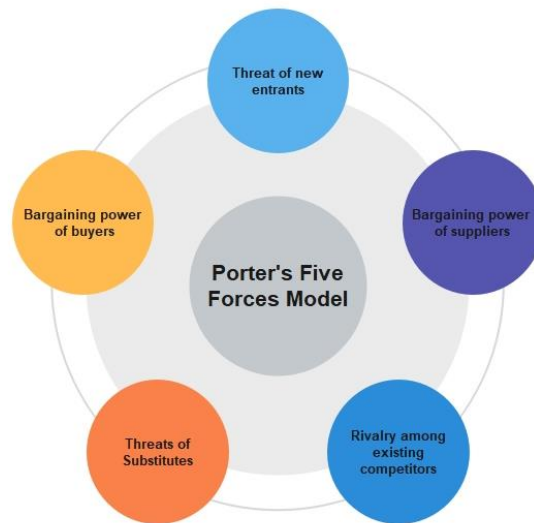
### ***Government policies and regulations***

Recently, the Trump Administration introduced new policies that have had quite an impact on the engineering industry.

- *Impact of tariffs on raw materials* - A 10% tariff on steel and aluminium was implemented by President Trump and his administration. The main motivation for doing this was to effectively tax all raw material income coming from nations like China and Mexico in order to increase business for U.S.-based companies. This policy has already had an immediate effect. These tariffs have either harmed or helped the company bottom line, depending on which side of the business they are on.
- *Impact of net neutrality* - The Obama Administration first adopted net neutrality in 2015 as a means of treating all internet data equally. It led to the operating principles that prevented internet service providers (ISPs) from charging customers differently depending on the type of data they wanted to access. In 2018, the Trump Administration acted forcefully to repeal Net Neutrality and declassify ISPs as a utility service.
- *Rollback on green engineering* - Green engineering is defined by the EPA as “the design, commercialization, and use of processes and products in a way that reduces pollution, promotes sustainability, and minimizes risk to human health and the environment without sacrificing economic viability and efficiency.”

One can argue that green engineering has regressed in light of the Trump Administration's 2018 policies. The worldwide coal industry's revival had been promoted by the previous administration. It has been established that fossil fuels like coal and oil are unsustainable and bad for the environment.

## *Porter's Five Forces Framework*



*Figure 2. – Porter's Five Forces Framework*

A business analysis framework called Porter's Five Forces can help to understand why different industries are able to maintain varying levels of profitability. The Five Forces model is frequently used to evaluate a company's corporate strategy as well as its industry structure. With some qualifications, Porter identified five immovable forces that affect every market and business in the globe. An organisation can modify its business plan to more effectively utilise its resources and produce higher earnings for its investors by comprehending Porter's Five Forces and how they apply to an industry.

### *1. Competition in the industry*

The quantity of rivals and their capacity to undercut a firm are the first of the five forces. The power of a corporation decreases as the number of competitors and the number of comparable goods and services they provide increases. If a competitor can provide a better deal or lower rates, suppliers and customers will look to them.

Pricing, experience in a specific field, product quality, and project management capability are the primary ways that businesses compete.

Small businesses are also attempting to change the scale and size of their operations.

### *2. Supplier Power*

The five force model's next factor examines how quickly suppliers may raise input costs. It is influenced by the number of suppliers of an item or service, the degree to which these inputs are



special, and the cost to a corporation of switching providers. A company would be more dependent on a supplier in an industry with fewer providers. As a result, the supplier is in a stronger position and has the ability to increase input costs and demand additional trade benefits.

Their ability to negotiate depends on how many providers there are in the market. Due to the intense rivalry, suppliers' negotiating leverage is constrained. In the high-end technology market, suppliers dominate.

### 3. *Buyer Power*

One of the five forces is the power or capacity of the customer to influence price reductions. It is influenced by the quantity and value of a company's purchasers or customers, as well as by how expensive it would be for a company to find new markets or consumers for its goods. Each consumer has greater leverage to bargain for lower rates and better deals because the client base is smaller and stronger.

They have more influence while working with a limited group of knowledgeable clienteles. However, power increases if there is a large clientele and few competitors.

### 4. *Threat of Substitution*

This refers to the possibility that your clientele could find an other way to use your services. Customers might choose to perform a key task manually or with the help of an outside vendor if you have specialised software that automates it, for example.

Threats come from substitute items or services that can be employed in place of a company's goods or offerings. Companies with the ability to raise prices and secure advantageous terms will be those that make items or provide services for which there are no direct alternatives. Customers will have the choice to choose not to purchase a company's product when close substitutes are readily available, which might diminish a company's position in the market.

### 5. *Threat of New Entry*

The force of new entrants into a market has an impact on a company's power as well. An established company's position may be considerably undermined the quicker and cheaper it is for a rival to enter its market and become a viable rival. It is appropriate for existing enterprises inside an industry with significant entry barriers since the company would be able to charge higher rates and negotiate better conditions.

But given the engineering industry's capital-intensive nature and also considering the reputation, the threat is low which is associated with the current players.

## **2. COMPANY PROFILE**

### *STERLING AND WILSON SOLAR LIMITED*



*Figure 3. – Sterling and Wilson*

### ***HISTORY***

The famous relationship between Shapoorji Mistry Sr. and Mehervan Daruvala, which eventually developed into a successful commercial partnership, served as the foundation for Sterling and Wilson. Wilson Electric Works and Sterling Investments, a unit of the Shapoorji Pallonji Group, united in 1971 to create the EPC powerhouse known as Sterling and Wilson. The choice gave them the ability to take advantage of worldwide opportunities and eventually become a dominant player in the market.

Beginning operations in 2011, Sterling and Wilson Solar Limited, the Solar EPC Division of Sterling and Wilson Private Limited, was demerged in 2017. This subsidiary, which was established to capitalise on the expanding demand for renewable energy, has emerged as one of the world's top suppliers of solar EPC solutions.

Following the consent of the Shareholders at an EGM held on January 11, 2019, the Company was subsequently transformed into a public limited company. As a result, on January 25, 2019, the Company's name was changed to Sterling and Wilson Solar Limited. The Company is a leading global pure-play end-to-end solar engineering, procurement, and construction (or "EPC") solutions provider, and in 2018 it held the top spot globally.

With a concentration on project design and engineering, the company offers EPC (Engineering, procurement and construction) services especially for utility-scale solar power projects. It also manages all elements of project execution from conceptualization through commissioning. Additionally, it offers

operations and maintenance ('O&M') services, even for projects that were built by other contractors. It operates under a "hub-and-spoke" business model, managing the entire supply chain, including the design and engineering functions, from India. It also employs a small number of suppliers and third-party subcontractors and purchases some of the raw materials for their operations locally in each of the markets where there is a cost advantage or to comply with local regulations. The business hopes to use this business model to find affordable products and service solutions for its clients.

### ***FOUNDER'S PROFILE***



*Figure 4. – Founder*

The legendary Sterling and Wilson, which is owned by two Parsi business families welcomed its fourth generation, at the moment. There are only two shareholders in the 90-year-old engineering company. The Shapoorji Pallonji group's Mistry family controls 67 percent of the company, while the Daruvala family, led by *managing director Khurshed*, owns 33 percent. The Daruvala family has overseen the business through "many troughs and crests," with 48-year-old Khurshed serving as its president for almost two decades and to its current success.

Khurshed Daruvala joined Sterling and Wilson Property Development, owned 51 percent by Shapur and 49 percent by Yazdi, in 1994 after completing his chartered accounting degree. They began with the construction of Sterling Seafac, but because of the Coastal Regulation Zone restrictions, the company became stuck in litigation.

The Mistry family recorded the losses in their records even though the Daruvala family, who had less financial resources, lost a significant amount of money in the deal. According to legend, they didn't ask for a raise in the.

### ***Product Profile***

Sterling and Wilson Solar Ltd bring innovations paired with top-tier technology and industry best practises as a global renewable EPC company, resulting in effective and affordable engineering solutions. The business model the company uses, which is asset-light and often involves modest capital expenditures and fixed costs, provides flexibility and scalability to meet the needs of customers, deliver integrated and customised solutions, and act fast in response to market conditions.

- **Floating solar** - They have invested in "Floating Solar" technology as part of their commitment to constantly advance and discover cutting-edge energy solutions. It is a potential development in the field of renewable energy and consists of a structure with a number of solar panels attached on it that floats on a body of water.

Being able to be built on reservoirs, commercial pools, or even small lakes, floating solar plants have an advantage over ground-mounted solar plants in terms of land requirements.

- **EPC solutions for utility-scale projects** - For utility-scale, rooftop, floating, hybrid, and energy storage projects, Sterling and Wilson Renewable Energy provides a full variety of Turnkey and Balance of System (BoS) solutions. Additionally, they offer their clients waste-to-energy options. Design, engineering, procurement, construction, project management, and operation and maintenance are among the services they provide.

They offer our customers complete turnkey EPC solutions, which include design, engineering, procurement, construction, project management, testing, and commissioning as well as connecting the solar power project to the power grid.

- **Hybrid and Energy Storage** - In order to provide the best possible solutions, we have built internal expertise that goes beyond simply designing energy storage solutions. We are able to select the appropriate technology and solution to satisfy the needs of the client thanks to our solid and long-standing relationships with top manufacturers worldwide.

We are in a good position to deliver competitive and comprehensive hybrid and energy storage solutions with the lowest LCOE (Levelised Cost of Engineering) because to our excellent engineering support and procurement capabilities.
- **Waste to energy** - They bring innovations paired with top-tier technology and industry best practises as a global renewable EPC company, resulting in effective and affordable engineering solutions. They use an asset-light company strategy that often has minimal fixed costs and low capital expenditures, providing flexibility and scalability to meet the demands of their clients, deliver integrated, customised solutions, and react swiftly to market changes.
- **Operation and Maintenance** - With over seven years of experience in the operation and maintenance of solar power plants and experience working with the top equipment manufacturers and builders, they take meticulous care of our customers' assets as if they were their own, extending their useful lives, increasing their profitability, streamlining their availability, and lowering their consumption and operating costs.

## *Client Profile*



*Figure 5. – Client Location Map*

A few of their main clients consist of:

*Turnkey Data Centres* - Building construction, liasoning works, electrical works, HVAC, interior works, firefighting, plumbing, diesel generator installation, IBMS, etc.

- Vodafone MSC, Chennai
- National Stock Exchange of India
- National Securities Depository Limited, Bangalore

### *Renewable energy*

- Solar Power Plant 56.5 MWp (Megawatt peak), Uttar Pradesh
- Solar Power Plant 25 MW in Sohar, Oman
- Solar Power Plant 1,177MWp in Sweihan, Abu Dhabi

### *Mechanical, electrical and plumbing (MEP) & Industrial Engineering Procurement Construction (IEPC)*

- One Horizon Centre, Gurugram
- Paul George Global School, New Delhi
- Rajiv Gandhi International Cricket Stadium, Dehradun

### *Transmission and distribution*

- Power Grid Corporation of India Ltd, Bongaigaon
- Odisha Power Transmission Corporation Limited, New Baragarh
- Power Grid Corporation of India, Imphal

### *Sterling generators*

- Ireo Victor Valley, Gurgaon
- MVL i-park, Gurgaon
- Cancer Hospital, Lucknow

## ***Organisation Structure***

### ***BOARD OF DIRECTORS***



*Figure 6. – Khurshed Yazdi Daruvala*

#### **KHURSHED YAZDI DARUVALA**

*Chairman and non-executive director*

Khurshed Daruvala has served as the managing director of Sterling and Wilson Private Limited for over 25 years while being a member of the Sterling and Wilson Group. Since April 25, 2018, he has served on the board of Sterling and Wilson Renewable Energy Limited.

#### **PALLON SHAPOORJI MISTRY**

*Non-executive director*

In addition to serving on the boards of Shapoorji Pallonji and Company Private Limited, Afcons Infrastructure Limited, Shapoorji Pallonji Infrastructure Capital Company Private Limited, Pallon Mistry also serves on the boards of several other businesses. Since August 2, 2018, he has been on the Sterling and Wilson Renewable Energy Limited board of directors.



*Figure 7. – Pallon Shapoorji Mistry*



**KEKI MANCHERSHA ELAVIA**

*Independent director*

Keki Elavia belongs to the ICAI as a fellow member. He has previously worked as a partner for the chartered accounting firms S.R. Batliboi & Co. and Kalyaniwalla & Mistry. He has served on the board of Sterling and Wilson Renewable Energy Limited since March 27, 2019, and he has over 35 years of experience in audit and finance-related subjects.

*Figure 8. – Keki Manchersha Elavia*

**RUKHSANA JINA MISTRY**

*Independent director*

Rukhshana Mistry has been a practising Chartered Accountant for over 29 years. She has been on the Board of Sterling and Wilson Renewable Energy Limited since March 27, 2019.



*Figure 9. – Rukhsana Jina Mistry*



## *Management Team*

<b>Name</b>	<b>Designation</b>
Amit Jain	Global Chief Executive Officer
Arif Saleh Doctor	Independent Director
Bahadur Dastoor	Chief Financial Officer
Basavarajappa C	Head – Human Resource
Bikash Kumar	Head – Research & Development
BikeshOgra	Non Executive Director
Chandra Kishore Thakur	CEO & Manager
Jagannadha Rao Ch V	Co. Secretary & Compl. Officer
M Jayachandra	Head
Praveen Jaiswal	Head
Rajneesh Shrotriya	Chief Technology Officer
Sanjeev Pushkarna	Head – Supply Chain

*Table 2 – Management Team*

*Source: <https://economictimes.indiatimes.com>*

## ***Present Market Share***

Today's (20<sup>th</sup> July, 2022) market share of Sterling and Wilson Solar Ltd is Rs293 and volume is 1,11,800. The current market capitalization is Rs 5,427.13 crores. In the latest quarter company has reported gross sales of **Rs 1206.93 crores** and a total loss of **Rs310.15 crores**.



