**NMO S4 SPRINT ONE | BUSINESS CASE SCENARIO - 04 | AIRWAY DELIVERY:**

**TEAM**[**EARTH - SBP**](https://www.managementolympiad.org/teams/121--.html)

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**AIRWAYS**

***“We Give You Wings to Your Package”***

**FINANCE DEPARTMENT :**

**Assignment Taken :**

Financial Planning, Budgeting, Development of Cash flow etc.

**Case Understanding :**

The business plan under consideration is a divisional expansion plan. The organization is a courier company having branches all over India and currently delivering to all the pin codes. However, it is proposed to open new division of business which will operate through drones to deliver couriers within short range of area known as "Hyper local delivery space".

The “AIRWAY DELIVERY” courier service provider company, with targeted with PAN India locations. As per Company’s next step for business advancement, the Company's Board has decided to venture into 'Hyper Local Delivery .

The company has all the necessary permissions from Director General of Civil Aviation (DGCA), as it is a mandatory rule from all the flying objects in India. For a successful kick start of the business, the company has conducted test deliveries trials to check beyond the visual line of sight (BVLOS). We have access to all necessary permissions. Our team was successful in testing deliveries.

Company has decided to start this venture as "Short Range Drone Based Services" instead of Long-Range Drone Flight operations due to high purchase cost of "Long range drones". Company Intend to build an end-to-end Drone Operations & Management Platform through which a rapid scaling of business can be achieved. The firm can be termed as a success in its year one of operations as the total revenues.

Various pharma, food deliveries and other such industries have tested drone deliveries successfully, seeing which the business of courier delivery through drone seems practically feasible and cost effective as well. Now it will take only 15 minutes to fly 5 km through drone which was next to impossible with door-to-door courier delivery by man.

We as the consultants to the business are required to propose and present a financial plan along with all the departmental solutions to make the drone delivery division feasible through all parameters and efficient as well for the growth of the organization. Since drone delivery is a new business sector in countries like India, it is a challenge and opportunity as well to go with this business plan. It is an innovative approach to save time, cost and labour. It will make the couriers deliver faster than ever. The major issues with the business plan are the cost effectiveness itself. Achieving break even in the technology sector in the very first year is quite a task.

As a proof of concept, we received valuable feedback by Initial Users in terms of time saving and displacement via traffic free innovations in spite of today's busy city roads. Inspired by the radical innovation in this sector, our company wants drone services to add value to end users and as it is an extension of company's current services portfolios. The company has available technology and manpower already. We need to innovate and come with great technological success to make the plan successful on the ground.

**BCS SOLUTION SUMMARY :**

**Budget** – The Budget has been prepared conservatively. The Budget for Whole Division for Financial Year 2021-2022 is given Rs. 10 Crore. As far as Financial Planning is concerned, the expenditure during the FY 2021-2022 for a drone delivery services can be said to be moderate. The fact remains that drones are not as expensive of trucks or vans and the maintenance of drones is still within the reach of a serious-minded entrepreneurs. As a financial planner, planning is expected to spend most of the budget amount on renting a standard warehouse and paying professionals who helps to man the drones. The key areas where most of the budget amount has been spent:-

1. Digital Marketing

2. Promotional Material

3. Company Website :

* Website development
* Domain and server hosting
* Web designer’s salary

4. App development :

* Android app development cost
* Google developer subscription
* iOS app development cost
* iOS app library subscription cost
* App developer’s salary
* UX Designer’s salary

5. Drone operations :

* Drone charges
* Software cost for drones
* Drone maintenance cost
* Qualified drone operators’ salaries

6. Other miscellaneous expenses

We estimated around 1-2 crores to successfully set up our commercial drone delivery services business. And therefore, still we utilized the remaining 7-8 crores in purchasing larger and short-ra00000000.00000.nge drones and hiring of employees for drone maintenance and operations.

**Solution :**

The assumptions used for creating the budget are given below:-

Revenue Streams – Airway Delivery is a courier company involved in the business to deliver parcels with the aid of drones in and around India.

In essence, the source of income is delivery of initial participants such as Food delivery companies, few pharma chains and local deliveries and will be the delivery of medicines, into and out of remote areas and transporting packages, machine components, food and other goods with the aid of drones.

Therefore, keeping this is in mind Average number of orders received daily is increased by 10-15% in every quarter from the previous quarter. Average charges per delivery using drones is the average price of interest and Net income from previous quarter.

**Costs Streams :-**

Marketing Costs – Airway Delivery has a long-term plan of expanding Drone delivery services all around India which is why we have deliberately built our brand to be well accepted in India before venturing out.

