

**ConIndian Institute of Information technology Design and Manufacturing
(IIITDM) Kancheepuram**

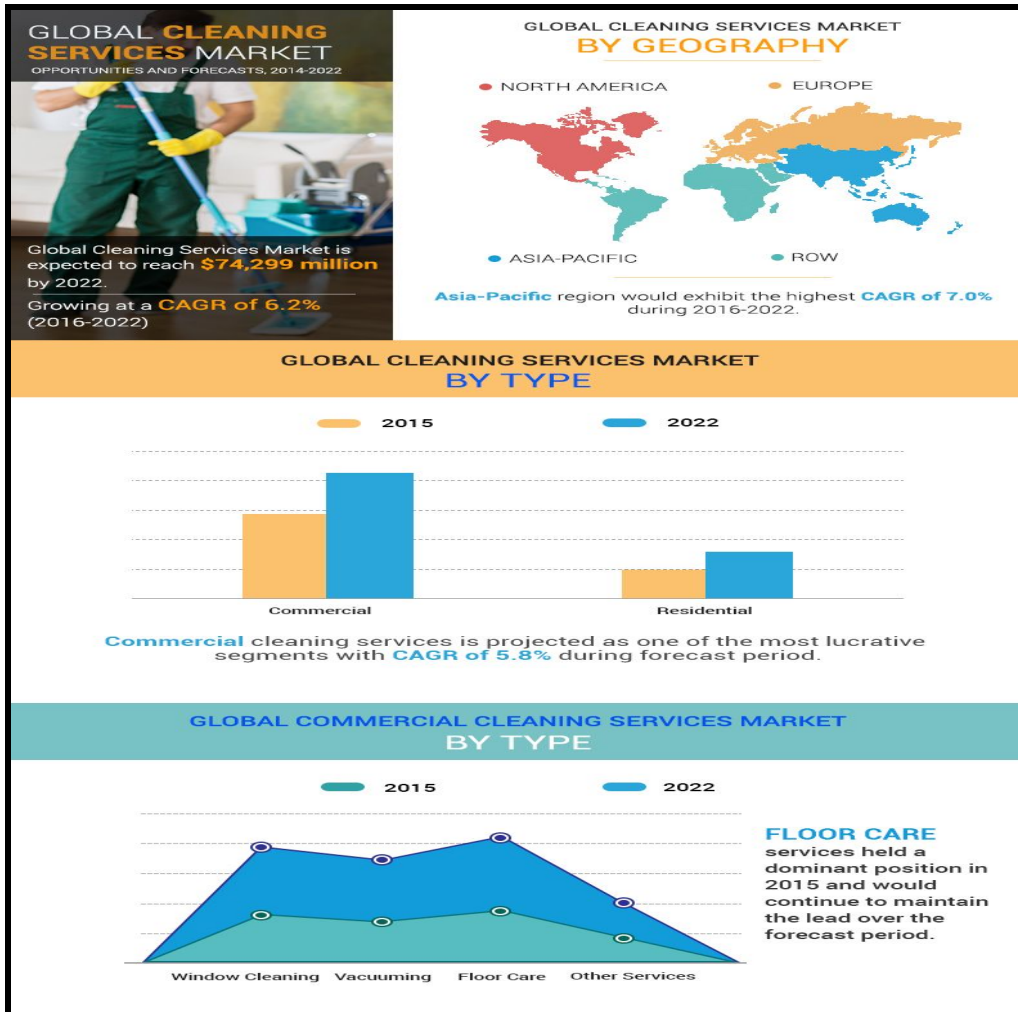
Subject: Entrepreneurship and Management Functions (MAN301T)



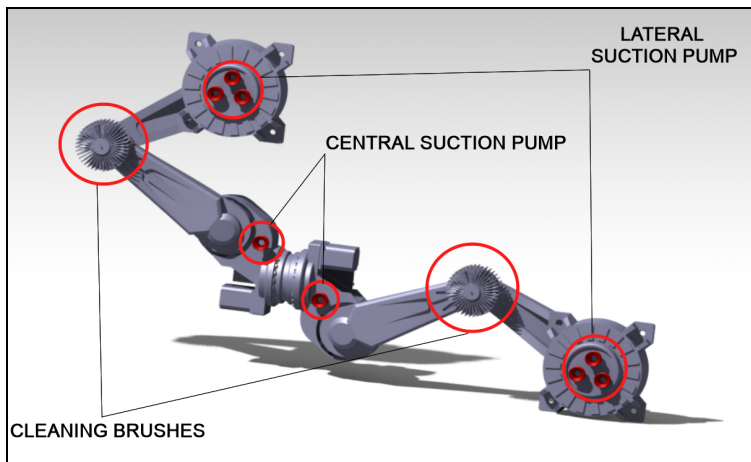
**PROBLEM STATEMENT : AUTOMATING HIGH RISE WINDOW CLEANING AND
OTHER EXTENDED CLEANING ACTIVITIES OF THE CUSTOMER**

SREEKIREN.D.S	MDM18B050
SOORYA SRIRAM	MDM18B049
BALAVIGNESH	EVD18I001
SRITVATHSAN O	ESD18I019

SMALL UPDATE ON FORECAST OF OUR INDUSTRY'S REVENUE AND GROWTH



The global Window Cleaning Robot market size is projected to reach USD 58 million by 2026, from USD 52 million in 2020, at a CAGR (compound annual growth rate) of 9.6% during the forecast period



**A 3D GENERATED
MODEL OF OUR
PRODUCT**

12/8/20 - Exercise 2

EXERCISE 2.1:

COMPANY	ENTREPRENEUR	MANAGER	REVENUE	NUMBER OF EMPLOYEES
ABM Industries Inc.	Morris Rosenberg	Scott Salmirs	650 crores (2019)	1,40,000
The ServiceMaster Company, LLC	Marion E. Wade	Naren Gursahaneyz	\$2.59 billion (2015)	13,000
CleanNet USA	Mark Salek	Steve Tessier	\$68.76 million (2017)	150
Anago Cleaning Systems	David Povlitz	Adam Povlitz	\$22 Million	116
Jani-King Inc.	Jim Cavanaugh	Jerry Crawford	US\$727 million (2018)	
Pritchard Industries Inc.	Peter D Pritchard	Peter D Pritchard	\$250.00 million USD	8,000
BONUS Building Care	Arleen Cavanaugh	Dmytro Nikolsky	\$39 Million	205
Red Coats	Barbara K. Peel	Blaine Wilson	\$286.11 million	5,252
Harvard Maintenance Inc.	Stanley K. Doobin	Nathalie Doobin	\$222.8 million	4,300
Stratus Building Solutions	Afshin cangarlu	Afshin cangarlu	\$74 Million	3,493