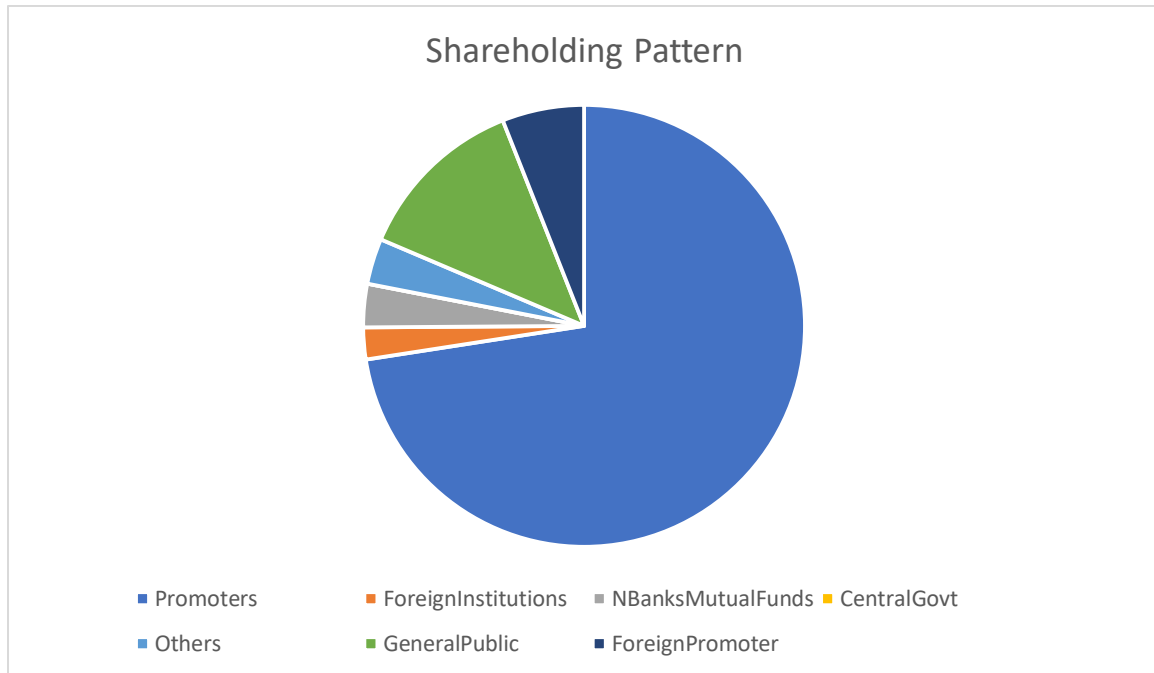
*Figure 10. – Weekly Market Share*

## **Shareholding pattern**

Holder's Name	% Share Holding
Promoters	72.56%
ForeignInstitutions	2.33%
NBanksMutualFunds	3.17%
CentralGovernment	0%
Others	3.34%
GeneralPublic	12.6%
ForeignPromoter	6%

*Table 3 – Shareholding Pattern*

*Source: <https://economictimes.indiatimes.com>*



*Figure 11. – Shareholding Pattern*

### *Future Strategies*

- Sterling and Wilson Solar announced plans in 2021 to expand its renewable energy offerings to include EPC solutions for Hybrid Energy power plant, Energy Storage and Waste to Energy.
- They decided to expand their sustainable energy EPC offerings as there are enormous opportunities in these markets, which would enable them to strengthen their relationships with clients in India and throughout the world and offer a variety of solutions to satisfy their overall needs for renewable energy.
- Through the diversification of its business sectors, Sterling and Wilson Solar hopes to use its expertise in project management and connections with key stakeholders to secure a sizeable portion of the energy market in the future.
- In order to prevent themselves from further losses during the COVID pandemic, they followed all COVID 19 protocols and HSE norms during maintenance work.

## Financial Information

# Balance Sheet

as at March 31, 2021

(Currency : Indian Rupees in crores)

	Note	March 31, 2021	March 31, 2020 (Restated)
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	5	19.95	18.21
Capital work-in-progress	5	0.01	2.42
Right-of-use assets	50	5.72	8.25
Other intangible assets	6	7.84	1.76
Intangible assets under development	6	0.32	0.32
<b>Financial assets</b>			
(i) Investments	7	371.21	3.68
(ii) Loans	8	0.77	1.44
(iii) Other financial assets	8A	5.17	-
Deferred tax assets (net)	9	80.86	26.93
Other income tax assets (net)	10	36.60	0.08
Other non-current assets	11	1.85	3.81
<b>Total non-current assets</b>		<b>530.30</b>	<b>66.90</b>
<b>Current assets</b>			
Inventories	12	3.09	14.51
<b>Financial assets</b>			
(i) Investments	13	-	0.46
(ii) Trade receivables	14	769.99	1,539.94
(iii) Cash and cash equivalents	15	122.69	182.12
(iv) Bank balances other than cash and cash equivalents	16	45.85	10.47
(v) Loans	17	560.19	987.58
(vi) Derivatives	17A	1.92	-
(vii) Other financial assets	18	702.97	352.79
Other current assets	19	1,039.29	761.34
<b>Total current assets</b>		<b>3,245.99</b>	<b>3,849.21</b>
<b>Total assets</b>		<b>3,776.29</b>	<b>3,916.11</b>
<b>Equity and liabilities</b>			
<b>Equity</b>			
Equity share capital	20	16.04	16.04
Other equity	21		
Capital redemption reserve		0.00	0.00
Capital reserve on demerger		(181.74)	(181.74)
Retained Earnings		733.71	844.95
Effective portion of cash flow hedge		(67.72)	-
Foreign currency translation reserve		11.69	23.15
<b>Total equity</b>		<b>511.98</b>	<b>702.40</b>
<b>Liabilities</b>			
<b>Non-current liabilities</b>			
<b>Financial liabilities</b>			
(i) Lease liabilities	50	6.08	6.48
Provisions	22	20.56	9.05
<b>Total non-current liabilities</b>		<b>26.64</b>	<b>15.53</b>
<b>Current liabilities</b>			
<b>Financial liabilities</b>			
(i) Borrowings	23	385.73	597.81
(ii) Lease liabilities	50	0.40	2.18
(iii) Trade payables	24		
Total outstanding dues of micro enterprises and small enterprises		83.74	39.89
Total outstanding dues of creditors other than micro enterprises and small enterprises		2,296.01	2,266.73
(iv) Derivatives	25	92.39	6.23
(v) Other financial liabilities	26	63.96	37.95
Other current liabilities	27	219.95	157.29
Provisions	28	93.16	67.38
Current tax liabilities (net)	29	2.33	22.72
<b>Total current liabilities</b>		<b>3,237.67</b>	<b>3,198.18</b>
<b>Total liabilities</b>		<b>3,264.31</b>	<b>3,213.71</b>
<b>Total equity and liabilities</b>		<b>3,776.29</b>	<b>3,916.11</b>

# Statement of Profit and Loss for the year ended March 31, 2021

(Currency : Indian Rupees in crores)

	Note	For the year ended March 31, 2021	For the year ended March 31, 2020 (Restated)
<b>Income</b>			
Revenue from operations	30	3,176.17	4,536.79
Other income	31	153.95	371.72
<b>Total income</b>		<b>3,330.12</b>	<b>4,908.51</b>
<b>Expenses</b>			
Cost of construction materials, stores and spare parts	32	2,029.83	2,719.08
Purchases of stock-in-trade	33	0.79	408.99
Changes in inventories of stock-in-trade	34	-	-
Direct project costs	35	1,049.47	921.68
Employee benefits expense	36	122.34	138.37
Finance costs	37	67.59	146.24
Depreciation and amortisation expense	38	8.20	6.33
Other expenses	39	194.57	136.34
<b>Total expenses</b>		<b>3,472.79</b>	<b>4,477.03</b>
<b>(Loss) / Profit before income tax</b>		<b>(142.67)</b>	<b>431.48</b>
<b>Tax expenses:</b>	40		
Current tax			
Current tax relating to current year		-	111.74
Current tax relating to earlier years		-	(0.28)
Deferred tax (credit) / charge		(31.23)	3.32
		<b>(31.23)</b>	<b>114.78</b>
<b>(Loss) / Profit for the year after income tax</b>		<b>(111.44)</b>	<b>316.70</b>
<b>Other comprehensive income</b>			
Items that will not be reclassified subsequently to profit or loss			
(i) Remeasurements of defined benefit liability		0.27	(1.82)
(ii) Income tax relating to items that will not be reclassified to profit or loss		(0.07)	0.46
<b>Items that will be reclassified subsequently to profit or loss</b>			
(i) Effective portion of (losses) on hedging instruments in cash flow hedges		(153.59)	-
(ii) Effective portion of losses on hedging instruments in cash flow hedges reclassified to profit or loss		63.10	-
(iii) Income tax relating to items that will be reclassified to profit or loss		22.77	-
(iv) Exchange differences in translating financial statements of foreign operations		(11.46)	14.84
<b>Other comprehensive (loss) / income for the year, net of income tax</b>		<b>(78.98)</b>	<b>13.48</b>
<b>Total comprehensive (loss) / income for the year</b>		<b>(190.42)</b>	<b>330.18</b>
<b>Earnings per equity share</b>			
Basic and diluted earnings per share (₹) (face value of ₹ 10 split into face value of Re 1 each)	41	(6.95)	19.75

# Statement of Cash Flows for the year ended March 31, 2021

(Currency : Indian Rupees in crores)

	For the year ended March 31, 2021	For the year ended March 31, 2020 (Restated)
<b>A) Cash flows from operating activities</b>		
(Loss) / Profit before tax	(142.67)	431.48
Adjustments for:		
Depreciation and amortisation expense	8.20	6.33
Supplier balances written back	(0.49)	(1.66)
Liabilities no longer required written back	(10.17)	(33.16)
Bad debts written off	0.32	3.63
Write back of expected credit loss on financial assets	(1.01)	(5.80)
Expected credit loss on financial assets	19.75	6.45
Loans and advances written off	2.33	-
Provision for mark-to-market (gain) / loss on derivative instruments (net)	(0.02)	6.23
Share of loss in partnership firm	4.22	14.71
Dividend income	-	(78.10)
Loss on sale of property, plant and equipments (net)	0.26	-
Property, plant and equipment written off	0.76	-
Profit on sale of mutual funds	-	(0.30)
Fair value gain on investment in mutual funds measured at FVTPL	-	(0.01)
Provision for liquidated damages	51.31	-
Provision for foreseeable loss	0.22	-
Other provisions	11.00	-
Finance costs	67.59	146.24
Interest income	(122.72)	(211.91)
Provision for impairment loss on loans and investment in subsidiaries	-	1.78
Unrealised foreign exchange loss (net)	98.49	99.46
Operating (loss) / profit before working capital changes	(12.63)	385.37
<b>Working capital adjustments</b>		
Decrease / (Increase) in inventories	11.42	(2.48)
Decrease in trade receivables	753.02	220.38
Decrease / (Increase) in loans and advances	2.87	(6.89)
(Increase) in restricted cash (refer note 2 below)	(2.16)	(0.07)
(Increase) in other financial assets	(453.23)	(134.52)
(Increase) in other current and non-current assets	(245.53)	(107.81)
Increase / (Decrease) in trade payable, derivatives, other financial liabilities, other liabilities and provisions	(2.85)	(504.96)
<b>Net change in working capital</b>	<b>63.54</b>	<b>(536.35)</b>
<b>Cash flows generated from / (used in) operating activities</b>	<b>50.91</b>	<b>(150.98)</b>
Income tax (paid) (net)	(60.47)	(136.39)
Effects of exchange differences on translation of assets and liabilities	-	14.85
<b>Net cash flows (used in) operating activities (A)</b>	<b>(9.56)</b>	<b>(272.52)</b>
<b>B) Cash flows from investing activities</b>		
(Investment) in equity shares of a subsidiary	-	(1.92)
Proceeds from sale of treasury bills	0.19	-
(Purchase) of property, plant and equipment, capital work in progress and intangible assets	(12.93)	(13.77)
Proceeds from sale of property, plant and equipment	0.59	-
(Investment) in short term fixed deposits (net)	(33.97)	(5.50)
(Investment) in long term fixed deposits	(4.39)	-
Dividend received from a subsidiary	-	78.10
(Purchase) of mutual funds	-	(190.00)
Proceeds from sale of mutual funds	0.27	190.02
Inter-corporate deposits/ Loan given to subsidiaries and fellow subsidiaries (net)	(26.48)	(632.45)
Inter-corporate deposits/ Loan repaid by subsidiaries and fellow subsidiaries	186.78	1,298.78
Interest received	115.43	241.16
<b>Net cash flows generated from investing activities (B)</b>	<b>225.49</b>	<b>964.42</b>
<b>C) Cash flows from financing activities</b>		
Proceeds from cash credit borrowings (net)	77.19	20.61
(Repayment of) secured and unsecured short-term borrowings (net)	(289.27)	(597.41)
Dividend paid	-	(96.18)
Dividend distribution tax paid	-	(6.53)
Repayment of lease liabilities	(2.99)	(2.24)
Finance costs paid	(59.93)	(138.82)
<b>Net cash flows (used in) financing activities (C)</b>	<b>(275.00)</b>	<b>(820.57)</b>
<b>Net (decrease) in cash and cash equivalents (A + B + C)</b>	<b>(59.07)</b>	<b>(128.67)</b>

## Achievements



Figure 12. – Achievements

2016

- Award for *Utility-Scale Solar EPC Contractor* by Solar Today
- Recognised for “*immense contribution to the infrastructure sector*” by Economic Times’ Best Infrastructure Brands

2017

- *Project of the Year* award by MESIA
- Recognised for “*Excellence in Renewable Energy Project Execution from Central Board of Irrigation and Power, India*”
- Award for *Solar O&M Contractor of the Year* by Solar Quarter

2018

- Award for World’s *EPC Excellence for Solar and Storage*
- Award for *Specialist Contractor of the Year* by MEED
- Recognised for *RE International Excellence - Indian Companies*
- Award for *Leading EPC – Solar – Ground Based*

2019

- Award for *Renewables Company of the year* by MEED

2020

- Award for *Utility-Scale Project of the Year* by MEED
- Award for *Utility-Scale Project of the Year* by AFSIA
- Award for *Mega Project of the Year* by MEED

2021

- Award for *Utility-scale EPC Company of the Year* by EQ International
- Award for *Power Generation Project of the Year* by MEED



## *SWOT Analysis*



*Figure 13. – SWOT Analysis*

### STRENGTHS

- Sterling and Wilson Solar Ltd bring innovations paired with top-tier technology and industry best practises as a global renewable EPC company, resulting in effective and affordable engineering solutions.
- The location of the company's activities in India demonstrates a cost advantage because the talent pool it can find here will be less expensive than that of its rivals abroad.
- It has an asset-light strategy and leases the majority of its hardware. Due to the fact that it is a pure-play solutions provider (consultant), expenditures can be kept to a minimum.
- It added EPC solutions for hybrid energy power plants, energy storage, and waste to energy to its portfolio of renewable energy options.
- It is a company with low debt.

### WEAKNESSES

- It has high client concentration, with the top five customers accounting for 54% of total revenues, however this has been dropping.

- The company sources most of its components from very few suppliers, for example they source their solar photovoltaic cells from a single supplier.
- Based on the material in the prospectus, it appears that the company has little leverage with its clients because the EPC contract appears to greatly benefit the clients, including performance guarantees, liquidated damages, and short-notice contract cancellation.
- There is inefficient use of capital to generate enough profit.

## OPPORTUNITIES

- In numerous nations, the organisation offers engineering, procurement, and engineering services for solar power projects. The majority of nations are pushing for renewable energy, and the company's asset-light business model positions it to grow dramatically over time.
- The demand for high-quality service providers for consistent and efficient maintenance is rising. Sterling and Wilson Solar Ltd is a company which assures and ticks all the above criteria and more.

## THREATS

- The business will need to keep up with quickly evolving technology, and if it doesn't, it might not be able to compete in the market for long.
- Weather conditions, which are out of anyone's control, have a significant impact on solar energy. Poor weather can delay project completion and raise project costs for the business.
- Injuries are always a possibility at building sites in the utilities industry. Consistent errors might harm the company's reputation.
- Due to the fact that the majority of the company's contracts are in foreign currencies, the company's revenues are significantly vulnerable to foreign exchange risk.

