

LEAN START-UP MANAGEMENT PROJECT REPORT



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SLOT- TE1

Ride Cycle

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Business Model Plan



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1. Business model plan summary

Our project “Ride Cycle” is made focusing current environmental scenario and how important it is to stop it from degradation. Because of the rapid development of the urban populace, (individuals began utilizing more motorbikes, vehicles and numerous different vehicles.) Some major issues like natural contamination, car influxes and vitality utilization have expanded open centre, and have become issues far and wide that all urban areas in any nation need to face. It will profit the ordinary citizens by guarding their cycles. So first thought is to stop air pollution and a major part of it comes from air and it can be prevented if we switch our mode of vehicle for travelling. It will be great if we use fuel free or manual vehicles and best alternative to it was riding cycle. To motivate people to use eco-friendly bi-cycles we have thought of this bicycle rental company where people can rent the bicycles and use them. Charges will be very minimal. Everyone can afford them easily. At the point when we are considering leasing bicycles, there is a more noteworthy possibility of robbery. In this way, to limit that we will have particular shrewd locks that will be coordinated with the bike. Locks will be produced by us as it were and it will have all required features of being a smart lock. One can control the lock with the assistance of a committed application. Individuals can follow the specific area of the cycle by utilizing GPS introduced in the cycle. By this burglary will be diminished up as it were. Client needs to make a record and through the application, he can get to the bike. With the assistance of application can open the bike and use it for the same number of hours as he need, he will be charged by the hours utilized.

This project can be actualized in any side of the world. We simply need a spot for dealing with the rental bikes and we simply need to design our application as indicated by the spot. Be that as it may, basically we might want to have out spotlight on metropolitan urban communities as the group there is more and furthermore the contamination. So instead of using cars, bikes, etc, this can encourage them to use bicycles.

2. Business background

Ride cycle is vehicle rental company which will rent anytime and at any part of the city if the service is available in particular area. So thinking about the business of this company have lot of scope as we observe the scenario of the world. And more importantly this pandemic has modified every one mind to look towards again and conserve it as much as we can.

2.1. Company

Ride cycle company is an Indian bike rental company. We will have it's hub all around the country starting from that of the most populous cities to the remote areas. Our main object behind this company is to provide cycles at economical cost and full security by installation of smart lock. Company will have required stock of cycles which you can rent and move in and around the city. After riding you can keep it at your destination and from there the next nearest customer will pick it up and go for a ride. Now second important installation we did was smart lock which has global positioning system and have high level security. Basically, we will be making smart cycle locks using Arduino uno. These locks can only be unlocked by the registered user using their mobile phone and that will only be connected through Bluetooth. These locks make the cycle trackable and have the feature of navigation also. It will navigate our cycle if anyone steals it which will directly reduce the theft. The parking spots at different locations enable a user to park and cycle from one place to another and lock it back.

2.2. Industry

The industry in which our business is involved in is transportation. And talking about scope it is one of the most emerging sector. Every annual budget approx. 1.5 to 2 lakh crores is allotted to transportation sector. Currently if we look at the scenario government is serious towards environment restoration and so this cycle rental which is totally pollution free will have a long run in the market. We are committed to sharing our passion and knowledge for bicycles and the lifestyle through this smart lock mechanism and straightforward service that works for you and would help you in your day to day life making it easier and more efficient. We will continuously improve on our environmental endeavours and we are committed to sharing our passion and knowledge for the bicycle and the lifestyle.

our company will be a product based company whose primary purpose is to provide smart cycle lock and the secondary purpose to rent bicycle with smart lock system. As it is economical so in low investment we can start it and then after having a stand in the market and gaining customer trust we can make huge turnovers.

3. The crucial areas of the business model

3.1. Market attractiveness (offering – sector 1)

Due to the rapid growth of the urban population, (people started using more motorbikes, cars and many other vehicles.) Some serious problems like environmental pollution, traffic jams and energy consumption have increased public focus, and have become issues around the world that all cities in any country have to face. It will benefit the common people by keeping their cycles safe. It will likewise benefit the earth as an ever increasing number of individuals will begin utilizing cycles due to the expanded security. Ecological contamination brought about via vehicles and different vehicles will be reduced. Cycling is additionally a physical exercise which will benefit the users. It will benefit the traffic the board council since traffic will lessen when individuals begin utilizing cycles. The simplicity of acquiring these cycles on lease and holding them back will likewise build their utilization. So these are points which will pull the customers and make us stand tall in the market. We have to look after marketing strategy and develop an idea to put goal into action to convert our work to profitable success. Cycle with smart lock needs to make an impact first by renting in low rates and then when it has got some space in market we can go direct selling of cycles with smart lock.

3.1.1. The target market

Talking about fitness of products we need to look after two things:

- Traffic is expanding step by step in order to the contamination level. In the event that individuals are urged to utilize bicycles, at that point it will be valuable in both as far as their wellbeing and furthermore the contamination so, to spur individuals to utilize ecofriendly bi-cycles we have

Thought of this bicycle rental organization where individuals can lease the bicycles and use them. Charges will be insignificant. Everybody can bear the cost of them without any problem. At the point when we are considering leasing bicycles, there is a more

noteworthy possibility of robbery. Along these lines, to limit that we will have specific savvy bolts that will be incorporated with the bicycle.

- We need to setup the price such that our product must be affordable to the customers and it must also beat the contender's product. Cycle do not have much competition presently, but I can assure you that as per change in environment everybody will have to switch to cycles atleast for small distances. That time we will have competition but if we make a say in market with our innovation and such secure features in vehicles, then obviously we can have an edge over others.

Target customers

When we have thought of target customer in our business we have come to following points to be taken care of

- Our market should be in area where literacy rate is high as we need majority to be concerned about environment and then only we can have a position in the market. An illiterate person will never invest extra money to get high security and tracking system. Only and only working and literate class can know the importance of safety and nature conservation.
- We need to look for metropolitan cities because they will be first to copy foreign trend where company ceo also use cycle to go to workplace.
- An area where people are concerned about their health so they ride cycle as to remain fit and healthy.
- Mostly we are directly connecting to customer so we have no mediators for our business to run so we need to look for customer comfort and changes they want as to gain a place in market.

3.1.2. Market research and analysis

Ride cycle basically needs cycle supplier or even second hand cycles and smart lock. So our research will be limited to that. We prepared questionnaires which gave us idea about how to plan it in the market. After getting 63 response on the survey we concluded it.

