

SUZLON: Competing To Be Competitive

Dr. Kishor Barad

Program Chair PGDM,
Shanti Business School,
Ahmedabad
kishor@shantibschool.edu.in

The case is about business potential in renewable energy sector in general and business of Suzlon Energy Ltd. in particular. The company had a humble beginning in 1995 where by 3 mw wind farm was set up by the founder of Suzlon, Mr Tulsi Tanti for captive consumption. Over the years the company has grown to become fourth largest wind energy player in the world and largest in India by identify, designing, manufacturing, supplying, erecting and commissioning the wind farms on turnkey basis. The operations of the company are global and integrated. Further it is a brief narration of various strategies used by the company may it be business or marketing and its outcomes.

Keywords: Suzlon Energy Ltd, Renewable Energy, Wind Mills, Integrated Business Model, Global Operations

Introduction:

In 1990's the family owned textile business of Mr. Tulsi Tanti and his brothers Vinod, Jitendra and Girish was facing severe problems of irregular power supply and cost over runs. The Tanti brothers were looking for an alternative solution for fulfilling the power needs of

The key drivers that propelled this sector are climate change and global warming, long term carbon price exposure, fuel-price risk, fossil fuel depletion, energy security and energy access.

their textile business. The brothers decided to purchase and install two windmills that would generate and fulfill the power needs of their textile business. The brothers were impressed with the ability of these windmills to generate requisite quality and quantity of cheap power in an environmentally friendly manner. Looking at the tremendous

potential of harnessing wind energy commercially, the Tanti brothers exited from their core businesses and started the business of manufacturing and selling windmills by the name of Suzlon Energy Limited headquartered at Pune. This case is about various marketing and business strategies that Suzlon has been using over the years to survive, sustain, grow and harness the blowing winds profitably.

The Industry:

Wind energy is now an important player in the world's energy markets. It is rapidly becoming a global business, spreading its wings beyond its original markets of European countries, India and the United States. The Global Wind Energy Council has reported in its "Global Wind 2011 Report" that global installed wind power capacity at the end of 2011 was 237, 669 MW spread across the regions of Africa and Middle East (1,093 MW), Asia (82029 MW), Europe (96,606 MW), Latin America and Caribbean(2, 330 MW), North America (52,753 MW) and Pacific Region (2,859 MW).¹ Some of the leading countries engaged in wind power generation are Egypt, Morocco, China, Japan, Taiwan, South Korea, Germany,

¹ Global Wind Energy Council (GWEC), 2011: '*Global Wind Report*'. *Annual Market Update 2011* http://www.gwec.net/fileadmin/documents/NewsDocuments/Annual_report_2011_lowres.pdf (accessed on July 27th 2012)

Spain, Italy, France, UK, USA, Canada, Brazil, Denmark, Netherland, Sweden, Australia, New Zealand, India just to name a few.

Wind energy industry is highly capital intensive and technology driven. Earlier researchers on the renewable energy sector have proposed to focus on policy, regulatory and environmental factors or on the economic viability of a technology as all important factors of success required in this industry.

However Noel Botha and Michael Ellis (2007)², of Orion Innovations U.K., conducted a detailed analysis of the key ingredients for successful growth in the wind turbine industry. Their investigation has identified six key company level factors that have a strong influence on success of the wind turbine industry namely adopting a focused commercial

strategy, working with technology that is fit for purpose, establishing sound management, organization and processes, proactively managing the supply chain, having the ability to adapt to change and finding an appropriate source of finance.

Suzlon is globally integrated company, with production facilities in four countries including India, China, USA, and Germany with an aggregate capacity to manufacture WTGs to generate 15,000 MW of power per annum.

Business Potential:

The global wind power industry has tremendous economic and business potential. Amongst all other renewable energy sources, wind energy is one of the most viable sources because of the availability of technology, which makes it economically feasible and ideal for large scale power generation. In the year 2012, the industry employed around 5.5 lakh people globally, had an annual turnover of more than 50 billion € and is growing at an annual rate of more than 20 %.³ It fulfills the electricity needs of more than 25 million households. At the end of

² <http://www.renewableenergyworld.com/rea/news/article/2012/02/destined-for-success-key-factors-for-successful-growth-in-emerging-energy-technologies-51473> (accessed on August 4th 2012)

³ Global Wind Energy Council (GWEC), 2011: 'Global Wind 2009 Report'. <http://www.gwec.net/index.php?id=168>