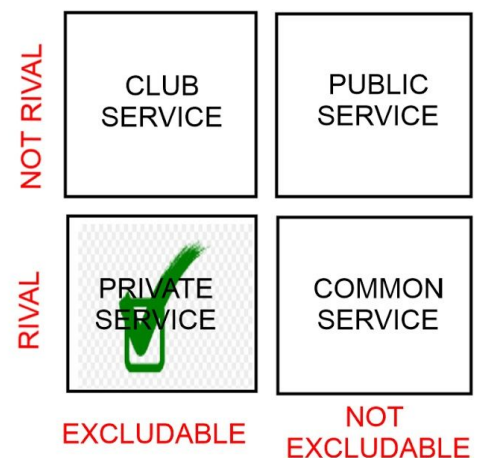
Temko Service Industries Inc	Hermann Helaman	Christopher Hughes	\$35.0 million	10,000
-------------------------------------	------------------------	---------------------------	-----------------------	---------------

EXERCISE 2.2:

Our product is predominantly an innovative and efficient service oriented product for window and facade cleaning and other extended cleaning services for the customers mainly targeted on high rise buildings and skyscrapers.

Because

- One of the main differences is that goods are produced and services are performed and we don't produce window cleaning bots for sale rather we perform window cleaning using our self made innovative and advanced robots.
- Our nature of product is intangible
- There is no transfer of ownership and possession of our product like goods as only service is transferred.
- Evaluation of our product is based on customer satisfaction and not a fixed price like a finished product.
- Our service cannot be returned back like goods



Our service is a private service because with the limited robots and tools, providing service for one customers makes our service unavailable for other customers and also the service is excludable because we have targeted customers as well as it is a costed service

Group	Class	Sub-class	Description
812	81100		Combined facilities support activities
	8121		Cleaning activities
			General cleaning of buildings This class includes the general (non-specialized) cleaning activities of all types of buildings and other business and professional premises and multiunit residential buildings. These activities are mostly interior cleaning although they may include the cleaning of associated exterior areas such as windows or passageways.
		81210	General cleaning of buildings

**FLOW CHART ON CLASSIFICATION OF OUR COMPANY
ACCORDING TO NATIONAL INDUSTRIAL CLASSIFICATION
2008 LIST**



And further classifications.....

EXERCISE 2.3:

There are few major players in the high rise window cleaning industry that we have mentioned below.

Bringing in robotics/automation in window cleaning industry enable competitors in both cleaning industry and robotic industry but the competition in cleaning industry dominates

INDIAN FIRMS ON OUR PRODUCT/INDUSTRY:

1. TechnoClean Services (I) Pvt. Ltd - Window Cleaning



Source : <https://www.technocleanservices.in/facade-and-glass-cleaning/>

Source : <http://cleanindiagroup.com/techno-clean/>

Top Clients :

- Lifestyle
- Park Plaza Hotel and Resorts
- Homecentre
- Lakme Salon
- Microsoft
- Hyatt Regency

It is based out of New Delhi.

2. Classic Maintenance Services - Reserved

Source : <http://www.classicmaintenance.in/facade-cleaning.html>

Classic Maintenance Service and its specially trained crew for Facade cleaning is second to none in providing the best Facade cleaning services in the entire India. The crew is properly trained for any type of Facade cleaning work at all height levels and in all weather conditions, regardless of access difficulties, using rope access techniques, scaffolding, mobile elevated work platforms, high pressure wall creepers, telescopic equipment, reach and wash system, abseiling, traditional ladder access and the safe use of fall-arrest safety harnesses used in conjunction with safety eyebolts.



It is based out of Delhi and is registered in the MCA.

3. Space Reach Private Limited -

Source: <https://www.windowcleaning.co.in/>

Since 2002 “ Spacereach” has developed an enviable reputation in the field of FAÇADE MAINTENANCE and associated technical support servicesSpace Reach is a registered professional Facade Maintenance Company.All the PPE”s used meet OSHA and international standards on safety.

Top Clients:

- Microsoft
- Taj Hotels
- Accord Metropolitan
- Apollo Hospitals
- Hilton Chennai
- Cognizant



Based out of Chennai and has branches at Bangalore and Hyderabad.

4. Sun India services Private Limited –



Source: <https://sunindiaservices.org/services/facade-cleaning/>

Sun India Services Pvt. Ltd is a very new entrant in the field of HR Outsourcing and was established in 2015 with a focus on recruitment and human resource services.

It is based out of New Delhi.

5. NEATT & CLEAN Pvt Limited



Source :

http://www.neattandclean.com/windows_cleaning_services_in_chennai_tamilnadu.html

Top Clients:

- Jeyachandran Textiles
- Madras Race Club
- Rajan EyeCare Hospitals

GLOBAL FIRMS ON OUR PRODUCT/INDUSTRY:

1. Corporate Cleaning Services Pty Ltd– Proprietary Limited

A proprietary company, (abbreviated as 'Pty.'), is a form of privately held company in Australia and South Africa that is either limited or unlimited. However, unlike a public company there are, depending on jurisdiction, restrictions on what it can and cannot do.

Corporate Cleaning Services® is ISO 9001 certified for Quality Management Systems which means we have established and maintain an effective quality assurance system for meeting the needs of our customers.

At Corporate Cleaning Services®, they offer innovative solutions for all your cleaning needs. It doesn't matter whether you operate a small retail store, a large industrial complex, or a medium-sized office – we have specialist cleaners ready to deliver the specific cleaning service you're seeking.

It is based out of Australia and is present in 25 locations worldwide.

Source : <https://www.corpclean.com.au/>

2. Newcro window cleaning Ltd.

They have a trained team of full-time employees and a fleet of vehicles to provide our clients with prompt, courteous and personalized window cleaning service in New York.

Source : <https://www.newcrowindowcleaning.com/>



3. Apple Window Cleaning Inc –

At Apple Window Cleaning Inc., we have more than 20 years of experience cleaning the windows of residential homes, and commercial, and industrial buildings.