Conclusion on the survey:

- Majority(71.4%) are ready to pay 1500 if we make the vehicle more secure.
- Only few people are not irritated of air pollution and will not switch to cycle for local work.
- 76.2% were in support of the odd even rule , so even RideCycle can influence people.
- Only 12.9% were not ready to pay for renting cycles so there is scope of renting cycles.

a) Smart lock rate comparison:

Cost of link lock = $169 \times 70 = 11830$ INR

Cost of chain = 2100 INR

Overall cost = 13930 INR

b) Features:

- 1) grant remote access to your bike to family and friends
- 2) as long as you have your phone with you, simply approach your bike and it will automatically unlock.
- 3) to lock your bike, simply double tap the power button on the lock.

c) Smart Lock:

Overall cost = 1500 INR

Features:

- 1) it has GPS Positioning system inbuilt in it to track it anytime and anywhere.
- 2) keyless unlocking facility.
- 3) much cheaper than link lock.

d) Renting Vehicle Rates

Low cost cycles(5000-9000 INR) -

For a hour- 10 INR

For a day – 200 INR

High cost cycles(10000-15000 INR) -

For a hour- 20 INR

For a day – 300 INR

e) Daily Analysis:

Daily hired cycle:30

Average rate:15

Average hours hired:5

So total cost: $30 \times 15 \times 5 = 2250$ INR

And repairing the used vehicles , air pumping , lubricants cost – 500 INR

So total profit- 1750 INR

In a month – 52500 INR

Rent cost- 15000 INR

Target of paying interest of 30 cycles we bought- 5000(2500 principle amount +2500 compound interest)

So total profit- 32500 INR

3.1.3. Marketing plan and strategy

As we all know, if we are in the business sector, there are always competitors present in the market and it is necessary to maintain our position in the market and always be ahead of our competitors. We are only going to manufacture locks in India, then at the Indian level, there are not too many competitors. All bicycle manufacturing companies produce simple locks. That is, they are not producing smart locks. But at the same time our aim is to replace that lock with a smart lock in a cost effective way. In India, if you want a smart bicycle, you have to import from china or some other country like japan or France. These countries are producing smart bicycles. So in India, we do not have too many competitors. Thus we can start our business easily without any hindrance.

Marketing strategy includes four p's which look like product, pricing, promotion and placement.

- **Product**:- We have to look that whether our item is acceptable or we need a few alterations. For our situation as item is cycle with savvy lock so it will furnish full security with expansion of 1500 to it.

- **Pricing**:- We have to arrangement the cost with the end goal that our item should be reasonable to the clients and it should likewise beat the contender's item. Cycle don't have a lot of rivalry by and by, yet I can guarantee you that according to change in condition everyone should change to cycles at least for little separations. That time we will have rivalry however on the off chance that we make a state in advertise with our development and such secure highlights in vehicles, at that point clearly we can have an edge over others.

- **Promotional**:- We have discovered numerous approaches to get greater exposure. "practice environmental awareness ,utilize solid vehicles." why sound?? As solid individuals long last and look fit same goes with cycle which will keep going long because of its shrewd lock and make u sound also by causing you to do physical exercise.

- **Placement**:- We need to focus on the correct clients at the perfect spot so as to expand the quantity of clients. Truth be told it ought to be begun with urban areas with most extreme contamination like Delhi where resident are seeing the exhaust cloud as an issue and they will truly know the significance of halting contamination and reconstructing condition. On the off chance that everybody in that separate city, the capital advance up for that, i am bit certain that it will require some investment in having an effect in each side of our nation.

3.1.4. Marketing plan

a) To build a target audience :

First is by approaching to customers and acknowledging about it's environmental advantages. Will design poster and share it on social media.

b) **Coupons distribution and free repairing services:**

In the initial stage , i will release free 1 year repairing services to consumers who brought 10 members through their contact. As an example if someone rented cycle for 3 hours but if due to mini accident cycle brakes ,handle get damaged then also we will repair it for free.

Why not paid advertising?

Because there is no much profit in initial stage. There is very less margin so firstly we need to build the audience then only cycles with smart lock can stand tall in the market.

- c) **Web showcasing:** Vendors sell legitimately to purchasers at retail costs, or business to-business items and administrations at discount costs by means of the web. This moreover incorporates online networking, for example, twitter, face book, LinkedIn, and so on.
- d) **Publicizing:** Web advertisements, magazines, sponsorship. We can popularize the slogan like "Ride Cycle is the new cool" which may change everyone sentiment to look cycle as vehicle for those who cannot afford fuel vehicles
- e) **Networking:** This incorporates trade shows, joining industry associations, visiting industry morning meals/luncheons. We can tie up with rental sites to popularize it. We shall try to meet with government bodies and tell about such plans so that we can get fund for such initiative.

We have idea of starting it from most polluted city Delhi. If we open a bicycle rental shop for the people in the city with high security smart lock it can be great start-up. Even in cities like Delhi even if government witness such great initiatives they will come forward too. We can provide them perks like low cost rent , in case of cycle theft we will be taking responsibility and also provide discount coupons if you bring new users.

3.2. Unique Value Proposition (UVP) (offering –sector 2)

A unique value proposition (UVP) is the core benefit or solution that differentiates your product or service from the competition and positions it as the best possible option on the market. UVP is a clear statement that describes the benefit of your offer, how you solve your customer's needs and what distinguishes you from the competition. Your unique value proposition should appear prominently on your landing page and in every marketing campaign.

3.2.1. Products and services

Our company will be a product based company whose primary purpose is to provide smart cycle lock and the secondary purpose to rent bicycle with smart lock system. The design of the lock takes style into consideration. Smooth surfaces and softer edges, with horseshoe design. We will also going to provide different colour options according to the colour of the cycle. It is a rare combination of brain and beauty. Faster searching and locating speed realizes more accurate cycle locating. Advanced manufacturing technology and severe temperature tests ensure its durability.

And on the other you get cycles at very economical rate with a year of free maintenance if you are early member. You need not to submit vehicle back at renting shop ,all you need is to keep it parking lot nearby your destination. So overall you get a cycle rented with total security responsibility with which you can roam all around the city freely.

3.2.2. Competition

As we as a whole know, on the off chance that we are in the business part, there are consistently competitors present in the market and it is important to keep up our situation in the market what's more, consistently be in front of our competitors. We are just going to produce locks in India, at that point at the Indian level, there are not very numerous competitors. All bike fabricating organizations produce straightforward locks. That is, they are not creating shrewd locks. And yet our point is to supplant that lock with a brilliant lock in a financially savvy way. In India, on the off chance that you need a savvy bike, you need to import from china or some other nation like japan or France. These nations are delivering shrewd bikes. So in india, we don't have an excessive number of competitors. Along these lines we can begin our business effectively with no obstacle.

Few other points are:

- There can be people who will prefer bike rental nearby because it requires less manual energy.
- Sometimes there can be overcrowding while booking on app or site which can lead to dissatisfaction of customers and we need to compete in the market.