2011, installed wind turbines globally are capable of generating 500 Terawatt hours per annum power, equivalent to the total electricity demand of Italy, the seventh largest economy of the world and 3 % of global electricity consumption (World Wind Energy Report 2011). Today, wind energy has unquestionably emerged as the second largest renewable energy source, behind hydro-electric power. It is currently being harnessed by almost 98 countries of which 19 countries have already installed more than 100 MW each. By 2016 this is expected to touch a phenomenal 455 GW. According to the GWEC (Global Wind Energy Council), the annual value of global investment in wind energy would reach €149.4 billion by 2020 and account for over 2.2 million jobs (GWEC-Global Wind 2009 Report).⁴

The operational advantage of wind energy is that the cost of fuel needed for generating electricity over the total lifespan of a wind turbine is zero. It has been found that at many

sites, wind power is competitive with new-conventional

and in some cases it is When taking into price of carbon, wind attractive. Job creation economic

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already built technologies much cheaper. account the power is even and regional development

are also key factors in economic considerations surrounding wind power. Wind Energy too contributes in controlling global warming. It has been estimated that the total carbon dioxide emissions avoided by wind power in 2011 is about 228.7 million tonnes equaling to 1.93% of the world's total emission from conventional power generation (GWEC-Global Wind Report 2011). With growing demand for clean energy the global competition for wind turbine generators (WTGs) has heated up and will witness more fierce competition in years to come.

Background Note:

Suzlon is a large sized widely held company which was formally incorporated on 10th April 1995 with initial Authorised Capital of `4,450 million under Companies Act, 1956. The paid

⁴ <http://www.wwindea.org/webimages/WorldWindEnergyReport2011.pdf> (accessed on 27th July 2012)

up equity share capital of the company as on 31st March 2012 was `3554.7 million and revenue turnover was `68712.1 million.⁵ The company came up with a public offer of 29.34 million equity shares of `10 each in the price band of `425 to `510 per equity share of face value `10 in September 2005. The equity of the company is listed in India on Bombay Stock Exchange, Mumbai (BSE) and National Stock Exchange, Mumbai (NSE), part of S&P CNX Nifty Index, and FCCB listed in Singapore. The company has registered 100% year-on-year growth for the past five consecutive years, achieving leadership in India and then attempting to become the leader on the global stage. Suzlon has a strong workforce of 14,000 people working across twenty one countries. It has consistently grown at a rate faster than the industry, more than twice the industry average over the past four years.

Genesis of Suzlon:

The seeds of Suzlon had been sown by Mr. Tulsi Tanti, a Gujarati entrepreneur who was associated with textile industry in the year 1995. The textile business of Mr. Tanti in 1995 was facing dual problem of rising electricity cost and infrequent power supply by the state run electricity board. In search of a solution to the dual problems, Mr. Tanti came across the idea of generating power from wind. To meet the power requirements of his textile business, Mr. Tanti for the first time set up a wind farm to generate 3 MW of electricity in the state of Gujarat with a workforce of 29 people. This development laid the foundation stone of Suzlon Energy Limited, India's first indigenous wind technology company and the rest is history. The first subscribers to the memorandum of the company were the family members and friends of Mr.

Suzlon's vertical integration has been its success driver. The company along with its subsidiaries is engaged in designing, developing and manufacturing of wind turbine generators and related components such as rotor blades, control panels, nacelle cover, tubular towers, generators and gearboxes.

⁵ Suzlon Energy Ltd, Annual Report 2011-12

Tulsi Tanti. Over the years Mr. Tanti mastered the expertise of wind turbine technology and the art of milching the winds.

Suzlon's Business:

Suzlon Energy Limited is a Pune (Maharashtra) based Indian company specialized in the business of manufacturing and supplying technologically advanced WTGs with an emphasis on high performance and cost-efficiency. Suzlon's vertical integration has been its success driver. The company along with its subsidiaries is engaged in designing, developing and manufacturing of wind turbine generators and related components such as rotor blades, control panels, nacelle cover, tubular towers, generators and gearboxes. The company also provides consultancy for design, manufacturing, installation, operation and maintenance of wind farms. It is also involved in wind resource mapping, identification of suitable sites and technical planning of wind power projects.

Along with its associate companies (Refer Annexure I) in the group; company has positioned itself as an integrated solution provider of services related to wind energy in the global markets. Company also provides after-sale O&M (operations & maintenance) services for WTGs supplied by it. The associate companies of Suzlon acquire sites identified by it found suitable for wind energy projects, which are then sold or leased to its customers, and undertakes the technical implementation of wind farms, including infrastructure development, supply and installation of WTGs and connection to power grids.

