

## **Live Case 4: Apple Vision Pro**

**Can it change the way we see the world?**



**Team 4**

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## 1. Executive Summary:

At the Worldwide Developers Conference on 5<sup>th</sup> June 2023, Apple introduced to the world the Apple Vision Pro a mixed reality headset thereby entering the mixed reality space. The availability of Vision Pro is scheduled for early 2024 in the United States and later that year internationally. Although the Apple brand carries enough weight, Apple stakeholders are concerned about whether the Apple Vision Pro will join the lines of the iPod, iPhone, iPad and iWatch and become a new game changer for Apple or will it have the same fate of the Apple Lisa, one of Apple's worst failures. This is what we aim to cover in this report by identifying the biggest uncertainties, and doing a strategic analysis of how Apple can employ visionary frameworks to master the space of extended reality devices. Based on our analysis, the two significant uncertainties facing the XR industry are technological advancements in hardware and software, which impact device performance and integration, and social interactions and isolation, where balancing immersive experiences with real-world interactions is crucial.

**Horizon 1 (1-2 years):** To establish its technological dominance in the industry, Apple should focus on market penetration and premium customers, support developers for content creation and integration, strengthen ecosystem integration, and provide user education and resources.

**Horizon 2 (3-5 years):** To ensure that these devices do not create isolation, and instead foster an environment of social interactions, Apple should expand the market reach with more affordable options and collaborate with video-conferencing and educational platforms. It should also continuously refine the headset based on user feedback and work on fully integrating AI into the ecosystem.

**Horizon 3 (5-7 years):** Apple can solidify its leadership in AI and the metaverse through innovation and strategic partnerships. It can further explore diversification into areas like transportation and healthcare and aim for mass adoption of spatial computing technology.

In conclusion, Apple's Vision Pro has the potential to disrupt the XR Headsets industry. It should ensure that it innovatively addresses societal concerns, works on achieving technological excellence, and continues to leverage its strong brand and ecosystem. The strategic recommendations provide a roadmap for Apple to capture and expand its market share, fostering long-term growth and leadership in the spatial computing space.

## **2.1 STEEP Analysis**

The STEEP analysis for XR Headsets industry is as follows:

- **Societal:**
  - Impact on Health: Prolonged use of XR headsets may have negative health impacts, such as motion sickness, eye strain, and ergonomic issues.
  - Social Interactions and Isolation – Mixed reality headsets might further increase isolation and loneliness among the general population, especially young kids.
- **Technological:**
  - Advancements in Hardware - Hardware innovation will affect the success of mixed reality headsets, including headset design, processing power and display quality.
  - Advancements in Software - Seamless integration of software and third-party apps into the spatial operating system and the Apple ecosystem as a whole will be a key driving factor.
- **Economic**
  - Price - Price point and affordability of these devices will determine the market size, demand and growth trends. Currently, the price of these devices is quite high, and they may not find many takers.
- **Environmental**
  - Energy - AR/VR headsets often require substantial processing power and displays, which can be energy intensive. Environmental concerns related to high energy consumption can drive the development of more energy-efficient components and systems.
- **Political**
  - Supply Chain issues- International trade and regulations might affect the manufacturing and production of such headsets since component parts are procured from around the world, especially China.
  - Privacy Laws – Ensuring compliance with privacy laws and regulations concerning user data collected by AR/VR devices and applications will be a key factor to ensure the success of these devices.

## **2.2 Critical Uncertainties that will affect the industry**

From the STEEP Analysis, the two biggest uncertainties facing the AR/VR industry are:

- **Technological advancements in hardware and software:**

The pace of advancements in technology will determine the success of these devices. Hardware advancements are crucial to make them light-weight and provide high quality resolution. Software advancements are needed to expand them into the overall Apple ecosystem, and to

ensure third-party developers can integrate their applications into the spatial computing ecosystem.

- **Social Interactions and Isolation:**

AR and VR technologies can enhance social interactions by allowing people to connect and communicate in immersive virtual spaces. However, there is a concern that extensive use of these devices may lead to social isolation, as users can become disconnected from the physical world and real-life social interactions. Balancing the desire for immersive experiences with the need for real-world social interactions will play a crucial role in shaping user acceptance. Additionally, addressing ethical and privacy concerns is essential to build trust among users.