3.2.3. Brand

The business we are going to start has not been started in India yet, but it is already being proved in some countries like china or japan. We want this to implement in India for getting smarter. The lock which we are using is outdated in many of the countries. Using such lock, we will also improve in technology. By setting up company for smart lock, somewhere it will also increase the employment in the society, reduces the poverty. If we talk about the contestants, then said that there are not too many competitors in India. So we will not face any kind of issue while launching our business prototype in the market.

The smart lock is a special kind of lock which provides key-less unlocking facility using mobile application, for the registered users. Apart from giving theft protection to the cycles, these lock have features like navigation and alarm.

Points which will make it a brand are as follows:

- We provide a site which will tell you nearest cycle you can take for rent and take it for unlimited hours in very economical rate.
- The smart lock will provide tracking facilities with high security.
- It will conserve our environment and will decrease pollution in the overcrowded cities
- It will keep people healthy and fit which is best thing to keep one motivated to use our company

3.3. Revenue model(Monetization -Sector 1)

3.3.1. Margins

At initial stage, the your start-up will requires Rs.12,00,000 of debt fund . Below is a breakdown of how fund will be used:

Projected start-up cost	INR
Working capital	8,50,000
Legal requirements	20,000
Marketing budget	1,00,000
Security deposits	80,000
Miscellaneous & other	1,50,000
Total start-up cost	12,00,000

- Cost per lock 1500
- Cost per cycle 5000

On the initial stage we are planning to begin with 100 cycles and 4 spots as 25 cycles per spot.

3.3.2. Cost advantage

We have done daily analysis of cost advantage. All rates are finalized after doing a research in the following sector.

Daily hired cycle:30

Average rate:15

Average hours hired:5

So total cost: $30 \times 15 \times 5 = 2250$ INR

And repairing the used vehicles , air pumping , lubricants cost – 500 INR

So total profit- 1750 INR

In a month – 52500 INR

Rent cost- 15000 INR

Target of paying interest of 30 cycles we bought- 5000(2500 principle amount +2500 compound interest)

So total profit- 32500 INR

3.3.3. Finances

Sources of funds

Sources of fund	INR
Owners fund	10,00,000
Loan from bank	2,00,000
Total financing	12,00,000

Break-even analysis

A break-even analysis shows your lender that you know the point at which you will start making a profit. While the break-even analysis is primarily for businesses making or selling products, it can also be useful for service-type businesses. Be sure to include a break-even graph, and be able to explain.

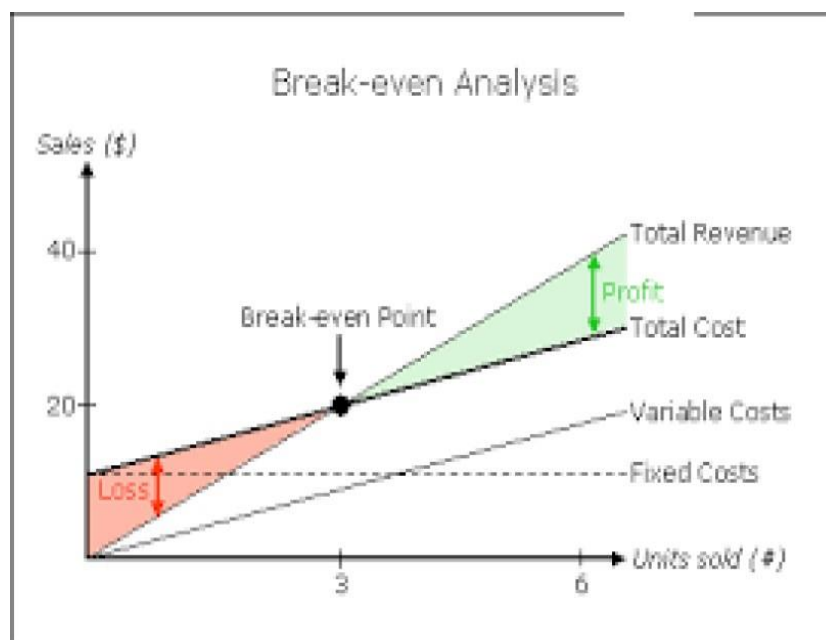
There are a few basic formulas for determining a business's break-even point. One is based on the number of units of product sold and the other is based on points in sales dollars.

To calculate a break-even point based on units: divide fixed costs by the revenue per unit minus the variable cost per unit. The fixed costs are those that do not change no matter how many units are sold. The revenue is the price for which you're selling the product minus the variable costs, like labour and materials.

Break-even point (units) = fixed costs ÷ (revenue per unit – variable cost per unit)

When determining a break-even point based on sales dollars: divide the fixed costs by the contribution margin. The contribution margin is determined by subtracting the variable costs from the price of a product. This amount is then used to cover the fixed costs.

Break-even point (sales dollars) = fixed costs ÷ contribution margin



For our business:

Fixed cost will be around 5,000 per month.

Now we have assumed that we can at least provide 60 services per day which costs rs 20 for 1 hours. If the number of hours increases than we charge rs. 10 per hour. So our net amount per day initially will be 1,200 and hence monthly it will be around 36,000. So, our break-even point will be when we at least sell 60 services per day.

Profit and loss statement/income statement

After you have completed the monthly budget and gathered some other information, you should be able to complete a p&l or income statement projecting your income for the first year. This statement shows your profit for the year and how much tax you estimate having to pay.

Sources and uses of funds statement

Large businesses use sources and uses of funds statements in their annual reports, but you can create a slightly different simple statement to show your lender lenders exactly how much you need for start-up and working capital (on-going cash needs), how much collateral you will be bringing to the business, and how much you need to borrow. In other words, how much you need and what do you need it for.

Start-up profit and loss statement vs. Balance sheet

A profit and loss statement shows the activity in a business over time. That is, what was the income and what were the expenses over that time? A balance sheet, on the other hand, is a snapshot of the business financially at a specific point in time. Since a business is ever-changing, both statements are needed to give a complete picture of the financial status of the business.

For a business start-up without a history, the profit and the profit and loss statement and sources and uses of funds statements are "pro forma," that is, they are projecting into the future. The balance sheet shows the position of the business as of the start-up date, including what has actually happened to the current stage of start-up and what will happen before the date the business starts.

Steps in preparing a business start-up balance sheet

All the calculations in this spreadsheet are done as of the date of start-up.

First, list the value of all the assets in the business as of the start-up date. This includes cash, equipment and vehicles, supplies, inventory, prepaid items (insurance, for example), value of any buildings or land owed. (usually accounts receivable are included as an asset, but since the business has not started, there should be no amounts owed to the business).

Show the amount of the total assets on the left side.

Next, list all liabilities (amounts owed by the business to others), including business credit cards, any loans to the business at start-up, any amounts owed to vendors at start-up. Add up the total liabilities.

The difference between assets and liabilities is shown on the right side of the balance sheet as "owner's equity" (for an unincorporated business) or "retained earnings" (for a corporation).