Currently Suzlon Energy Ltd is the largest wind-turbine-generator (WTG) manufacturer in Asia and along with REpower, its market share have increased to 12.3% thereby making it the third largest wind turbine manufacturing company in the world. It contributes 30% of global wind turbine business. The company has globally so far supplied wind turbines to generate 8,000 MW of electricity and has installed projects to generate more than 4,800 MW of electricity based on wind energy. Its operations are spread across fifteen countries and five continents.

Manufacturing Facilities:

Suzlon has adopted a mix of manufacturing strategies to ensure unfettered growth. Suzlon is globally integrated company, with production facilities in four countries including India, China, USA, and Germany with an aggregate capacity to manufacture WTGs to generate 15,000 MW of power per annum. Suzlon has also developed forging and foundry units in India. In fact the company has established forging facilities of 70,000 MT and foundry facilities of 1, 20,000 MT. Company's 13 units across the globe make all the key components of wind turbines. It has entered into exclusive supply agreements with some of its leading suppliers and expanded its vendor base across different countries to further improve its supply chain efficiencies which in turn facilitate to build a natural hedge against foreign currency risks.

Operations Management:

The operations of the company are completely integrated with focus on designing, engineering and development of WTGs. The supply chain of the company is fully integrated with manufacturing facilities spread across three continents. Suzlon started its journey with a

The supply chain of the company is fully integrated with manufacturing facilities spread across three continents.

vision to develop leading edge technology and build manufacturing capability for all key components in the wind power domain. The Wind Industry's supply chain experiences the critical bottleneck of a long production lead time for key components such as bearings, gearboxes, forged parts and components etc. However, Suzlon has managed to gain the competitive advantage with better control over time, cost, quality, long-term customer service

support and integration of turbine technology for shorter production cycles by designing and manufacturing different critical components of WTGs like rotor blades, tubular towers, control panels and nacelle in-house. The tubular towers are manufactured by its 75% owned subsidiary company, Suzlon Structures. Manufacturing of WTGs is undertaken by Suzlon Energy Limited and after-sale O&M services are provided by its wholly-owned subsidiary Suzlon Windfarms Services Ltd (SWSL). One of its associate companies procures sites in India that have been identified by Suzlon as suitable for WTG installation. Another associate

company, Suzlon Infrastructure Ltd (SIL) undertakes the project execution work including site development, civil works and electrical works as well as erection and commissioning of WTGs and construction of power evacuation facilities. Suzlon's associate companies provide necessary and valuable services in the Indian wind energy market.

Research & Development

The company has forged ahead with an ethos of innovation in everything that it does. Management of the company views technology as a competitive advantage driver and a vital enabler in this industry for a company to be a market leader. To accomplish its innovation philosophy, Suzlon has established its R&D and engineering offices in Denmark, Germany, India, and Netherlands. The R&D activities of the company are carried out through its subsidiaries, SEG and AE Rotor Holding B.V., Netherlands (AERH). These subsidiaries focus on designing and developing new WTG models, upgrading current models and developing efficient and effective rotor blade technology for its WTGs. Suzlon's sophisticated R&D capabilities in the wind energy space have enabled the company to develop comprehensive product portfolio, ranging from 600 KW to 2.1 MW wind turbines. At Suzlon, wind turbine technology continues to be a dynamic field of research with greater focus on reliability, ease of operation and load reduction that will enable the company to reduce the weight and cost of its wind turbines. Its R&D team consists of 500 wind technology experts, operating from its R&D headquarters in Hamburg. The collaborative efforts of Suzlon's R&D teams, the product development teams in Germany, Netherlands, Denmark and India, its leading technological partners such as Hansen Transmissions, research centres experienced in wind energy such as Risø in Denmark, ECN and TU Delft in the Netherlands, Fraunhofer Gesellschaft and the University of Kiel in Germany is giving it the needed technological expertise.