### 3. Scenario Planning:

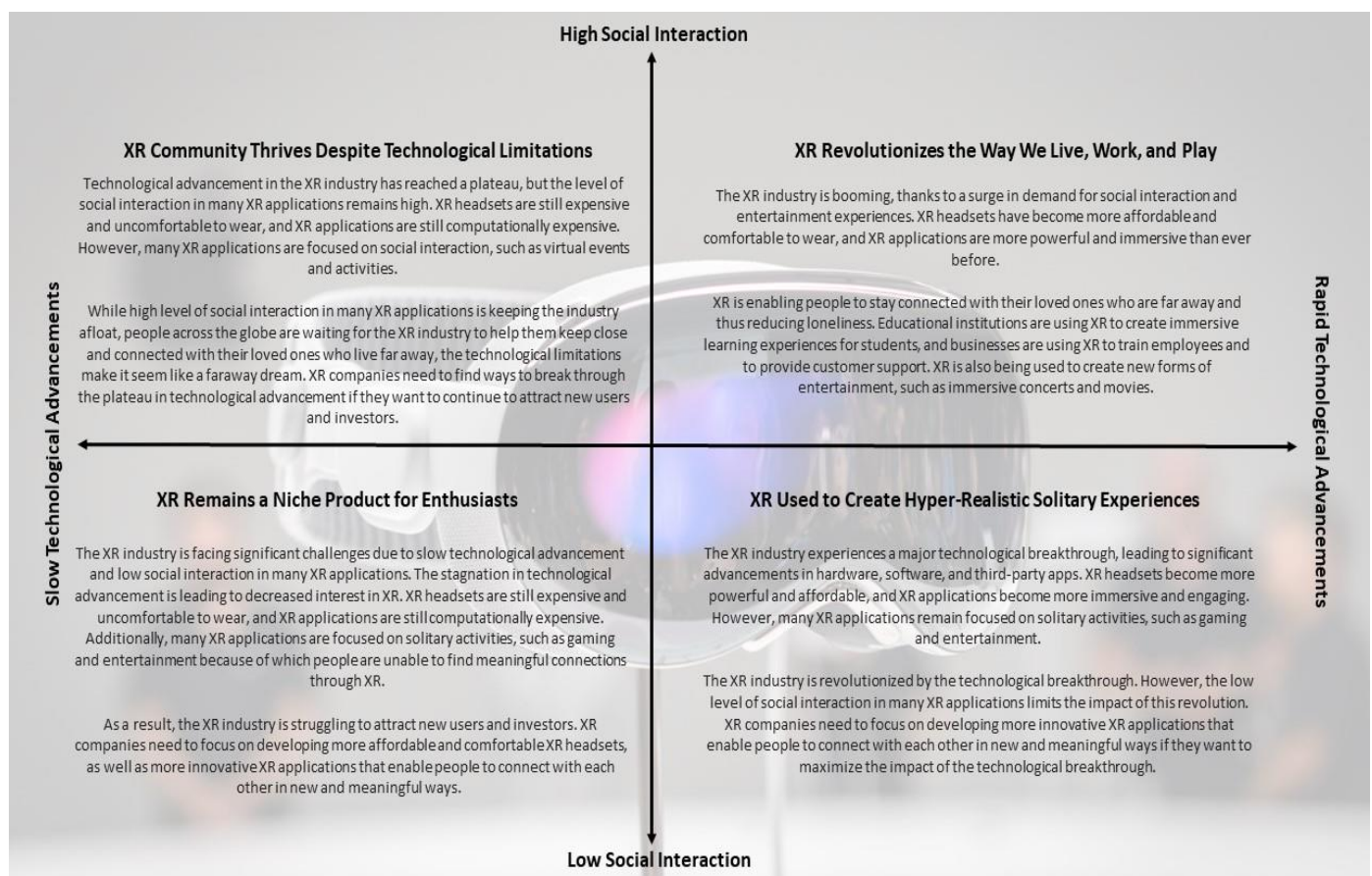


Figure 1: Scenario Planning

## 4. Connecting the DOTS

| DRIVERS  | OPPORTUNITIES  | THREATS   | STRATEGIES   |
|--|--|---|--|
| <ul style="list-style-type: none"><li>• <b>Legacy of Innovation:</b> Apple has a strong history of introducing groundbreaking products that have changed the tech industry, from the iPod to the iPhone and iPad. This legacy of innovation is a driver for the company to continue to push the boundaries.</li><li>• <b>Market Capitalization and Financial Strength:</b> With a market capitalization over \$3 trillion and a significant cash reserve, Apple has the financial strength to invest in new ventures and technologies.</li><li>• <b>Ecosystem and Customer Loyalty:</b> Apple's ecosystem, including the App Store, iCloud, and services like Apple Music, creates a strong lock-in effect, fostering customer loyalty and generating recurring revenue.</li><li>• <b>Privacy Emphasis:</b> Apple's strong focus on privacy is a driver for users who are increasingly concerned about data security in an era of advanced technology.</li></ul> | <ul style="list-style-type: none"><li>• <b>Media Partnerships:</b> Apple's partnerships with media giants like Disney+ can enhance the appeal of the Vision Pro and strengthen the company's ecosystem.</li><li>• <b>Premium Market Target:</b> By focusing on the premium market segment, Apple can capture a valuable audience willing to pay for top-tier technology and experiences.</li><li>• <b>Ecosystem Integration:</b> The Vision Pro can serve as a cornerstone in Apple's ecosystem strategy, enhancing the value of its services and products.</li><li>• <b>Collaboration with Google and Ajax:</b> Partnering with competitors like Google and utilizing technologies like Ajax can provide Apple with a competitive edge in the AI and metaverse landscape.</li></ul> | <ul style="list-style-type: none"><li>• <b>Competitive Landscape:</b> Apple faces competition from other tech giants and startups in the spatial computing and AR/VR market. Competitors like Meta Quest 3 and XReal offer alternatives at different price points.