## PESTLE ANALYSIS

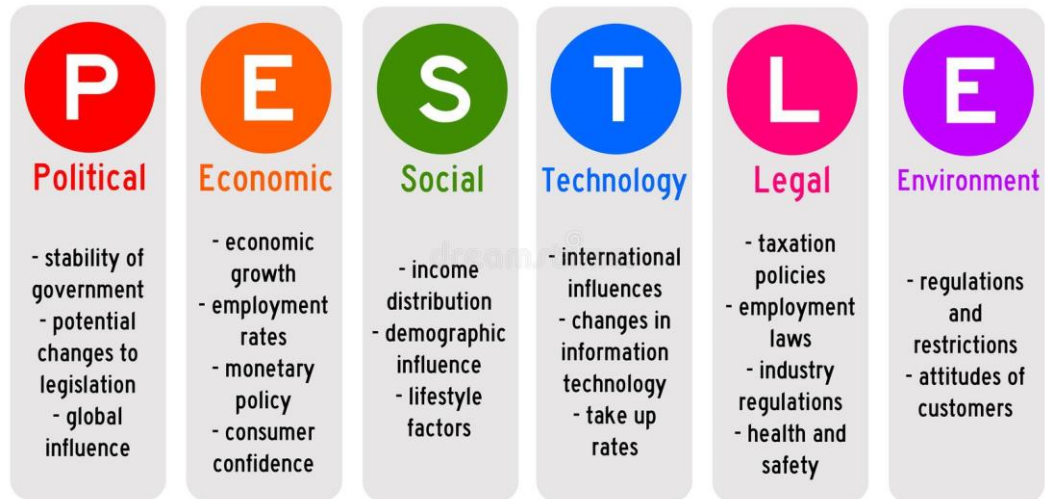


Figure 14. – PESTLE Analysis

PESTLE analysis, often known as PEST analysis, is a concept used in marketing theories. Additionally, businesses utilise this idea as a tool to monitor the environment in which they operate or in which they want to introduce a new initiative, product, service, etc.

PESTLE is a mnemonic which in its expanded form denotes P for Political, E for Economic, S for Social, T for Technological, L for Legal, and E for Environmental

- **Political factors** - The Mission's objective is to establish India as a global leader in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible. The Mission targets installing 100 GW grid-connected solar power plants by the year 2022. It aspires to finish its purpose as soon as possible and has made significant progress in raising awareness and utilising renewable energy sources.  
Due to its primary focus on solar energy, Sterling and Wilson Solar Ltd. benefits from this strategy and may use it to diversify and increase revenues.
- **Economic factors** - India is becoming one of the top leaders in the most lucrative markets for renewable energy in the world because to strong government support and the increasingly favourable economic environment.

But at the same time, there is also a severe lack of security provision for solar installations in India as some of these initiatives are still in the experimental phase, which hinders the possibility of sustained investment in the industry. Users will be protected, and investors will be encouraged, through appropriate policies and security measures. Many nations provide interest rate subsidies or production-based payments to encourage the growth of solar energy. India was the first country to use and support subsidies or capital grants.

- **Social factors** –According to consumer preferences, technological advancements, and employment opportunities, the development of renewable energy also offers social benefits like an improvement in health. However, there are some fundamental factors that should be taken into account for the benefit of people, such as climate conditions, level of education and living standards, and region whether urban or rural from an agricultural perspective.

- **Technological factors** - There is no longer a choice to increase the capacity of power generating using solar energy. In order to create solar electricity and satisfy increasing energy demands, it is now essential to combine a highly technical infrastructure.

The Indian government has been working nonstop to install solar roofing on public buildings, airports, rail networks, educational facilities, residential areas, and commercial complexes. To handle large-scale solar installations, the Indian solar industry must yet overcome a number of obstacles. The players in the renewable energy business are using artificial intelligence to overcome the obstacles.

- **Legal factors** - With a geographic advantage in mind, the Indian government has developed a variety of solar power schemes over the years in an effort to become the world's top producer of solar energy.

The Jawaharlal Nehru National Solar Mission (JNNSM), often known as the "Solar Mission," was one such project. It was launched on January 11, 2010, by the former Prime Minister Manmohan Singh. By developing the political framework for its widespread adoption, this programme sought to position India as a world leader in solar energy.

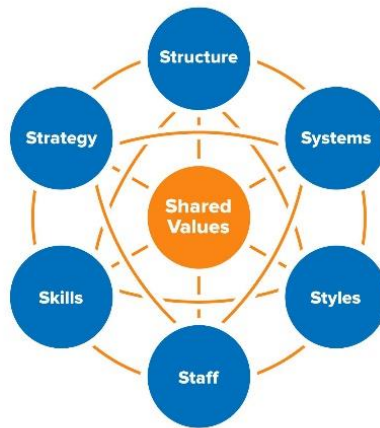
Additionally, the Indian government established Solar Energy Corporation of India (SECI) as a Ministry of New and Renewable Energy (MNRE), which would be in charge of carrying out renewable energy initiatives like the National Solar Mission (NSM). The company strives to develop and implement new, renewable energy sources to support the nation's energy needs.

- **Environmental factors** - The module *temperature* of a photovoltaic (PV) panel has a significant impact on how effectively power is produced. 21 Electrical efficiency diminishes when module temperature rises because PV modules only convert 20% of solar energy into electricity and 80% into heat.

Environmental issues including *tree shading*, bird droppings, cement buildup, and soiling affect how much heat energy solar panels can produce. The afflicted area may suffer harm as a result of the heating of solar panels caused by shade, which cannot be seen by the naked eye. As a result, thermographical methods are employed similarly to thermography.

When *dust*, water vapour, air molecules, and other contaminants in the atmosphere hinder sunlight from reaching the PV panel, the efficiency of the PV modules is reduced. Dust particles in the air that are larger than the wavelength of the incoming solar beam can scatter sunlight, reducing the amount of sunlight that is being emitted.

### *McKinsey 7s Model*



*Figure 15. – McKinsey 7s Model*

The McKinsey 7S Model refers to a tool that analyzes a company’s “organizational design.” The goal of the model is to depict how effectiveness can be achieved in an organization through the interactions of seven key elements – Structure, Strategy, Skill, System, Shared Values, Style, and Staff.

**Structure**–KhurshedYazdiDaruvala, Pallon Shapoorji Mistry, Keki ManchershaElavia and RuskhsanaJina Mistry are the Board of Directors and constitute of the top management in the firm. They are followed by Amit Jain, Bahadur Dastoor, Jagannadha Rao Ch. V. and Chandra Kishore Thakur who consist of the senior management team.

**Strategy**–Being a part of the service and maintenance industry, with the change in market trends the competition has increased by a large margin. Their biggest competitors include Adani Power, Tata Power, NTPC, JSW Energy and many more. But with their new innovative technologies and utilities they have managed to hold strong in the market.

**Skills** – They help provide efficient and cost effective engineering solutions. Their main advantage is

that along with utility scale and solar energy, they have recently beached out to hybrid and energy storage and waste to energy engineering solutions.

**System** – From providing solar energy to operations and maintenance, Sterling and Wilson Solar Ltd has some of the most efficient systems in the country. They constantly innovate to make their systems better.

**Style** – Participative leadership is the preferred method at Sterling and Wilson Solar Ltd. Senior personnel interact with workers at all levels and solicit their feedback to enhance strategy and operations or to find and resolve any issues.

**Staff** – The Company has over 5000+ employees in the firm. People from various backgrounds happily work for the company because it is a worldwide family that values diversity and acceptance. Together, they assist in developing innovative engineering solutions to address issues.

**Shared values** –It aims to become one of the leading EPC solution providers in the world. It helps to use its industry expertise and strong stakeholder relationships to make valuable contributions to this green energy transition in the world.

# BEML LIMITED

## 1. FOUNDERS PROFILE

BEML Limited (formerly Bharat Earth Movers Limited) was established in Bangalore in May 1964 as a Public Sector Undertaking to manufacture Rail Coaches and Spare Parts as well as Mining Equipment. BEML is Asia's second-largest manufacturer of earth-moving equipment, accounting for 70% of the Indian market. The company has partially disinvested, and the government now owns 54% of total equity, with the remaining 46% held by the general public, financial institutions, foreign institutional investors, banks, and employees. BEML Limited, a 'Schedule-A' company, serves India's core industries, including defence, rail, power, mining, and infrastructure. With its diverse business portfolio, the company began with a modest turnover of Rs. 5 Cr in 1965 and has since grown to a turnover of more than Rs.3,500 Cr. In addition to Malaysia and China, the company has recently expanded its global reach as part of its globalization strategy by opening local offices in Indonesia and Brazil. It is a multi-technology company that manufactures high-quality products for industries such as coal, mining, steel, limestone, power, irrigation, construction, road building, and defence. Over the last four decades, they have risen to the forefront of the heavy engineering industry and established a significant presence in the earthmoving industry.

The company was established by the Government of India as a public sector undertaking under the administrative control of the Ministry of Defense, Department of Defense Production, and Supplier.



They were incorporated as a private limited company under the Companies Act as 'Bharat Earth Movers Limited' under our certificate of incorporation bearing number 1530 dated May 11, 1964. When our Company was formed, the rail coach of Hindustan Aeronautics Limited was transferred to them as a going concern, along with land, building, plant and machinery, manpower, and other infrastructure facilities, for a total consideration of approximately Rs. 6 crores, which was met by the issuance of shares for consideration other than cash. In 1992, the Government of India decided to sell their equity shares, and they were converted into a public limited company by a resolution passed at the EGM held on February 21, 1992, by filing a statement in lieu of prospectus with the RoC. They are a multi-technology company that manufactures high-quality products for a wide range of industries, including coal, mining, steel, limestone, power, irrigation, construction, road construction, defense, and railways. Over the last four decades, we have risen to the forefront of the heavy engineering industry and established a significant presence in the earthmoving industry.

## **2. PRODUCT PROFILE**

Mining and construction, defense, rail, and metro are the three major business sectors for the company. Each of the above businesses is led by a Director who serves as CEO and reports to the Chairman and Managing Director of the company.

The company's Mining & Construction division offers a wide range of mining machinery for both opencast and underground mines. The Rail & Metro business vertical supplies Indian Railways with integral rail coaches, overhead electric inspection cars, and postal vans. Tatra vehicle variants for all-terrain operations, such as bridge layer field artillery tractor medium and heavy recovery vehicles, are produced by the Defense Division. In addition to the Technology Division, the company provides end-to-end technology solutions in Auto Aero Defense and Rail & Metro. The Trading Division is in charge of non-company products and commodities such as iron ore, coal, and steel billets for both captive and in-house use. Export activities are managed by the International Business Division. BEML Ltd was founded on May 11, 1964, as a public sector undertaking under the administrative supervision of the Ministry of Defense's Department of Defense Production and Supplies.

BEML produces and sells High Mobility Trucks, Recovery Vehicles, Bridge Systems, Missile Project Vehicles, Tank Transportation Trailers, Milrail Wagons, Mine Ploughs, Crash Fire Tenders, Snow Cutters, Aircraft Towing Tractors, and Aircraft Weapon Loading Trolleys based on the Tatra platform. In order to assemble and distribute the products, the company plans to overhaul and upgrade Battle Tanks. The company manufactures and supplies various user segments with Mining & Construction equipment such as Bull Dozers, Excavators, Dumpers, Shovels, Loaders, and Motor Graders under the Mining and Construction Business, while the Rail & Metro Business manufactures and supplies Rail Coaches, Metro Cars, AC EMUs, OHE Cars, Steel and Aluminium Wagons. BEML manufactures heavy-duty trucks and trailers for the transportation industry, as well as hydraulic aggregates. In order to meet the needs of its customers, the company also manufactures high-power diesel engines and

heavy-duty hydraulic aggregates. The company plans to diversify into a variety of activities, including underground mining equipment, underground petro-product storage, leasing and financial services, and international ventures.

### 3. ***CLIENT PROFILE :***

#### ***DEFENCE AND AEROSPACE:-***

- Ministry of Defence (Indian Army, Navy, Air Force)
- Indian Railways
- Vehicle Research & Development Establishment (VRDE), Ahmendnagar
- Combat Vehicle Research & Development Establishment (CVRDE), Chennai
- Electronics and Radar Development Establishment (LRDE), Bangalore
- Research & Development Establishment (Engineers) (R&DE(E)), Pune
- Heavy Vehicles Factory, Avadi
- Gun Carriage Factory, Jabalpur
- Ordnance Factory, Medak
- Aeronautical Development Agency, Bangalore
- Indian Space Research Organization (ISRO), Bangalore
- Hindustan Aeronautics Limited
- Bharat Electronics Limited
- Bharat Dynamics Limited, Hyderabad
- Brahmos Aerospace Pvt Ltd, Hyderabad

- Larsen & Toubro Limited, Talegaon
- Thales India Pvt Ltd

### ***MINING AND CONSTRUCTION:-***

- Coal India and its subsidiaries such as
- Bharat Coking Coal Limited (BCCL),
- Central Coalfields Limited (CCL),
- Eastern Coalfields Limited (ECL)
- Northern Coalfields Limited (NCL),
- Mahanadi Coalfields Limited (MCL),
- South Eastern Coalfields Limited (SECL),
- Western Coalfields Limited (WCL)
- National Mineral Development Corporation (NMDC),
- National Aluminum Company (NALCO),
- Singareni Collieries Company Limited (SCCL),
- Steel Authority of India Ltd (SAIL),
- National Thermal Power Corporation (NTPC)
- Cement companies,
- Power generation companies in the private sector,
- Private institutional and personal contractor

## RAIL&METRO:-

### Major Clients

[<< Back To Rail and Metro Main Page](#)



BMRCL



KMRCL



दिल्ली मेट्रो रेल कॉर्पोरेशन लिमिटेड  
Delhi Metro Rail Corporation Limited

DMRC



Indian Railways



Chennai Metro



Jaipur Metro



Ansaldo STS



L&T Construction



L&T Metro Rail, Hyderabad



Mumbai Railway Vikas Corporation



Mumbai Metro



Rail Vikas Nigam

[<< Back To Rail and Metro Main Page](#)

#### 4. ORGANIZATION STRUCTURE



बी ई एम एल  
**bhel**  
NEW TRADITION NEW DREAMS

### Board of Directors



**Shri Amit Banerjee**  
Chairman & Managing Director



**Shri Puneet Agarwal**  
Government Nominee Director, Joint Secretary (Land System),  
Dept. of Defence Production, Ministry of Defence



**Shri MV Rajasekhar**  
Director (Mining & Construction Business) & Director (HR) (I/c)



**Shri Ajit Kumar Srivastav**  
Director (Defence Business) & Director Finance (I/c)



**Shri Arvind Kumar Arora**  
Independent Director



**Smt Balmuri Vanitha**  
Independent Director

## Profile of Board of Directors



**Shri Amit Banerjee**  
Chairman & Managing Director

Shri Amit Banerjee (DIN:08783660) is a Mechanical Engineering Graduate from IIT (BHU), Varanasi. He has taken charge of CMD post from 27-08-2021. Prior to assuming the present position, Shri Amit Banerjee was Director (Rail & Metro business).

He started his career in BEML in 1984 as Assistant Engineer. In his professional career spanning over three decades in BEML he has worked in various capacities in R&D and Manufacturing functions on design, development & manufacture of products for all 3 business verticals. He played a lead role in design & development of various products like Stainless Steel EMU, Metro cars, Catenary Maintenance Vehicle, special wagons, PMS Bridge, heavy duty trucks, trailers, Aircraft towing tractor, etc.

His significant contribution includes establishing the design & engineering capability for metro & rail rolling stock. Computer aided design and engineering facilities and testing capabilities were established.

The developed products were successfully productionised and delivered to various Metro Corporations and Indian Railways. He has successfully guided his team for developing & supplying state of art stainless steel metro cars to Delhi, Jaipur, Kolkata and driverless metro cars for Mumbai.

The Rail & Metro business contribution has increased to more than a third of the company's turnover. Today BEML is a leading player in metro rolling stock in the country.

He has played a significant role in phased indigenization of Rolling Stock aggregates. Local vendor base has been established leading to increased indigenization levels.

Under his guidance, his team received the Raksha Mantri award for design effort towards Design & Development of Austenitic Stainless Steel EMU for Indian Railways & Intermediate metro cars for Delhi Metro.