As a matter of fact, our publicity and advertising strategy is not solely for winning customers over but to effectively communicate our brand. Despite the fact that our drone delivery services has reached to most of the pin codes around India we will still go ahead to intensify promotion for the business.

Therefore, in every quarter company increased 2% more than the previous quarter in Digital marketing and Promotional Material Costs.

**IT Costs –** We hired experts who have good understanding of the commercial drone delivery services line of business to help us develop web designing, developer subscription, etc. which are one-time costs. And Web designer’s salary which is 2 @ 2.1 lac per quarter.

**HR Costs –** The intention of Airway delivery is of starting a commercial drone delivery business to build a standard business that can favorably compete with leaders in the industry. Will ensure that we put right structures in place that will support the kind of Growth that we have in mind while setting up the business.

Therefore, App developer’s Salary – 3 @1.2 lac per quarter after every year it is assumed to increase 1 person for upcoming 4 quarters. And the same assumption goes for Qualified Drone operators – 3@ 1.5 lac per quarter and UX Designer’s Salary -  2@1 lac per quarter. Management Team – 2@3 lac per quarter.

**Other Miscellaneous Costs** – Rent + Web + Electricity+ Phone charges which are 30,000 per month are assumed to increase by 10% every year.

Packing Material which is assumed to increase by 5% in every quarter than the previous quarter. And Legal and Auditing Charges, licenses and Approvals, Taxes and Supplies are fixed costs which are same for every quarter.

**Sustainability and Expansion Strategy**

The future of a business lies in the number of loyal customers that they have, the capacity and competence of the employees, their investment strategy and the business structure. If all of these factors are missing from a business, then it won’t be too long before the business close shop.

One of our major goals of starting Airway Delivery is to build a business that will survive off its own cash flow without the need for injecting finance from external sources once the business is officially running.

We know that one of the ways of gaining approval and winning customers over is to offer our drone delivery services a little bit cheaper than what is obtainable in the market and we are well prepared to survive on lower profit margin for a while.

Airway Delivery will make sure that the right foundation, structures and processes are put in place to ensure that our staff welfare are well taken of. Our company’s corporate culture is designed to drive our business to greater heights and training and retraining of our workforce is at the top burner.

We know that if that is put in place, we will be able to successfully hire and retain the best hands we can get in the industry; they will be more committed to help us build the business of our dreams.

Therefore, the remaining 7-8 crores from the budget is utilized in the next financial year by purchasing 80 Long range drones and 100 short range drones as well as 2 new warehouse for upcoming year. Company is looking forward to exploring  more business areas for cost- effective cargo deliveries and company wants drone services to add value to end users and as it is an extension of company's current services portfolios.

**Planning for FY 21-22 with Recurring Expenditure & Budget :**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sr No.** | **Particular** | **Quantity** | **Cost / per unit (INR)** | **Annual Expenditure** |
| 1 | Short Range Drones | 4 | 1,25,000 | 5,00,000 |
| 2 | Long Range Drone | 1 | 4,00,000 | 4,00,000 |
| 3 | Qualified Drone Operators | 4 | 50,000 | 24,00,000 |
| 4 | Management Team | 5 | 1,00,000 | 60,00,000 |
| 5 | Software | 1 | 25,00,000 | 25,00,000 |
| 6 | Software Development Team | 2 | 70,000 | 16,80,000 |
| 7 | Support Staff | 4 | 20,000 | 9,60,000 |
| 8 | Office Rent | 1 | 30,000 | 3,60,000 |
| 9 | Marketing | 2 | 3,50,000 | 14,00,000 |
| 10 | Miscellaneous Cost | 1 | 20,000 | 2,40,000 |
|  | **TOTAL OPERATIONAL COST FOR FY 21-22** |  |  | **1,64,40,000** |

**Courier Charges:**

|  |  |  |
| --- | --- | --- |
| **Category of Couriers** | **Courier weight** | **Price** |
| A | 0.1 grams to 500 grams | 60 Rs. |
| B | 501 grams to 1 Kg | 80 Rs. |
| C | from 1.01 Kg to 5 Kg | 100 Rs. /Kg |
| D | 5.01 Kg to 10 Kg | 110 Rs./Kg |