</li><li>• <b>High Price Point:</b> The Vision Pro's premium pricing may limit its adoption, especially in a market where more affordable alternatives exist.</li><li>• <b>Ecosystem Lock-In Concerns:</b> There are concerns that third-party developers may struggle to compete with Apple's bundled services, potentially limiting innovation in certain sectors.</li><li>• <b>Slow Adoption of XR:</b> The market for XR and spatial computing is still evolving, and the technology may not see rapid adoption, posing a risk to Apple's investment.</li></ul> | <ul style="list-style-type: none"><li>• <b>Horizon 1:</b> Market Penetration, Developer Ecosystems, Ecosystem Integration, User Education</li><li>• <b>Horizon 2:</b> Market Expansion, Collaboration and Strategic Partnerships, Product Refinement, AI Integration</li><li>• <b>Horizon 3:</b> Diversification, Mass Adoption, Industry Standards, AI and Metaverse Leadership</li></ul> |

Figure 2: DOTS Framework

## 5. Competitive Landscape:

### Incumbents

- **Meta:** Meta (formerly Facebook) is a social media and technology company that is developing a number of AR/VR products, including the Quest 2 VR headset and the Ray-Ban Stories smart glasses. Meta is a major player in the AR/VR market and is well-positioned to compete with Apple Vision Pro.
- **Microsoft:** Microsoft is a software company that is developing a number of AR/VR products, including the HoloLens AR headset and the Mesh mixed reality platform. Microsoft is a major player in the enterprise AR/VR market and is well-positioned to compete with Apple Vision Pro in the workplace.

- **Magic Leap:** Magic Leap is a technology company that is developing a number of AR/VR products, including the Magic Leap One AR headset. Magic Leap is a pioneer in the AR/VR market and has developed some of the most advanced AR/VR technology available.
- **Vive:** Vive is a brand of VR headsets that are manufactured by HTC. Vive headsets are some of the most popular VR headsets on the market and are known for their high-quality displays and tracking systems.