This amount is our investment in the business.

Assets = liabilities + stakeholder's equity

Above is the most important accounting formula that needs to be kept in mind while making the balance sheet for any business. Review of the balance sheet is very important if someone wants to know more about the company or buy a stock of the start-up for making a profit.

A simple start-up balance sheet as of march 2020

Assets (in Rs.)		Liabilities and owner's equity	
Cash	80,000	Capital	10,00,000
Inventory and miscellaneous	1,50,000	Loan & long term liabilities	2,00,000
Fixed assets	8,50,000		
fictitious assets	1,20,000		
	12,00,000		12,00,000

An analysis of this balance sheet shows that the owner has contributed rs 10,00,000 in equity (mostly in cash and furniture/fixtures) toward the start-up of the business. The business is requesting a loan in the amount of 2,00,000

This money was spent on initial cash of 80,000, an inventory of products to sell of 1,50,000, etc.

Offsetting the assets are the liabilities and owner's equity. The long-term liabilities and loans of 2,00,000 . Notice how the liabilities and owner's equity are tied to specific items in the asset column.

This balance sheet gives a lender the picture of the position of the business as of the start-up date. Preparing a balance sheet is a complicated, and you may want to get a cpa to help with this exercise.

3.4. Sales model (Monetization – Sector 2)

3.4.1. Sales forecast:

- Firstly, to convert the marketing strategy and launch the developed model in the market successfully, the basic pricing approach will be to launch the cycles at a fairly low price so that it is easily affordable and available to everyone as the targeted audience involves a fair amount of children as well as old people. So, pricing the fares at high rates would be a hassle in the growth and expansion of the desired project.
- As the prices of u-lock smart cycle are compared to the already existing similar businesses which are not exactly same, but might have a chance of being compared in

the market, the prices of the “u-lock smart cycle” would be fairly less than the already existing “Yulu cycles”.

- This would definitely prove to be beneficial for us as we have more to offer that too in lesser price.
- The competition in market does occupy a very important place in the market as being compared to an already existing product and proving to be better would be a cakewalk for our product.
- With the increase in sales, the company would be requiring continuous and constant development and growth strategies which have already been listed in other sections of the report.
- The constant addition of workforce with respect to the increasing sales would also be an important aspect in the growth of the idea that has been put to wheels.
- As we proceed with the business plan, after a while the renting of cycles would also be added by the selling of the unique “u-lock smart cycle” which requires advertising in numerous ways that target and appeal to the desired audience.
- This is how the sales will be proceeded with by the panel of our hardworking and skilled sales team which consists of members who are experts in their respective fields of expertise.



- The pricing strategy is based on the earn and develop approach which clearly means as the sales go higher; the revenue will be used primarily in the development of better technology and ideas.

3.5. Sustainable Competitive Advantage

- The primary reason for choosing this strategy narrows down to the constant research and development to produce better products and continuous innovations so as to cope up with the never ending expectations and demands of the customers which is the most important persuading factor for any company to give its best performance and launch the best products in the market.
- The primary challenge for the company would be to store and encourage the long-lost trend of bicycles but in a manner that would be better accepted by the newer generation which is all about gadgets like smartphones.
- This is an ever growing business which just needs the acceptance of society in its initial stage so the demand and need of skillful and talented workforce is everlasting.
- Future similar products and the already existing ones would bring a competition in the market but won't pose a threat to the company because of its unique approach in the development of the products.
- Some key factors that would prove advantageous for the product and the company will be :-
 - The versatility and flexibility of location throughout the country
 - The achieved copyright of the idea and the unique technical knowledge
 - Interesting offers as the older customers join our family
 - Leveraging the relationships to their best use
 - High quality products offered at the lowest price

3.6. Innovation Factor

- Constant research and development regarding the product as well as the application with an 'open to all' structure of discussion and to think out of the box will make it an area of constant innovations and variable ideas.
- The promotional methods to gain more publicity will go by the motive 'go green, use healthier vehicles'.
- For exponential rise in the sales after the testing of the product will be to target the right customers which mainly involve children and people belonging to the old age group.
- Moreover, the rightful cities where the product should be launched will be the ones with the maximum pollution in the country like Delhi, Chennai, Mumbai, Bengaluru etc.
- Retail stores which are selling normal bicycles straightaway to clients won't sell it for less than 2000 with prices going as high as 10000-15000 which would completely go into their business motive.
- Subsidization of these cleaner vehicles is an important step towards keeping the levels of global warming controlled with increasing urbanization.
- Innovative customer offers like merchants who take orders in big number get additional few percent profits. Also, the existing users can use their referral codes to share with the new buyers for more exciting offers.

- Socializing and publicizing by means of social media handles, for example, twitter, Facebook, and LinkedIn and through advertisements promoting the use of cleaner vehicles.
- We can popularize the ‘u-lock smart cycle’ and also the slogan ‘*RideCycle is the new cool*’.

3.7. Avoidance Of Pitfalls

- The main challenges the business can face are well-known and more or less all the means to curb them down have been adopted.
- This idea does not pose a location handicap as such because a bicycle is something that can prove to be useful at all the places.
- Here, the government’s rules and regulations won’t be a hindrance because our government would only make rule in the favor of bicycles.
- The team of management of the product has already being well versed and thought about all the factors that might pose as challenges.

3.8. Graceful Exit

- All the plans regarding the issues that have a higher chance of occurrence have already been thought about and control and safety measures have already been put into place.
- Moreover, the various wear and tear problems have been considered and regular assessments and innovations to reduce it will be given utmost importance.

4. Operational Overview

○ Labor

“in the end, all business operations can be reduced to three words: people, product, and profits.”

— lee iacocca

As lee iacocca said, our lean start-up company ride cycle is for the people and the people in it. Our vision is to provide quality service to the peoples when they go to the new city or some new problem arise due to some drastic circumstances. We are always there for help and that’s the motto of our company.

Our main aim is to provide services not to make money. Ride cycle is a new friendly and fun place that offers everything for a dollar or less. Our main goal is so achieved customer satisfaction and happiness.

As money making is concerned, we will have different strategies.

We will enforce commission from the worker who has his advertisement on our app. We will have advertisements on our app to make money. Even after that we will use investors' money to make profit. Even different companies can approach to provide services on behalf of their company, and we can charge for that services. It is great platform to give jobs, we have job section in which anybody can provide its resume and get job opportunities. And even we can charge for that too. House selling and different opportunities will be provided in the near future. We use several methods to market our business. This business is new and we feel like we need to get the word out about it. We decided to use radio advertising on the local stations in several different genres. The reason is because it will reach a large amount of people at a considerable cheaper price than tv advertising.

We also used classified and small space ads in local publications. We placed them in all of the local major publications and several smaller ones in this area.