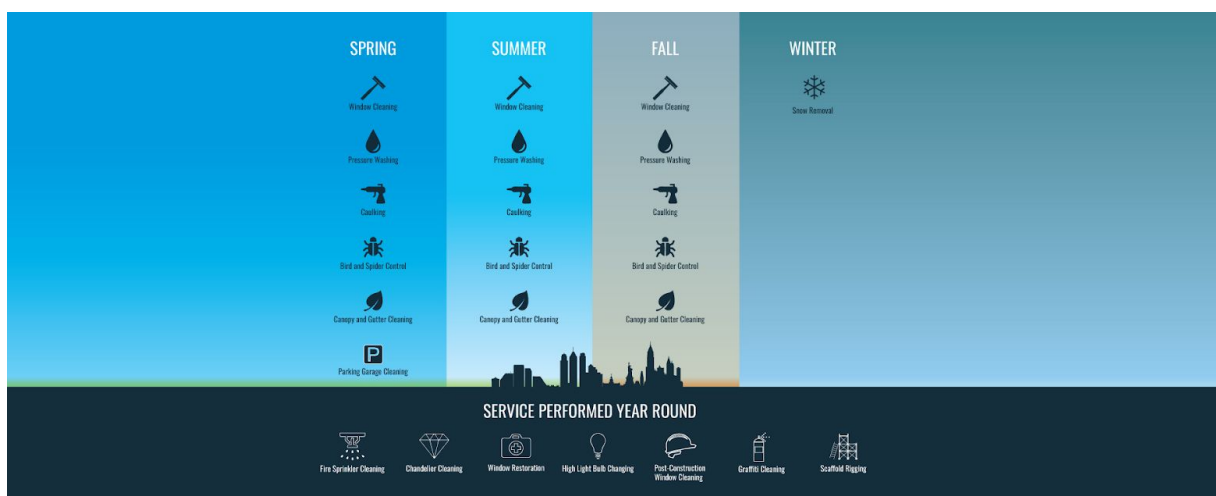
At Apple Window Cleaning in New York, New York, they offer comprehensive window washing services and Venetian blind cleaning for homes and businesses.

Their experienced crew will completely clean both the inside and outside of windows. They have a riggers license (#6169) that certifies us to work on buildings of every size, including performing scaffold work on skyscrapers.

Source : <https://www.applewindowcleaning.net/>

It is based out of New York.

4. Premier window cleaning LLC -



From low to high rise structures, they invest in top of the line equipment and a well-trained, thoroughly professional, company employed staff who will work with you to completely fulfill the agreement until the client is 100% satisfied.

Source: <https://premierwindowcleaningllc.com/>

Top Clients:

- Cushman and Wakefield
- Drexel University
- Penn University
- Pennsylvania Convention Centre

- Lincoln Financial Centre

They provide plenty of services from window cleaning, snow removal, window restoration, scaffold rigging, canopy and gutter cleaning and many more.

It is based out of Pennsylvania, Philadelphia In the United States of America

5. COXGOMYL AUSTRALIA PTY LTD

CoxGomyl is a leading global provider of premium facade access solutions. Present around the world with over 60 years of experience CoxGomyl has the widest range of configurable building maintenance units (BMU's) built on innovative, proven technologies which provide exceptional performance.

Some of their famous projects:

- Federation Tower Moscow
- Hard Rock Casino Florida
- Tianjin Chow Tai Fook Financial Centre

Rising to the challenge, CoxGomyl are present around the world to provide a range of building maintenance systems and building access units to architects, consultants, developers, constructors and building owners. From design, manufacturing, installation and maintenance, CoxGomyl are leaders in facade access solutions.

They are into building maintenance units (BMU's), building maintenance systems, facade access solutions and much more



*****And some prominent robotic companies providing solutions to the window cleaning are Dyson Limited, Ecovacs Robotics Co. Ltd., iRobot Corporation, Koninklijke Philips N.V., LG Electronics Inc., Neato Robotics Inc., Intellibot Robotics LLC., Yujin Robot Co. Limited, and Samsung Electronics Co. Limited.*****

PROS AND CONS OF .Inc OWNERSHIP:

ADVANTAGES OF .Inc OWNERSHIP:

- **Limited liability**
- **Continuance - Unlike other structures incorporation has unlimited lifespan**
- **Flexible incomes - To reduce taxation**

DISADVANTAGES OF .Inc OWNERSHIP:

- **Expensive - To form a corporation, you have to pay fees. And after you establish your corporation, these fees don't disappear. Fees for corporations are ongoing and can be costly for small businesses.**
- **Double Taxation**
- **Additional Paperwork - To maintain a corporation, one must keep detailed records of your articles of incorporation and bylaws, including information about meetings as well as a register of directors, members, officers, and shareholders. In addition to tracking meetings and other activities, keep organized records of transactions**

PROS AND CONS OF .Pvt Ltd OWNERSHIP:

ADVANTAGES OF .Pvt Ltd OWNERSHIP:

- **No minimum capital requirement**
- **Separate Legal Entity**
- **Limited liability**
- **Free and Easy transfer of shares**
- **Building credibility**

DISADVANTAGES OF .Pvt Ltd OWNERSHIP:

- **One of the main disadvantages of a private limited company is that it restricts the transferability of shares by its articles**
- **In a private limited company the number of members in any case cannot exceed 50.**

-
- Another disadvantage of a private limited company is that it cannot issue prospectus to the public.
 - In stock exchange shares cannot be quoted.

PROS AND CONS OF .LLC OWNERSHIP:

ADVANTAGES OF LLC OWNERSHIP:

- It limits liability for managers and members.
- Superior protection via the charging order.
- Flexible management.
- Flow-through taxation: profits are distributed to the members, who are taxed on profits at their personal tax level. This avoids double taxation.
- Good privacy protection, especially in Wyoming.
- This is a premier vehicle for holding appreciating assets, such as real estate, stock portfolios, and intellectual property.
- Extraordinary flexibility in the ability to allocate profits and losses to members in varying amounts.

DISADVANTAGES OF LLC OWNERSHIP:

- Some states, including California, charge extra fees for operating an LLC.
- Income splitting is available, but unlike an S Corp, in a business operating as an LLC all income may be subject to payroll or self-employment taxes.
- Some states do not allow professional groups (i.e., doctors or dentists) to operate through an LLC.
- Transferability restrictions – consent of membership is required for each and every transfer of membership interests. (This can also be a plus.)
- Single Member LLCs face reduced asset protection. Many states do not honor asset protection for LLCs with a single owner

PROS AND CONS OF .Pty Ltd OWNERSHIP:

ADVANTAGES OF .Pty Ltd OWNERSHIP:

- **Easy Formation :** Proprietary firm is the easiest and economic form to create and operate as it can be started by any person without any legal formalities. Also there is no set limit of minimum or maximum number of persons to start the business as it can be started by a single person.

-
- **Better Control :** As the owner is the single person so he has full control over his business. His total authority over his business gives him the power to plan, organize, co-ordinate the various activities. The sizes of such firms are generally small which also makes it better to control.
 - **Quick Decision Making :** Being the only owner of the business the sole trader takes all the decisions himself. He evaluates all the opportunities available and finds the solution to problems which makes decision making quick.
 - **Flexibility in Operations :** One man ownership makes it possible to bring flexibility in the operations of the business.
 - **Personal attention to customer needs :** Due to the small geographical area it becomes easy for the sole proprietor to deal with all its customers personally and knows their needs. Thus it makes it easy for him to pay special attention to consumer needs.
 - **Creation of Employment :** Proprietor firm facilitates self employment and also employment for many others. It promotes entrepreneurial skill among the individuals.
 - **Equal Distribution of Wealth :** Proprietary firm is generally a small scale business. Hence there are many opportunities for individuals to start their own business enabling widespread dispersion of economic wealth.
 - **No Legal Formalities required :** A proprietary firm is not required to comply with all the legal and procedural formality.