**Shri Puneet Agarwal**  
Government Nominee Director,  
Joint Secretary (Land System),  
Dept. of Defence Production,  
Ministry of Defence

Shri Puneet Agarwal (DIN:07192938) is a B.Tech in Electrical Engineering from IIT, Kanpur and also holds Masters in Public Administration from Syracuse University, New York Maxwell School of Citizenship and Public Affairs, USA. He belongs to the Indian Administrative Service of 1998 batch (Tripura Cadre). Shri Agarwal has been appointed as Government Nominee Director on the Board of BEML Limited w.e.f. 27.07.2020. Presently posted as Joint Secretary (Land System), Department of Defence Production, Ministry of Defence and had a wide experience in the area of land revenue system, rural development, IT, e-governance and finance in a career span of 22 years. He handled the Charge of JS (Coord) & CAO from November, 2019 to January, 2020 in the Department of Defence and served as Joint Secretary in the Ministry of Textiles, Government of India, from October, 2016 to November, 2019. Besides various important Cadre Postings, Shri Agarwal also worked as Director in the Department of Economic Affairs and as Deputy Secretary, Cabinet Secretariat in the Government of India.



**Shri MV Rajasekhar**  
Director (Mining & Construction  
Business) & Director (HR) (I/c)

Shri M V Rajasekhar is a Metallurgical Engineer from VNIT, Nagpur with a MTech in Welding Engineering from IIT Chennai and MS in Technology Management, Germany. Started his professional career in BEML Ltd as an R&D Engineer in the year 1988. With total professional experience of over 33 years, he has served the Company in all its three business verticals. During his journey, he has acquired knowledge and expertise across all major functions like R&D, Production, Planning, Outsourcing, Human Resource Management and Marketing.

After assuming additional charge of post of Chairman and Managing Director from 01.02.2021 to 26.08.2021, he focused primarily on Order Execution, New Products Development, Indigenization, Cost Control and Manpower Optimization to gain competitive edge in the intensely competitive business environment across all its three Business Verticals.



**Shri Ajit Kumar Srivastav**  
Director (Defence Business) &  
Director Finance (I/c)

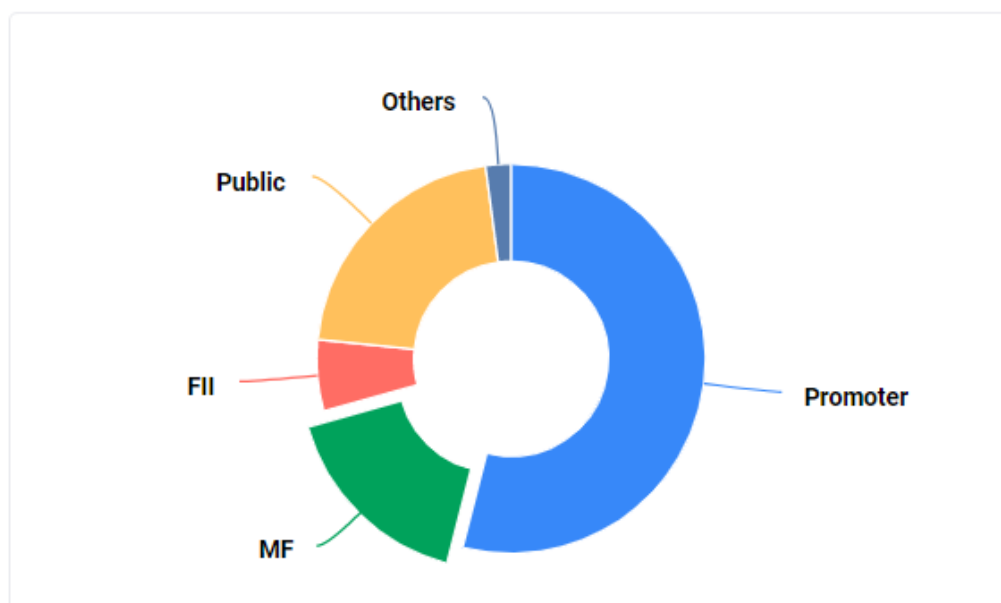
Shri Ajit Kumar Srivastav (DIN: 08741858) is a graduate in Mechanical Engineering from IIT Kharagpur in 1987. He joined BEML as an Engineer Trainee and in his professional career spanning over three decades in BEML, he has worked in various critical functions in the Company. He assumed charge as Director (Defence Business) of the Company on 01.06.2020. Prior to assuming the charge as Director, he served as Chief General Manager (Defence Marketing). He played a significant role in phased indigenization of key products and import substitution. He also created a vendor ecosystem incorporating MSMEs and set up the Regional Quality Assurance Wing covering entire Northern India. As a District / Regional Manager, he has set up the first ever dealer network for construction equipments which lead to considerable boost in sales. As Head of International Business Division, he effectively used buyer's credit opportunities to enhance exports, winning award for the highest exports in 2013-14.



## 5. **PRESENT MARKET SHARE:**

Today's (20<sup>th</sup> July, 2022) market share is 1756.15. Its current market capitalisation stands at Rs 7313.4 Cr. In the latest quarter, company has reported Gross Sales of Rs. 35572.08 Cr and Total Income of Rs.36468.3 Cr.

SHAREHOLDING SUMMARY



SUMMARY DATA	HOLDINGS
<b>PROMOTERS</b>	<b>54.0%</b>
<b>FII</b>	<b>5.9%</b>
<b>DII</b>	<b>18.8%</b>
<b>PUBLIC</b>	<b>21.3%</b>
<b>OTHERS</b>	<b>0%</b>

## CSR INITIATIVES – GIVING BACK TO THE COMMUNITY

The CSR Policy encapsulates the Company's philosophy for delineating its responsibility as a Corporate Citizen and establishes the guidelines and mechanism for carrying out socially useful activities / projects and programmes for the welfare & sustainability and development of the community at large, preferably in the local area and in its areas of operation.

To increase commitment at all levels of the organization, operations must be conducted in an economically, socially, and environmentally sustainable manner, while considering the interests of all stakeholders. To directly or indirectly undertake programmes that benefit the communities in and around its Manufacturing units/Regional/District offices/Work Centers, resulting in improved quality of life and economic well-being for the local population over time. To generate community goodwill for BEML through its CSR initiatives, as well as to help reinforce BEML's positive and socially responsible image as a popular Corporate entity.

## 6. ***FUTURE STRATEGIES:***

The company is come up with following strategies for different sectors:

### ***Defence & Aerospace:***

The majority of orders in the Defense & Aerospace segment are ready for execution this year. More orders for High Mobility Vehicles for various programmes, 50T Trailers, Tank and Aggregate Overhauling, Aggregates and Structures for National Programs, and so on are expected. To meet the Indian Army's acquisition needs, the company is undertaking new design and development programmes such as the development of High Mobility Vehicle (8x8 Cross Country Vehicle), Self-propelled mine burrier 8x8, Bar mine layer 8x8, Guided Pinaka Variants for Launcher, Command post, Loader Cum Replenishment (LCR), Replenishment vehicle (RV), Upgrading of Axles for higher load carrying capacity with ABS feature for use on chassis for special projects. Indigenous cabin production for HMV 8x8 and 6x6 vehicles, ARV WZT-3 pilot project upgrade/overhaul, development of TRAWL Roller & TWMP for de-mining operations, and HMV 8x8 chassis with 155 mm / 52 Cal Mounted Gun System Your company is developing India's first high-powered 1500 horsepower engine for military use. On the export front, your company is looking into the possibility of supplying Bridging Systems (Sarvatra, PMS), Medium Bullet Proof Vehicles, AI based Medical Health & Diagnostics Systems (MHDS), and Engineering Plant Equipment (Dozers & Motor Graders) to friendly neighbouring countries and other countries covered by the Indian Line of Credit. The Company's Aerospace segment supplies structures and aggregates for various Missile and National programmes. Additionally, plans are in the works for its newly established subsidiary to supply various aerospace components and parts for global requirements.

### ***Rail & Metro:***

In the rail segment, the supply of Main Line Electric Multiple Units has begun and will be completed this year. Rail Grinding Machine manufacturing and supply will begin this year. Overhead Inspection Cars, Track Laying, Rail Grinding, and Track Cleaning Machines all require more maintenance equipment. Your company is confident that it will receive additional orders. Light Rail Metro is also gaining traction as a revenue stream that is expected to emerge from tier II and tier III cities. Your company is also looking for partnerships to meet the demand for upcoming Semi High-Speed Rail Medium / High-Speed Coaches / LHB Coaches.

### ***Mining & Construction:***

On the mining front, your company is executing orders for a high end 190 Ton Dumper that was designed and developed in-house. Your company is also working on the design and development of a 240T Dump Truck and a 21 Cummins engine. Shovels made of rope The government intends to reduce coal imports by increasing domestic coal production, including Coal India Limited (CIL), Singareni Collieries Company Limited (SCCL), and commercial coal mining. To meet India's growing demand for coal, coal companies are planning higher capacity opencast mining projects, which will necessitate the deployment of higher capacity mining equipment equipped with cutting-edge technology. Your company is developing an autonomous dozer, as well as large mining equipment such as a rope shovel and a walking drag boundary; a trial order from Coal India is expected. Keeping in mind future technology trends and the changing business environment, R&D has undertaken initiatives to launch new products and upgrade existing products in line with the latest emission norms mandated by the government, DGMS, and safety features as per IS17055 / ISO20474 in the areas of Dump Trucks,

Dozers, Excavators, Wheel Loaders, and Underground Mining Equipment, in addition to upgrading existing products with innovative and new features in line with major global competitors.

### ***Exports:***

On the export front, your company has received a significant order from the Ministry of Economy, Planning, and Regional Development (MOEPRD) of the Government of Cameroon for the supply of 71 units of construction equipment, including bulldozers, excavators, wheel loaders, motor graders, and compactors, for their Cassava Farm Project. Your company is also working on various business opportunities in SAARC and Africa in the Defence, Mining & Construction, and Rail & Metro segments. The Company is in constant contact with Indian Embassies / Defence Attaches regarding business promotion / engaging local representatives, and has already appointed representatives in Bangladesh, Tunisia, Cameroon, and Thailand, and is in the process of appointing more representatives around the world. The Kenya region has been assigned to BEML by the MoD. BEML has established a branch office in Kenya, which will open in January 2021.

### ***HR and Administrative Initiatives:***

Human Resource Management at the company is constantly re-inventing HR practises, policies, and procedures to meet the changing needs of the workforce. In keeping with the philosophy that a dedicated and motivated workforce is the foundation of any organisation, a number of initiatives have been undertaken in the areas of leadership development, performance management system reform, internal communication system strengthening, training/retraining for continued learning through e-based platforms, policy simplification to make them employee centric, and so on.

## 7. FINANCIAL INFORMATION

S. No.	PARTICULARS	UNITS	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12
<b>A</b>	<b>Our earnings</b>											
	Gross Revenue (Domestic)	₹ Lakhs	309407	296731	346186	327728	280682	314769	264532	318115	309164	350432
	Physical Export	₹ Lakhs	2824	1450	1920	2814	2018	3466	10678	7678	18635	12701
	Deemed Export	₹ Lakhs	43490	4701	0	0	998	24057	37755	427	1178	1704
	Total Gross Revenue	₹ Lakhs	355721	302882	348106	330542	283698	342292	312965	326220	328977	364837
	Less: Value of Consortium supplies	₹ Lakhs	0	0	0	0	232	13859	13048	14203	29090	72779
	Revenue net of Consortium Supplies	₹ Lakhs	355721	302882	348106	330542	283466	328433	299917	312017	299887	292058
	Less: Excise Duty	₹ Lakhs	0	0	0	5987	33585	30372	18998	20866	18996	19409
	Revenue from operations	₹ Lakhs	355721	302882	348106	324555	249881	298061	280919	291151	280891	272649
	Change in WIP/SIT	₹ Lakhs	(86)	29194	(1422)	(1866)	12509	(24371)	(20926)	(9706)	6992	42882
	Value of Production (with Revenue from Operations)	₹ Lakhs	355635	332076	346684	322689	262390	273690	259993	281445	287883	315531
	Value of Production (with Gross Revenue)	₹ Lakhs	355635	332076	346684	328676	296207	317921	292039	316514	335969	407719
	Other Income**	₹ Lakhs	6016	4855	2311	2490	6245	4216	5950	6339	10359	4509
<b>B</b>	<b>Our outgoings</b>											
	Cost of materials	₹ Lakhs	203825	189051	197062	172544	134573	147724	137368	161734	172427	184633
	Employee Remuneration & Benefits	₹ Lakhs	84865	84387	80193	80850	78072	75453	76911	71676	73940	72508
	Interest	₹ Lakhs	3912	4050	5939	4809	4780	4903	7051	11046	14099	8843
	Depreciation & amortisation exp	₹ Lakhs	7068	7130	6958	6424	6198	5577	5214	5356	5025	4392
	Other Expenses	₹ Lakhs	52700	49907	45747	50160	68768	66829	57720	59520	64992	65310
<b>C</b>	<b>Our savings</b>											
	PBDIT	₹ Lakhs	20261	13586	25993	27612	20807	18272	12956	17310	6891	19881
	PBIT	₹ Lakhs	13193	6456	19035	21188	14609	12695	7742	11954	1866	15489
	PBT	₹ Lakhs	9281	2406	13096	16379	9829	7792	691	908	(12233)	6646
	PAT	₹ Lakhs	7480	6838	6349	12945	8444	6366	676	468	(7987)	5725
	Other Comprehensive Income (net of tax)	₹ Lakhs	(7559)	(4358)	(1321)	(7066)	(1189)	(1,051)	-	-	-	-
	Total Comprehensive income	₹ Lakhs	(79)	2480	5028	5879	7255	5315	676	468	(7,987)	5,725
<b>D</b>	<b>Own capital</b>											
	Equity	₹ Lakhs	4177	4177	4177	4177	4177	4177	4177	4177	4177	4177
	Other Equity	₹ Lakhs	218268	221538	214547	215846	213978	208728	203914	203807	203826	213031
<b>E</b>	<b>Loan capital</b>											
	Loans from Banks	₹ Lakhs	54185	3620	9751	13502	11285	19245	24553	54110	85181	83335
	Other loans	₹ Lakhs	20149	30299	30445	31055	32286	37515	39498	41481	40959	12525

S. No.	PARTICULARS	UNITS	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13	2011-12
<b>F</b>	<b>Financial Statistics</b>											
	Net worth	₹ Lakhs	222445	225715	218724	220023	218155	212905	208091	207984	208003	217208
	Property, Plant & Equipment and Intangible assets (at cost)	₹ Lakhs	96853	91955	85900	75597	68294	59789	47230	120062	118377	112845
	Accumulated depreciation & amortisation	₹ Lakhs	37706	30862	23913	17312	11208	5344	-	70193	65303	59923
	Net Block	₹ Lakhs	59147	61093	61987	58285	57086	54445	47230	49869	53074	52922
	Inventories	₹ Lakhs	197065	200272	170227	179951	197446	169628	192117	215210	245620	242241
	Trade Receivables	₹ Lakhs	188451	150813	161305	164223	144137	124043	124182	115671	122452	100598
	Working capital	₹ Lakhs	277377	273011	216523	207781	212666	202534	202954	198422	206756	205462
	Capital Employed	₹ Lakhs	336524	334104	278510	266066	269752	256979	250184	248291	259830	258384
	Value added	₹ Lakhs	151810	143025	149622	150145	127817	125966	122625	119711	115456	130898
	Final Dividend-Excl. Tax *	₹ Lakhs	1458	1041	3332	3332	1666	416	416	1041	2082	4164
	Interim Dividend-Excl. Tax	₹ Lakhs	1999	1041	1874	-	-	-	-	-	-	-
	R&D Expenditure	₹ Lakhs	13266	10354	7072	10204	7808	6663	8292	8623	9436	9779
	No. of Employees	Nos	6053	6602	7185	7722	8221	8827	9599	10328	11005	11644
<b>G</b>	<b>Financial Ratios</b>											
	Revenue from operations per Employee	₹ Lakhs	58.77	45.88	48.45	42.03	30.40	33.77	29.27	28.19	25.52	23.42
	Value Added per Employee	₹ Lakhs	25.08	21.66	20.82	19.44	15.55	14.27	12.77	11.59	10.49	11.24
	PBT to Revenue from operations	%	2.61	0.79	3.76	5.05	3.93	2.61	0.25	0.31	(4.36)	2.44
	PBIT to Capital employed	%	3.92	1.93	6.83	7.96	5.42	4.94	3.09	4.81	0.72	5.99
	PAT to Net worth	%	3.36	3.03	2.90	5.88	3.87	2.99	0.32	0.23	(3.84)	2.64
	Debt Equity ratio	Times	0.33	0.15	0.18	0.20	0.20	0.27	0.31	0.46	0.61	0.44
	EPS	₹	17.96	16.42	15.25	31.08	20.28	15.29	1.62	1.12	(19.18)	13.75
	Final Dividend *	%	35.00	25.00	80.00	80.00	40.00	10.00	10.00	25.00	50.00	100.00
	Interim Dividend	%	48.00	25.00	45.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Revenue from operations to Capital employed	%	105.70	90.66	124.99	121.98	92.63	115.99	112.28	117.26	108.11	105.52

\* For F.Y 2020-21, Board has recommended a dividend of ₹ 1.20/- per equity share (i.e., 12%), this would result in a cash outflow of approximately ₹ 499.73 Lakhs in F.Y 2021-22, subject to the approval of shareholders at the Annual General Meeting.

