2023

Business Analysis:

Apian

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1 Introduction

1.1 Purpose and Limitations

This report will investigate the future prospects of a high-potential business, Apian. The goal of the report is to provoke discussion and consideration of the business opportunity's merits and shortcomings.

When reading the report it is important to consider the following limitations:

Limitation/Risk	Effect	Mitigation
Unreliable Source Information	Unsubstantiated claims made	Focus on reliable sources with bibliography for reader to scrutinize
Limited Detail on Apian Accounts and Cash Flow*	Unclear management of finances limits discussion	Discussion of accounts will be holistic and will make assumptions to propel discussion
No Businesses with Similar Business model and Utility provided by company	Comparisons with the existing market may be inaccurate	Report should be read with some degree of cynicism, especially for competitor comparisons

Table 1 – Table of Limitations, Effects and Mitigations to the Report

The writer has put great effort to mitigate these factors but the reader should be wary nonetheless.

1.2 Structure and Scope of Discussion

As mentioned in Table 1, to mitigate word limitation, the report will be structured similarly to research papers rather than typical reports. Table 2 below highlights similarities:

* The report writer has discussed the current and future cash flow with Apian. As apian is in extremely early stages as a startup, cash flow and accounts have limited information.

The Structure	
Research Paper	**This Report**
Abstract	Structure and Scope
Previous Work and their Limitations	Competitors and their Limitations
Hypothesis/Merit of Paper and Scope of Discussion	Apian's Value Summarized and Scope Continued
Research and method	Models and focused discussion
Overall discussion	Overall discussion
Conclusion, reflection of limitation and recommendation for extensions	Conclusion and recommendation for extension of business

Table 2 – Table Summarizing Structure of the Report

The report discusses competitors and their limitations, moves on to how Apian covers these limitations and then outlines the scope of discussion.

The investigation uses several models to analyze the business' chance of success. Models are starting points for discussion. The Business Model Canvas (BMC) will assess internal factors, Porter's 5 Market Forces will assess possibility of competitors and Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis will discuss both internal and external factors.

To conclude, the report will offer a prognosis, verifying Apian's competitive advantage with Value, Rarity, Imitability, and Organization (VRIO) analysis. Finally the report will suggest ways to grow and maintain competitive advantage.

1.3 Competitors and their Limitations

Here we outline two primary competitors to Apian: **Windracers**, which like Apian develops long-range drones for humanitarian and medical supply delivery in hard-to-reach areas. **Skyfarer**, Skyfarer operates a medical delivery drone service in Scotland using fixed-wing drones to transport medical supplies, including vaccines, to remote and hard-to-reach areas.

Table 3 below describes how they uniquely cater to customer

demand:

Novelty/Competitive Advantage	Customer Pain/Joy
Hybrid Fixed-wing drones that can take off/land vertically	**Can deliver to areas unreachable**
Long Range Drones	**Drones can cover up to 1000 km and carry up to 100 kg**
Utilizes Advanced AI and Sensors	Safely fly drones so that they are not damaged
Commitment to Sustainability	Decreased likelihood to replace in following years

Novelty/Competitive Advantage	Customer Pain/Joy
Fixed Wing Drones	Lower cost and **longer flight**
Commitment to regulatory bodies	Lower concern of malicious behaviour
Focus on integrating with existing systems	**Higher application in existing system**

Table 3 – Table of Unique Competitive Advantages of Primary Competitors

Both competitors were selected for similarities with Apian that will become clearer in the main body.

1.4 Apian's Value

Apian's value lies in their innovative use of drone technology to improve healthcare access and outcomes, particularly in the context of emergency medical services (EMS). By using drones to transport medical supplies,

including blood and organs, to hospitals and emergency responders in a timely and efficient manner, Apian is able to save lives and improve healthcare outcomes.

In addition to their focus on EMS, Apian is also committed to sustainability and reducing their carbon footprint. The company uses electric drones powered by renewable energy sources, such as solar power, to minimize their environmental impact. This commitment to sustainability aligns with the growing focus on environmental responsibility and sustainability in the drone industry and healthcare sector.

Apian's value lies in their ability to leverage drone technology to improve healthcare outcomes, while also prioritizing sustainability and innovation. With the potential to transform emergency medical services and healthcare delivery in the UK and beyond, Apian is a promising player in the drone industry.