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Quality Control & Product Certification:

Quality is the buzzword at Suzlon and hence it's been embedded in every action of the organization. The business processes of Suzlon facilitate it to manufacture the WTGs of highest quality. Its design and manufacturing facilities and operations and maintenance services have been certified as ISO 9001:2000 by Det Norske Veritas. The Suzlon's WTG models are designed for a 20- year life cycle and its rotor blades undergo extensive reliability and operational testing conducted by the Technical University of Delft. Suzlon's WTGs are also designed to meet the standards set by the two internationally-recognized independent WTG certification bodies, Germanischer Lloyd and the International Electrotechnical Commission. It has too obtained WTG certification from the CWET, an autonomous body attached to the Indian Ministry of Non-Conventional Energy Sources which in turn is affiliated with the Risø National Laboratory, another internationally recognized WTG certification agency.

Markets, Competitors & Clients:

The company principally operates in India, China, America, Europe, New Zealand, South Korea, South Africa and Australia. The major clients of the company are from Germany (24% orders), India (20% orders), USA (13%), Canada (11%), Belgium (6%), Brazil (5%), UK (5%) and other countries (16%) respectively. It has also established business units in all the major wind markets of the world. Suzlon is a market leader in India with a consistent market share of over 50% consecutively in the last 10 years. The cumulative power installed base as on March 2012 was 20,000 MW across 28 countries.⁶

Suzlon offers the entire gamut of solutions starting from wind resource mapping, land acquisition, technology development, turbine manufacturing, engineering, procurement and construction (EPC) projects and completing the chain with operations & maintenance services.

⁶http://www.suzlon.com/images/Media_Center_news/214_25-may-2012-suzlon-FY12-performance-update.pdf

The potential clients of Suzlon are power intensive manufacturing units, companies looking for investment opportunities; and power utilities and state nodal agencies. The company has fully functional international sales, marketing and service branches in all those countries in which it is actively operating with an emphasis on local expertise to drive high growth in each market. In a short span of 15 years, Suzlon has become the world's 4th largest wind turbine manufacturer and envisages of being the largest global player in wind power industry. Suzlon has erected prestigious wind farm projects such as Hallet Wind Farms in Australia, John Deere in the USA, Penamacor in Portugal, Weihai in China just to name a few. Some of the major clients of Suzlon are AGL Energy Ltd, TrustPower Ltd, Tecneira, Servtec, DLF Group, Reliance Group, Aditya Birla Group, Tata Group, British Petroleum, MSPL, John Deere Wind Energy and Distributed Wind Systems. The major competitors of Suzlon are Vestas Wind Systems Denmark, Goldwinds China, Enercon India Ltd, Siemens Ltd, GE Wind (USA), Sinovel Wind Group Co., Ltd China, United Power, Gamesa Corporación Tecnológica Spain, and Nordex.

Marketing Operations:

The domestic and foreign sales and marketing operations of Suzlon are taken care by its sells and marketing team, marketing subsidiaries and branch offices located in India and abroad. It has setup sales offices in major cities of India such as Pune, Bangalore, Chennai, Coimbatore, Hyderabad, Ahmedabad, Rajkot, Surat, Jaipur, Calcutta, Mumbai, Indore and New Delhi. The company's global marketing and sales operation are managed by its Danish subsidiary, Suzlon Energy A/S.

Products & Services:

Company's wind turbine generators (WTGs) are customized to local geographies, wind regimes and needs, for installation in a variety of climates ranging from hot, dry deserts, to humid coasts and near-freezing plains. With a range of WTGs, ranging in capacity from 600 kW to 2.1 MW, company have successfully set up projects in some of the most essential wind sites in the world.

Suzlon is an integrated wind energy solutions provider. It offers the entire gamut of solutions starting from wind resource mapping, land acquisition, technology development, turbine manufacturing, engineering, procurement and construction (EPC) projects and completing the chain with operations & maintenance services. The current product range of the company's WTGs includes S88-2.1 MW, S82-1.5 MW, S66-1.25 MW, S64-1.25 MW and S52-600 KW. Suzlon Energy is among the first Asian company to manufacture WTGs in different capacities. It has developed different WTGs models for different global markets. Company sells S88-2.1 MW, S82-1.5 MW, S66-1.25 MW, S64-1.25 MW and S52-600 KW models of WTGs in Indian markets. ⁷WTGs model S82-1.5 MW and S64-1.25 MW are sold in Chinese markets. In Australian markets WTGs model S88-2.1 MW is sold. WTGs model S88-2.1 MW is sold in North American markets and company sells model S88-2.1 MW in European markets. To explore the growth opportunities in the global market for WTGs, company has also set up its marketing headquarters in Denmark, a centre for wind energy. Suzlon's ability to leverage local expertise coupled with global experience, with an 'end-to-end solutions' model and highly customized products, made it the highest-growth, highest-margin wind turbine manufacturer globally.