\*\* Other Income includes Provision Withdrawn of ₹ 2661 Lakhs (Previous Year - ₹ 204 Lakhs) against receivables written-off. The amounts are shown under Note 37-Other Expenses and also in Note 31-Other Income as 2 contra entries for availing Income Tax benefit. These are purely related to operations and hence excluded from computation of Operating Profit.

## Financial results:

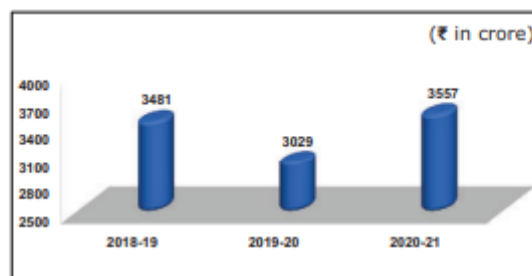
(₹ in Crores)

Particulars	2020-21	2019-20
Revenue from Operations	<b>3557</b>	3029
Value of Production	<b>3556</b>	3321
Profit before Depreciation, Interest and Tax	<b>203</b>	136
Finance costs	<b>39</b>	41
Depreciation and amortization expense	<b>71</b>	71
Profit Before Tax	<b>93</b>	24
Tax Expense	<b>18</b>	(44)
Other Comprehensive Income	<b>76</b>	43
Total Comprehensive Income	<b>(1)</b>	25
Profit available for appropriation	<b>329</b>	337
Net worth	<b>2224</b>	2257

### Revenue from Operations & Profitability:

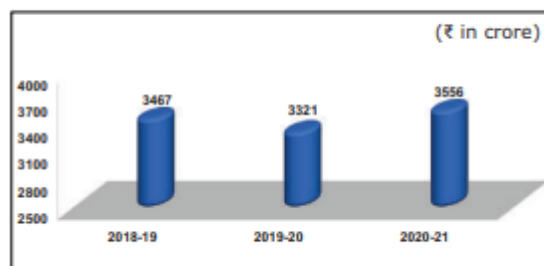
Your Company achieved highest ever Revenue from Operations of ₹3557 crore as against ₹3029 crore in the previous year, increased by 17.45%.

#### Revenue from Operations:



Achieved highest ever Value of Production of ₹3556 crore as against ₹3321 crore in the previous year, increased by 7.09%.

#### Value of Production



With increased business and continued focus on cost control, your Company registered a Profit before Tax of ₹93 crore as against Profit before Tax of ₹24 crore in the previous financial year, increased by 285.74%.

Improvements in other financial / operational parameters are provided hereunder:

- Defence Business registered a growth of 23.61% over the previous year.
- Rail & Metro Business registered a growth of 16.91% over the previous year.
- Mining & Construction Business achieved highest ever revenue from operations and registered a growth of 16.06% over the previous year.
- Palakkad Complex has achieved highest ever Revenue from Operations ₹283 crore registering a growth of 23.29% over the previous year.
- M&C and Defence spare parts business has achieved highest ever Revenue from Operations ₹734 crore & ₹182 crore

#### Profit Before Tax



## 8. ACHIEVEMENTS:

The Company has received numerous accolades and awards, some of which are listed below: During the 8th Annual Equipment India Awards 2020, the company received awards for 'Best Seller in Crawler Dozers' and 'Best Seller in Rigid Dump Trucks.' • On October 28, 2020, the Company was awarded the prestigious SKOCH Award in the Gold Category for outstanding work in response to COVID-19 containment. • In the 7 Governance Now PSU 2020, BEML was awarded the 'Digital PSU Award th 2020' for various digital initiatives implemented by BEML. • Innovation Award for Research and Development Excellence for "Design and Development of Mobile Stand by Command Post Vehicle (MSCPV)"

## 8. SWOT ANALYSIS

### **STRENGTHS**

- BEML STAND
- ADEQUATE MANUFACTURING FACILITIES WITH ISO9001 CERTIFICATION
- WIDE MARKET NETWORK AND PRODUCT RANGE.
- VERY STRONG R&D FACILITIES
- CUSTOMER SATISFACTION.
- HUGE SKILLED LABOUR FORCE AT MATUFACTURING CENTRE.

### **WEAKNESS**

- HIGH COST OF PRODUCTION.
- EMPLOYEES DISSATISFACTION.
- OUTDATED TECHNOLOGY ADOPTED
- DELAY IN DECISIONS DUE TO PROCEDURE AND AUTHORITY.
- FAST CHANGING MARKET CONDITIONS.
- PREVENTING PRIVATE SECTOR FROM MANUFACTURING AND SUPPLYING RAILWAY REQUIREMENTS.

### **OPPURTUNITIES**

- DEMAND FOR SMALL AND MEDIUM RANGE EQUIPMENTS.
- ACCESS FOR LATEST TECHNOLOGY
- GROETH POTENTIAL IN CORE SECTORS LIKE MINNING,INFASTRUCTURE,DEFENCE AND RAILWAYS
- BEML LIMITED HAS A VERY GOOD OPPORTUNITY IN FIELD OF



## 9. *McKinsey's 7S Model*

**Strategy** is a plan developed by a firm to achieve sustained competitive advantage and successfully compete in the market. What does a well-aligned strategy mean in 7s McKinsey model? In general, a sound strategy is the one that's clearly articulated, is long-term, helps to achieve competitive advantage and is reinforced by strong vision, mission, and values. But it's hard to tell if such strategy is wellaligned with other elements when analyzed alone. So, the key in 7s model is not to look at your company to find the great strategy, structure, systems etc. but to look if it's aligned with other elements. For example, short-term strategy is usually a poor choice for a company but if it's aligned with other 6 elements, then it may provide strong results. BEML must strike a balance between short-term cost savings and maintaining its core competitive advantage. Customers believe that BEML products and services provide "value for money" plus a little bit more. BEML should avoid cost-cutting measures that could result in inferior product and service delivery in its quest to gain more market share through price competition.

**Structure** represents the way business divisions and units are organized and includes the information of who is accountable to whom. In other words, structure is the organizational chart of the firm. It is also one of the most visible and easy to change elements of the framework. The pandemic has called into question the company's current structure and supply chain management. To become a more resilient organisation and prepare for future disruptions of similar magnitudes, BEML should focus on geographically diversifying suppliers so that climate-related, geopolitical, and other disruptions do not impact the company's long-term survival. Reduce reliance on China - As the trade war between the United States and China becomes more aggressive, it should reduce its reliance on supply chains emerging from China. This will assist the organisation in diversifying risks, avoiding regulatory issues, and so on. BEML's organisational structure must be fine-tuned in order to achieve the above two objectives. It must have smaller teams, easy reporting to headquarters, and the ability for teams to make decisions

based on data. BEML can improve its human resources by taking the following steps:

Recruitment and remote onboarding - Due to the pandemic, many employees are working from home. BEML should develop a remote onboarding system, such as a catalogue of short videos, small group interaction, and technical demonstrations, to make the environment more inclusive for new employees. Open up chats for people to approach people at different levels of the hierarchy. It will not only allow top management to interact directly with those below them, but it will also aid in the development of an

open and transparent culture.

**Systems** are the processes and procedures of the company, which reveal business' daily activities and how decisions are made. Systems are the area of the firm that determines how business is done and it should be the focus for managers during organizational change. BEML should prioritise the following areas: Improve internal processes such as risk management, Customer Relationship Management (CRM), web app optimization, and data visualisation throughout the organisation. BEML must implement a robust system for "work from home" employees in order to increase employee interaction both online and in person. It will not only increase productivity but also data and cyber security.

**Staff** element is concerned with what type and how many employees an organization will need and how they will be recruited, trained, motivated, and rewarded. The outbreak of Covid-19 pandemic has left countries across the globe shaken and battered and the world economy has come to a 'sudden stop'. It has triggered an unprecedented health and economic crisis across the globe. As the cases started to multiply in March, sales dropped, and it led to a slowdown in sales. Eventually, as a countrywide lockdown was imposed, manufacturing activities came to a halt. However, during these challenging times, our focus has been on ensuring the health and safety of our employees, maintaining a healthy cash flow, and reducing costs.

**Skills** are the abilities that firm's employees perform very well. They also include capabilities and competences. During organizational change, the question often arises of what skills the company will really need to reinforce its new strategy or new structure. The Board of BEML limited comprises of such individuals who bring in requisite skills, qualification, expertise, and competence which is required on the Board and on Committees. One of the key pillars of their success is their human resource. Over the years, they have tried to build a talent pool, committed, and dedicated to 92 learning, improve, and develop new skills and apply them to honor their vision, strategies, and core values.

**Style** represents the way the company is managed by top-level managers, how they interact, what actions do they take and their symbolic value. The leadership styles required in a physical location and in a remote scenario are diametrically opposed. In a physical environment, managers can stop by a chat, provide input, and go over the work that BEML Limited guarantees. Employees in remote locations, on the other hand, must work in a far more isolated environment. Leaders pursue collaborative and inclusive forms of leadership to improve workflow. Leaders have formed smaller groups as part of larger groups.

**Shared Values** are at the core of McKinsey 7s model. They are the norms and standards that guide employee Behaviour and company actions and thus, are the foundation of every organization. Based on its core values, vision, and mission, the organisation has created a successful business model. In the shared values segment, there isn't much that needs to change. One area where it could improve is

sustainability. Investors place a high value on environmental, social, and governance issues, so it can increase transparency by incorporating the Triple Bottom Line concept into its ESG and financial reporting.

## 10. ***PESTLE ANALYSIS***

### ***POLITICAL FACTOR:***

Political factors are frequently linked to the level and nature of intervention by local and national governments in the business and economic environment. The nature and objectives of policies are heavily influenced by government policies and the governance system. In India, local governments play an important role in policymaking and regulation. BEML must closely monitor the states and territories in which it has a presence rather than developing national policies in India.

Armed Conflict - India faces no imminent threats as a result of disruptions in the business environment caused by military policies, terrorist threats, and other political instability. BEML has handled operations in difficult situations before.

BEML has benefited from lower taxation policies throughout the Western Hemisphere over the last two decades. It has resulted in increased profits and spending on research and development.

System of Governance- BEML must keep a close eye on industry-wide government priorities in order to forecast trends.

### ***ECONOMIC FACTORS:***

Inflation rate, interest rate, consumer disposable income, stage of economy of country name, exchange rate, economic performance of country name, labour market conditions, taxation rate, and so on are examples of economic factors.

- Government intervention in the capital goods sector, particularly in the construction and agricultural machinery industries, may have an impact on the fortunes of the BEML in India.
- Exchange rate - BEML's investment plans may be impacted not only in the short term, but also in the long run, due to India's volatile exchange rate.
- Financial market efficiency in India - BEML has access to vibrant financial markets
- Skill level of workforce in India market - BEML can leverage it not only to improve services in India, but also to create global opportunities.

## ***SOCIAL FACTOR:***

Each society and culture has its own business practices. These social factors can not only assist companies like company name in better understanding the way of doing business, but also in understanding customer preferences in country name's Capital Goods sector.

Media outlets play an important role in influencing public opinion in India. In India, both traditional and social media are rapidly expanding. BEML can benefit from this trend by better marketing and positioning its products.

- Access to basic services - In India, access to essential services has improved significantly over the last decade, with half of the population now having access. This is due to increased investment in public services.

## ***TECHNOLOGICAL FACTOR:***

Technology is rapidly disrupting various industries, including Capital Goods. There are numerous technological factors influencing the BEML & Constr. & Agric. Machinery in India. Some of the technological factors are: innovation in product offerings, innovation in customer services, rate of technology-driven change, supply chain disruption due to technology, population access to technology, access to greater information, and access to mobile phones driving empowerment, and so on.

- Recent technological innovations implemented by BEML competitors - This can provide a good insight into what the competitors are thinking and where the Constr. & Agric. Machinery business model is headed in the future.

Lowering production costs - New technology is rapidly reducing production and servicing costs in the Capital Goods sector. BEML must restructure its supply chain in order to meet both customer needs and cost structures.

- Empowerment of supply chain partners - Technology has shortened the product life cycle, allowing suppliers to develop new products more quickly. This has put pressure on BEML's marketing department to please its suppliers by promoting a diverse range of products. It has increased the BEML's operating costs.

## ***ENVIROMENTAL FACTOR:***

Sustainability and environmental factors have become increasingly important for businesses over the last decade. Environmental standards are increasingly being demanded by the government and pressure groups.

- Environmental standards are also influencing product innovation priorities. Rather than catering to traditional value propositions, many products are designed to meet environmental standards and expectations.

- Customer activism - Increased customer awareness has also pushed environmental factors to the forefront of BEML strategy. Customers expect BEML to not only adhere to but also exceed legal standards in order to become a responsible community stakeholder.

- Waste management, particularly for units near urban areas, has become increasingly important for players such as BEML. The Indian government has established stringent guidelines for waste management in urban areas.

## ***LEGAL FACTOR:***

Legal is critical to the development of the construction and agricultural machinery sectors in any economy. BEML management must consider the following legal factors before entering the international market: copyright law, bias toward domestic players, discrimination laws, intellectual

property rights protection, data protection laws, the legal system, the time required to deliver justice, and so on.

- Employment laws in India and how they affect the business model of construction and agricultural machinery. Can these conditions be replicated or improved in the global market?

- In India, intellectual property, patents, copyrights, and other IPR rights are legally protected. How will BEML be impacted if there is insufficient protection.

- Environment Laws and Guidelines - The level of environmental laws in India, as well as what BEML must do to comply with those laws and regulations.

- Health and safety standards in India, what BEML must do to comply, and what the cost of compliance will be.

## ASHOKA BUILDCON LIMITED



### *FOCUSED & CONSISTENT.*

Ashoka Buildcon Limited, a Fortune India 500 company, is one of the leading highway developers in India. The company is an integrated EPC, BOT & HAM player.

It has a portfolio of 41 PPP projects, which is the largest in number by any private player in India.