Novelty/Competitive Advantage
Focus on emergency medical services
Use of blockchain technology to secure and protect medical data
Focus on sustainability
Integration with existing healthcare systems
AI Optimized drone routes

These positive factors make Apian a business opportunity worth investigating and will be explored in detail.

Table 4 – Table of Apian's Competitive Advantages

2 Business Model Canvas (BMC)

2.1 BMC

Business Model Canvas (Figure 1) is used below to analyze the value of Apian. It provides a comprehensive overview of Apian's key attributes and provides a medium to think critically on areas where competitive advantages can be sustained.

Key Partnerships

- Hospitals and healthcare facilities: Apian works with hospitals and healthcare facilities to transport medical supplies via drones

- Regulators: Apian must comply with regulations governing the use of drones for transportation, so regulatory bodies are important partners.

- Technology partners: Apian may partner with technology providers to develop and improve its drone technology and related software.

Key Activities

- Drone design and development: Apian designs and develops its drones and related software.

- Operations: Apian operates its drones and manages the logistics of transporting medical supplies.

- Maintenance and repair: Apian maintains and repairs its drones to ensure they operate safely and efficiently.

Key Resources

- Drones: Apian's drones are a key resource for the company.

- Technology: The technology behind Apian's drones and related software is also a key resource.

- Skilled personnel: Apian relies on skilled personnel to design, develop, operate, and maintain its drones.

Value Propositions

- Fast and reliable medical supply delivery: Apian provides a fast and reliable solution for transporting medical supplies, which can be critical in emergency situations.

- Cost-effective: Apian's solution can be more cost-effective than traditional methods of transportation, such as ground transportation.

- Reduced carbon emissions: Apian's drones produce fewer carbon emissions than traditional methods of transportation, making it a more environmentally friendly option.

Customer Relationships

- Hospitals and healthcare facilities: Apian's primary customer segment is hospitals and healthcare facilities that require fast and reliable transportation of medical supplies.

Channels

- Personalized service: Apian may provide personalized service to its customers, such as customized transportation solutions.

- Reliable service: Apian must provide reliable service to its customers to build and maintain their trust.

Customer Segments

Mass market:
Drone Solutions Market

Segmented Markets:
- Hospitals and healthcare facilities: Apian's primary customer segment is hospitals and healthcare facilities that require fast and reliable transportation of medical supplies.

Cost Structure

- Drone manufacturing and maintenance: Apian would incur costs for manufacturing and maintaining the drones, which can include the cost of materials, components, and labor.
- Software and technology: The company would need to invest in software and technology for drone control, navigation, and other related applications.
- Operational expenses: The company would also have operational expenses such as salaries for personnel, facilities, and insurance.

Revenue Streams

- Subscription-based model: Apian may charge hospitals and healthcare facilities a subscription fee for its transportation services.
- Transaction-based model: Apian may charge a fee for each delivery of medical supplies.
- Solution-based model: Apian may charge a fee for each solution implemented per hospital.

Table 5 – Business Model Canvas of Apian

2.2 Value Proposition

Apian's value proposition lies in their innovative use of drone technology to improve healthcare outcomes, particularly in emergency medical services (EMS). By using drones to transport time-sensitive medical supplies, such as blood and organs, to hospitals and emergency responders, Apian can help save lives and improve healthcare access and outcomes.

Apian's value proposition is further strengthened by their partnership with the National Health Service (NHS) in the UK, which allows them to integrate their drone delivery service with existing healthcare systems and work closely with healthcare professionals to ensure that their solutions are aligned with healthcare workflows and can be integrated seamlessly into existing systems.

Additionally, Apian's use of blockchain technology to secure and protect medical data, their focus on safety and reliability, and their commitment to sustainability and reducing their carbon footprint all contribute to their value proposition.

Apian's value proposition is centered on their ability to leverage drone technology to transform emergency medical services, improve healthcare outcomes, and support a more sustainable and environmentally responsible healthcare sector. With the potential to save lives and improve healthcare access and outcomes, Apian is a promising player in the drone industry, with the potential to make a significant impact in the UK and beyond.