Global Operations:

In China Suzlon has wholly owned subsidiary company, Suzlon Energy (Tianjin) Limited. Suzlon Energy (Tianjin) Limited has already signed up projects totaling 825 MW (almost 600 wind turbines) with different clients in China. Suzlon Wind Energy A/S has established itself as one of the leading European wind turbine manufacturers. Suzlon Wind Energy A/S is based in Aarhus, Denmark, and is heading Suzlon's activities within the regions of Europe, Middle East, Africa as well as Central and South America. In addition to its headquarters in Aarhus, Suzlon Wind Energy A/S has already established subsidiaries in Spain, Portugal, Italy and Brazil. Suzlon Wind Energy A/S has signed contracts totaling more than 400 MW for the delivery of wind turbines to European markets such as Portugal, Spain, Italy, Turkey and Romania. It is also expanding into other European markets such as Ukraine, Bulgaria, Greece and Sweden. European customers have recognized Suzlon as the holistic wind energy solution provider under single roof.

⁷ <http://www.suzlon.com/products/13.aspx?11=2&12=44&13=128> (Accessed on March 2011)

In 2001, Suzlon incorporated Suzlon Wind Energy Corp, USA (SWECO), in order to establish its business presence in the United States. US is amongst the top three wind energy market in the world in terms of cumulative installations. Suzlon Wind Energy Corporation has more than 1,400 MW of installed capacity to its credit in North America and more than 650 employees supporting the sales, construction, service and manufacturing of WTGs. Suzlon had established its first wind turbine in Southwest Minnesota in 2004, which later became home to Suzlon's first blade manufacturing facility outside India. The highly experienced and skilled workforce gave Suzlon a competitive edge and thus could very rapidly make its presence felt in the North American markets.

Suzlon Energy Australia Pty. Ltd is a subsidiary of Suzlon Energy Ltd, India. The headquarters are located in Melbourne. This company manages Suzlon's business activities across Australia and New Zealand. The company provides fully wrapped engineering, procurement and construction (EPC) turnkey delivery solutions of sustainable wind power plants. Suzlon is Australia's leading wind turbine supplier. The company has managed to get orders in excess of AUD 2 billion to supply over 750 MW of clean power. More over Suzlon's Australian operations has been recently awarded a contract from Infigen Energy for the EPC turnkey delivery of the 42 MW Woodlawn Wind Farm.

Business Promotions:

The company promotes its business and products by advertising in professional industry journals, attending national and international energy fairs, such as the Hanover Fair, PowerGen, WindTech Husum and PowerExpo. Its representatives also attend conferences and professional seminars conducted by trade associations and various wind energy associations, such as the American Wind Energy association and the British Wind Energy association.

Acquisition & Alliances:

Suzlon is in a continuous process of gaining competitive global advantage through initiatives like vertical integration, acquisitions, technology upgrades, and human resource retention. Suzlon's business has dramatically grown over the years with its unique strategic alliances

and acquisition policy. Suzlon has joint venture partnership agreement with REpower, has established the Renewable Energy Technology Center in Hamburg, and has acquired Hansen Transmissions International NV, Belgium to manufacture gearboxes. Suzlon's generator manufacturing unit is a joint venture between Elin EBG Motoren GmbH of Austria. Suzlon Structures is a joint venture with the Kalthia Group for the design and manufacture of tubular towers. Recently Suzlon Wind Energy A/S, the European division of Suzlon Energy Limited, has entered into a joint venture with Volkswind Bulgaria GmbH through the company DIV Wind OO. Volkswind Bulgaria is a subsidiary of Germany's Volkswind GmbH, one of the leading 'Independent Power Producers' (IPPs) in Europe, and with over 40 wind farms, it is also one of the largest operators of wind farms in Germany.

Human Resources:

Wind energy industry is technology-driven, and thus Suzlon's management strongly believes that its employees are the key contributors to its success. In line with its company focus on training and retaining the employees. The company a combination of its leading wind energy provider, its working environment and competitive compensation programs will allow it to attract and retain most competitive people available in the industry.

The corporate values, brand core and philosophy of global assimilation are three fundamental pillars of Suzlon's work culture.