Besides the construction of highways and bridges, the company is also engaged in the Construction of Buildings (EPC), Power, Railways & City Gas Distribution.

Ashoka has worked in over 22 states across the country and has completed prestigious projects for Central as well as State Governments. Overseas, it has completed projects in the Republic of Maldives.

The company is one of the first Indian infrastructure companies to be certified for Integrated Management Systems, encompassing ISO certification for Quality, Occupational Health & Safety, and Environment.

Ashoka Buildcon is strengthened with a strong talent pool of technical and support staff. Its strong financials give it the ability to execute mega-scale projects.

The company is listed on the National Stock Exchange (NSE) and the Bombay Stock Exchange (BSE).



## **ORGANIZATION STRUCTURE**

### **Board of Directors**

**Mr. Ashok Katariya**

#### **CHAIRMAN**

In 1976, Mr. Katariya laid the foundation of the Company. A Gold medalist from the College of Engineering Pune. A visionary, a leader, and a determined individual. Mr. Katariya is the guiding force for the organization.

He is the recipient of the Lifetime Achievement award from the Association of Consulting Civil Engineers and Civil Engineer of the year 2017 by the Institute of Engineers (India).



**Mr. Satish Parakh**

#### **MANAGING DIRECTOR**

Mr. Parakh's association with Ashoka Group began in 1982. Under his leadership, the company has consolidated its position amongst the leading highway developers in the country. He has spearheaded the company's diversification in Power (EPC) projects.

He has been honoured with various awards and recognitions including the 'Industry Doyen' award by Construction Industry Development Council.



**Mr. Sanjay Londhe**

#### **WHOLE-TIME DIRECTOR**



Mr. Londhe heads the execution of projects from their design stage to final commencement. He possesses experience of more than 37 years.

He has been honored with the 'Engineer of the Year – 2014' title by Federation of Engineering Institutions Asia Pacific region and 'CEO of the year – 2017' title by 'Construction Times'.

He is the Member of National Safety Council's Governing body which works for improving safety standards across the country. He is the member of the Technical Advisory Committee for Connectivity & Transport Evaluation, NITI Aayog.



**Mr. Milap Raj Bhansali**

**WHOLE-TIME DIRECTOR**

Mr. Bhansali is a Chartered Accountant by profession and has an experience of more than 4 decades in managing chemicals, steel wires, foundry, railway wagons, sugar, tyres and real estate.

His key areas of expertise include finance, marketing, procurement, negotiations and general management.

**Mr Ashish Kataria**

**WHOLE-TIME DIRECTOR**

Mr. Ashish A. Kataria is MBA with Civil Engineering background.

He possesses an experience of more than 18 years. He has been involved in the successful completion of various Road Projects of ASHOKA. He is also a Managing



has

Director of Ashoka Concessions Limited (ACL), Subsidiary of the Company, and involved in effectively implementation of projects of awarded to ACL. He has been instrumental in the investment made by infrastructure finance giant SBI Macquarie in ACL to the tune of Rs.800 Cr.



**Mr. Sharad Abhyankar**

**INDEPENDENT DIRECTOR**

Mr. Abhyankar has completed his Masters of Laws degree from Mumbai University.

He is a Solicitor and advocate by profession and is the founding partner of ANS Law Associates. He is also a registered Patent and Trade Marks Attorney. He expertise in various branches of laws including corporate laws, securities laws, project finance, telecom regulations, constitutional litigation and international commercial

arbitrations.

**Mr. Albert Tauro**

**INDEPENDENT DIRECTOR**

Mr. Albert Tauro holds a Masters' Degree in Commerce and is a Certificated Associate of Indian Institute of Bankers (CAIIB). He is a well-regarded Banker having worked in various Public Sector Banks for over 40 years. Important Placements during his career as a Banker are, Canara Bank – General Manager: Risk Management Dept. HO, Circle Office, Mumbai, Corporate Credit Dept., HO and Circle Office, Delhi. Positions Held: Member of several Top Executive Committees, Secretary to the Board of Directors at Canara Bank. He took charge as the Executive Director of Central Bank of



India on June 6, 2007 up to August 1, 2008. His last appointment was as Chairman and Managing Director of Vijaya Bank from August 02, 2008 till March 31, 2011 up to superannuation.



**Mr. Gyan Chand Daga**

**INDEPENDENT DIRECTOR**

Mr. Gyan Chand Daga is a Commerce Graduate and a Chartered Accountant. He has completed Advanced Management Program from IIM, Kolkata.

He has a 36 years longstanding and illustrious career in leading the Marketing and Finance division of Indian Oil Corporation Limited and Steel Authority of India Limited. He has headed and guided organisational strategy as a Chairperson or as a Board Member in Nine Indian and overseas companies.

He has managed large and complex retail and distribution networks for Indian Oil Corporation Limited across the length and breadth of the Country.

**Mr. Mahendra Mehta**

**INDEPENDENT DIRECTOR**

Mr. Mahendra B. Mehta a Commerce Graduate from University of Jodhpur and Fellow Member of the Institute of Chartered Accountants of India. He is qualified DISA (of ICAI) in the year 2006 and a qualified Limited Insolvency Professional with IBBI. He is Managing Partner of Mittal & Associates, Chartered Accountants Firm, Mumbai.



## Ms. Shilpa Hiran



### **INDEPENDENT DIRECTOR**

Ms. Shilpa Hiran is an MBA – Finance from San Francisco State University, USA.

She has around sixteen years of experience in the field of Risk Management and Internal Audit. She specializes in the areas of internal controls, third party risk management, information security, quality audits and IT Assurance.

She is currently working with NetApp India Inc. as Director – Internal Audit and Global Head of SOX Compliance. Earlier, she has worked with M/s Ernst & Young LLP, Bangalore and M/s PriceWaterhouseCoopers, San Francisco

### **QHSE POLICY**

We, at ASHOKA BUILDCON LIMITED are committed to become an icon in infrastructure development, through innovation, professionalism, active leadership in product quality and sustained growth by delivering value to our customers.

We shall conduct our operations in a manner so that we protect people, property and the environment by identifying, controlling and reducing all associated risks to a level As Low As Reasonably Practicable.

This will be achieved by our commitment to continual improvement of quality, environmental and occupational health and safety management system performance

Commitment to prevention of pollution. Complying with all applicable legal and contractual requirements. Adopting state of art technology available. Communicating and consulting all associated stakeholders for establishing organizational objectives.

## **PRODUCT PROFILE**

Ashoka Buildcon Limited has established themselves as a reputed supplier of a wide range of products like Infrastructure Project Management Service .

As an ace manufacturer and suppliers of Infrastructure Project Management Service , they have established a strong name in the market.

Their introduced products are broadly acclaimed and acknowledged for their high performance, low maintenance cost . They offer Infrastructure Project Management Service at reasonable prices.

## **SIGNATURE PROJECT**

### **India's First 8 Lane ExtraDosed Cable Stayed Bridge Built in 33 Months**

Despite flood situations in 2 consecutive years and the pandemic, team Ashoka completed this prestigious 8 lane bridge across Narmada river in Gujarat in Record time.

### **Eastern Peripheral Expressway completed in 482 working days.**

The prestigious Eastern Peripheral Expressway (EPE) was launched by the Government of India to decongest Delhi. There was a need to complete this project in the least possible time so that the rising pollution level in the Nation's Capital can be reduced.

The package IV of this project was awarded to Ashoka Buildcon Ltd. Despite the hurdles inherent to a greenfield project, the Company was able to complete the stretch in record time of only 482 days.

### **Railway Over Bridge in 100 Working Days**



The Company has added yet another feather in its cap by constructing a Railway Over Bridge in just 100 working days at the prestigious Eastern Peripheral Expressway Project.

One can judge the importance of this achievement by considering the fact that in general, construction of such ROB takes 2 to 2.5 years.

The EPE project is one of the most important highway projects being executed in the Country as it is intended to reduce congestion and pollution in Delhi.

This project comes as an effect of the Supreme Court's direction to create a bypass around Delhi. The progress of the project is being monitored directly by the Prime Minister's office.

### **Bridge (1) On River Rupnarayan**

This bridge was special because for over 10 years, no construction company came forward to build it. The previous company that had tried failed to do so and abandoned the project midway.

Ashoka Buildcon rose to the challenge. Faced with a dual challenge, that of the geographical impediments and of rectifying the errors made by the previous construction company, Ashoka deployed the best of its resources to complete the bridge.

The Company built this bridge using a nontraditional method, that of launching a 323 mts. long, 1700 tonne heavy, steel girder assembly from one end of the river and finally lowering it into position. Such a feat had never been tried before in India.

Braving all odds, the team members of Ashoka worked days and nights to complete this one of its kind bridge in a period that was way ahead of its scheduled completion date.

### **Bridge (2) On River Rupnarayan**

This Bridge was constructed parallel to the other bridge constructed across the same river. Ashoka Buildcon built this bridge using the segmental launching method.

This method, although commonly used in constructing fly overs, was deployed for the first time in India for construction of a river bridge. The perennial river with water level rising and dropping abruptly and unpredictable river bed conditions, made project execution a huge challenge. Heavy monsoons and weather turbulence added further to the difficulties faced by the project execution team.

Despite the fact that the time allotted to complete the two bridges was 30 months, Ashoka Buildcon built them in an impressive time period of 12 months.

### **A Bridge in 38 Days**

In the year 1999, Ashoka created a stir in the bridge construction industry with the construction of Mandve Bridge near Pandharpur (Maharashtra).

The allotted time period for the construction of this 90 mts. the cast in situ bridge was 12 months.

In what can be termed as an extraordinary example of teamwork, planning and execution, this bridge was completed in 38 days.

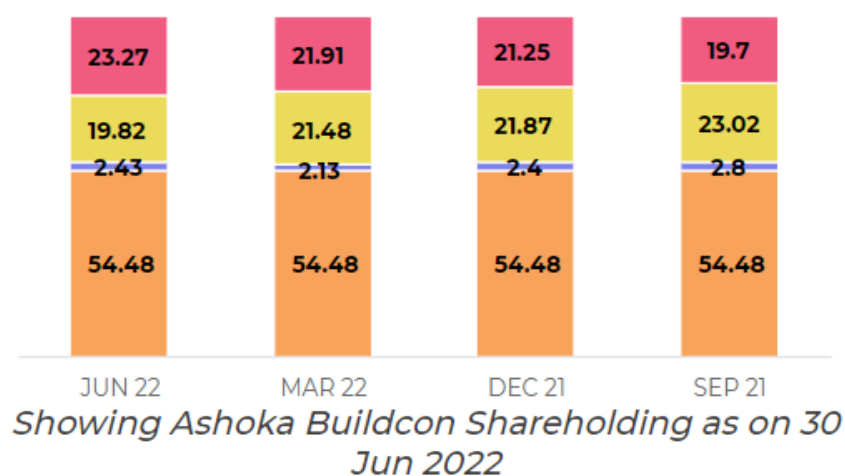
The feat earned a place in the Limca Book of Records.



## **PRESENT MARKET SHARE**

Company delivered an ROE of 56.38% in the year ending 31 Mar, 2022 outperforming its 5 year avg. of 35.65%.

CATEGORY	30 JUN 2022
<span style="color: orange;">●</span> Promoters	54.48
Pledge	0.00
<span style="color: blue;">●</span> FII	2.43
<span style="color: yellow;">●</span> DII	19.82
Mutual Funds	19.70
<span style="color: pink;">●</span> Others	23.27



## **FUTURE STRATEGIES**

The company had reported a decent June quarter performance last week. The company is seeing execution and toll collections having improved even since easing of lockdown restrictions and picking up gradually since June 2021 say analysts. The outlook is further supported by already a strong order book. Order flow has remained strong and the company has bagged order inflow worth ₹3,000 crore in FY22 until now. It is targeting and expecting orders worth another ₹4,000 crore in FY22. With the current NHAI bid pipeline robust at ₹33,000 crore, the FY22 inflow guidance of ₹7000 crore seems achievable" say analysts at HDFC Securities Ltd. Including the recently won orders, the total order book already stands at ₹10,503 crore. Engineering, procurement and construction (EPC) order backlog of ₹9,472.3 crore is 2.4 times FY21 revenues indicating decent order visibility.

The management's major focus in the future will be on roads and highways, with a share of 70-75% of the order book and 25-30% for building and other segments, analysts say. The building projects too offer huge opportunities in the sector. The company has maintained its guidance of 25% top-line growth and 12-12.5% Ebitda margin for FY22. This encourages further despite the company seeing softer Q1 which though came better than expected.

During the June quarter, the company saw revenues grow 65.3% year-on-year on a low base, however on a sequential basis the same declined 26.4%. Ebitda grew 52.2% year-on-year and reported net profits against a loss in the year-ago quarter. However, Ebitda and net profit declined 19.2% and 48.2% sequentially. The reported revenues and ebitda nevertheless were 38% and 49% ahead of estimates by Motilal Oswal Financial Services Ltd (MOFSL).

The strong execution over the past two years is commendable, said analysts at MOFSL. The pending exit of the private equity investor in its asset portfolio is an overhang on the stock they added. However, a strong order book, coupled with a healthy ordering outlook and continuous improvement in the Balance Sheet augurs well for the company moving forward.

## Consolidated Balance Sheet As At March 31, 2021

<b>I</b>	<b>ASSETS</b>			
<b>1</b>	<b>NON-CURRENT ASSETS</b>			
(a)	Property, Plant and Equipment	2	38,627.42	38,545.43
(b)	Capital work-in-progress		4,535.00	6,060.69
(c)	Investment Property	3	3,131.31	3,289.79
(d)	Right of Use Assets	2A	764.24	1,224.91
(e)	Intangible assets	4	7,06,269.94	7,26,239.88
(f)	Intangible assets Under Development	4	1,626.66	1,626.66
(g)	Contract Assets	5	81,370.45	1,11,890.35
(h)	Financial assets			
(i)	Investments accounted for using Equity Method	6	19,790.07	17,879.05
(ii)	Investments Others	6	62.55	62.55
(iii)	Trade receivables	7	17,206.43	17,394.21
(iv)	Loans	8	13,561.51	12,546.55
(v)	Other financial assets	9	6,024.76	6,491.80
(vi)	Receivable Under Service Concessions Arrangements	10	1,05,355.81	42,339.83
(i)	Deferred Tax Asset (net)	11	7,686.91	8,282.46
(j)	Non Current Tax Asset (net)	12	10,306.74	8,733.53
(k)	Other non-current assets	13	14,697.90	11,479.17
	<b>TOTAL NON-CURRENT ASSETS</b>		<b>10,31,017.70</b>	<b>10,14,086.86</b>
<b>2</b>	<b>CURRENT ASSETS</b>			
(a)	Inventories	14	43,669.51	43,476.88
(b)	Contract Assets	15	1,13,872.36	76,536.74
(c)	Financial assets			
(i)	Investments	16	1,520.51	700.00
(ii)	Trade receivables	17	89,579.41	93,140.99
(iii)	Cash and cash equivalents	18	32,340.47	57,329.19
(iv)	Bank balances other than (iii) above	18	30,732.62	18,108.97
(v)	Loans	19	251.45	326.83
(vi)	Other financial assets	20	1,033.12	4,445.42
(vii)	Receivable Under Service Concessions Arrangements	21	40,440.31	18,368.41
(d)	Other current assets	22	38,836.10	36,880.85
	<b>TOTAL CURRENT ASSETS</b>		<b>3,92,275.86</b>	<b>3,49,314.28</b>
	<b>TOTAL ASSETS</b>		<b>14,23,293.56</b>	<b>13,63,401.14</b>
<b>II</b>	<b>EQUITY &amp; LIABILITIES</b>			
<b>1</b>	<b>EQUITY</b>			
(a)	Equity Share Capital	23	14,036.16	14,036.16
(b)	Other Equity	24	47,895.10	27,392.70
	<b>Equity Attributable to Owners</b>		<b>61,931.26</b>	<b>41,428.86</b>
	Non Controlling Interest		21,097.42	12,799.34
	<b>TOTAL EQUITY</b>		<b>83,028.68</b>	<b>54,228.20</b>