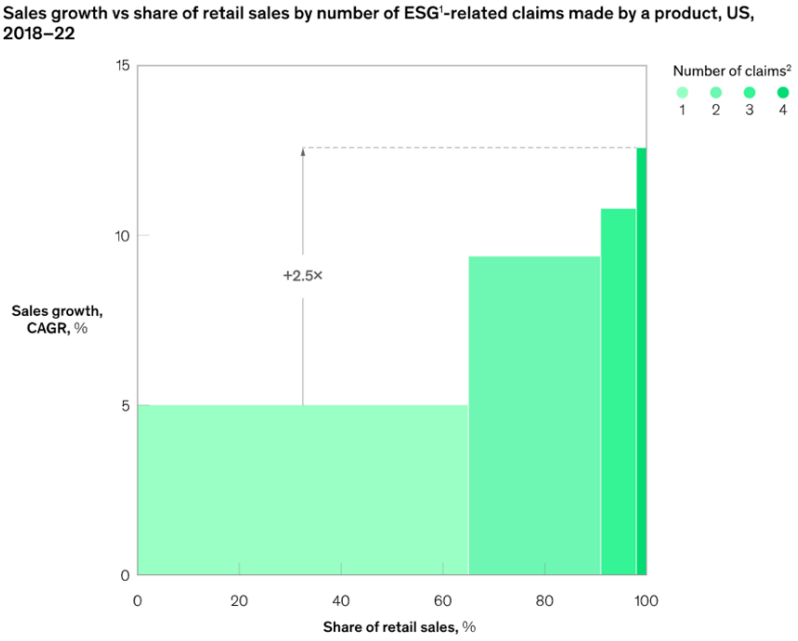

Figure 2 – Graph Showing Increase in Sales for Products with ESG Claims From Nielsen Analytics

ESG mitigation is additionally attractive to consumers and further generates value as shown in the graph above.

One of Apian's key selling points is its benefits to the environment.

Environmental: Apian's drone delivery system can help reduce carbon emissions by replacing traditional delivery methods that rely on fuel-powered vehicles. This can help to mitigate the impact of climate change by reducing air pollution and greenhouse gas emissions. Additionally, Apian's drones can be powered by renewable energy sources, such as solar power, further reducing their environmental footprint.

Social: Apian's drone delivery system can help improve access to critical medical supplies, especially in remote or hard-to-reach areas. This can help save lives by ensuring that essential medicines, vaccines, and other medical supplies are delivered quickly and efficiently. By using drones to transport medical supplies, Apian can also help reduce the risk of theft, which can be a significant problem in some areas.

Governance: Apian's drone delivery system is designed to be safe, reliable, and compliant with regulatory standards. This can help to ensure that the technology is used responsibly and that it does not pose a risk to public safety or security. Apian also has strong governance practices in place, including a focus on data privacy and security, which can help to build trust with stakeholders and ensure the long-term success of the company.

2.3 Customer Segments and Relationships

Apian's drone delivery system for medical supplies can be targeted towards several customer segments, including:

Healthcare providers: Hospitals, clinics, and other healthcare facilities can be a primary customer segment for Apian's drone delivery system. These organizations can use the technology to transport medical supplies, including vaccines, blood products, and emergency medicines, quickly and efficiently.

Public health agencies: Public health agencies, such as the World Health Organization (WHO) or national health ministries, can be another customer segment for Apian. These organizations can use the technology to respond to disease outbreaks, natural disasters, and other emergencies that require the rapid delivery of medical supplies.

Non-governmental organizations (NGOs): NGOs that provide medical assistance in remote or hard-to-reach areas can also be a customer segment for Apian. These organizations can use the technology to deliver medical supplies to areas that are difficult to access by traditional means of transportation.

Government agencies: Government agencies responsible for emergency response and disaster relief can also be a customer segment for Apian. These agencies can use the technology to transport medical supplies to disaster zones,

where access to medical supplies can be severely limited.

Regarding customer relationships, Apian would need to establish strong relationships with its customers to build trust and ensure repeat business. This could be achieved through regular communication, offering excellent customer service, and ensuring that the technology is reliable, safe, and compliant with regulatory standards. Apian could also offer additional services, such as training and support, to help customers integrate the technology into their operations.

2.4 Key Partnerships

Apian's drone delivery system for medical supplies requires several key partnerships to ensure the success of the business. Here are some potential partnerships:

Healthcare providers and public health agencies: Apian would need to establish partnerships with healthcare providers, hospitals, clinics, and public health agencies to provide its services. These organizations would be the primary users of Apian's technology, and partnerships with them would help to ensure a steady stream of business.

Drone manufacturers: Apian would need to partner with drone manufacturers to source the necessary hardware and software components for its drone delivery system. Partnering with established drone manufacturers could also help to ensure that the technology is reliable, safe, and compliant with regulatory standards.