### Insurgents

- **Google:** Google is a technology company that is developing a number of AR/VR products, including the Google Glass AR headset and the Google Daydream VR platform. Google is a major player in the technology industry and has the resources and expertise to compete with Apple Vision Pro.
- **Groove Jones:** Groove Jones is a technology company that is developing augmented reality glasses for athletes. Groove Jones glasses provide athletes with real-time data and feedback as they train.
- **Niantic:** Niantic is a technology company that is known for developing the augmented reality game Pokémon GO. Niantic is developing a number of other AR/VR products, including the AR glasses project Niantic Real World Platform.
- **VR Vision Inc:** VR Vision Inc is a technology company that is developing a virtual reality headset for people with visual impairments. The VR Vision headset can help people with visual impairments to see better and to improve their quality of life.

### Adjacent

- **Alphabet:** Alphabet is the parent company of Google. Alphabet is investing heavily in AR/VR technology and Tensor Chipsets.
- **Nvidia:** Nvidia is a semiconductor company that is developing chips for AR/VR devices. Nvidia chips are used in many of the leading AR/VR headsets on the market.
- **Amazon:** Amazon is an e-commerce company that is developing a number of AR/VR products, including the Echo Show smart display and the AR glasses project Amazon Sumerian. Amazon is well-positioned to compete with Apple Vision Pro in the consumer AR/VR market.
- **Tesla:** Tesla is an electric vehicle company that is developing a number of AR/VR products, including the AR HUD for the Tesla Model 3 and the AR glasses project Tesla Vision. Tesla is well-positioned to compete with Apple Vision Pro in the transportation AR/VR market.

| Incumbents   | Insurgents   | Adjacent   |
|--|--|--|
| <br><br><br> | <br><br><br> | <br><br><br> |