○ **Locations**

Business location: the service provided by us is solely internet based. Initially our start-up will be operated from the house of one of the founding members living in Vellore as there are many students living in PG who can be potential clients. Vellore being a smaller place as compared to a metropolitan city will be cheaper to first test out app. Depending upon the performance of the app, we will initiate the expansion of the start-up to different cities of India.

Being in the right location is a key ingredient in a business's success. If a company selects the right location, it may have adequate access to customers, workers, transportation, materials, and so on. Consequently, location often plays a significant role in a company's profit and overall success. A location strategy is a plan for obtaining the optimal location for a company by identifying company needs and objectives, and searching for locations with offerings that are compatible with these needs and objectives. Generally, this means the company will attempt to maximize opportunity while minimizing costs and risks.

A company's location strategy should conform with, and be part of, its overall corporate strategy. Formulating a location strategy for our start-up typically involves the following factors:

- **Facilities:** facilities planning involves determining what kind of space a company will need given its short-term and long-term goals.
- **Feasibility:** feasibility analysis is an assessment of the different operating costs and other factors associated with different locations.
- **Labor:** labor analysis determines whether prospective locations can meet a company's labor needs given its short-term and long-term goals.
- **Community and site:** community and site evaluation involves examining

whether a company and a prospective community and site will be compatible in the long-term.

- **Governmental regulation:** companies also may face government barriers and heavy restrictions and regulation if they intend to expand into other countries. Therefore, companies must examine governmental—as well as cultural—obstacles in other countries when developing location strategies.
- **Incentives:** incentive negotiation is the process by which a company and a community negotiate property and any benefits the company will receive, such as tax breaks. Incentives may play a significant role in a company's selection of a site.

The service provided by us is solely internet based. Initially our start-up will be operated from the house of one of the founding members living in Vellore as there are many students living in PG who can be potential clients. Vellore being a smaller place as compared to a metropolitan city will be cheaper to first test out app. Depending upon the performance of the app, we will initiate the expansion of the start-up to different cities of India.

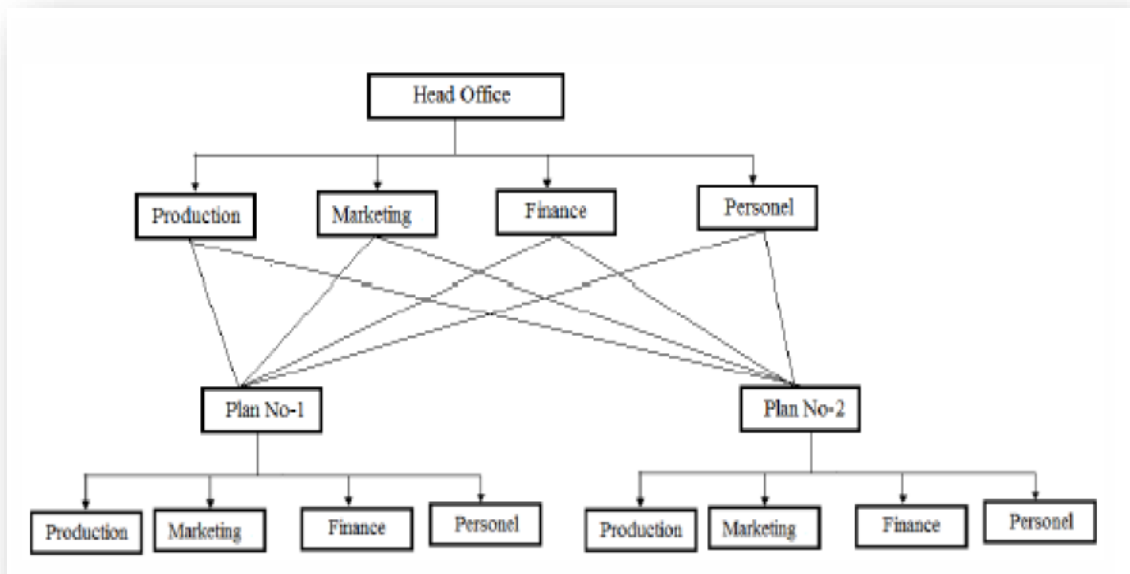
○ **Licenses and permits**

Every start-up needs to obtain a number of licenses and permits from the federal, state and the local government. As licenses and permit requirements may vary according to the type, size and location of the business, it is critical to contact the state and the local government to determine the specific obligations of the new business. The following are a list of permits which has to be acquired prior to the business and its operation:

- **Basic business operation license** which is required to know if the business will be operated within the city or outside the city limits.
- **Federal employer identification number** which is required for any business to get an Identification number for taxes from the state's revenue department.
- **Business name permit** which is required for the name of the business.
- **Land use permits** which is required for home-based business operations.
- **Sales tax license** for the sale and the availability of the services.
- **Privacy and copyright laws** for online advertising, marketing and copyright laws.

5. Appendix

5.1. Organizational chart



Our organization is divided into number of functional unit such as finance, Research, development, marketing, personnel, security etc.

- Head Office:

Where CEO or owner sits and analyses the work of the subordinates. And all the Report gets listed there.

- Production:

Production team deals with the product and output work. Mainly contains of Labours that produce the materials.

- Marketing:

All the marketing and publicity work comes under this section. Also comprises Of editorial team.

- Finance:

This section deals with money. Profit – loss, expenses, etc.

- Personnel:

Public relation officer and hr works here that deals with internal and external Issues.

- Research And Development:

.

5.2 Products And Services

Product	Description	Price
Smart bike	Smart bike can be rented by any person through the app using internet and Bluetooth connectivity. Rental prices will vary according the usage hours.	<ul style="list-style-type: none"> • First 60 min – Rs. 5 • Every extra 30 minutes after the first 60 minutes - Rs. 9 • 3 month pass - rs.700 • 1 month pass – Rs. 250 • 1 day pass – Rs. 50
Smart lock	Smart lock will be installed on the smart bike which has got GPS for tracking and the Nike can be locked and unlocked using the mobile app.	Not for sale(only for the company usage)

5.3 Swot Analysis

Strengths	Weakness
<ul style="list-style-type: none"> • Interoperability and multifunctional 	<ul style="list-style-type: none"> • Needs time to recharge when the battery gets drained
<ul style="list-style-type: none"> • Fast communication and transaction 	<ul style="list-style-type: none"> • Lack of charging infrastructure
<ul style="list-style-type: none"> • High security standards 	<ul style="list-style-type: none"> • Battery change is expensive
<ul style="list-style-type: none"> • Companies cloud better target the market needs 	
<ul style="list-style-type: none"> • Low cost 	
<ul style="list-style-type: none"> • Ease of use 	
Opportunities	Threats
<ul style="list-style-type: none"> • Government subsidy for ownership 	<ul style="list-style-type: none"> • Rise in the cost of manufacturing
<ul style="list-style-type: none"> • No congestion charge 	<ul style="list-style-type: none"> • Expensive electric components
<ul style="list-style-type: none"> • Lower taxes 	
<ul style="list-style-type: none"> • Increasing fossil fuel costs 	

5.4. Competitors

Competitor	Established date	Size (approx.)	Market share	Value to customers	Strengths	Weaknesses
Smart bike	2014	700	10	Convenience	Marketing strategy	-----
NextBike	2016	500	5	Quality	Low manufacturing cost	-----
Cycle now	2011	1050	15	Price	Ease of use	-----
Mobee	2015	350	11	Service	Highly secure	-----

5.5. Sales and Distributions Channels

Channel type	Products	Percentage of sales	Advantages	Disadvantages
Internet	Smart bike	80	Hassle free	Low internet connectivity are may face problems
Shopfront	Smart bike	22	Get easy access	Drop should be at the shop only.