Work Culture:

The corporate values, brand core and philosophy of global assimilation are three fundamental pillars of Suzlon's work culture. Agility, creativity, value addition, commitment and integrity are some other prominent work culture features at Suzlon. Inducting people into Suzlon's brand core of sustainable development is a process that involves inculcating these values and blending the best qualities of the individual with those of the organization. The highly effective and efficient team of 14,000 employees at Suzlon is bringing laurels for the

company. Concern for people is embedded in the DNA of Suzlon's organizational culture. Suzlon offers a truly global exposure to its employees with more than 1,000 clients across the globe and projects commissioned in leading economies like America, Asia, Europe and Asia Pacific. Suzlon has leveraged the rich operational expertise and experience of the world's finest wind power technology to harness every individual towards a powerful 'greener tomorrow'.

Future Ahead:

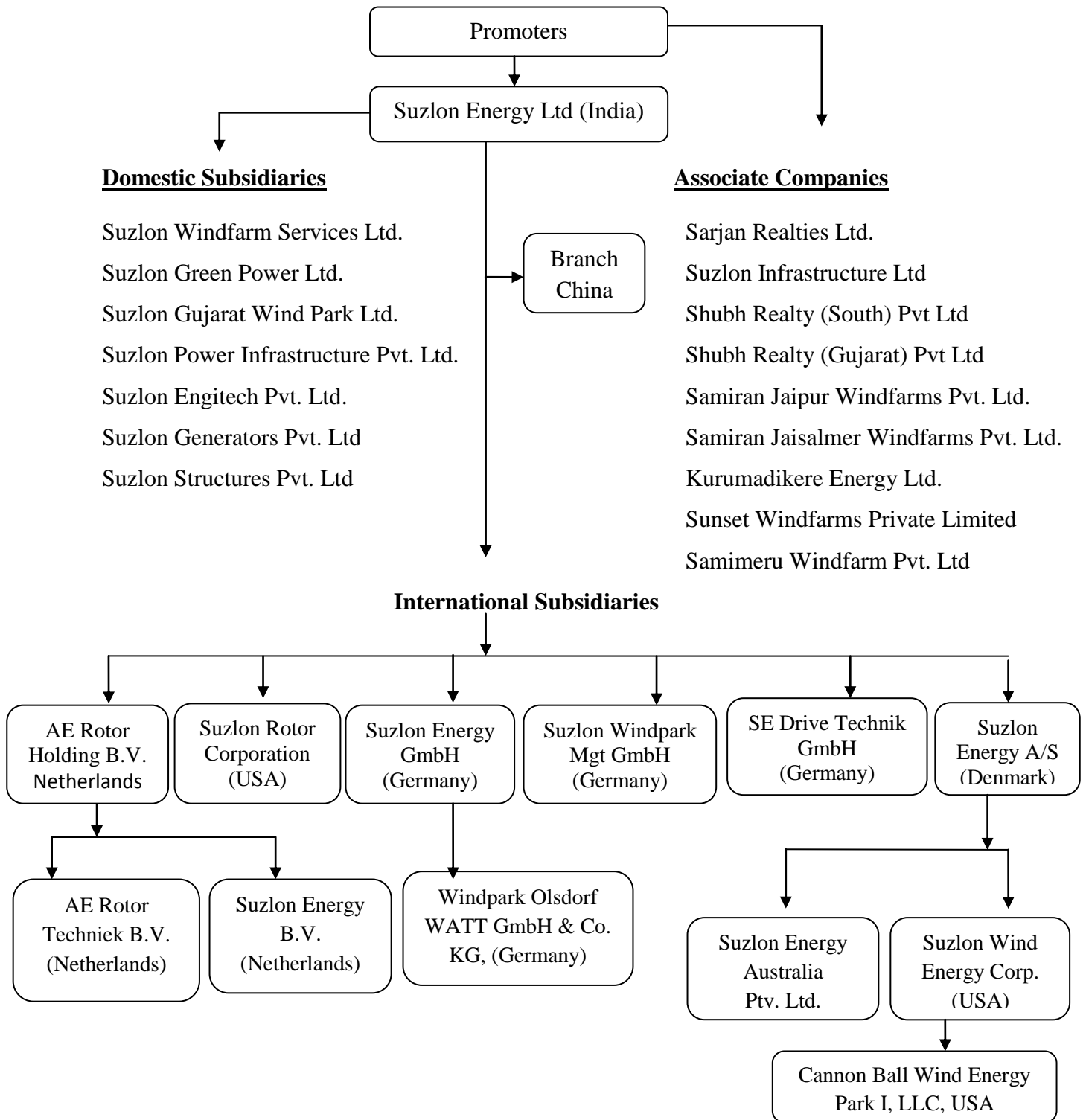
Apparently Suzlon seems to have crossed several mile stones and successfully exploiting the world renewable energy market by formulating and implementing appropriate business strategies. Today it is the fourth largest wind player in the world and number one in India. The integrated business model seems to be generating competitive advantage for the company. Despite the strong positive political, social and financial drivers, most companies active in the wind turbine arena in the 1990s failed to exploit the opportunities available. Many closed their interests within the decade. Examples include Boeing and Hamilton Standard (of the US), British Aerospace and GEC (of the UK), MBB and MAN (of Germany) and Kvaerner (of Norway). In contrast, several companies have succeeded, either through organic business growth (for example Vestas of Denmark), corporate buy-in into the sector (for example GE Wind of the US and Siemens of Germany) or position in a high-growth, protected market (for example Suzlon of India). In case of Suzlon, it is running the show but bottom lines are negative with huge interest burden. The question arises as to will the businesses of Suzlon continue growing in the hyper competitive globalized market and at whose cost.