Figure 3: Competitors in the industry



## 6. Business Model Canvas of Apple Vision Pro:

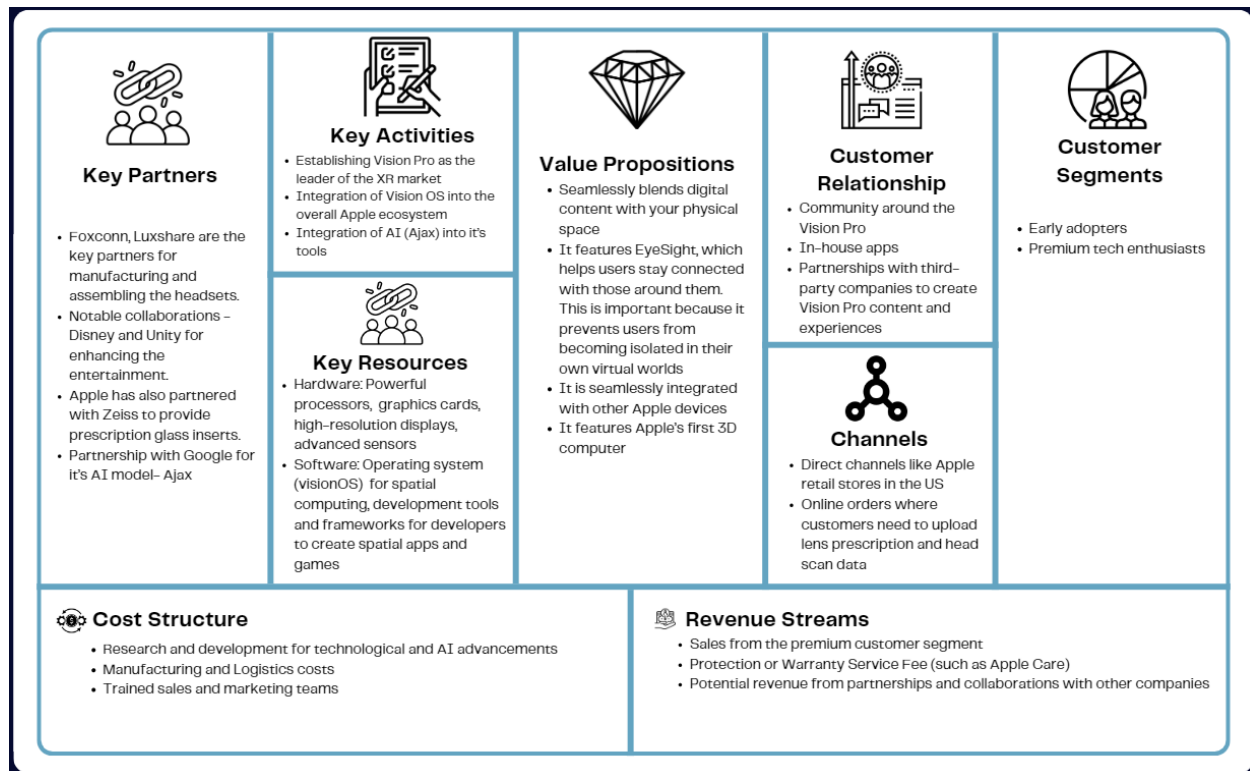


Figure 4: Business Model Canvas Framework

## 7. Strategy Palette Positioning:

A market shaper driving innovation by adopting a visionary strategy

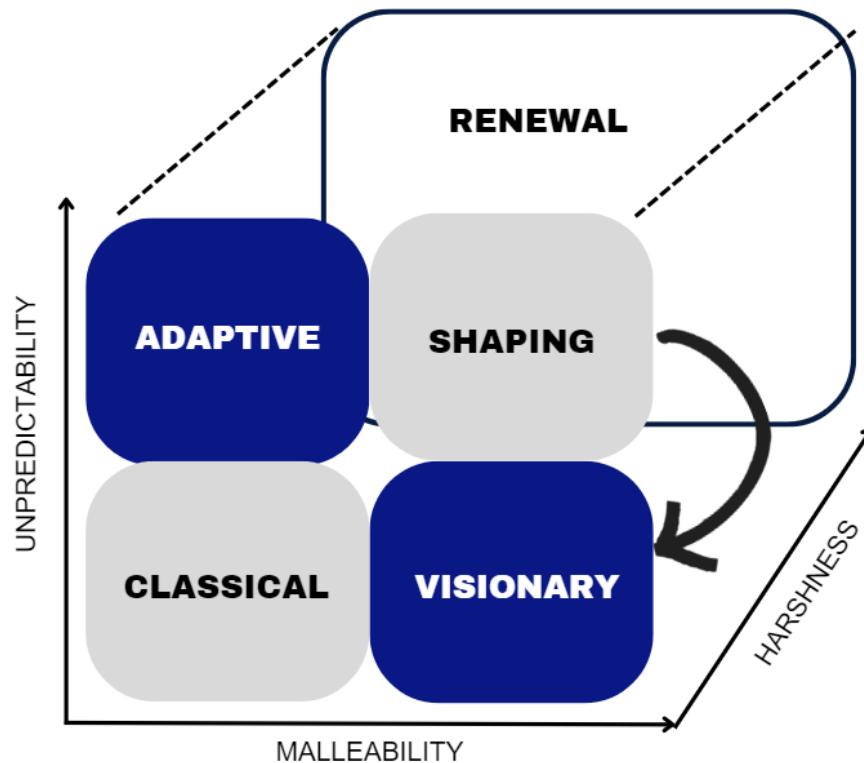


Figure 5: Strategy Palette

**Shaping:** Apple is one of the most recognizable and trusted brands in the world. This gives Apple a significant advantage in the market, as consumers are more likely to purchase products from a brand they know and trust. Apple is known for its innovative products and its ability to set trends in the technology industry. The company has a long history of introducing new products and technologies that have changed the way people live and work. Apple has built a strong ecosystem of products and services that work together seamlessly. This makes it easy for customers to switch to Apple products and to continue using them over time.

**Visionary Move:** By introducing the Vision Pro, Apple has shown that it is committed to innovation and to leading the market in new technologies. Vision Pro is a revolutionary product that has the potential to change the way we interact with digital content. Apple is demonstrating its commitment to the future of spatial computing and AI. It is poised to disrupt the market with

its AI powered spatial-computing and ecosystem of partners. The Vision Pro is also likely to inspire other companies to develop their own spatial computing products.