5.6. Start-up costs

Start-up costs	Price
Business registration/trademarks/designs/patents (legal fee)	15000
Domain names registration	1000/year
Internet connection and server hosting	20000/year
Office initial setup cost (includes workstation, computer equipment, software cost)	100000
Stationery & office supplies	10000/month
Office rent	15000/month
Utility connections in offices (electricity, gas, water, phone)	
Marketing (online/offline)	10000
Each initial cycle cost	5000 - 15000
Rent for cycle station (n)	N * 5000
All cycle monthly maintenance / service	5000

Employee wages + benefits	100000

5.7. Break-Even Analysis

Timeframe (monthly)	Price
Cycle each hourly price	20
Initial investment (50 cycle one city)	200000
Monthly recurring cost	150000
Minimum hours to sell to meet monthly expenditures (break even)	7500
Avg hours to make profit and recover investment	1000+
Profit at 1000+ hrs	50000

5.8. Risk Analysis

Risk	Likelihood	Impact	Strategy
People might steal the product	Likely	High	Using gps tracker and maintain all customer details
Internet connectivity is less in remote areas so cycle won't be able to update location to database	Unlikely	Low	-
Gps accuracy reduces with cloudy weather so can't update location in database	Unlikely	Low	-
Electric component might malfunction	Highly unlikely	Medium	Periodic checking of components and servicing
People might break the product	Unlikely	High	-