DISADVANTAGES OF .Pty Ltd OWNERSHIP:

- **Unlimited Liability :** In such firms the liability of the owner is unlimited as the owner takes more risk to earn more profits and increase the volume of his business by supplying his personal assets to the business
- **Limited Financial Resources :** Being the single owner of the business, the availability of funds from various sources is limited.
- **No Legal Status :** The existence of business is due to the existence of a sole proprietor. Death or insolvency of the sole proprietor brings an end to the business.
- **Limited Capacity of Individual :** An individual has limited knowledge, set of skills due to which his capacity to undertake responsibilities, his capacity to take quick decisions and bear risks are also limited.
- **Transferring of business is not easy in the case of Proprietary Firm.**
- **Higher Taxes:** As the sole proprietor is the direct person enjoying the profits thus he needs to pay higher taxes.

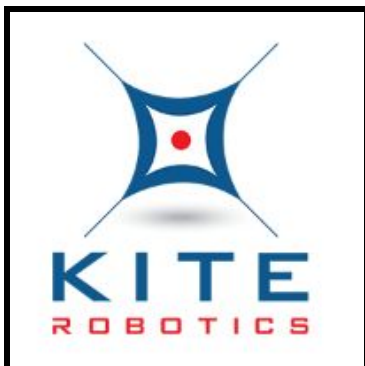
Based on analysis between different ownership, we first register the company under sole proprietorship and further extend to .LLP

EXERCISE 2.4

For an entity must fulfill the following conditions in order to be called as a startup:

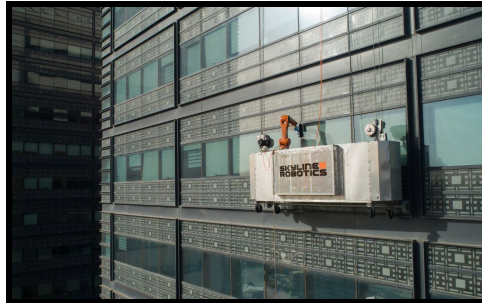
1. Period of existence and operations should not be exceeding 10 years from the Date of Incorporation
2. Should have an annual turnover not exceeding Rs. 100 crore for any of the financial years since its Incorporation
3. It is working towards innovation, development, deployment or commercialization of new products, processes or services driven by technology or intellectual property, or a scalable business model with high employment potential

1. KITE ROBOTICS



- Industry - Exterior Window Cleaning Industry
- Founder and CEO - Stefan Spanjer
- An estimate of less <10 employees.
- Year of Establishment - 2012
- Revenue - \$1M
- Global - Netherland

2. SKYLINE ROBOTICS



- Industry - Exterior Window Cleaning Industry
- Founder and CEO - Yaron Schwarcz
- Employees - 10
- Global - New York, USA
- Year of Establishment - 2017
- Revenue - \$2M

3. SERBOT AG :



- Industry - Exterior Window Cleaning Industry
- Revenue - \$600,000
- Founder - Anton Neiderberger
- Employees: <10
- Global - Switzerland, Stans
- Year of Establishment - 2009

4. ERYLON



- Industry - Exterior Window Cleaning Industry
- Year of Establishment - 2015
- Founder and CEO - Emmanuel Robert
- Employees : 7
- Global- France
- Revenue - \$1M

5. ECOPPIA



- Industry - Solar Panel Cleaning Industry
- Year of Establishment - 2013
- Founder is Moshe and the CEO is Eran Meller
- Revenue - \$3M
- No of Employees - 16
- Global- Israel

6. SVA ROBOTICS



- Industry: Solar Panel Cleaning Industry
- Year of Establishment : 2019
- Indian : Ahmedabad, Gujarat
- Founder : Rahewar, Jay Patel & Zaid Kesarani
- No of Employees - 3

7.FAT CAT Robotics



- Industry : Exterior Window Cleaning Industry
- Founder - Pratik Shivhare
- Year of Establishment - 2016
- Indian - Pune, Maharashtra.
- Revenue - 10lakh
- Employees - Less than 50 employee

8. AEGEUS TECHNOLOGIES PRIVATE LIMITED



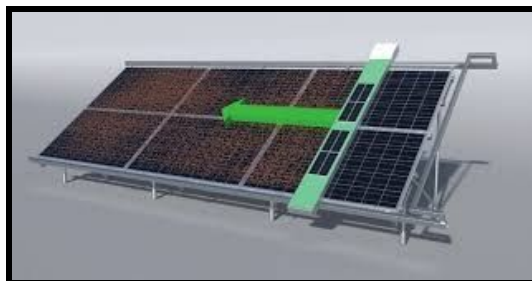
- Industry - Solar Panel Cleaning Industry
- Year of Establishment - 2017
- Co-Founder and CEO - Suraj Vernekar
- Indian : Bangalore, Karnataka, India
- Revenue - 1 lakh
- Employees : Less than 50

9. Milagrow Business and Knowledge Solutions



- Industry - Cleaning Solutions Provider
- Year of Establishment : 2012
- Founder : Rajeev Karwal
- Indian : Gurgaon, Haryana, India
- Employees: 26
- Revenue : \$5M

10.INDISOLAR



- Industry - Solar Panel Cleaning Industry
- Year of Establishment : 2009
- Founder and CEO - Sundar Nyayapathi
- Indian - Hyderabad , Telangana
- Revenue - \$0.9M
- Employees- 46

19/8/20 - Exercise 3

Exercise 3.1 -

REGULATORY BODIES:

International Window Cleaning Association ICWA (<https://www.iwca.org/>)

International Powered Access Federation IPAF - This federation actually trains and certifies people for using different types of powered access.

- Unfortunately, such certification is not done in India despite the wide usage of powered access throughout the country.

INDUSTRY BODIES:

- Federation of Window cleaners
- The window cleaners alliance
- The Worldwide Cleaning Industry Association and many more such bodies are mentioned in the link below..... <http://www.thecleansite.com/associations/>

The key market players are analysed with respect to India and as per sociology, the competition, types of customers etc depends on the context.