Data analytics and software providers: Apian could partner with data analytics and software providers to develop the necessary algorithms and

software to process the data generated by its drone delivery system. This would help to ensure that the technology is optimized for efficiency and accuracy.

Logistics and transportation providers: Apian could partner with logistics and transportation providers to manage the delivery of medical supplies to and from its drone delivery hubs. These partners could help to ensure that the supplies are delivered safely and efficiently, and that any logistical challenges are addressed promptly.

Regulatory agencies: Apian would need to establish partnerships with regulatory agencies, such as the Federal Aviation Administration (FAA), to ensure that its drone delivery system is compliant with all applicable laws and regulations. This would help to ensure that the technology is safe and that it does not pose a risk to public safety or security.

These partnerships would help Apian to establish a strong network of suppliers, customers, and stakeholders, which would be essential for the success of the business.

2.5 Channels

Apian has several channels that customers and partners can use to engage with the company:

Website: Apian's website (https://Apian/) provides information about the company, its products and services, and its mission and values.

Email: Customers and partners can contact Apian via email at hello@Apian to inquire about their solutions or to schedule a meeting.

Social media: Apian is active on social media platforms like Twitter (@Apian_UK) and LinkedIn (https://www.linkedin.com/company/apian-uk/),

where they share updates on their activities and engage with their followers.

Events: Apian participates in various industry events and conferences to showcase their solutions and engage with potential customers and partners.

Partnerships: Apian has partnered with various organizations, including the NHS, to integrate their solutions with existing healthcare systems and workflows. Customers and partners can explore potential partnership opportunities with Apian by reaching out to their team.

Apian's channels reflect their commitment to engaging with customers and partners and providing innovative solutions to transform emergency medical services and improve healthcare outcomes.

2.6 Revenue Streams and Cost Structure

Revenue Streams:

Service fees: Apian generates revenue by charging fees for its drone delivery services. Customers, such as hospitals and healthcare providers, pay for the use of Apian's drone delivery service to transport medical supplies.

Data monetization: Apian collects data on drone flights, weather patterns, and other relevant information, which can be monetized by selling it to third-party companies.

Cost structure:

Drone development and maintenance: Apian incurs costs related to developing and maintaining its fleet of drones. This includes expenses related to research and development, drone manufacturing, and ongoing maintenance and repairs.

Staff salaries and benefits: Apian incurs costs related to employee salaries and benefits, including salaries for drone pilots, software developers, and other staff members.

Insurance: Apian must carry insurance to cover potential liabilities related to drone operations, which can be a significant expense.

Data management and security: Apian incurs costs related to data management and security, including expenses related to data storage, cybersecurity measures, and compliance with data protection regulations.

Marketing and sales: Apian incurs costs related to marketing and sales activities, including expenses related to advertising, event attendance, and sales staff salaries.

Apian's revenue streams and cost structure reflect the unique nature of their business model, which involves using drone technology to provide emergency medical services. While the cost of drone development and maintenance can be high, the potential revenue streams from service fees and data monetization make this business model potentially lucrative.

2.7 Recommendations to Exploit Competitive Advantage

Based on Apian's unique value proposition and strengths, here are some recommendations for the company to exploit their competitive advantage:

Expand their drone delivery services: Apian can explore opportunities to expand their drone delivery services beyond medical supplies. For example, they can consider delivering other high-value and time-sensitive products, such as blood samples and laboratory specimens.

Develop partnerships with healthcare providers: Apian can strengthen its competitive advantage by developing partnerships with healthcare providers to integrate their drone delivery services with existing healthcare systems and workflows. This can improve the efficiency of healthcare delivery and provide a seamless experience for patients.

Leverage their data collection and analysis capabilities: Apian can leverage

the data they collect during drone flights to gain insights into weather patterns, traffic conditions, and other relevant information. This can enable them to optimize their drone routes and delivery times, ultimately improving the efficiency and cost-effectiveness of their operations.

Invest in research and development: To maintain their competitive advantage, Apian should continue to invest in research and development to improve their drone technology and services. This can involve exploring new use cases for drone delivery services, developing new drone models, or enhancing their software capabilities.

Build a strong brand: Apian can build a strong brand by emphasizing their mission and values, and communicating the positive impact their services have on society. This can help them differentiate themselves from competitors and attract customers who value socially responsible companies.

by leveraging their strengths and investing in areas that provide a competitive advantage, Apian can continue to grow and expand their drone delivery services in the healthcare industry.