5.9. Supporting Documentation: Application



FIG 1.1 LOGIN WINDOW

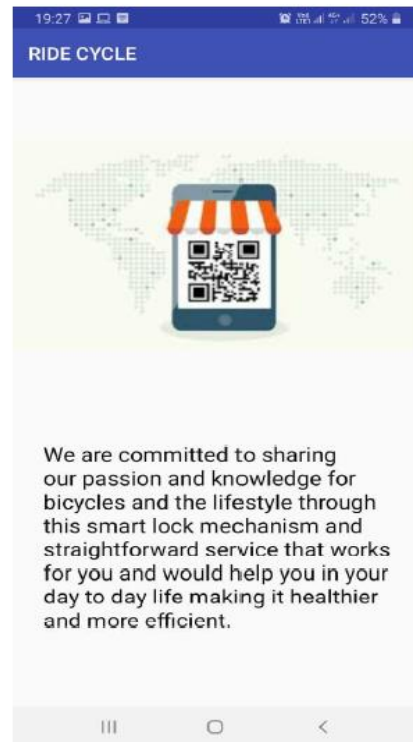


FIG 1.2 MAIN WINDOW

EXPECTED OUTPUT

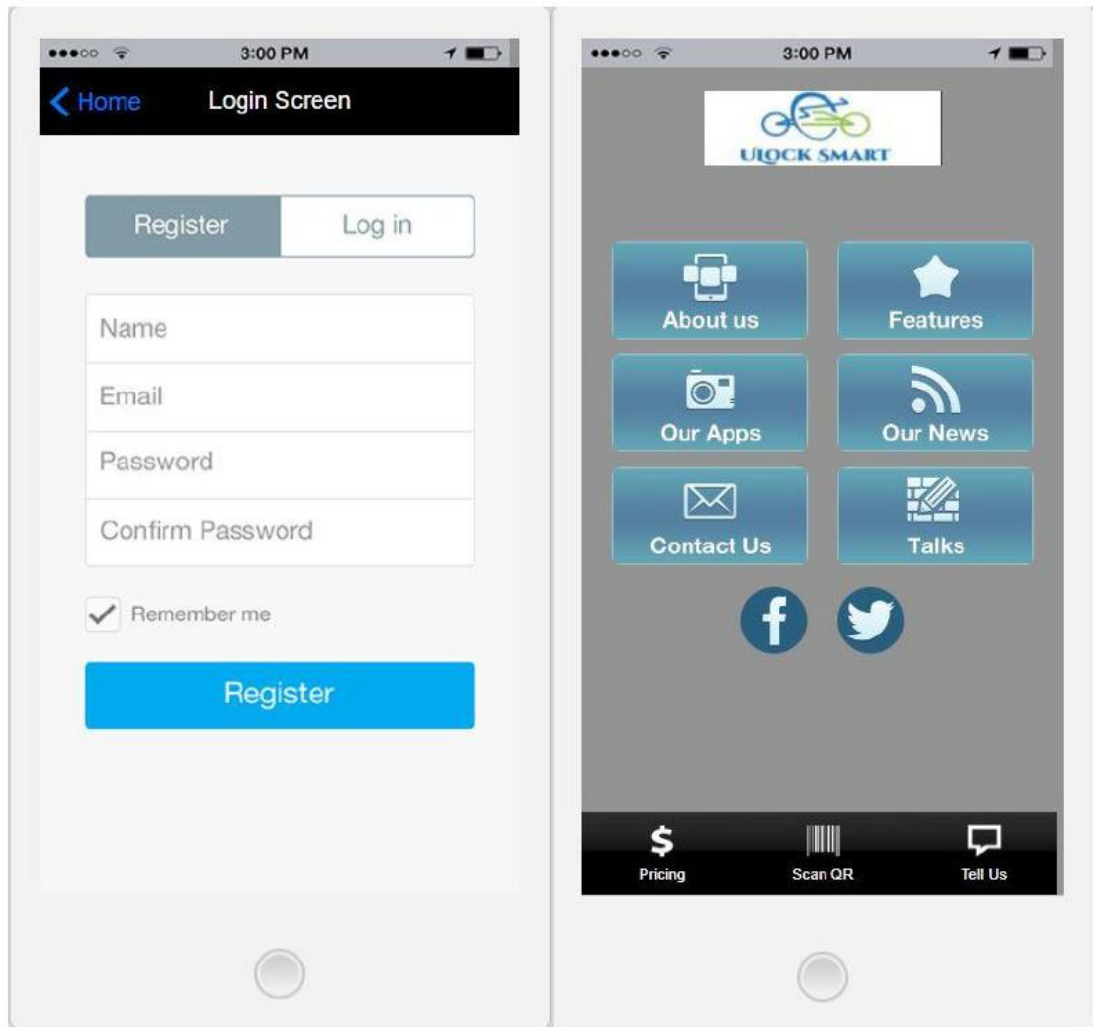


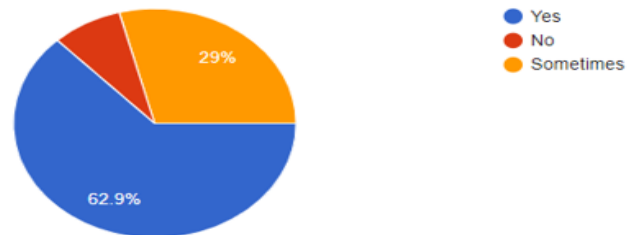
FIG 2.1 LOGIN WINDOW

FIG 2.2 MAIN WINDOW

Research Questionnaire

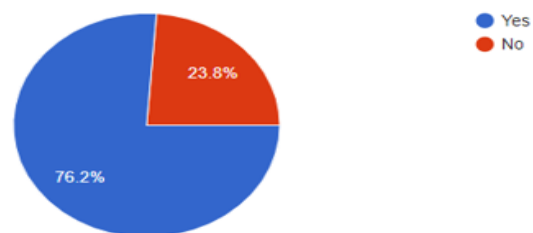
Do you get irritated while travelling noticing the pollution in air?

62 responses



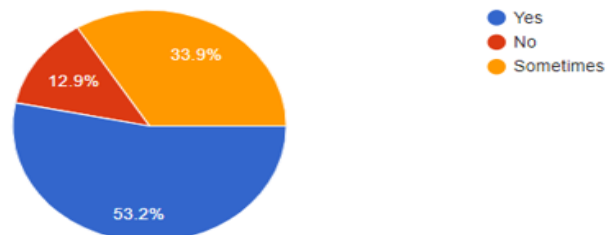
Were you in support of "odd-even rule" in Delhi to reduce pollution?

63 responses



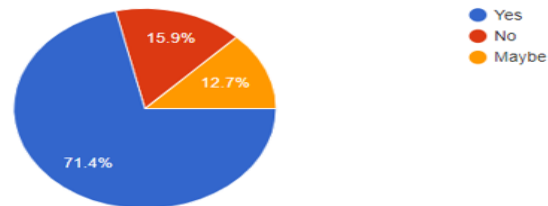
Are you ready to pay low cost rent for cycles and use it as mode of transport for local work?

62 responses



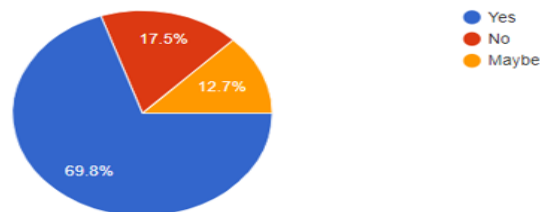
Will you be ready to invest 1500 more when you buy a bicycle to make it more secure and trackable any time?

63 responses



Do you feel atleast people whose workplace are not more than 2 kilometers from their residence should switch their transport vehicle to cycle for sake of environment protection?