### 8.1, Strategic Recommendations: Jumping S-Curve Framework

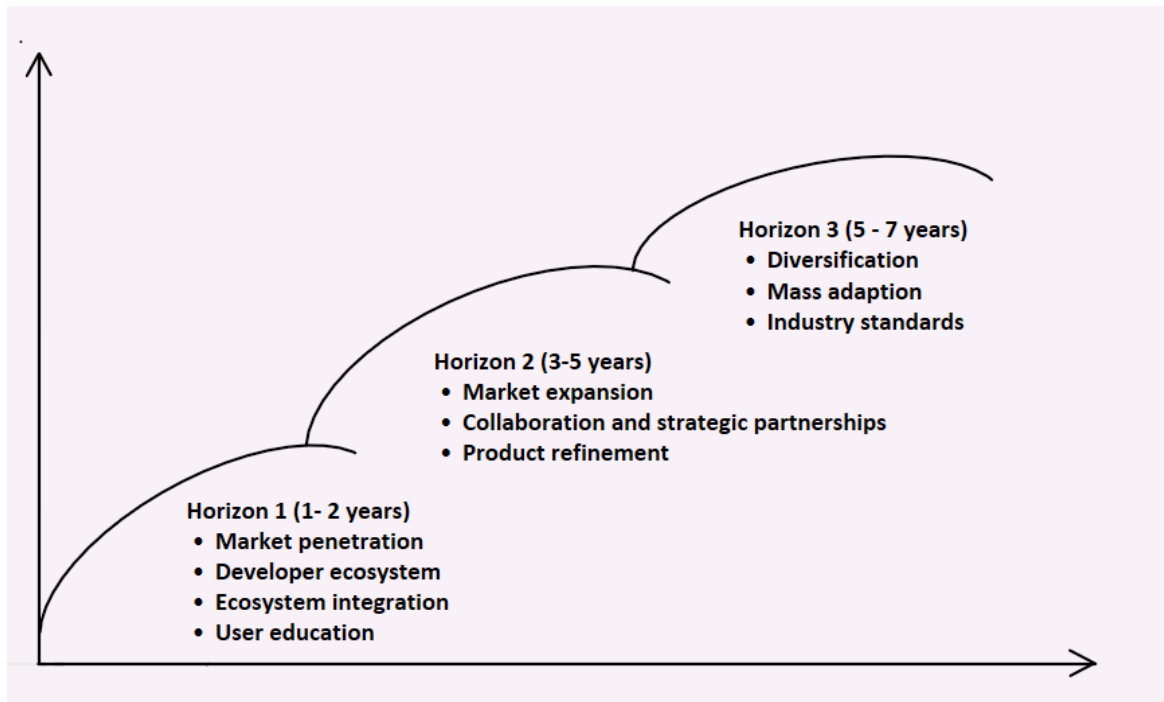


Figure 6: Jumping S-Curve Framework

#### 8.2. Horizon 1 (1-2 years):

- **Market Penetration:** The initial launch of the Vision Pro should focus on capturing the premium market. Apple should implement effective marketing strategies to create buzz and build and capture an initial customer base.
- **Developer Ecosystem:** Apple should invest in supporting developers to create applications and experiences for the Vision Pro, ensuring that there is a diverse and engaging content library. It should work to make the Visual OS developer-friendly so that they are able to seamlessly integrate third-party applications into the operating system.
- **Ecosystem Integration:** Apple should continue to integrate the Vision Pro into its overall ecosystem, leveraging partnerships with media companies, app developers, and other stakeholders. This creates a more compelling value proposition for users who are already owners of Apple products and strengthens its position in the market.
- **User Education:** Educating users about the capabilities of spatial computing and Vision Pro is essential. Apple should provide resources, tutorials, and demos to help users make the most of the technology.

