Remembering Steve Jobs

General Instructions

- Students can send in their research write-ups in teams of three
- There are two parts- Analysis and Synthesis
- All the questions in first part (Analysis) are compulsory, to gain the necessary background for further discussion. The writeup of any of the parts - P1/P2/P3 shall not exceed 800 words.
- Students can choose any one theme and send in their research reports. The writeup of the Synthesis topic shall not exceed 800 words.
- The best team which would have submitted the best research shall present during the event.
- One team per theme would be selected. Students may choose the theme strategically.
- Students are also required describe the background work in the report.
- If you disagree with any implicit assumptions in the question, please state your point of view explicitly. You'd receive extra marks. There may be no correct/wrong answers in social sciences.
- No woo-woo! Please use words within proper context.

Selection Criterion

- Language- Usage of phrases/jargon within appropriate context.
- Scientific Rigor - Are the argument testable through data, is the mechanism defined?
- Perspectives- alternative ways of looking at the ideas, from different stakeholders' p.o.v.
- Creative Problem Solving- Out of the box solutions to the problems.

Synthesis Themes

- **T1: Design:** Steve Jobs understanding of form and function.
- **T2: Product Development:** Working from user-experience to products.
- **T3: Marketing:** Selling values rather than products.
- **T4: Leadership:** Pushing teams of A-Players to build solve interesting problems.

Pick up any one theme and critique Steve Jobs' idea/philosophy (given in the questionnaire) around these domains. Present contexts in which Steve Jobs ideas could be applied or contexts within which these ideas would be incompatible.

Analysis

P1: R&D Vision of Steve Jobs

P2: Initial Niche appeal of Apple

P3: Business Strategy of Apple

There are probably no correct or wrong answers to these questions. We are looking for interesting perspectives around Apple's R&D / Marketing / Business strategy.

The idea is to analyze Steve Jobs' ideas around Product Development/Design/Leadership/Marketing within context, by understanding the core Business Strategy of Apple.

P1: R&D

"Innovation has nothing to do with how many R&D dollars you have. When Apple came up with the Mac, IBM was spending at least 100 times more on R&D. It's not about money. It's about the people you have, how you're led, and how much you get it."- Steve Jobs

Q1 Steve didn't believe in Market Research, he'd try and figure out users' problem through his intuition instead. Do you think it is a good strategy? What would be the pro cons of Market-Research driven R&d versus market intuition driven R&D?

Q2 Steve Jobs had apparently got his 100 iPod demo pieces' headphone fixed one night before its' launch when figured out that the plug wouldn't fit in. At times he delayed product launches unless he was happy with the product. Would you prefer to ship the product on time, to catch up with the sales season or would you focus on R&D?

Q3 What advantage Apple gain if they placed R&D ahead of market deadlines?

Q4 Why do you think Steve Jobs would miss shipment deadlines and overshoot R&D budgets, before being 'fired' from Apple?

Q5 Do you think this R&D intensive business strategy is financially sustainable? Can one build a sustainable business models which can enable such R&D?

P2: Niche

Q1 Why do you think Steve Jobs chose to target the "professionals" market? Why do you think a professional amateur would be interested in having the a powerful personal computer with a good user interface?

Q2. Why do you the professional market looks for latest technology? Is it a need or a necessity?

Q3 Do you think the professional niche helps in creating a brand aspiration value? Does this explain the cult status of Apple?

Q4 How do you think the professional niche can help in evolving the product line? Can they think of newer uses cases?

Q5 Do you agree with Steve Jobs' strategy of focusing on this niche market?

P3: Business Strategy

In the first quarter of 2011, HP sold an estimated 15.1 million PCs to consumers, according to IDC, placing it well ahead of rivals Dell and Acer. Apple's sales of 3.76 million Macs weren't enough to crack the top five worldwide PC vendors. But with so few dollars earned on so many PCs sold, HP's earnings have not been competitive, while Apple's pricing discipline has helped it to become one of the most valuable companies in the world by market capitalization.

Q1 Do you think Apple should look to generate revenues through volume or through margins?

Q2 Is premium positioning the only strategy which can sustain intensive R&D?

Q3 How would you contrast the R&D and business strategies of Apple and MI?

Q4 What are the advantages of exclusive and premium positioning which were enjoyed by Apple?

Q5 What is your understanding of the business strategy of Apple?

Design

Simplicity : Jobs was a minimalist- a design principle where things are stripped down to fundamentals, removing any distractions/complications to the basic design. For instance, the iPod is essentially a rectangular screen and a circular controller, enabling even a child to figure out how it works. John Sculley notes - "I remember going into Steve's house and he had almost no furniture in it. He just had a picture of Einstein, whom he admired greatly, and he had a Tiffany lamp and a chair and a bed. He just didn't believe in having lots of things around but he was incredibly careful in what he selected."

Skeomorphism is a design principle in which design cues are taken from the physical world. Steve Jobs realized that metaphors help in simplifying UI. The calculator on the Mac would look like an actual one. He took inspiration for "desktop" from an actual workstation and a recycle bin looked like a trash-can. He choose use the traffic-lights color scheme for minimize-restore-exit buttons.