Questions:

- 1) Is the company competitive in the global markets? Justify your answer.
- 2) As a consultant what would you suggest to Suzlon for its future growth?
- 3) With the present global wind energy market scenario do you think Suzlon will sustain and grow in the years to come? Why?
- 4) Is Suzlon using the correct business model? Comment and Justify.
- 5) Evaluate the marketing strategies of the company. Are they appropriate? Justify.

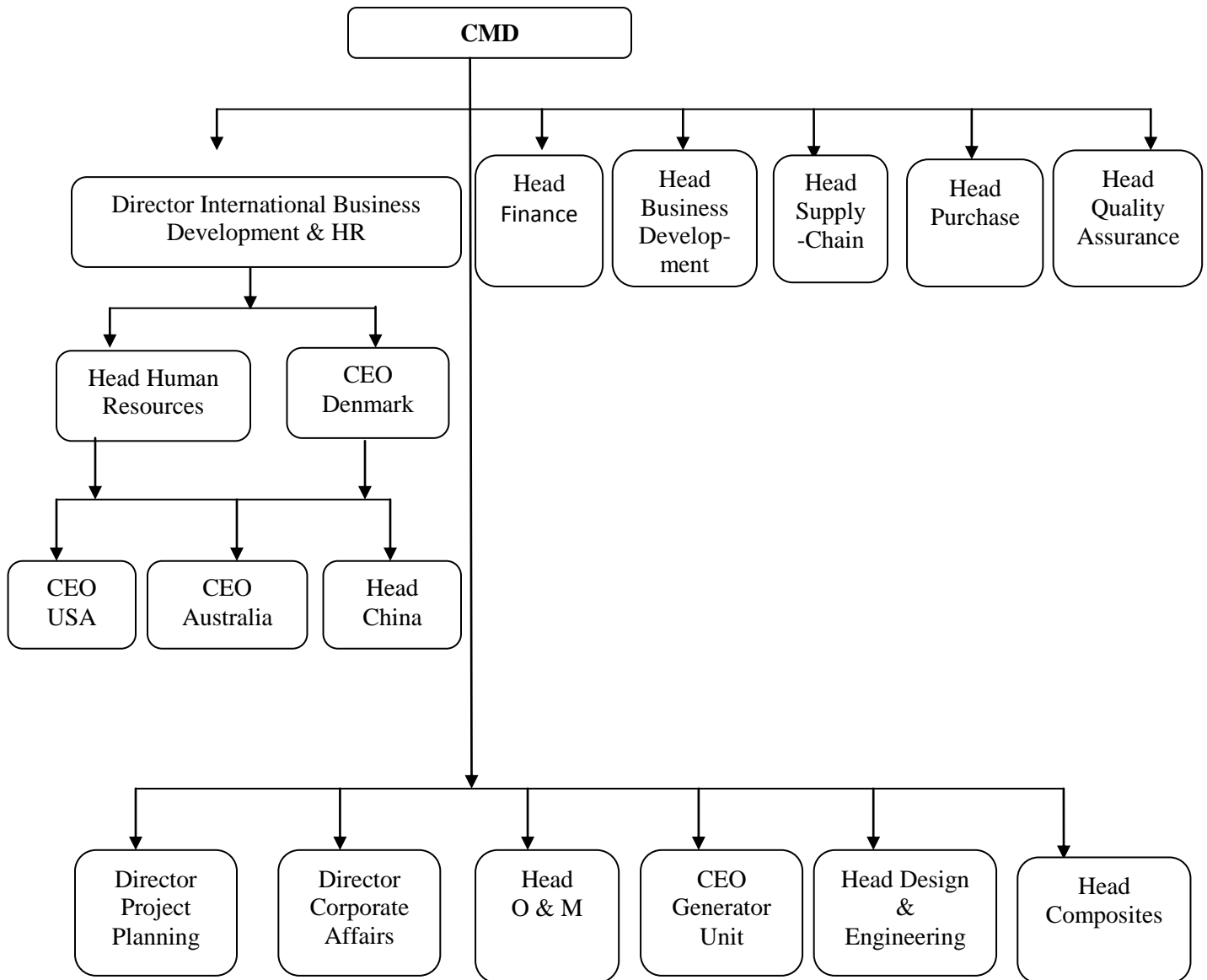
Annexure-I

Ownership Structure of Suzlon Group



Annexure-II

Organization Structure



Annexure-III**List of Foreign Subsidiaries of Suzlon**

S.No	Name of Foreign Subsidiaries	Country of incorporation
1	Hansen Drives Limited	Hong Kong
2	Hansen Drives Pte Limited	Singapore
3	Hansen Wind Energy Drives (China) Co Ltd.	PR China
4	Power Blades GmbH	Germany
5	Power Blades SA	Portugal
6	REpower Australia Pty Ltd.	Australia
7	REpower Benelux b.v.b.a.	Belgium
8	REpower Betriebs - und Beteiligungs GmbH	Germany
9	REpower Canada Inc	Canada
10	REpower Diekat S.A.	Greece
11	REpower Espana S.L.	Spain
12	REpower Geothermie GmbH	Germany
13	REpower Investitions - und Projektierungs GmbH & Co. KG	Germany
14	REpower Italia s.r.l	Italy
15	REpower S.A.S.	France
16	REpower North (China) Ltd.	PR China
17	REpower Systems AG	Germany
18	REpower UK Ltd.	United Kingdom
19	REpower USA Corp.	USA
20	Repower Wind Systems Trading (China) Ltd.	PR China
21	REpower Windpark Betriebs GmbH	Germany
22	Sister - sistemas e Tecnologia de Energias renovaveis Lda	Portugal