3 Porter's Five Forces Model

Porter's five forces model analysis is strongly rooted in classical microeconomics, shaping the industrial structure of a company by assessing the threat of new entrants, substitutes, the bargaining power of customers and suppliers, and competitive rivalry.

Threat of New Entrants	Determinants of Supplier Power	Threat of Substitute Products	Determinants of Buyer Power	Rivalry Among Existing Firms
Strong Barriers: - **Economies of scale** - Product differentiation - **Capital requirements** - **Access to distribution channels** - Switching cost to buyers	- Supplier concentration - Substitute input availability - **Importance of suppliers' input to buyer** - **Suppliers' product differentiation** - **Importance of industry to suppliers** - **Buyers' switching cost to other input** - Suppliers' threat of forward integration - **Buyers threat of backward integration**	- **Price of substitutes** - Quality of substitute - **Switching cost to buyers** **Legend** **High** Medium Low	- **Number of buyers relative to sellers** - Product differentiation - Switching cost to other product - Buyers' threat of backward integration - Sellers' threat of forward integration - Importance of product to buyer - Buyers' volume - Buyers' use of multiple sources	- **Number of competitors** - **Size of competitors** - **Industry growth rate** - Fixed costs vs variable costs - Product differentiation - Capacity augmented in large increments - Buyers' switching costs - **Diversity of competitors** - **Exit barriers** - **Strategic Stakes**

Table 6 – Porter's Five Forces Model of Apian's Market

3.1 Threat of New Entrants

The threat of new entrants into the drone transportation industry is relatively low due to high barriers to entry. These barriers include the need for significant capital investment in technology and infrastructure, as well as regulatory compliance costs. However, if the industry grows and becomes more profitable, it may attract new entrants, which could increase competition and reduce profitability for Apian.

3.2 Threat of Substitutes

Apian's main competitors are traditional ground-based transportation services, such as trucks or cars. However, drones have unique advantages, such as speed and efficiency, that make them difficult to substitute. Therefore, the threat of substitute products or services is relatively low for Apian.

3.3 Determinants of Supplier power

Apian's bargaining power with suppliers, such as drone manufacturers and technology providers, may be relatively low due to the large number of suppliers in the market. However, if Apian were to become a dominant player in the industry, it may be able to negotiate better prices and terms with its suppliers.

3.4 Determinants of Buyer Power

The bargaining power of Apian's customers, such as hospitals and healthcare facilities, may be high due to the availability of other transportation options. However, Apian's unique capabilities, such as customized transportation solutions and speed, may give it a competitive advantage, which could mitigate the bargaining power of customers.

3.5 Rivalry Among Existing Firms

The intensity of competitive rivalry in the drone transportation industry is currently low, as there are only a few companies operating in this market. However, as the industry grows and becomes more profitable, it may attract more competitors, which could increase the intensity of competition and reduce profitability for Apian.

4 SWOT

Table 7 – SWOT Analysis of Apian

Strengths	Weaknesses	Opportunities	Threats
- Unique focus on emergency deliveries - Advanced Drone Technology - Commitment to sustainability	- Limited geographic reach - **Dependence on regulations** - **High Development Costs** **Bold =** Major Factor	- Expansion of product line - **Expansion of target market** - **International expansion** - I**nvestment in Research and Development**	- **Competition** - Economic downturn - **Regulatory changes** - Cybersecurity risks

4.1 Strengths

Unique value proposition: Apian's focus on using drones to deliver medical supplies in emergency situations is a unique and innovative offering that sets them apart from competitors.

Advanced drone technology: Apian's drone technology is advanced and constantly evolving, allowing them to provide efficient and reliable delivery services.

Strong partnerships: Apian has formed strategic partnerships with leading healthcare providers and organizations to offer their drone delivery services,

which has helped them gain traction in the market.

Skilled team: Apian has a team of skilled professionals, including experienced drone pilots and software developers, who are dedicated to providing high-quality services.

4.2 Weaknesses

Weakness	Effect	Mitigation
Dependence on Regulations	Threat of prohibition or increase in cost of drones	Increase range of products and expand abroad
Reliance on network of suppliers	Vulnerable to pricing changes and supply chain disruption	Find substitute suppliers
Primarily UK based	Limited reach of product and small customer base	Expand geographically

Table 8 – Detailing Weaknesses of Apian

Dependence on regulations: Apian's operations are subject to strict regulations related to drone use, which can limit their ability to expand their services and reach.