TARGETED CUSTOMER:

As overall our targeted customers are glass made skyscrapers and high rise buildings and specially in India a list of companies are:



1.CYBERTECTURE EGG,MUMBAI

Our customer are even extended to complex architectures and specially designed buildings

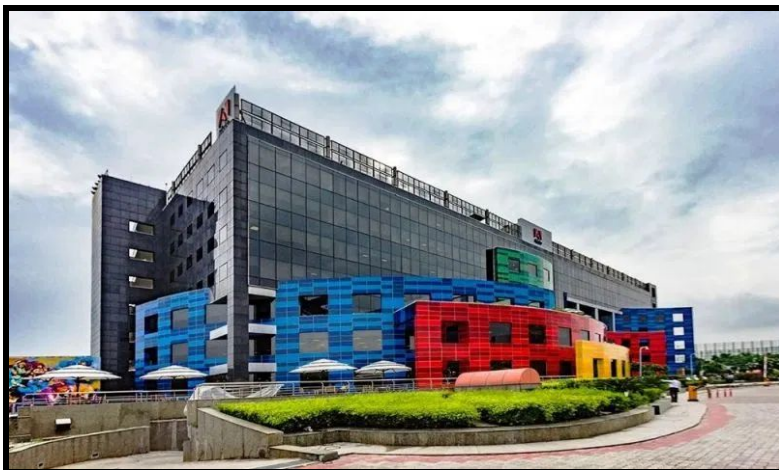
2.SOFTWARE DEVELOPMENT BLOCK,INFOSYS,MYSORE



3.INFINITY TOWERS,KOLKATA



4.ADOBE HEADQUARTERS,BANGALORE



Most of the tech companies are glass made structure and they become one of our main customers

5. TAJ ITPL HOTEL, BANGALORE



Many such hotels in India are made up of windows, glass panes and balconies.

6. WORLD TRADE PARK, JAIPUR



Many such shopping malls in India have many glass windows and decorations.

And many more.....

TOP FINANCIAL ANALYST WHO DID GREAT ANALYSIS IN WINDOW CLEANING BUSINESSES AND ITS GROWTH:

Ambaresh Baliga

Prakash Gaba

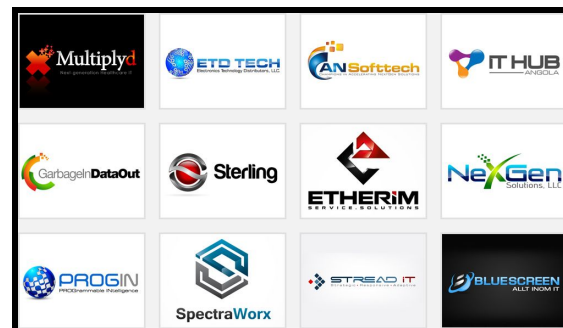
P.N Vijay and many more...

SUPPLIERS:

Raw Materials And Metal Suppliers: Eg Aluminium for the body and Stainless Steel for sturdiness and durability



Software Companies:



Electronic Components:

Motors : Delta manufacturing, Unipower, control technique, siemens etc.

Controllers : Texas Instruments , Amtel, Arm, Silicon labs etc.

Sensor: Emerson instruments, STMicroelectronics,Endress and Hauser, etc.

Solar panels (Renewable Source) : Adani Green Energy Ltd



COMPETITORS IN INDIA(LOCAL)

1.TechnoClean Services (I) Pvt. Ltd - Window Cleaning



2.Classic Maintenance Services - Reserved



3.Space Reach Private Limited -



And many more companies involving people,automation for cleaning

Exercise 3.3 -

Porter's five forces presentation -

<https://prezi.com/view/UcRmOXPP3TJdELhnYU8i/>

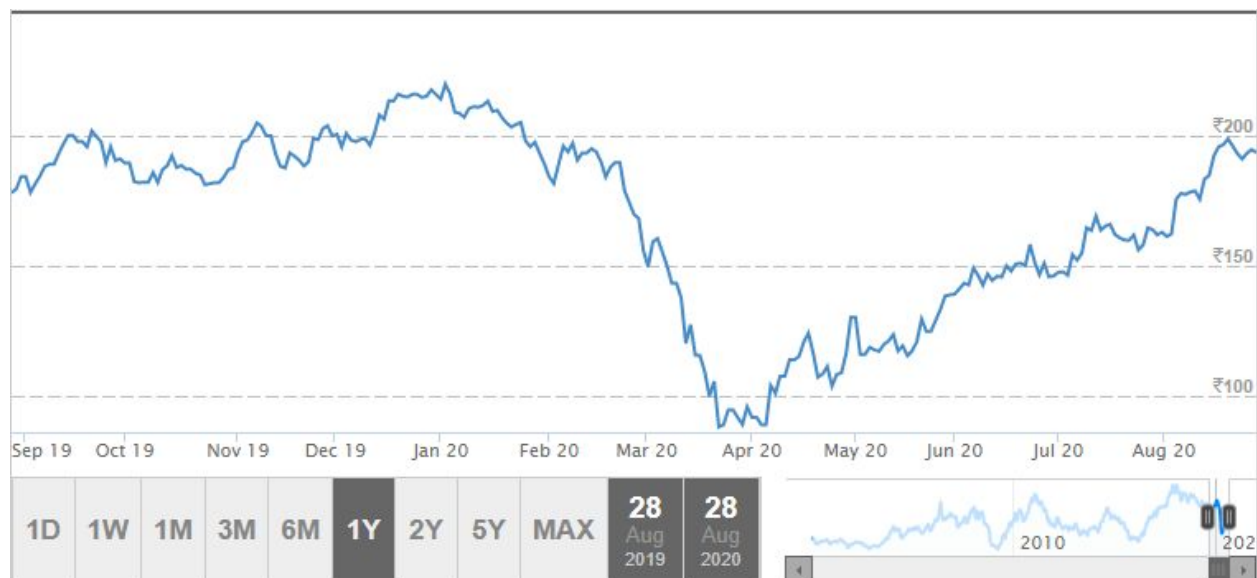
P. S. :- Press present and click next to view the entire interactive porter's five forces of our window cleaning industry and click on individual headings to view their subheadings

Exercise 3.2 -

INITIAL INVESTMENT PORTFOLIO AND ITS ANALYSIS:

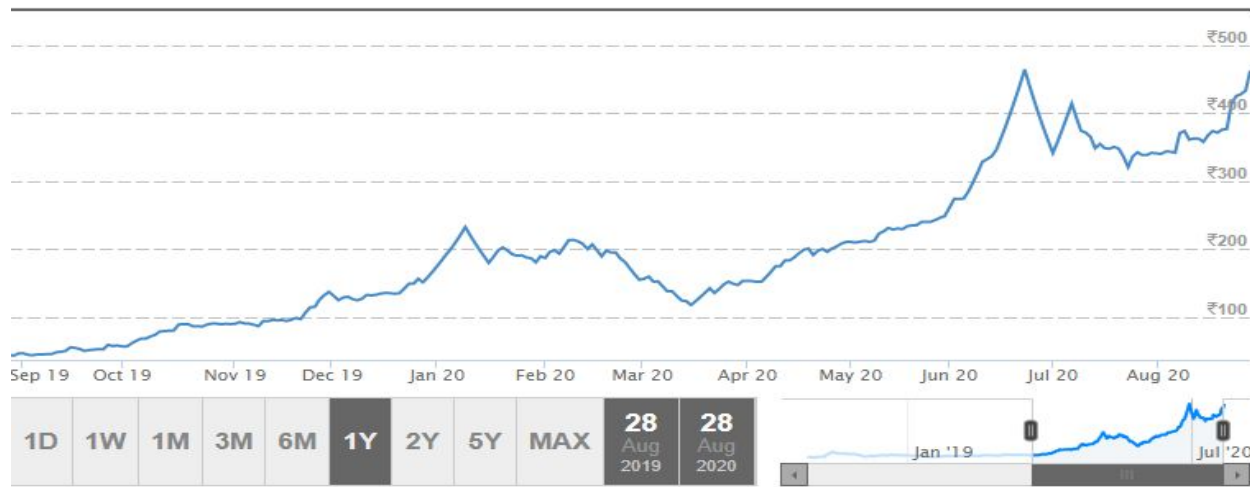
INVESTMENTS ON 20.08.2020

1.HINDALCO INDUSTRIES LIMITED - ALUMINIUM INDUSTRY



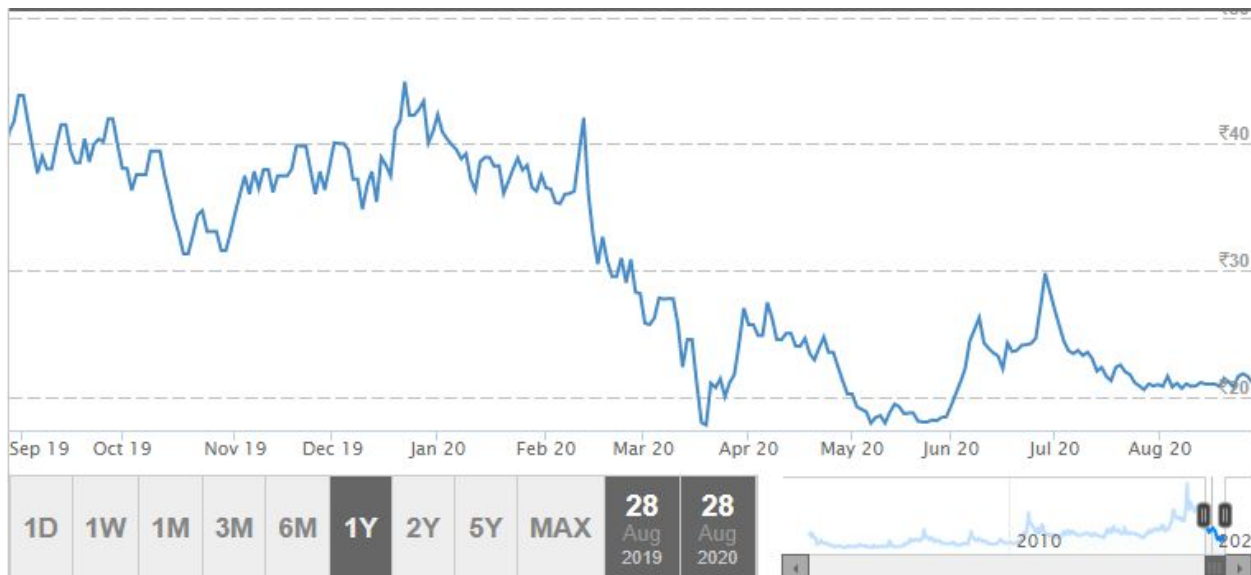
Having considered the trend for over 1 year we have invested in this aluminium company over the others since the company has done over the period of the pandemic with a constant rise in shares due to continuous investment and belief from its investors. Before the covid - 19 period it was visible that investment in the company was reliable and low risk with chances of high reward in the long run.

2.ADANI CLEAN ENERGY LIMITED



Adani Green Energy Ltd are potential suppliers of renewable backup sources for our bots. Witnessing the growth of stock price over a period of 1 year, the company proves to be worth investing. Having seek advice on online financial analysing platforms like moneycontrol they predict the company to be very bullish for the span of 3-4 months. These companies are not suitable for short term investment but they reap fruits for long term investments. It also seem the COVID-19 had less impact when compared to other manufacturing.

3.DELTA MANUFACTURING LIMITED

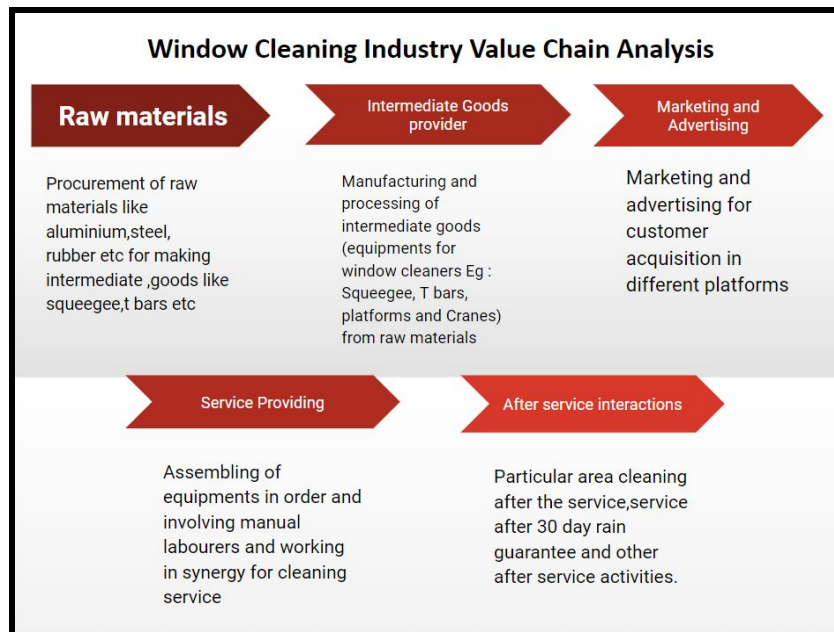


Delta Manufacturing Ltd is listed as a small cap company due to its low price of shares. It's a major competitor in the electronics industry providing various components essential for our product such as liquid cooling systems, motors, chipsets and much more. Observing the share price trend over 1 year we believe that there is opportunity for growth of the share to achieve its previous best high achieved before the Covid - 19 period. High risk is involved but we are sure we can see some high profit in the coming weeks.

