

## PC is still a necessity

### Is the personal computer (PC) dead?

Over the last 40 years, PCs (including both desktops and laptops) have been major devices that have revolutionized individual *“productivity”* through word processing, developing spreadsheets, and creating presentations, among other things. In the past 20 years, ever since the advent of the commercial Internet as a major technology enabler, PCs have performed a *“connectivity”* role, i.e., have been the primary devices to connect to the Internet in order to seek/act upon information. In the process, the *“productivity”* and *“connectivity”* roles have been well-satisfied by modern PCs.

In the past decade, however, mobile devices such as tablets and smartphones have taken the world by storm. Both tablets and smartphones are more portable and convenient than PCs, thereby fueling incredible growth. While mobile devices fulfill the connectivity role extremely well, there have been concerted efforts by tablets to develop devices that also double as PCs (Microsoft Surface is one such example). Consumers are logging in tremendous time on these mobile devices, leading some analysts to proclaim that the PC is dead.

#### Question 1

Identify the current stage of the PC in the product life cycle and explain briefly with supporting arguments. (Is the PC really dead? Or dying? Are PCs in the late-mature stage, or are they moving into the decline stage of the product life cycle with no salvage value?) The suggested word limit is 150 words.

Though PC has been in the market for more than 40 years, it is still in the growth stage of the product life cycle. There are a few reasons

- The two-year compound annual growth rate of 13% from 2019 indicates the PC market keeps growing since the pandemic. The PC market has made double digits growth despite the global chips shortage and supply chain restrictions.
- People are moving to the new normal of hybrid work, thus a PC is necessary to conduct work in both home and office. Mobile devices can hardly replace PCs in the workplaces, most of the time they are complements rather than substitutes.

- There are still many product innovations happening, like the Apple M1 chips, slim laptops and gaming laptops. Many of them served as productivity tools and can be hardly replaced by any other products.

## Question 2

You're the CEO of a major PC company; craft a customer value proposition that matters to your segment of consumers. (HINT: Is there a potential basis of competition (beyond productivity and convenience) that may help PCs extend the product life cycle in their quest to become important? Identification of this "basis of competition" is critical in order to develop a winning PC product.) The suggested word limit is 350 words.

### Needs: What is the value we provide

The basis of competition should shift to professional needs. There are areas like film editing, professional photo editing, 3A gaming or software engineering that require superior computing performance. Mobile devices cannot replace PCs in this domain, and the performance improvements in these domains are still below market needs. The value proposition would be high computing performance PCs tailored to these professional domains and provide adequate performance.

### Segment: Who are we trying to reach

The segments we should reach are professional film editors, photographers, gaming studios, software companies, developers, scientists and other people with high computing demands. These segments of customers will have unfulfilled needs of high performance computers. Also, studios, companies, or research agencies that hire those professionals should be the segments we should reach as well.

### Channels: How are we reaching them

We need to cooperate with local and national distributors to reach out to these customers, since they have existing connections with them. Also, it is important to build the direct sales channel, because that will not only increase the profit margin, but also ensure the customers understand the technology improvements of the new product. We need to do both traditional marketing and digital marketing to reach out to a large audience base as well. There may be a large spread of industries that have high performance computing needs. Last but not least, we should host events and seminars to educate potential customers about the superior performance of our PCs and let them understand the product can solve their unfulfilled needs.

