

INDIAN INSTITUTE OF MANAGEMENT LUCKNOW



National Management Olympiad

Business case scenario

Title:- Flight Plan: Navigating Financial Success in Drone Division 2023-24

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References:

1. Literature review on drone-based package delivery - <https://www.mdpi.com/2071-1050/14/1/360/htm>
2. <https://www.tandfonline.com/doi/full/10.1080/13675567.2021.1981273>
3. Drones for last-mile delivery - <https://www.mdpi.com/2071-1050/14/3/1766>

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A. Case Understanding

The shift toward hyper-local drone delivery brings both opportunities and challenges for our courier company. Initially, through Beta testing and feedback from food delivery and pharma chains, it's evident that drone services promise substantial time savings, a critical value addition. However, certain challenges and opportunities from a finance department perspective emerge:

1. Break-Even Challenge:

- *Problem:* Achieving break-even within the first year amid initial setup costs, salaries, software development, and operational expenses.

- *Financial Approach:* Precision in cost estimation, maximizing short-range drones' utilization due to their cost efficiency, and strategic pricing per weight category to ensure profitability.

2. Brand Establishment & Market Leadership:

- *Problem:* Creating a strong market presence amid fierce competition and fostering innovation in delivery processes.

- *Financial Approach:* Allocating resources to branding campaigns, leveraging cost-effective local deliveries to gain market share, and investing in R&D for operational efficiency.

3. Cost Control and Optimization:

- *Problem:* Ensuring prudent expenditure management while scaling up operations.

- *Financial Approach:* Scrutinizing operational costs, negotiating supplier contracts, optimizing staffing levels, and maximizing shared facilities' utilization to contain expenses.

4. Budget Utilization Efficiency:

- *Problem:* Effectively utilizing the allocated budget of Rs. 10 Crore without overspending or underutilizing resources.

- *Financial Approach:* Precise budget allocation aligned with critical needs such as drone maintenance, software enhancements, and talent acquisition while ensuring financial prudence.

5. Risk Management:

- *Problem:* Mitigating regulatory and operational risks associated with drone deliveries.

- *Financial Approach:* Forecasting potential legal or regulatory changes, setting aside contingency funds, and conducting thorough risk assessments to preempt financial disruptions.

The finance department's strategic role lies in meticulously managing resources, optimizing costs, and ensuring a healthy financial trajectory amid rapid business scaling. Prudent financial planning, expense control, and revenue maximization strategies will be the linchpins in steering the drone division towards achieving its outlined goals while maintaining financial stability.

B. Solution Summary

The financial plan for FY 2023-24 in the drone division centers around revenue projection, cost management, strategic budget allocation, and addressing challenges for breakthrough success. Anticipating an incremental rise to 200 daily drone deliveries by year-end, we've structured revenue projections across weight categories, envisaging substantial yearly revenue of ₹1,43,32,000. Rigorous cost controls encompass salary, operational, marketing, and miscellaneous expenses, ensuring a net profit of ₹1,10,20,000 while eyeing a break-even point at ₹33,12,000. Our strategic approach includes maximizing short-range drone utilization, prioritizing software development investments, and dedicating resources to marketing for brand establishment and innovation in

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technology. The solution aligns financial strategies with divisional goals, emphasizing meticulous cost management, strategic budget allocation, and revenue generation, setting the course for success in navigating the challenges of the fiscal year 2023-24 within the burgeoning drone delivery landscape.

C. Solution

C.1. Financial Plan for FY 2023-24:

1. Revenue Strategy:

- Based on trial feedback and current pricing, we'll project revenue based on expected daily drone deliveries within each weight category.

- We anticipate a gradual increase in deliveries, aiming for 200 daily shipments by the year-end.

2. Cost Management:

- We'll meticulously control costs. Focus areas include efficient utilization of short-range drones, optimizing staffing levels, and negotiating favorable contracts with suppliers.

- Streamlining operational costs is pivotal; we'll regularly monitor expenses to maintain financial health.

3. Budget Allocation:

- Allocation will be strategic: significant investments in software development and operations management system, while judiciously utilizing the allocated Rs. 10 Crore budget.

- Resource allocation will align with key growth areas: technology upgrades, talent acquisition, and marketing for brand establishment.

4. Break-Even Analysis:

- Calculating the break-even point will be vital to track financial progress. We aim to achieve break-even within the initial year of operation through aggressive marketing strategies and efficient cost control.

5. Risk Assessment & Contingency Planning:

- Considering regulatory uncertainties and operational risks associated with drone services, we'll establish a contingency fund to mitigate unforeseen challenges.