COMPANY	SHARE PRICE AT 20.08.2020	NUMBER OF STOCKS	TOTAL INVESTMENT
Hindalco Industries Limited - Aluminium Industry(aluminium supplier mostly for the body of the bot and other parts)	Rs 199	19	Rs 199 * 19 = Rs 3781
Adani Green Energy Ltd. - Solar Panel Industry(Solar panel supplier for our renewable energy backup)	Rs. 375.40	11	Rs 375.40*11= 4129.4
Delta Manufacturing Ltd.(Suppliers for liquid cooling systems,motors etc)	Rs 21.45	97	Rs.21.45*97= 2080.65
Total	Rs 595.85 per share	127	Rs 9991.05

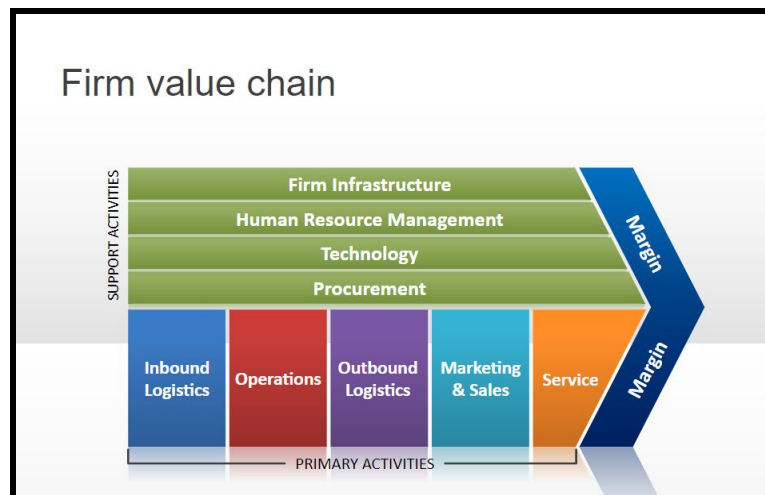
For current updates on our investment portfolio please click the google spreadsheet link below

https://docs.google.com/spreadsheets/d/1fyq_FfvxgD2fC9YnatWQIB5FrWjk7aaFoSTe2QwA-p8/edit?usp=sharin



- In the cleaning industry's window value chain, our firm fits in “**Service Providing**”.
- The cost as a whole is not reduced at a higher extent as compared to the manual window cleaning services.
- Here we embed a differentiation **advantage approach** where a differential advantage is when a company's products are seen as both unique and of higher quality, relative to those of a competitor.
- Rather involving automated robots for facade cleaning improves the quality, quantity as well as reduce the human risk at stake

The margin due to support Activities are included in the respective primary activity as subdivisions



Inbound logistics	Operations	Outbound Logistics	Marketing	Service
Motor: Selling Price - 4000/pc *4pc = Rs 16000 Wires: Single strand : 15/meter*2 meters Multiple strand : 30 / meter *5 meters Total Selling price : 180 Processor and Accessories: Selling price : Rs 3000 Aluminium and Steel : Selling Price : Rs 143.67 /kg * 10 Selling Price : Rs 300 a sheet for steel Total Selling Price - Rs 1736.7 Brushes - Plastic/ Biodegradable : Selling Price : Rs 1000/piece *4= Rs 4000 Battery : Selling price - Rs 1500 Vacuum Suction Pump : Selling Price - Rs 900 * 3 = RS 2700 Internal PVC Pipes : Selling Price - Rs 180/3m = Rs 90 Total Selling Price of Raw Materials : Rs, 27, 000	Workspace Rental : Rs 5000 Labour : Rs 1200 per person * 5 Electricity and Water bills : Rs 4000 Redesigning and engineering depending on Customer : Rs 5,000 Cost incurred : Rs 15000	Warehouse Storage : Selling Price - Rs 20 per/ft^2 * 400 ft^2 Total Selling Price - Rs 8000 Transport Vehicle - Mini Tempo including driver labour / hr : Selling Price - Rs 2000	Advertisement of Cleaning Service in newspaper : Selling Price : Rs 11000 Total Selling Price : Rs 1.3 Lakhs Hiring of Salesman to call appropriate customers : Selling Price - Rs 10000 per month Total Selling Price - Rs 1.2 lakhs	Investment : Rs 75, 000 per robot Expected Cleaning Service would require 2 to 4 robots hence a total investment will be around Rs 8, 50, 000 would be put in if the product excels. The entire cleaning process is expected to occur for 2 months depending on the customer building.
Total Selling Price : Rs 33, 000 Margin : Rs 6000	Total Selling Price : Rs 60 ,000 Total Margin : Rs 7, 000	Total Selling Price : Rs 75, 000 Total Margin : Rs 5000	Total Selling Price : Rs 3.5 lakhs Total Margin : Rs 25000 (profit made by advertising company)	Investments in Robot: Rs.75,000/bot Total Investment : Rs.8,50,000 Our selling price: Rs. 2,50,000 for two months

Manual Window cleaning Services are provided at Rs 3000 per day and depending on the building architecture takes around 4 months.

We will break even in 3 years and aim to make profit further. The entire cleaning process is

expected to occur for 2 months depending on the customer building.

Advantages Of Our Company as compared to Our Competitors :

- Involving automation in facade cleaning helps mainly in reducing the risk of human labours working at heights. And also it improves the overall efficiency and quality of the cleaning service
- Generally the wages for window cleaners and the overall payment for the service is calculated by hours of working using rough estimation by the service provider. By involving automated bots, the overall time for cleaning is reduced which is beneficial for both the customer and the service provider.
- In terms of customers, as the time reduces, the cost of cleaning as a whole reduces and as far as we are (service providers) are concerned, reduced time enables time for other customers creating more revenue.

Scope of this industry :

- Covid provokes the cleaning industry again since the perception of covid among people is that it can be prevented by keeping the surroundings/place clean hence thereby increasing the customers.
- The increase in the number of companies and shopping malls led to a rise in the number of high rise buildings which has increased our customer base.
- As time progresses we might start cleaning residential buildings as well, the rate at which the population is increasing, construction industry is forced on creating high rise apartments which can be witnessed in highly populated cities like Bombay hence this increases our customer base and allows us to tap residential cleaning.

Key characteristics and issues in Cleaning industry

- Inadequate attention to individual cleaning-Contracts on specific cleaning like window cleaning, floor cleaning individually are not given hence concentration towards the quality and efficiency for a particular cleaning is not taken into account.
- In manual cleaning, quality of cleaning is restricted