Form as Function: "Design is not how it looks, but how it works" believed Steve Jobs. He defined it this way- "Design is the fundamental soul of a human-made creation that ends up expressing itself in successive outer layers of the product or service,". Steve believed that people do judge a book by its cover. He so would impute qualities into the design. For instance, an iMac had a handle although people didn't actually use it- it was more semiotic than functional. The handle gave people 'permission' to touch the machine and hence more friendlier. He chose to add the handle although the manufacturing was against it, as it'd hike up production costs.

Perfection and attention to Detail: The iPad didn't seem casual and friendly and Jobs felt that it needed to signal that you could grab it with one hand, on impulse. They decided that the bottom edge should be slightly rounded, so that a user would feel comfortable just snatching it up rather than lifting it carefully. That meant engineering had to design the necessary connection ports and buttons in a thin, simple lip that sloped away gently underneath. Jobs delayed the product until the change could be made.
He had the engineers and other members of the Macintosh team sign their names so that they could be engraved inside the case. "Real artists sign their work," he said. The story of Steve Jobs dropping an iPod into an aquarium, showing the bubbles and asking the team to make it thinner is quite popular and reinforces his idea of perfection.

Craft: "When you're a carpenter making a beautiful chest of drawers, you're not going to use a piece of plywood on the back, even though it faces the wall and nobody will ever see it. You'll know it's there, so you're going to use a beautiful piece of wood in the back. For you to sleep well at night, the aesthetic, the quality, has to be carried all the way through"- Steve Jobs recalls his father's words. This inspired Steve Jobs' Design Philosophy at Apple, When the first Apple II casings were delivered, Jobs noticed a thin plastic seaming that was often the result of the injection molding process, he had Apple employees sand and polish them to be displayed at a computer expo. Jobs even rejected the designs of the original logic boards inside of the Apple II as the 'lines were not straight enough.

Product Development

Evolution: "The problem with that is that there's just a tremendous amount of craftsmanship in between a great idea and a great product. And as you evolve that great idea, it changes and grows. It never comes out like it starts because you learn a lot more as you get into the subtleties of it. And you also find there are tremendous tradeoffs that you have to make. There are just certain things you can't make electrons do. There are certain things you can't make plastic do. Or glass do. Or factories do. Or robots do.
Designing a product is keeping five thousand things in your brain and fitting them all together in new and different ways to get what you want. And every day you discover something new that is a new problem or a new opportunity to fit these things together a little differently. And it's that process that is the magic."

Apple iterates the design throughout manufacturing, although it's expensive. The product is built, it's tested and reviewed, then the design team improves on it and it's built all over again. These cycles take 4-6 weeks at a time and may be run many times over a product's development lifecycle.

Steve Jobs used the platform strategy- focus on generations of products rather than individual products. Every successive product fixed issues that affected the generations before it, and customers could actually see how their feedback resulted in tangible changes to the product line.

Cross Functional Collaboration: People of different backgrounds were made to collaborate, inspired by Edwin Land's idea that Technology should be at the intersection of Arts, Science and Business. He often included the engineers in meeting with the product designers so the engineers could appreciate the importance of the need for simplicity in Apple's designs. That simplicity caused a lot of trouble for engineers – it was tough to make, but he would share the vision of the product with both teams and have open debate throughout the product development cycle. Instead of making the cycle and the meetings iterative, Jobs held meeting with all involved to work it out to save time, create buy-in and hear all perspectives at once.

Design Process: The Apple New Product Process (ANPP) information is given to a product development team when they begin work. It details every stage of the design process and it goes into elaborate detail. The idea is to <u>define</u> what stages the product creation team will go through, who will be responsible for delivering the final product, who works on which stage and where they work and also when the product is expected to be completed.

No to studying Focus Groups: Steve Jobs was against Market Research and studying Focus Groups. When Jobs took his original Macintosh team on its first retreat, one member asked whether they should do some market research to see what customers wanted. "No," Jobs replied, "because customers don't know what they want until we've shown them." He invoked Henry Ford's line "If I'd asked customers what they wanted, they would have told me, 'A faster horse!'"

Intuition and Empathy: "The people in the Indian countryside don't use their intellect like we do; they use their intuition instead," he recalled. "Intuition is a very powerful thing—more powerful than intellect, in my opinion." Work from user-experience to technology and not the other way round believed Steve Jobs. He believed that understanding user-experience and empathizing with them helped him in understanding how to build products, by solving their problems.

Marketing

Sell Values: Steve Jobs belived that in this complicated and noisy world, a company can't get people to remember much about them. So a brand has to be clear about what it'd want people to remember about them- their values. He believed that great brands need nurturing/caring and that great brands never talk about their brand. He illustrates this argument with an example of a brand which he believes does one of the greatest jobs of Marketing that universe has ever seen is Nike. Remember Nike sells a commodity, they sell shoes and yet, when you think of Nike, you think of something different. And their ads as you know, they never talk about their products. What is Nike doing with their advertising? They honor great atheletes and they honor great athletics, that is who they are, that's what they are about.