**Booking of Packages with price rate projection:**

**Budget 2021-22**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Quarter** | **Apr -Jun'21** | **Jul- Sep’21** | **Oct- Dec’21** | **Jan-Mar’22** |
| **Revenue** |  |  |  |  |
| Average number of orders received daily | 400 | 420 | 520 | 600 |
| Average charges per delivery using drones | 80 | 90 | 100 | 100 |
| Revenue from purchases per quarter | 2880000 | 3402000 | 4680000 | 5400000 |
| **Total Revenue** | **2880000** | **3402000** | **4680000** | **5400000** |
|  |  |  |  |  |
| **Costs** |  |  |  |  |
| Marketing Costs |  |  |  |  |
| Promotional Material | 100000 | 100000 | 120000 | 150000 |
| Digital Marketing | 200000 | 200000 | 250000 | 30000 |
| **Total Marketing costs** | **300000** | **300000** | **370000** | **450000** |
|  |  |  |  |  |
| IT Costs |  |  |  |  |
| Company Website |  |  |  |  |
| Website development on WordPress (Free Theme) | 0 | 0 | 0 | 0 |
| Domain + Server Hosting Cost (Using Blue Host) | 3000 | 3000 | 3000 | 3000 |
| Web designer’s salary (2 @2.1 lac per quarter) | 420000 | 420000 | 420000 | 420000 |
| App development | 30000 | 0 | 0 | 0 |
| Google Developer Subscription ($25 One time) | 1975 | 0 | 0 | 0 |
| iOS app Development Cost (One-time) | 30000 | 0 | 0 | 0 |
| iOS app Library subscription cost ($99 per year) | 1875 | 1875 | 1875 | 1875 |
| App developer’s salary (3@1.2 lac per quarter) | 420000 | 420000 | 420000 | 420000 |
| UX Designer salary (2@1 lac per quarter) | 200000 | 200000 | 200000 | 200000 |
| Drone Operations  Drone Charges (4 Short range + 1 log range) (one-time) | 900000 | 0 | 0 | 0 |
| Software Costs for drone (one-time) | 2500000 | 0 | 0 | 0 |
| Drone Maintenance costs (20@1k per quarter) | 4000 | 4000 | 4000 | 4000 |
| Qualified Drone operators 3@1.5 lac per quarter | 450000 | 450000 | 450000 | 450000 |
| **Total IT Costs** | **4960850** | **1498875** | **1498875** | **1498875** |
|  |  |  |  |  |
| Miscellaneous Costs |  |  |  |  |
| Packing Staff (3 @20k monthly=60k per quarterly) | 180000 | 180000 | 180000 | 180000 |
| Management Team (2@3 pa per quarter) | 600000 | 600000 | 600000 | 600000 |
| Rent+Web+Electricity+Phone (30k per month) | 90000 | 90000 | 90000 | 90000 |
| Packing Material | 9800 | 9800 | 9800 | 9800 |
| Delivery Cost (Cost of IN 20 Per trip) | 8000 | 8000 | 8000 | 8000 |
| Licenses and Approvals (10,000 yearly) | 2500 | 2500 | 2500 | 2500 |
| Legal and Auditing | 8000 | 0 | 0 | 0 |
| Supplies | 4500 | 4500 | 4500 | 4500 |
| Taxes (considering tax holiday from DGCA). | 0 | 0 | 0 | 0 |
| Other | 750 | 1000 | 1000 | 1000 |
| **Total Miscellaneous Cost** | **896350** | **888600** | **888600** | **888600** |
|  |  |  |  |  |
| **Total Costs** | **6157200** | **1887475** | **1957475** | **2037475** |
|  |  |  |  |  |
|  |  |  |  |  |

The assumptions and calculations used while preparing the budget are:-

1. Budget for the whole division for FY 2021-22 IS Rs. 10 crores. The allocation of Rs.1,64,40,000 is done in.

2. The remaining Rs. 85721137.63 is allocated for next two year of FY 2022-24.

3. Reasons to invest the remaining budget in long range drone-based services.

(i) the return on investment from previous FY and the projected return on investment in next FY.

(ii) existing costs that drones can lower or eliminate; and

(in) how drones can increase efficiency?

(i) The return on investment from FY 2021-22 is:

net income/ total investment

135.9012 %

Since ROI for FY 20-21 is 136%, investing the rest of the amount in expanding the drone-based services would

(li) There are certain one-time costs which are not required for next FY 2022-24.

Hence, eliminating those costs will increase net income and also the eliminated costs amount can be used for of more large range drones can be purchased as they are more efficient in service providing as well as short range.

**CONCLUSION :**

The above-mentioned interventions helped the company in becoming operationally profitable and the company’s budget shows that the company would not go into a loss after that. Hence the interventions were successful in making the company generate a surplus. This surplus could now be used to invest in the company’s expansion plans to more other states as well as invest in the company’s research and development. As a Finance Department need to be conduct day-to-day Cash in flow & out flow activities, Daily need of liquid cash, getting daily cash report over the selling & booking of packages from the sales team, support to administration department, HR Department, IT Department, Purchase Department with need of financial cash expenditure. Also, responsible to generate the income through the investments.