### 8.3. Horizon 2 (3-5 years):

- **Market Expansion:** As technology matures, Apple can consider expanding its market reach. This includes offering more affordable versions of the headset to target a wider audience. Additionally, Apple should also work on launching the product in different countries around the world.
- **Collaboration and Strategic Partnerships:** Apple can collaborate with video-conferencing companies like Cisco (like Cisco Hologram), Zoom etc. to provide a more immersive experience for remote work and meetings. They can also partner with universities and other social platforms (like Google Classroom) to encourage social interactions. For example, online learning can become a much more immersive, interactive experience for students via extended reality headsets. Apple can be the pioneer in making this a social experience for all.
- **Product Refinement:** Apple should focus on refining the Vision Pro AR headset based on user feedback and emerging technologies. This includes improving hardware specifications, software, and user experience.
- **AI Integration:** The mid-term horizon is a critical period for Apple's AI endeavors. The company should aim to fully integrate Ajax into its product ecosystem, enhancing user experiences and providing a unique selling point.

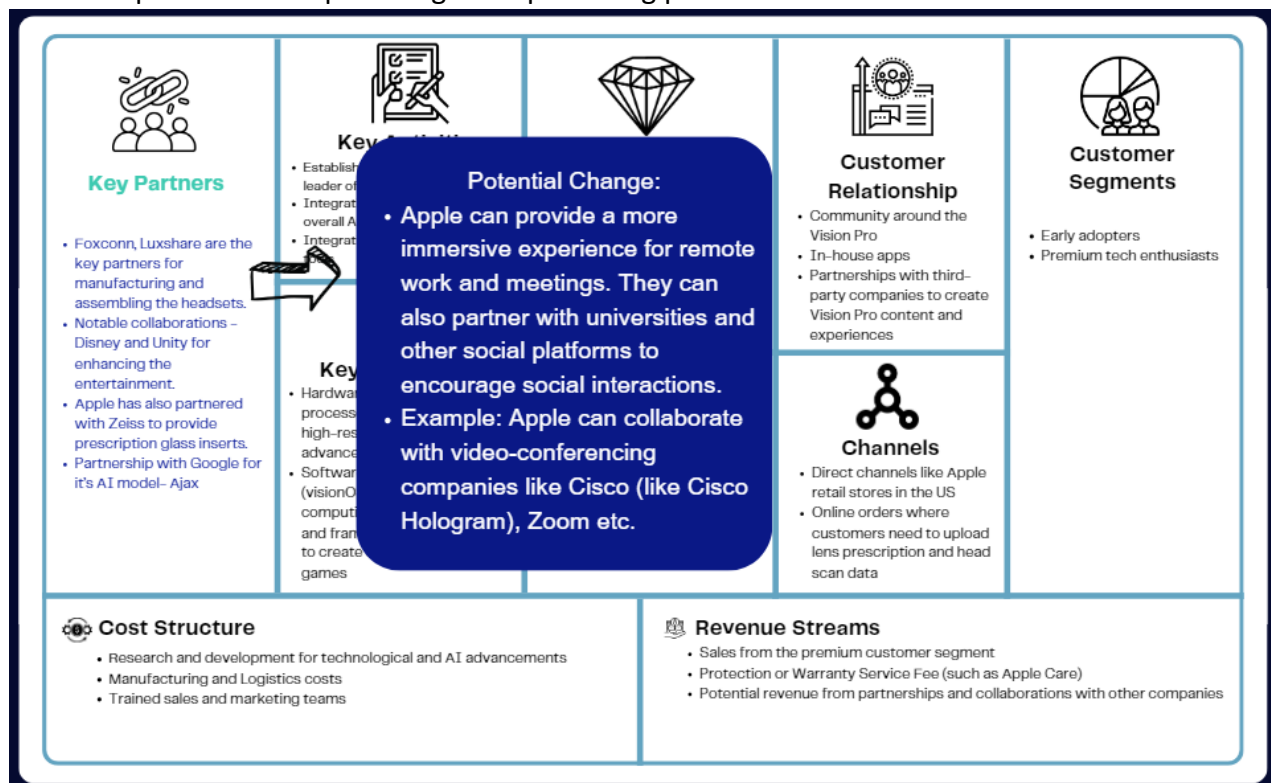