6. Financial Reporting & Analysis:

- Regular financial reporting and analysis will guide decisions. KPIs monitoring will be central, ensuring alignment with set financial milestones and targets.

C.2. Solution to Finance Challenges:

1. Problem: Achieving Break-Even within the First Year

- Solution: Implement stringent cost controls, maximize short-range drone utilization due to cost-efficiency, and recalibrate pricing strategies for optimal revenue generation.

2. Problem: Brand Establishment and Market Leadership

- Solution: Allocate a significant portion of the budget to marketing endeavors, promoting the unique time-saving benefit of drone deliveries. Invest in innovative processes to differentiate from competitors.

3. Problem: Innovation in Processes and Product

- Solution: Focus on technology enhancements, investing in software development and an end-to-end operations system to streamline processes and stay ahead in the market.

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4. Problem: Budget Utilization Efficiency

- Solution: Strategically allocate funds across critical areas such as technology, talent acquisition, and operational efficiency. Prioritize investments based on their direct impact on achieving set goals.

By aligning our financial strategies with the division's goals, meticulous cost management, efficient budget allocation, and a keen focus on revenue generation, we're poised to navigate the challenges and drive the drone division towards success within the fiscal year 2023-24.

Given the specifics of the weight categories and pricing:

Category	Average Weight (kg)	Estimated Daily Deliveries	Average Revenue per Delivery	Monthly Revenue	Yearly Revenue
A	0.25	50	₹ 60	₹ 90,000	₹ 10,80,000
B	0.75	40	₹ 80	₹ 96,000	₹ 11,52,000
C	3.5	80	₹100 * 3.5 = ₹350	₹ 8,40,000	₹ 1,00,80,000
D	7.5	30	₹110 * 7.5 = ₹825	₹ 24,75,000	₹ 2,97,00,000
Total	-	-	-	₹ 1,19,01,000	₹ 1,43,32,000

Expenses	Amount (INR)
Salary Expenses	₹ 16,80,000
Operational Costs	₹ 9,60,000
Marketing Budget	₹ 4,80,000
Miscellaneous Costs	₹ 1,92,000
Profit & Loss Projection	Amount (INR)
Total Revenue	₹ 1,43,32,000
Total Expenses	₹ 33,12,000
Net Profit	₹ 1,10,20,000
Break-even Analysis	Amount (INR)
Break-even Point	₹ 33,12,000

**Numbers are taken on the basis of secondary research and assumptions about deliveries in India*

D. Conclusion

In the realm of fiscal planning for the fiscal year 2023-24 within our drone division, our strategic financial approach stands as a testament to meticulous planning, cost-efficiency, and revenue augmentation. Our core focus revolves around projecting revenue based on a calculated increase in daily drone deliveries, leveraging trial feedback and current pricing models. The envisioned gradual rise to 200 daily shipments by year-end is substantiated by a comprehensive breakdown across weight categories, anticipating an annual revenue of ₹1,43,32,000.

At the helm of our financial strategy lies an unyielding commitment to cost management. We have delineated key areas of cost control, directing attention toward optimizing operational efficiency, negotiating favorable supplier contracts, and maintaining an eagle eye on staffing levels. Our aim is to streamline operational costs, a pivotal component in our quest for financial prudence and stability.

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Strategic budget allocation serves as the linchpin of our financial roadmap. The Rs. 10 Crore budget is meticulously distributed, with substantial investments earmarked for pivotal growth areas. We prioritize investments in software development and an end-to-end operations system, recognizing their role in bolstering our technological infrastructure. Concurrently, a significant portion of the budget is allocated to marketing endeavors, aiming to establish our brand identity and communicate the distinct time-saving benefits of drone deliveries to our target audience. Innovation remains pivotal; hence, a dedicated focus on enhancing our operational processes through technological advancements and differentiated service offerings is underscored in our financial plan.

The culmination of our financial projections delineates a profit and loss scenario reflective of astute fiscal management. With total projected revenue amounting to ₹1,43,32,000 and meticulous expense controls maintained across salary, operational, marketing, and miscellaneous costs, our net profit is estimated at ₹1,10,20,000. Notably, we've identified a break-even point at ₹33,12,000, a pivotal milestone guiding our trajectory toward financial equilibrium within the initial year of operation.

In essence, our financial strategy, spearheaded by prudent cost controls, strategic budget allocation, and revenue augmentation strategies, is poised to propel the drone division toward success. The blueprint is meticulously crafted to harmonize with the overarching objectives of achieving operational efficiency, brand establishment, and market leadership. This financial roadmap serves as our guiding compass, steering us through the challenges inherent in the burgeoning landscape of drone-based delivery services, promising sustained growth and financial stability within the fiscal year 2023-24.

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