23	Suzlon North Asia Ltd.	Hong Kong
24	Suzlon Wind Energy Equipment Trading (Shanghai) Co. Ltd.	PR China
25	Suzlon Wind Energy Nicaragua Sociedad Anonima	Nicaragua
26	Suzlon Wind Energy Romania SRL	Romania
27	Suzlon Wind Enerji Sanayi Ve Ticaret Limited Sirketi	Turkey
28	Tarilo Holding B.V.	The Netherlands
29	WEL Windenergie Logistik GmbH	Germany
30	Windpark Blockland GmbH & Co KG	Germany
31	Windpark Meckel/Gilzem GmbH & Co KG	Germany
32	Windpark Olsdorf Watt GmbH & Co. KG	Germany

Annexure IV**Financial Statement (Unit: Rs. in Crores)**

Particulars	2011-12	2010-11	2009-10	2008-09	2007-08
OPERATING RESULTS					
MW	5,730	4,639	1,459.70	2,790.45	2,311.40
Sales	21,0821	17879	20,620	26,082	13,679
Total income	21,359.21	18,090.23	20,849	26,531	13,947
EBIDTA	1,821	1,047	943	2,816	2,051
Interest	1,379	1,136	1,195	901	532
Depreciation	661	657	663	573	289
Net profit	(479)	(1,324)	(983)	236	1,030
FINANCIAL POSITION					
Equity share capital	355	355	311	300	299
Net worth	5,181	6,526	6,601	8,532	8,101
Reserves & Surplus	4,825	6,170	6,601.27	8531.74	6947.66
Gross fixed assets	15,161	13,265	11,951	17,086	6,720
Net fixed assets	12,602	11,332	10,574	15,265	5,688
Total assets	32,630	29,220	29,118	37,551	26,390
KEY RATIO					
Book value per share	29.1	36.7	42.4	56.9	54.1
Turnover per share	118.6	100.6	132.5	174.1	91.4
Earnings per share	2.7	7.8	(6.4)	1.6	7.1
EBIDTA/Gross turnover (%)	8.6	5.9	4.6	10.8	15.0

Source: Annual Reports year ending 2012

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