## Consolidated Statement of Profit And Loss for the year ended March 31, 2021

		(₹ In Lakhs)	
Particulars	Note No.	For the year ended 31/Mar/21	For the year ended 31/Mar/20
<b>I INCOME</b>			
Revenue from Operations	40	4,99,169.61	5,07,047.21
Other Income	41	13,017.59	8,173.82
<b>Total Income</b>		<b>5,12,187.20</b>	<b>5,15,221.03</b>
<b>II EXPENSES:</b>			
Cost of Material Consumed	42	1,29,090.07	1,15,936.36
Construction Expenses	43	1,60,727.75	1,86,105.71
Employee Benefits Expenses	44	32,103.74	29,329.84
Finance Cost	45	96,959.91	1,04,255.98
Depreciation and Amortisation	2,3,4	27,586.83	29,978.26
Other Expenses	46	23,698.20	18,156.93
<b>Total Expenses</b>		<b>4,70,166.50</b>	<b>4,83,763.08</b>
<b>III Profits before tax and share of profit / (loss) of associate and joint ventures (I-II)</b>		42,020.70	31,457.95
<b>IV Profit / (loss) from associate and joint venture accounted for using the Equity Method</b>		1,744.36	1,165.58
<b>V Profit before Tax</b>		43,765.06	32,623.53
<b>VI Tax Expense:</b>	<b>51</b>		
Current Tax		16,738.54	19,321.39
Tax for Earlier Years		(1,900.06)	-
Deferred Tax		1,578.51	(2,733.70)
<b>Total Tax Expenses</b>		<b>16,416.99</b>	<b>16,587.69</b>
<b>VII Profit after tax for the year (V-VI)</b>		27,348.07	16,035.84
<b>VIII Other Comprehensive Income (OCI) :</b>			
(a) Items not to be reclassified subsequently to profit or loss			
Re-measurement gains/(losses) on defined benefit plans		(16.71)	(217.59)
Income tax effect on above		(0.86)	10.38
<b>Other Comprehensive Income</b>		<b>(17.57)</b>	<b>(207.21)</b>

## **SWOT ANALYSIS**

### **STRENGTHS:**

Strengths are the resources and skills that the company can employ to create, maintain, and grow a competitive edge in the market.

- **Diverse Revenue Models:** Ashoka Buildcon Ltd. has dabbled in a number of companies outside the capital goods industry throughout the years. Because of this, the company has been able to diversify its revenue sources beyond the capital goods industry and the construction services industry.
- **First mover advantage** in a market that is getting more and more congested. Ashoka Buildcon Ltd. is rapidly expanding its market share in the construction services sector thanks to the new products.
- **Wide global reach:** Ashoka Buildcon Ltd. has a sizable dealer and associate network that not only supports effective service delivery to consumers but also supports controlling industry competition.
- **Market Leadership Position:** Ashoka Buildcon Ltd. holds a commanding position in the sector of construction services. It has aided the business in quickly scaling up the success of new goods.
- **Strong brand recognition** - In the construction services sector, Ashoka Buildcon Ltd. products are well known. Due to this, the business is now able to charge more than its rivals in the construction services sector.
- **Innovation track record** - Despite the fact that the majority of capital goods players seek to innovate, Ashoka Buildcon Ltd. has a solid track record in consumer-driven innovation.

## **WEAKNESS:**

Ashoka Buildcon Ltd weaknesses might either be the absence of strengths or the lack of resources or capabilities that the organization now lacks. Leaders must be determined whether the weakness exists as a result of strategic choice or a lack of strategic preparation.

Given Ashoka Buildcon Ltd history of developing innovative innovations to lower prices in the supply chain, supplier loyalty is low.

- Ashoka Buildcon Ltd.'s profitability is under pressure from the Construction Services industry's competition due to declining per-unit revenue. Assessing the current value propositions of the various goods with objectivity is a good place to start for company names in managing this scenario.
- Competitors in the construction services sector can readily copy the Ashoka Buildcon Ltd. business model. Companyname must create a platform model that can combine suppliers, vendors, and end users in order to overcome these obstacles.
- The financial statement of Ashoka Buildcon Ltd. may be under pressure as a result of Gross Margins and Operating Margins that could be increased in the future.
- Ashoka Buildcon Ltd.'s declining market share despite rising sales - the company is outpacing the growth of the Construction Services sector. In such a situation, Ashoka Buildcon Ltd must carefully examine the many trends within the Capital Goods sector and determine what it must do to promote future growth.
- The Ashoka Buildcon Ltd. is particularly concerned about the high turnover of workers at lower levels. To retain the talent within the company, it may result in greater wages.

## **OPPORTUNITIES:**

Opportunities are places where a company may be able to see potential for growth, earnings, and market share.

- The trend of consumers switching to higher-end items gives a tremendous potential for Ashoka Buildcon Ltd because its brands in the lower sector are known for their exceptional customer service and the company has a strong brand recognition in the premium segment. The business may benefit from it and have the chance to boost profitability.
- Growing the base of customers in lower sectors - Because consumers must switch from unorganized to licenced companies in the capital goods sector. Ashoka Buildcon Ltd will have the chance to enter the entry-level market with a straightforward solution.
- Rapid Economic Growth Ashoka Buildcon Ltd will have the chance to enter the US market because the US economy is growing more quickly than any other industrialized economy. Ashoka Buildcon Ltd. is already equipped to compete in the tough US market.
- Opportunities in the online space - Ashoka Buildcon Ltd. will be able to offer new services to clients in the construction services sector as a result of customers' increasing usage of online services.
- Rapid technological innovation and development is raising industrial productivity and enabling suppliers to provide a wide range of goods and services. This may make it easier for Ashoka Buildcon Ltd. to make large forays into related products.
- Lowering the price of new product introductions through specialized social networks and independent retail partners. Ashoka Buildcon Ltd. can take advantage of the new tendency to launch new products modestly before expanding upon their success.

## **THREATS:**

Threats are elements that could endanger the company's business models as a result of shifting macroeconomic variables and shifting consumer attitudes. Threats cannot be eliminated but can be managed.

- Growing technological prowess of local businesses in the export industry is one of the main risks for Ashoka Buildcon Ltd. of partnering with local players in the export market. In emerging nations, especially China, the legal environment for intellectual property rights is not very robust.
- Ashoka Buildcon Ltd operations may be impacted both locally and internationally by the US-China trade war, Brexit's effects on the European Union, and general middle east unrest.
- Lack of skilled human resources - Given the significant staff turnover and growing reliance on creative solutions, company names may soon have problems with a lack of professional human resources.
- Competitors are coming up to product development, despite the fact that Ashoka Buildcon Ltd. is now the market leader in construction services product innovation. It is up against tough competition from both domestic and foreign rivals.
- The baby boomers are retiring, and the younger generation is having a difficult time replacing their purchasing power. Due to the fact that young people are less brand loyal and more willing to try new things, this could result in better earnings in the near term for Ashoka Buildcon Ltd. but worse margins in the long run.
- Pressure from the competition, as the Capital Goods industry's new product introduction cycles are getting shorter. Players like Ashoka Buildcon Ltd. have been subject to greater competitive pressure as a result. Ashoka Buildcon Ltd. is unable to quickly address the demands of the niche markets that disruptors are concentrating on due to the size of their customer base.



## **PESTEL ANALYSIS**

### **POLITICAL FACTOR:**

Political Factors Affecting the Governance System at Ashoka Buildcon Ltd. Even while it may produce leaders who can lead policymaking that deviates from the historical norm, the current governance structure in India has long since served its purpose. I don't believe anything will change in the process. In order to forecast trends, Ashoka Buildcon Ltd. must keep a close eye on the government priorities for the entire industry.

- Regulatory Practices - In the many markets it is present in, Ashoka Buildcon Ltd. must manage a variety of regulations. The rules governing market access and how businesses in the construction services industry can operate in the local market have altered recently in India and other rising economies.
- Ashoka Buildcon Ltd. operates in a number of nations; as a result, each nation's policies must take into account the demands unique to the construction services sector. Political stability in the existing markets. Given the current surge in populism around the globe, I think India can observe similar patterns and may cause more market volatility.
- The new government policies in India may boost investor confidence in the capital goods sector. - Government resource allocation and timeline. It is realistic to expect that the time frame of these policies will be longer than the statutory term of the current Indian administration given the widespread acceptance of the suggested policies among the populace.
- Ashoka Buildcon Ltd. has benefited from decreased taxation laws throughout the western hemisphere over the past 20 years. High profits and rising spending on research and development are the outcomes. Changes in taxation policies may result from India's rising inequality. In order to reduce the carbon footprint of the capital goods sector, local governments are also looking into taxing policies that are specific to the construction services industry.
- The Indian government is facing escalating international pressure to comply with WTO rules governing the construction services sector.

### **ECONOMIC FACTOR:**

- Inflation rate - The easy market liquidity following 2018's big recession would cause inflation to rise in the Indian economy.
- Core infrastructure is present in India. To facilitate and enhance the business environment, the Indian government has boosted investment in core infrastructure development over time. The current infrastructure is available to Ashoka Buildcon Ltd. to support the expansion of the capital goods industry in India.
- Exchange rate - The erratic exchange rate of India may have an effect on Ashoka Buildcon Ltd.'s long-term as well as short-term investment plans.
- Increased trade policy liberalization in India may enable Ashoka Buildcon Ltd. to expand its investments in previously untapped markets.
- Economic Performance of India: Given government spending, stable demand due to disposable income, and rising investment in new industries, I think India's economy will continue to develop well over the next 5 to 10 years.
- Government intervention in the capital goods sector, particularly in the construction services sector, may have an adverse effect on Ashoka Buildcon Ltd.'s performance in India.

## **SOCIAL FACTORS:**

- Media organizations are essential for swaying public opinion in India. In India, both traditional and social media are expanding quickly. This trend can be used by Ashoka Buildcon Ltd to position and advertise its products more effectively
- Attitude toward health and safety - As liberalization progresses, there is a deterioration in attitude toward health and safety. Due to the significant cost of failure in India, Ashoka Buildcon Ltd should avoid adopting these attitudes.
- Leisure interests: In the capital goods sector, buyers in India are more likely to favor experience items than traditional value propositions. This trend can be used by Ashoka Buildcon Ltd to create products that improve the consumer experience.
- Easy access to necessary services Over the past ten years, over half of India's population has gained access to basic services. Increased investment in public services is to blame for this.
- Education - India, particularly Ashoka Buildcon Ltd., has a high level of education. It can be used by Ashoka Buildcon Ltd to increase its footprint in India.

- Demography - Ashoka Buildcon Ltd. has demographics on its side when it comes to the Capital Goods items. India is a developing, young nation. This trend can be used by Ashoka Buildcon Ltd to serve various demographic groups.

## **TECHNOLOGICAL FACTORS:**

- - The possibility of 5G - With growing speed and access, Ashoka Buildcon Ltd. must maintain a careful eye on the evolution and improvement of user experience. The client user experience in the construction services sector could be fundamentally changed by this.
- Technology has reduced the product life cycle and made it possible for suppliers to swiftly produce new products. This has empowered supply chain partners. As a result, Ashoka Buildcon Ltd marketing division is under pressure to maintain the suppliers' satisfaction by pushing a wide variety of products. It increased Ashoka Buildcon Ltd.'s operating expenses.
- Technology in the construction services industry has not yet reached maturity, and the majority of participants are searching for new technologies that will help them earn better profits.
- Reducing production costs - In the capital goods sector, new technology is quickly reducing manufacturing and maintenance costs. In order to better match customer expectations and cost structures, Ashoka Buildcon Ltd. must restructure its supply chain.
- The capital goods industry's client expectations have changed as a result of the advancements and widespread use of mobile technologies. In order to be competitive, Ashoka Buildcon Ltd. must not only meet and manage these expectations, but also innovate.
- Intellectual property rights and patent protection - More and more players are likely to invest in research and development if India has stronger protections for IPR and other intellectual property rights.

## **ENVIRONMENTAL FACTORS:**

- Extreme weather is also raising Ashoka Buildcon Ltd operational costs since it requires investments to make its supply chain more adaptable.

- The Indian government has established tight regulations for garbage management in metropolitan areas, which has given trash management a higher priority for businesses like Ashoka Buildcon Ltd.
- The Ashoka Buildcon Ltd.'s operational costs are also increasing as a result of ongoing environmental agency inspections.
- Customer activism has also shifted the focus of Ashoka Buildcon Ltd strategy to include environmental considerations. Customers anticipate Ashoka Buildcon Ltd. to uphold and surpass legal requirements in order to play a responsible role in the community.
- Realistic goals have been set by the Paris Climate Agreement for India's national government to follow. This might lead to increased scrutiny of Ashoka Buildcon Ltd environmental standards in India.
- Environmental standards are also changing how product innovation is prioritized. Many times, environmental regulations and expectations are taken into consideration while designing products rather than traditional value propositions.

## **LEGAL FACTORS:**

- Customer activism has also shifted the focus of Ashoka Buildcon Ltd strategy to include environmental considerations. Customers anticipate Ashoka Buildcon Ltd. to uphold and surpass legal requirements in order to play a responsible role in the community.
- Realistic goals have been set by the Paris Climate Agreement for India's national government to follow. This might lead to increased scrutiny of Ashoka Buildcon Ltd environmental standards in India.
- Environmental standards are also changing how product innovation is prioritized. Many times, environmental regulations and expectations are taken into consideration while designing products rather than traditional value propositions.
- Even if some nations adhere to international standards, the length of time it takes for commercial cases to be resolved in court can be years. Before entering a global market, Ashoka Buildcon Ltd. must carefully analyze the average time of individual situations.
- The requirements for health and safety in India, what Ashoka Buildcon Ltd. must do to comply with them, and how much it will cost to do so.

- The extent of environmental legislation in India and what Ashoka Buildcon Ltd. must do to comply with those laws and regulations.

### **MCKINSEY'S 7S MODEL**

- **Systems:** What technological systems have been used to streamline operations? What formal and informal procedures have been put in place to handle organizational structure, planning, budgeting, performance assessment, resource allocation, and management information systems? (MIS).
- **Shared Values** are the fundamental principles that underpin an organization and serve as the foundation for its existence. The vision, mission, and values statement that give employees a sense of purpose are examples of shared values. The organization acts in the manner that it does due to shared beliefs.
- **Structure** - How the organization is set up, including the chain of command, the distribution of power and responsibility, the structure of the activities and reporting relationships, and the method by which the organization manages to coordinate all of its activities.
- **Strategy** - What strategic compromises has the company made given the market competition? the way in which it is defining and utilizing its competitive edge.
- **Staff:** Who works for the company, how human resources are managed by the company (recruitment, selection, job profile requirements, career trajectories, training, and promotions).
- **Style and Culture:** Every business has a unique culture that has developed over time. The leadership style within the organization, the predominant values and beliefs, the work culture, the informal network among employees, the management style, etc. are all examples of the organization's style or culture.
- **Skills** - These are the abilities and skills that the organization's human resources possess. The following questions must be addressed during the skills analysis and planning process: Does the organization's current workforce possess the competencies and skills necessary to achieve its goals? What new skills are needed? How can those skills be taught to the organization's employees? Does the organization need to make adjustments to its policies, systems, processes, and technology to better match the skills of its workforce?