Think Different: Steve Jobs states that Apple's core value is it's belief that people with passion can change the world. He says that Apple had the opportunity to work with people who managed to do it and wanted to communicate it through "Think Different" campaign, which would be Apple's first brand marketing campaign. It honors the people who have changed the world. Some of them living and some of them who aren't. He goes on to say, that with the ones that aren't alive, you'll see that if they ever used a computer, it would have been a mac and theme of the campaign is "Think Different".

Market Segmentation (while launching NeXt): The traditional PC market space was dominated by IBM. The workstation market had .... The product to be launched by NeXt would have multi-tasking, networking, UNIX and good development environment. Their product is like a workstation but then conventional workstations don't have a good user-interface and easy of use, unlike the PCs. NeXt kept oscillating between both the segments and they wondered if they were an easy to use workstation or a powerful PC? On inspecting further, he segmented the workstation market place further- into the traditional one (science/engineering) and the professional half which had a new set of people who wanted the power of a workstation- higher education, legal, publishing etc. They realized that Sun had 80% of the professional workstation market place, that they didn't see it was a tiny marketplace and that the market size would grow by 100% the next year.

Customer Needs: These professional users need custom applications which dictates a good development environment, strong networking capabilities which are not found in PCs/Macs. These custom applications used by users are database driven, which means that they need both networking capabilities and ability to communicate with the databases. Desktop computers would gain popularity due to inter-personal computing to improve collaboration. Steve Jobs predicted that the market of inter-personal computing would increase as customers get educated. He quotes Mc Kenna- "The best Marketing is Education"

Marketing Strategy: Steve Jobs identified that the reasons which can help in pushing Sun customers to move to NeXt are the exact same reasons which are moving them into workstation market from the PC market. NeXt development environment is better than Sun, as told by their customers who attended their developer camps. They got the customers' best developers to spend a week at their developer camps, so that they could tell their management that NeXt could help them in developing their custom apps three times faster. Second reason- NeXt had more, user-intuitive and break-through productivity apps. Third reason- multimedia and ease of use makes NeXt stronger than Sun, with respect to inter-personal computing.

Leadership

Only A Players: Jobs was famously impatient, petulant, and tough with the people around him. But his treatment of people, though not laudable, emanated from his passion for perfection and his desire to work with only the best. It was his way of preventing "the bozo explosion," in which polite managers help mediocre people feel comfortable.

Steve's contributions could have been made without so many stories about him terrorizing folks," Apple's cofounder, Wozniak, said. "I like being more patient and not having so many conflicts. I think a company can be a good family." But then he added something that is undeniably true: "If the Macintosh project had been run my way, things probably would have been a mess."

Jobs's rudeness and roughness were accompanied by an ability to be inspirational, he infused Apple employees with passion to create groundbreaking products and a belief that they could accomplish what seemed impossible. His top players tended to stick around longer and be more loyal than those at other companies, including ones led by bosses who were kinder and gentler.

Steved: Steve Jobs would fire people in the elevator itself, if they couldn't explain their work at Apple within a couple of minutes. People would usually avoid the elevator in between 10-11- the time at which we usually arrived at Apple every day. He believed that everybody in the company must be aware of the work being done, to nurture collaboration and had 3hour long meetings every week, where they discussed the on-going work. They took up very few projects, to ensure every product was reviewed.

Collaboration: Steve Jobs designed Pixar building to promote unplanned encounters and interactions amongst employees, to facilitate collaboration. He said, "If a building doesn't encourage that, you'll lose a lot of innovation and the magic that's sparked by serendipity, so we designed the building to make people get out of their offices and mingle in the central atrium with people they might not otherwise see." He hated power-point presentations and believed that people who knew what they were talking about, didn't need it. He'd meet his executive team every week to discuss ideas, without a formal agenda, and he'd spent every Wednesday afternoon with his marketing & advertising team.

Conflict: Jobs recreated a classic archetype of good (Apple) vs. Evil (Competitors). The notion of competing against an adversary who was betting on you to lose created an atmosphere where engineers would work long hours and strive for excellence against tough timelines, business obstacles and unforeseen misfortunes. In short, Jobs got some of people's best work from setting up a conflict. He also used this skill to enlist Apple devotees by pitting Apple as the renegades of corporate America.

Reality Distortion Field: Jobs's (in)famous ability to push people to do the impossible was dubbed by colleagues his Reality Distortion Field, after an episode of *Star Trek* in which aliens create a convincing alternative reality through sheer mental force. An early example was when Jobs was on the night shift at Atari and pushed Steve Wozniak to create a game called Breakout. Woz said it would take months, but Jobs stared at him and insisted he could do it in four days. Woz knew that was impossible, but he ended up doing it.

Those who did not know Jobs interpreted the Reality Distortion Field as a euphemism for bullying and lying. But those who worked with him admitted that the trait, infuriating as it might be, led them to perform extraordinary feats. "It was a self-fulfilling distortion," recalls Debi Coleman, a member of the original Mac team who won an award one year for being the employee who best stood up to Jobs. "You did the impossible because you didn't realize it was impossible."

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