Limited geographic reach: Currently, Apian operates in a limited geographic area, which can limit their ability to reach a larger customer base.

High development costs: Developing and maintaining a fleet of advanced drones can be expensive, which can impact Apian's profitability and growth potential.

4.3 Opportunities

Growing market: The demand for medical supply transportation is likely to increase as the healthcare industry grows, presenting opportunities for Apian to

expand its operations.

Strategic partnerships: Apian can potentially form strategic partnerships with hospitals and healthcare facilities to provide customized solutions that meet their specific needs.

Geographic expansion: Apian can expand its operations to new geographic regions, especially in areas with underdeveloped transportation infrastructure.

4.4 Threats

Competition: As the drone transportation industry grows, Apian may face increased competition from other players.

Economic factors: Changes in the economy, such as a recession, could reduce demand for Apian's services, which could affect its profitability.

Technological risks: The drone transportation industry is still in its early stages, and new technological risks may emerge, such as cybersecurity threats or new safety regulations.

5 Conclusions

5.1 Closing Thoughts and VRIO

Apian's focus on using drones to deliver medical supplies in emergency situations is an innovative offering that meets an important need. The growing demand for drone delivery services in the healthcare industry presents a significant growth opportunity for Apian. Additionally, the company has formed strategic partnerships with leading healthcare providers and organizations, which has helped them gain traction in the market. Apian's unique value proposition and advanced drone technology are strengths that can help them differentiate themselves from competitors. However, the company also faces

challenges related to regulations, competition, and cybersecurity risks, which could impact their operations and growth potential. Overall, the success of Apian will depend on their ability to navigate these challenges and capitalize on growth opportunities in the drone delivery market but I believe that Apian is a strong business opportunity. Apian fulfills all criteria of VRIO analysis, as shown below:

Value:

Apian's use of drone technology for medical supply transportation is a unique and innovative approach that provides several advantages over traditional methods of transportation. This technology allows for faster, more efficient, and cost-effective transportation of medical supplies, making it highly valuable for the healthcare industry.

Rarity:

Currently, there are only a few companies operating in the drone transportation market, making Apian's use of drone technology for medical supply transportation rare. This rarity gives Apian a competitive advantage and makes it difficult for competitors to replicate its business model.

Imitability:

While drone technology is not necessarily difficult to imitate, Apian's proprietary software and expertise in developing customized solutions for the healthcare industry are not easily imitable. Additionally, Apian's focus on regulatory compliance and safety standards sets a high bar for potential competitors.

Organization:

Apian has a well-organized team with expertise in drone technology, healthcare logistics, and regulatory compliance. Its organizational structure allows it to provide customized solutions tailored to the specific needs of

hospitals and healthcare facilities, giving it a competitive advantage.

Apian has a valuable and rare technology that is not easily imitable, which gives it a competitive advantage in the drone transportation market. Additionally, its well-organized team and expertise in healthcare logistics and regulatory compliance make it well-positioned to capitalize on its competitive advantage.

5.2 Recommendations for Extension

Expand operations to new geographic regions: Apian can explore opportunities to expand its operations to new geographic regions where there is a need for medical supply transportation, but where traditional transportation infrastructure may be limited. This can include both domestic and international markets.

Develop strategic partnerships: Apian can form strategic partnerships with hospitals, healthcare facilities, and other organizations in the healthcare industry to provide customized solutions that meet their specific needs. This can help Apian to build a strong reputation in the industry and increase its customer base.

Diversify services: While Apian's primary focus is on medical supply transportation, it can explore opportunities to diversify its services. This can include providing additional logistics and transportation services to the healthcare industry, such as the transportation of medical waste, laboratory specimens, and equipment.

Invest in research and development: Apian can invest in research and development to improve its technology and software, which can increase the efficiency and safety of its operations. This can include exploring the use of artificial intelligence and machine learning to enhance its operations.

Strengthen brand identity: Apian can focus on building a strong brand

identity that emphasizes its unique value proposition and competitive advantage. This can include creating engaging marketing campaigns and leveraging social media and other digital marketing channels.

Overall, these recommendations can help Apian to expand its operations, diversify its services, and strengthen its competitive advantage, which can lead to long-term growth and success in the drone transportation market.