### 3. COMPARATIVE ANALYSIS

PARAMETERS	Company 1	Company 2	Company 3
1. Name of the Enterprise	Sterling and Wilson Solar Ltd	BEML LIMITED	Ashoka buildcon limited
2. Year of establishment	1971	MAY,1964	1976
3. Company Headquarters	Mumbai	Bengaluru	M
4. No. of present employees	5000+	7,185	1k – 5k
5. Mergers and Acquisitions, Joint Ventures & Strategic Alliances/Tie-Ups.	Reliance Industries completed a planned acquisition of a 40% stake in Sterling and Wilson Solar Ltd (SW Solar)	BEML Ltd is firming up tie-ups with two foreign companies for setting up joint manufacturing facilities in India.	GVR Ashoka Chennai ORR Ltd Abhijeet Ashoka Infrastructure Pvt Ltd Cube Ashoka JV Co.
6. A brief profile of CEO	Khurshed Daruvala is an associate member of the ICAI and has served as the Managing Director of Sterling and Wilson Private Limited for nearly 25 years while being a member of the Sterling and Wilson Group. Since	Shri Amit Banerjee Chairman & Managing Director and Director (Rail & Metro), Additional Charge Director (HR), Additional Charge	Sanjay Londhe heads the execution of projects from their design stage to final commencement. He possesses experience of more than 37

	April 25, 2018, he has served on the board of Sterling and Wilson Renewable Energy Limited.		years. He has been honored with the 'Engineer of the Year – 2014' title by Federation of Engineering Institutions Asia Pacific region and 'CEO of theyear – 2017' title by 'Construction Times'.
7. Total Share Capital	Rs 5,413.85 crores	41.6core	140.4 Cr
8. Market Share in each product line [during last three years]	3.91%	NA	623 crores
9. Present Shareholding Pattern	Promoters, Foreign institutions, N Banks Mutual Funds, Central Government, Others, General Public, Foreign Promoters	Promoters, General public, Mutual Funds, Institutional, Foreign institutional investor.	Mutual Funds, Foreign institutions, others and General public
10. Total Sales Turn Over including Export value	Rs 3176.17crores	Rs. 4337.49cr	4591.46

11. Major competitors in primary business	Adani Trans, Power Grid Corp, NTPC, Adani Power, Tata Power, JSW Energy, NHPC and a few more.	TOKYO KEIKI ,Tatra,Komatsu America, Ashok Leyland, KAMAZ, Volvo Group, IVECO Bell equipments	G R Infra
12. The annual growth rate in last 5 years.	-84.0%	NA	79.60
13. No subsidiaries(Plants/Branches)	40 branches all over the world	3 subsidiaries	6 branches all over the country
14. Diversification and other businesses	Diversified to finding EPC solutions to hybrid energy power plants, energy storage, and waste to energy	BEML is a highly diversified company operating in the manufacturing of Defence equipments, Mining & Construction equipments and Rail & Metro sectors and 'Make In India' is a big boost	44% of engineering, procurement and construction (EPC) projects, 29% of build-operate-transfer (BOT) projects and the rest in power transmission and distribution (T&D). So far, the EPC projects in its kitty have been on schedule.
15. Nature of Business & main business& other	Private Limited Company, Global pure-	Public Sector Undertaking for	Construction



businesses	play end-to-end solar engineering, procurement, and construction (or “EPC”) solutions provider, Manages all elements of project execution from conceptualization through commissioning, Offers operations and maintenance (‘O&M’) services.	manufacture of Rail Coaches & Spare Parts and Mining Equipment.	
16. Product Profile	<ul style="list-style-type: none"> <li>Floating solar</li> <li>EPC solutions for utility-scale projects</li> <li>Hybrid and Energy Storage</li> <li>Waste to energy</li> <li>Operation and Maintenance</li> </ul>	BULL DOZERS HYDRAULIC EXCAVATORS,DUMP TRUCKS,WHEEL LOADERS,ROPE SHOVELS,MOTOR GRADER,RAIL COACHES,TRACK LAYING EQUIPMENTS	EPC and BOT
17. No of Patents/Trademarks/ Copy Rights	Not disclosed	55 IPRs	41
18. Market Capitalisation	Rs 5427.13 crores	73.06 billion	22.42 billion
19. Number of Awards and Recognitions	Approximately 23	Approximately 73	24

20. Latest Launch of Products	<ul style="list-style-type: none"> <li>Hybrid and Energy Storage</li> <li>Waste to energy</li> </ul>	Dump Truck, Electrical Excavator, Heli Portable Dozer and Medium Bullet Proof Vehicle	NA
21. CSR [Corporate Social Responsibility] Initiatives/Philanthropy	<ul style="list-style-type: none"> <li>Education and skill development – iCare at BJ home, Sterling and Wilson School, Zila Parishad Central School and many more</li> <li>Health – Kishori Mela, Kolkata Health Check Up Camp, Silvassa Hospital for Leprosy and Kidney Dialysis, Masina Hospital</li> <li>Environment – Terna River Rejuvenation, Drinking Water Project (Maharashtra)</li> </ul>	<p>BEML Limited through its CSR Tries to Eradicate hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation ,Ensuring environmental sustainability and Promoting education.</p>	<p>Infrastructure development 2018-19</p> <p>Sports promotion 2018-19</p> <p>Provision of water 2018-19</p>
22. Total Size of Balance Sheets of 3 years [Total Assets & Total Liabilities]	Rs 12,226.32 crores	. 57,090.30	16,165.16 Cr

23. Corporate Governance Issues at the company	Nil	NA	NA
24. Global Ranking/Country Ranking [Such as Fortune List/Forbes List]		According to Fortune India 500 the Rank is 334	CRISIL AA- /Watch Developing
25. Litigations	Nil	NIL	NA

## **4. CONCLUSION**

The engineering industry is a sector which will always grow with advancement in technology and sciences. It is used in different forms in different sectors according to convenience and is also used in both sides of business – for both producers as well as the customers using the product. It's an industry which is constantly evolving and also making big changes for the betterment and comfort of individuals. In the coming future, the demand for this industry will increase drastically even though the demand for the type of engineers will change such as the demand for software engineers will increase with increase in technology.

Sterling and Wilson Solar Ltd is a renewable energy company which helps provide toptier solutions which help the advancement of the company as well as the betterment of the environment. There will be a drastic increase in the use of renewable energy sources such as solar energy as it is more effective as well as better for the environment. With the rise in the production of these solar energy plants, there will be an increase in the demand for jobs as well which helps not just the society but the nation as a whole. But at the same time, a major drawback for setting up solar energy plants is that the production cost is very high. With the real estate sector rising at a rapid pace due to the ever increasing population and change in era, there will be a rise in construction which will increase the demand for renewable energy sources.

## REFERENCES

- [http://www.scielo.org.co/scielo.php?script=sci\\_arttext&pid=S0123-30332016000200008](http://www.scielo.org.co/scielo.php?script=sci_arttext&pid=S0123-30332016000200008)
- <https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/engineering-industry>
- <https://eandt.theiet.org/content/articles/2017/02/how-is-the-engineering-industry-changing-as-the-digital-age-surges/>
- <https://www.marketing91.com/top-engineering-companies/>
- <https://finance.yahoo.com/news/14-largest-engineering-companies-world-212730095.html>
- <https://www.investopedia.com/terms/p/porter.asp>

### Company 1

- <https://sterlingandwilson.com/project/>
- <https://sterlingandwilson.com/csr/>
- <https://www.moneycontrol.com/financials/sterlingwilsonsolar/balance-sheetVI/SWS>
- <https://economictimes.indiatimes.com/sterling-and-wilson-renewable-energy-ltd/profitandlose/companyid-1944712.cms>
- <https://www.moneycontrol.com/competition/sterlingwilsonrenewableenergy/comparison/SWS>

### Company 2

- <https://www.ashokabuildcon.com/>
- <https://www.moneycontrol.com/india/stockpricequote/constructioncontracting-civil/ashokabuildcon/AB>
- <https://economictimes.indiatimes.com/ashoka-buildcon-ltd/stocksupdate/companyid-21608.cms>
- <https://www.valueresearchonline.com/stocks/45430/ashoka-buildcon-ltd/>

### Company 3

- [https://www1.nseindia.com/live\\_market/dynaContent/live\\_watch/get\\_quote/GetQuote.jsp?symbol=BEML](https://www1.nseindia.com/live_market/dynaContent/live_watch/get_quote/GetQuote.jsp?symbol=BEML)
- [https://www1.nseindia.com/live\\_market/dynaContent/live\\_watch/get\\_quote/GetQuote.jsp?symbol=BEML](https://www1.nseindia.com/live_market/dynaContent/live_watch/get_quote/GetQuote.jsp?symbol=BEML)
- [https://www1.nseindia.com/live\\_market/dynaContent/live\\_watch/get\\_quote/GetQuote.jsp?symbol=BEML](https://www1.nseindia.com/live_market/dynaContent/live_watch/get_quote/GetQuote.jsp?symbol=BEML)

## ANNEXURES

Annexure A – Daily Log Book

### INDUSTRY REVIEW PROJECT

#### DAILY LOG-BOOK

Maintained By

*Sehej Gumber (21111547)*

For

BBA Business Analytics



**School of Business and Management**

**CHRIST (Deemed to be University) Pune Lavasa Campus**

**2021-22**

### Supervisor Details

Name	:	Dr Benny Godwin
Contact Number	:	9148520164
Email ID	:	benny.godwin@christuniversity.in

### Student Details

Student 1		
Name	:	Sehej Gumber
Register Number	:	21111547
Contact Number	:	8329019703
Email ID	:	sehej.gumber@bba.christuniversity.in

Student 2		
Name	:	G. Logeshwaran
Register Number	:	21111519
Contact Number	:	7010270072
Email ID	:	g.logeshwaran@bba.christuniversity.in

**Student 3**

Name : Shruti Jain

Register Number : 21111552

Contact Number : 8005715078

Email ID : shruti.jain@bba.christuniversity.in

**Project Details**

Name of Industry : Engineering

Company 1 : BEML Limited

Company 2 : Sterling and Wilson Solar Limited

Company 3 : Ashoka Buildcon Limited

**Daily Record**

Date	Hours Spent	Detailed Description of Activity
06- 07 – 2022	1 hr	<ul style="list-style-type: none"><li>Went through the handbook in detail to understand the project in a better manner</li><li>What is engineering and history of the engineering industry</li></ul>
07 – 07 – 2022	1 hr	<ul style="list-style-type: none"><li>History of engineering industry</li><li>Evolution of engineering industry</li></ul>



08 – 07 – 2022	1 hr	<ul style="list-style-type: none"> <li>Major players and the market share of the companies</li> </ul>
12 – 07 – 2022	3 hr	<ul style="list-style-type: none"> <li>Major players and the market share of the companies</li> </ul>
14 – 07 – 2022	2.5 hrs	<ul style="list-style-type: none"> <li>Industry growth and turnover</li> </ul>
15 – 07 – 2022	3 hrs	<ul style="list-style-type: none"> <li>Government policies and regulations</li> <li>Porter's Five Forces Framework</li> </ul>
16 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>History of the company</li> <li>Founder's Profile</li> </ul>
17 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>Product Profile</li> </ul>
18 – 07 – 2022	1.5 hrs	<ul style="list-style-type: none"> <li>Client Profile</li> </ul>
19 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>Organisation Structure</li> </ul>
20 – 07 – 2022	2.5 hrs	<ul style="list-style-type: none"> <li>Present Market Share</li> </ul>
21 – 07 – 2022	1 hr	<ul style="list-style-type: none"> <li>Future Strategies</li> <li>Financial Information</li> </ul>
22 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>Achievements</li> </ul>
23 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>SWOT Analysis</li> </ul>
24 – 07 – 2022	3 hrs	<ul style="list-style-type: none"> <li>Pestle Analysis</li> </ul>

25 – 07 – 2022	2.5 hrs	<ul style="list-style-type: none"> <li>• Pestle Analysis</li> </ul>
26 – 07 – 2022	2.5 hrs	<ul style="list-style-type: none"> <li>• Mckinsey 7S Model</li> </ul>
27 – 07 – 2022	3 hrs	<ul style="list-style-type: none"> <li>• Mckinsey 7S Model</li> </ul>
28 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>• Discussion on companies</li> </ul>
29 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>• Comparative Analysis</li> </ul>
30 – 07 – 2022	2 hrs	<ul style="list-style-type: none"> <li>• Comparative Analysis</li> </ul>
Supervisor's Comments:		
<div>Students' Signature</div> <div>Supervisor's Signature</div>		

**INDUSTRY REVIEW PROJECT**

**INTERIM PROGRESS REPORT**

Maintained By

*Sehej Gumber (21111547)*

*Shruti Jain (21111552)*

*G. Logeshwaran (21111519)*

For

BBA Business Analytics



**School of Business and Management**

**CHRIST (Deemed to be University) Pune Lavasa Campus**

**2021-22**

### Supervisor Details

Name	:	Dr Benny Godwin
Contact Number	:	9148520164
Email ID	:	benny.godwin@christuniversity.in

### Student Details

Student 1		
Name	:	Sehej Gumber
Register Number	:	21111547
Contact Number	:	8329019703
Email ID	:	sehej.gumber@bba.christuniversity.in

Student 2		
Name	:	G. Logeshwaran
Register Number	:	21111519
Contact Number	:	7010270072
Email ID	:	g.logeshwaran@bba.christuniversity.in

**Student 3**

Name	:	Shruti Jain
Register Number	:	21111552
Contact Number	:	8005715078
Email ID	:	shruti.jain@bba.christuniversity.in

**Project Details**

Name of Industry	:	Engineering
Company 1	:	BEML Limited
Company 2	:	Sterling and Wilson Solar Limited
Company 3	:	Ashoka Buildcon Limited

## Project Progress Report

<b>Report from:</b> 06 – 07 – 2022 to 09 – 07 – 2022
<i>Details of the work done to date</i> <ul style="list-style-type: none"><li>• Research on the engineering industry</li><li>• History/evolution of engineering industry</li><li>• Major players in the industry and its current revenue and share price</li></ul>
<i>Challenges faced</i> <ul style="list-style-type: none"><li>• N/A</li></ul>
<i>Any other issues or concern</i>
<i>Supervisor's Comments:</i>

Student's Signature	Supervisor's Signature
---------------------	------------------------

### Project Progress Report

<b>Report from:</b> 10 – 07 – 2022 to 22 – 07 – 2022
<p><i>Details of the work done to date</i></p> <ul style="list-style-type: none"> <li>• History of Sterling and Wilson and the founder's profile.</li> <li>• Product Profile</li> <li>• Client Profile</li> <li>• Organisation Structure</li> <li>• Present Market Share and the trend for the following week</li> <li>• Future strategies, financial information and achievements</li> <li>• SWOT, PESTLE and Mckinsey 7S Model Analysis</li> </ul>
<p><i>Challenges faced</i></p> <ul style="list-style-type: none"> <li>• My teammates aren't very cooperative.</li> </ul>
<p><i>Any other issues or concern</i></p>

<i>Supervisor's Comments:</i>	
Student's Signature	Supervisor's Signature

### Project Progress Report

<b>Report from: 24 – 07 – 2022 to 30 – 07 – 2022</b>
<i>Details of the work done to date</i> <ul style="list-style-type: none"> <li>• Comparative Analysis after discussion with teammates</li> <li>• Conclusion of the project</li> </ul>
<i>Challenges faced</i> N/A



*Any other issues or concern – N/A*

*Supervisor's Comments:*

Student's Signature

Supervisor's Signature