63 responses

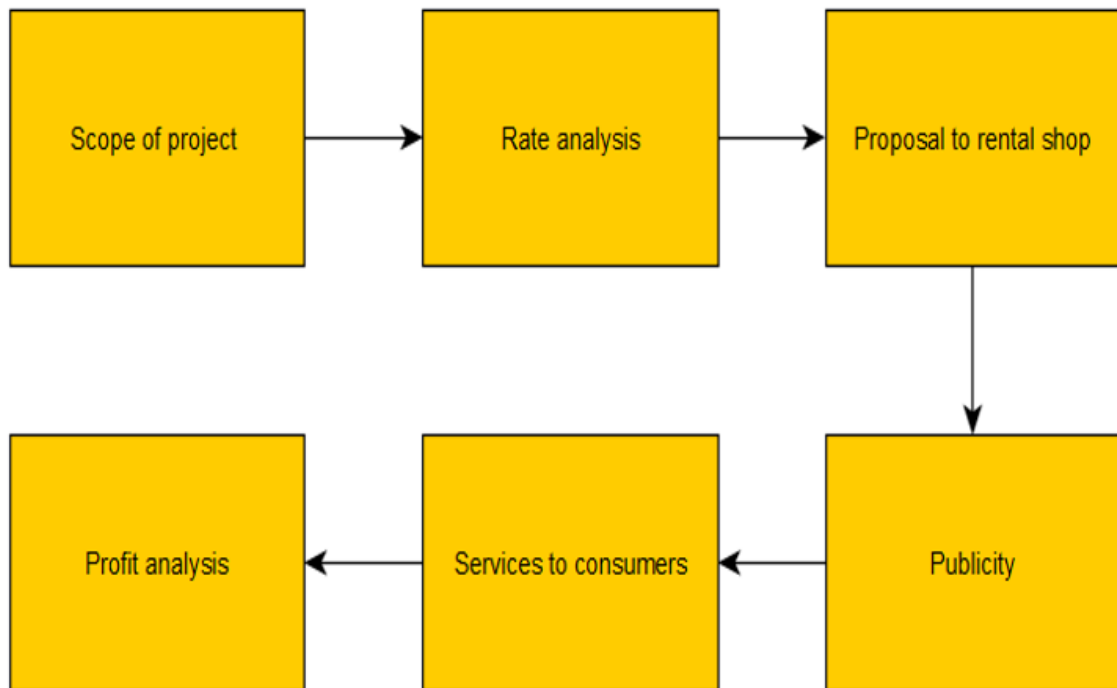


License

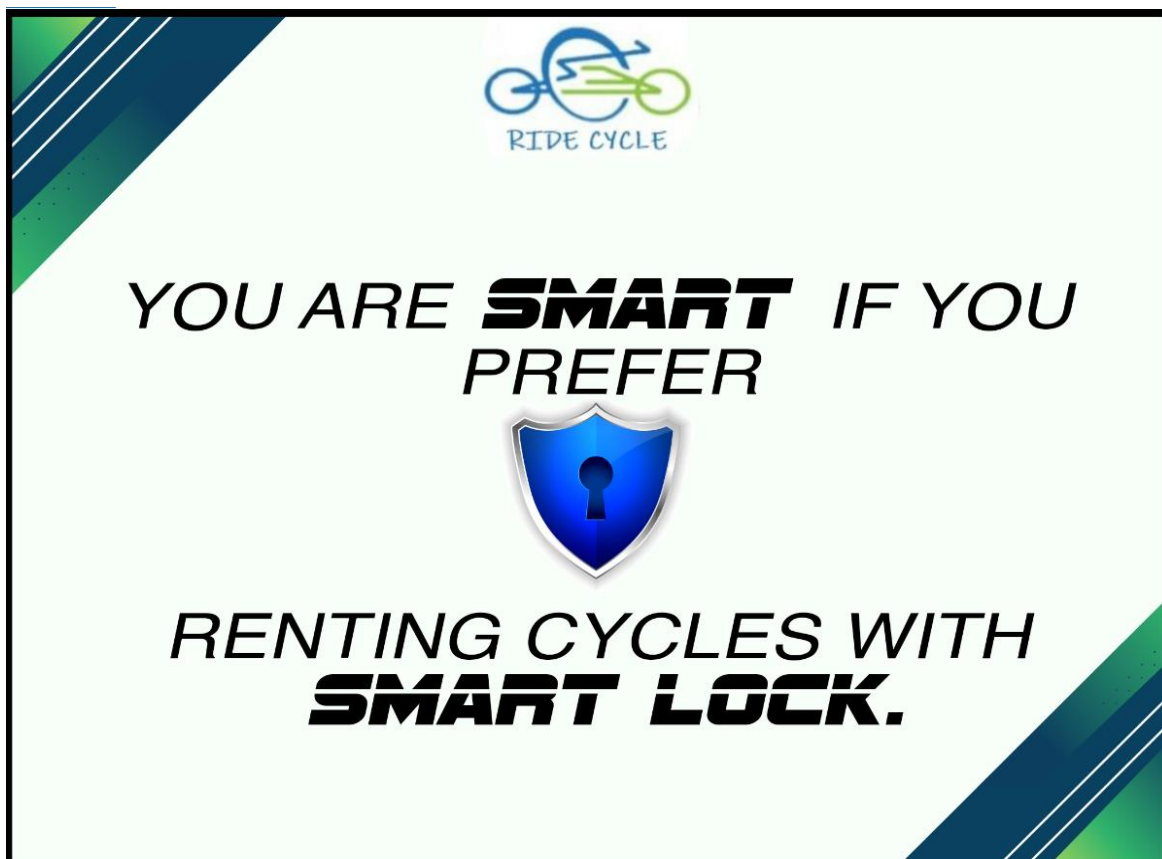
Udyog Aadhaar Memorandum

1	Aadhaar Number				
2	Name of Entrepreneur				
3	Social Category	SC	ST	OBC	General
4	Name of Enterprise				
5	Type of Organization *				
6	Postal Address				
		District	State	Pin	
		Mobile No:		Email:	
7	Date of commencement				
8	Previous Registration details-if any	SSI			
		EM-1			
		EM-2			
9	Bank Details	IFSC Code:			
		Bank Account:			
10	Major Activity	Manufacturing		Service	
11	National Industry Classification Code				
12	Persons employed				
13	Investment (Plant & Machinery / Equipment's)				
14	District Industry Centre				
Declaration <p>I hereby declare that information given above is true to the best of my knowledge. Any information, that may be required to be verified, shall be provided immediately before the concerned authority.</p>					
<p>*(1) Proprietary, (2) Hindu Undivided Family (HUF), (3) Partnership, (4) Co-Operative, (5) Private Limited Company, (6)Public Limited Company, (7)Self Help Group, (8) Others</p>					

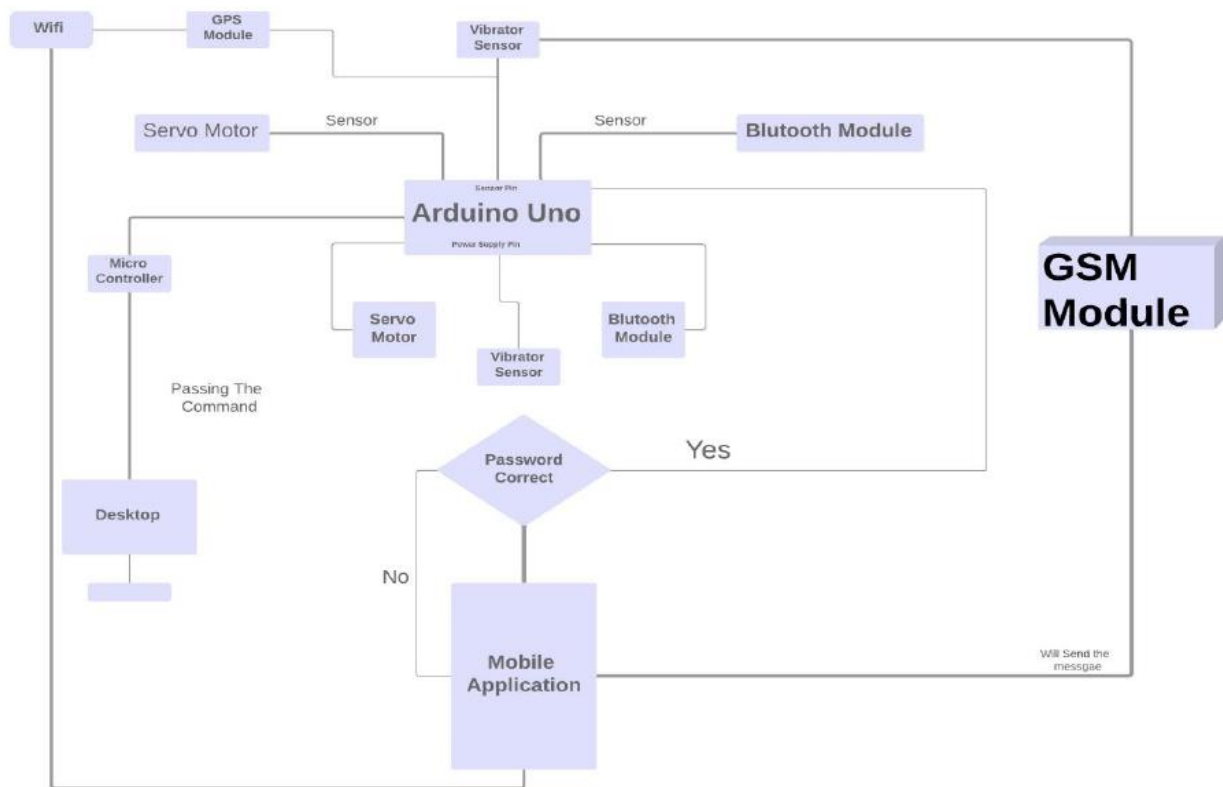
Marketing Flow Chart



Project Poster:



Hardware Flow Chart



Code

```

#include <Servo.h>

Servo myservo; // create servo object to control a servo

String inputString = "";
String command = "";
String value = "";
String password = "1234"; // this is the password for opening
and closing your door
// you can set any password you like using
digit and symbols
boolean stringComplete = false;
  
```