Figure 7: Business Model Canvas Changes 1

### 8.4. Horizon 3(5-7 years):

- **Diversification:** In the long term, Apple might explore diversification into other areas, such as transportation or healthcare, to maintain its status as an innovative and influential company. For example, Visio Pro headsets can be used by doctors to perform remote surgery.
- **Mass Adoption:** In the long term, Apple should aim for mass adoption of spatial computing technology. This may involve launching a new line of headsets like the SE versions of the Apple Watch and iPhone in order to capture a wider market of consumers.
- **Industry Standards:** Apple can work with other industry players to establish standards for spatial computing and XR technologies, ensuring interoperability and compatibility across devices and platforms.
- **AI and Metaverse Leadership:** Apple's AI and Metaverse strategy should solidify its position as a leader in these fields. This might involve developing AI-driven metaverse experiences that leverage Vision Pro. Apple's goal in the long term is to shape a new paradigm in computing, just as it did with the iPhone and iPad. This will require continuous innovation, investment, and strategic partnerships.

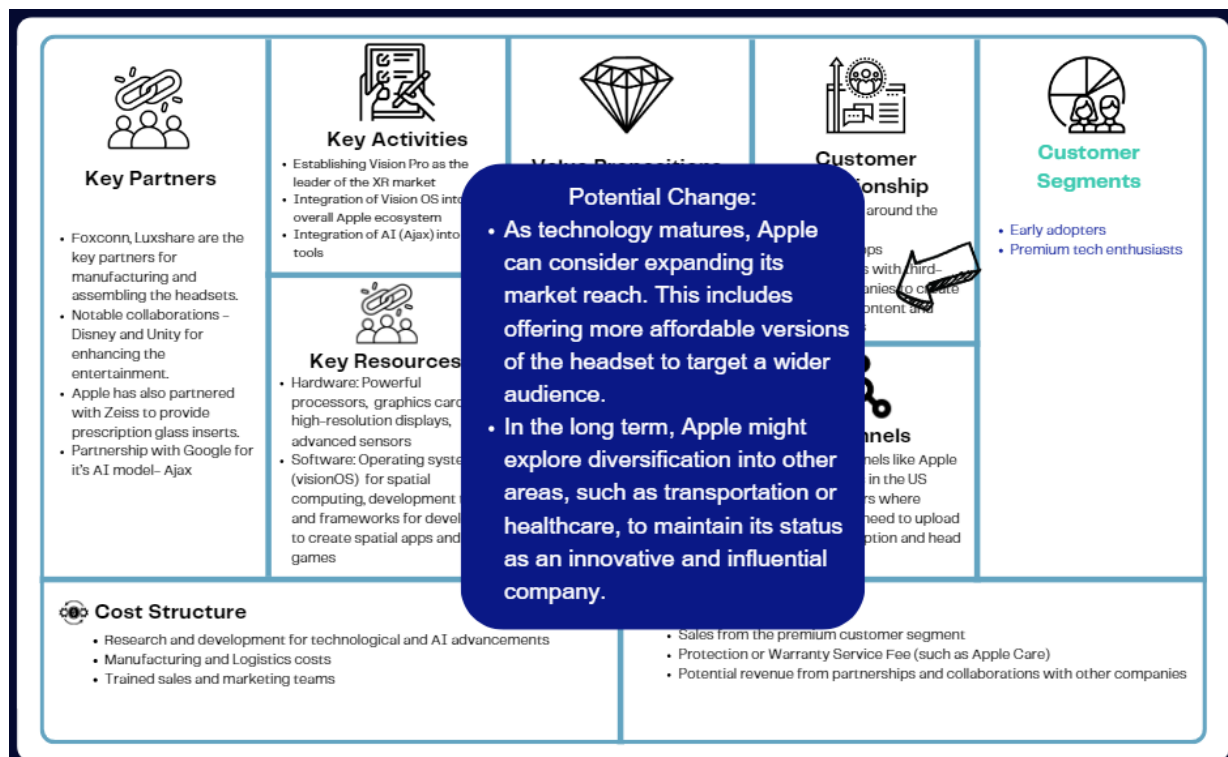


Figure 8: Business Model Canvas Changes 2