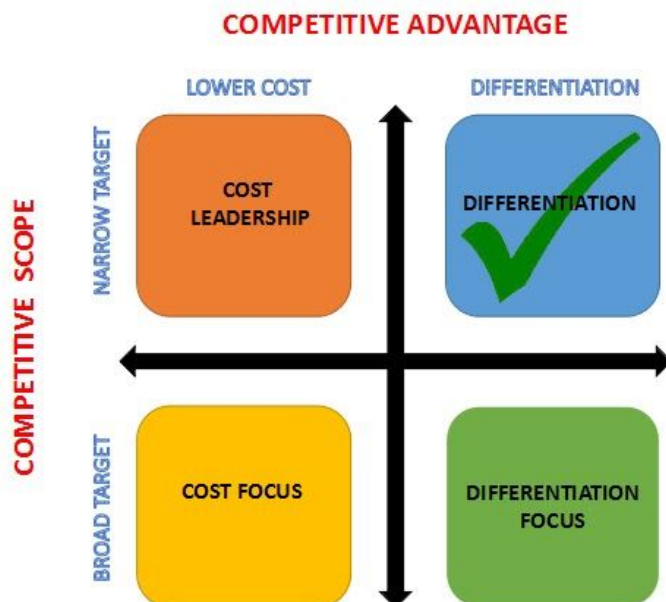
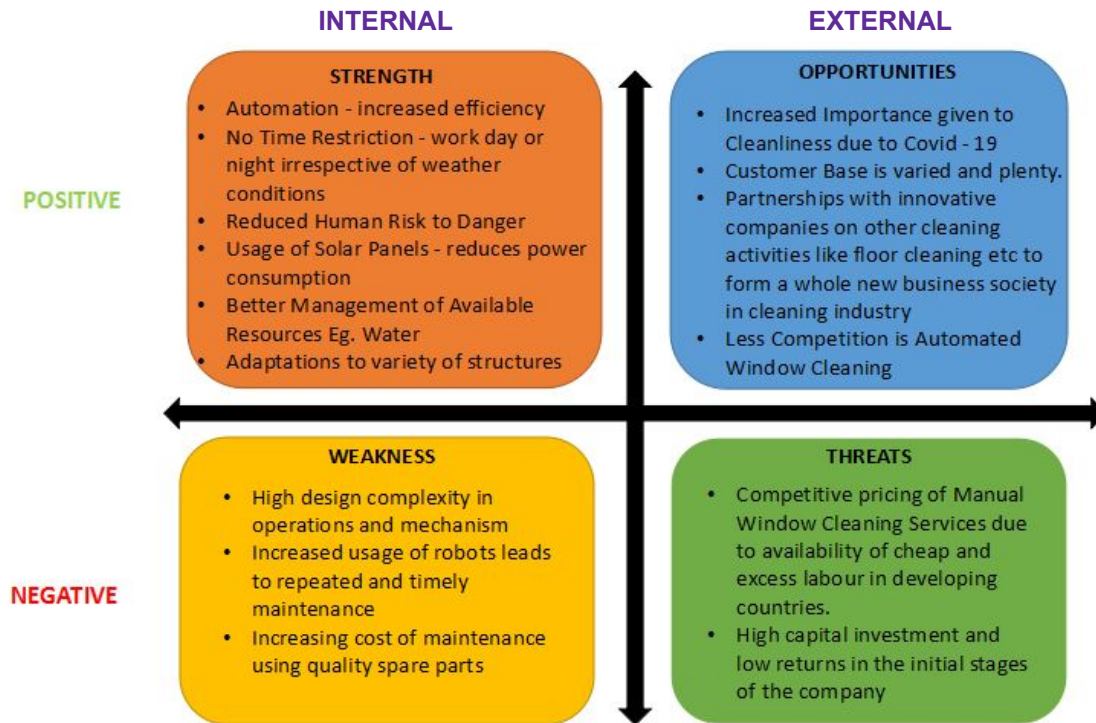
Marketing:

- Key differentiators are price, innovation and overall time of cleaning

Key characteristics and issues in consumer:

- Perception of quality “the glass that remains cleans for longer period of time is a good quality service”
- Price sensitive consumers

SWOT ANALYSIS

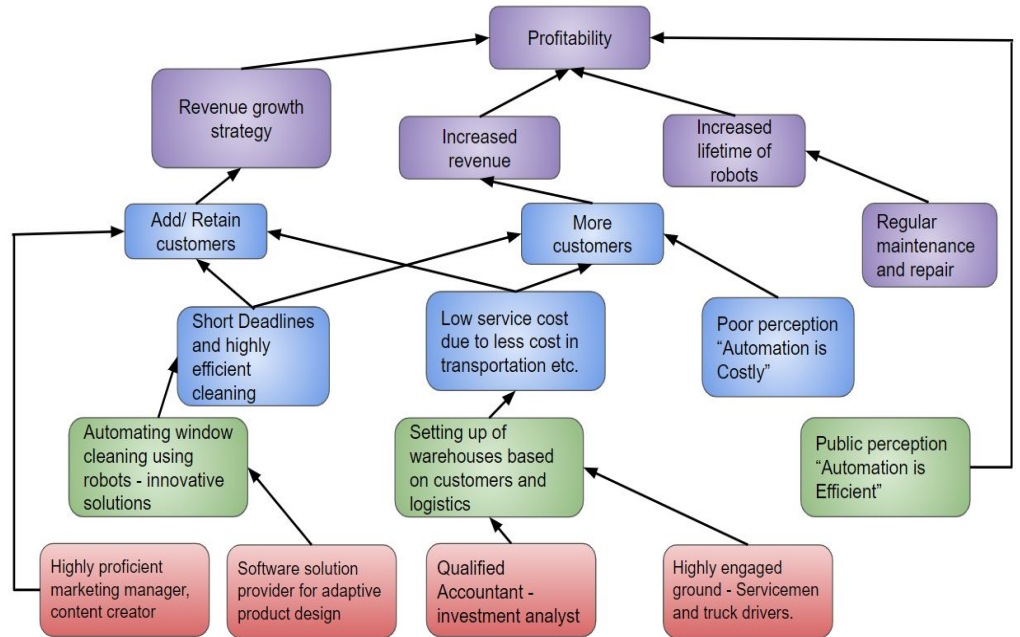


The cleaning industry is a very competitive one with many players. We are an external window cleaning company whose primary focus is to reduce the risk of manual labour involved in cleaning high rise buildings by introducing cleaning bots to increase the efficiency and quality of cleaning. However the cleaning industry is one where the needs of the customers are very specific and require a wholesome cleaning experience. They expect the service provider to provide a solution for all the aspects of cleaning. Since we are only providing high rise window cleaning service, our focus is what differentiates our product from the existing industry products and to enter into a partnership if required with other industry players to sell our service to customers. Hence we are tapping on the opportunities in the cleaning industry in the most cost efficient manner.

STRATEGY MAP

LEGEND:-

- **Strategic/functional results**
- **Customer based results**
- **Internal business process**
- **Organizational and employee capabilities**



Our company's strategy mainly focuses on providing automation in window cleaning industry making the process more efficient and cost effective when compared to existing competitor's solutions and also adding to this perception of public that "Automation is the efficient solution but costly" and beating the perception append to increased customer adding direct profitability and also setting up warehouses near the customer decrease the inbound logistics cost. Less cleaning time promise of our company also helps in retaining and adding customers to our customer base.

Manual Window cleaning Services are provided at Rs 3000 per day and depending on the building architecture takes around 4 months.