Research Paper **Commerce**

How two bad apples (?) crated a Computer Company known as Apple?

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ABSTRACT

Apple Inc is an American multinational corporation with a focus on designing and manufacturing consumer electronics and software products. It has its head quarters in Cupertino, California, Apple develops, sells, and supports a series of personal computers, portable media players, computer software, and computer hardware accessories; Apple is also currently involved in the creation of new technology concepts, such as the iPhone, Apple TV, and many features of its new, upcoming operating system, Mac OS X "Leopard". Apple also operates an online store for hardware and software purchases, as well as the iTunes Store, a comprehensive offering of digital downloadable music, audiobooks, games, music videos, TV shows, and movies. The company's best-known hardware products include the Mac line of personal computers and related peripherals, the iPod line of portable media players, and the iPhone, which has a confirmed release date of June 29 2007 in the U.S. Apple's best known software products include the Mac OS operating system and the iLife software suite, a bundle of integrated amateur creative software products. (Both Mac OS and iLife are included on all Macs sold.) Additionally, Apple is also a major provider of professional (as well as "prosumer") audio- and film-industry software products. Apple's professional and "prosumer" applications, which run primarily on Mac computers, include Final Cut Pro, Logic Audio, Final Cut Studio, and related industry tools. The question is how it achieved its status? This paper examines the growth trajectory from historical point.

Keywords :

Introduction

Steve Wozniak was a college student living in the student dormitory of the University of California. Knowing his interest in electronics, his mother sent him an article from the October 1971 *Esquire* called "Secrets of the Little Blue Box." It is about story of an underground network of "phone phreaks," presently we call them as hackers. They built "blue boxes" that allowed them to circumvent the billing mechanisms of the phone company and make long distance phone calls all over the world without paying any charges. Wozniak was so excited by the article and called his friend Steve Jobs, who was four years younger and still in high school at San Jose. The two are friends and their common interest is electronics. The two Steve's decided to make the illegal blue boxes. Within four months, they developed a tone-generating oscillator picking up ideas from Popular Electronics. However, it was hard to keep it tuned well enough to hood wick phone company equipment, so Wozniak designed a small digital device powered by a battery. That is the reason why we call them bad apples. This machine yielded more reliable tones and fooled the telephone company. The two Steve's began playing phone (?)Games with the device. They called Munich, and made calls to Vatican. They tried a unique plan whereby they routed a call from exchange to exchange across the world and back to the phone booth down the hall so that they could say hello, run to the other phone, and hear their own voice ten seconds later. However, Jobs got tired of the technological games and decided it to be an entrepreneur out of their invention.

They planned a business in which they will be equal partners. The Parts for the blue boxes cost forty dollars; Woznik

took one hour to wire them. Soon the two were selling their little devices door to door in the university's male dormitories. The devices then spread to Southern California through a friend who set up shop as their distributor in Beverly Hills. The two sold more than two hundred of the boxes for $150 each. The long arm of law could not reach them. Some of their customers were convicted swindler Bernie Cornfeld and musician Ike Turner. However, all bad things come to an end. After one year the phone company refined their switching mechanisms, making the boxes useless. Wozniak failed in college. Steve Jobs began started drifting in life. He went out of college to Oregon where he spent his first semesters using LSD and marijuana, discovering sex, and investigating communes, and gurus. He adopted a diet from the writings of Arnold Ehret, a nineteenth-century Prussian who taught that eliminating mucus, gas, and "excessive excrement" from one's body is the key to health, happiness, and mental stability. All these ideas failed. He claimed that he worked for sometime in Hewlett-Packard, Jobs talked his way into a five-dollar-an-hour technician's job at Atari(Atari is an organization that made the first video game). He is antagonized his team mates in the organization. He was unkempt and sloppy and he told people that he could go without bathing because of his vegetarian diet. His supervisor, Al Alcorn transferred Jobs to a one-man night shift based on his poor human skills. Night work also meant that he was not coming to focus with his attitude. He was never a great worker. He was asked to work on engineering a game called Breakout, which was basically a Pong handball game with a wall of individual bricks that disappeared as you hit them. He requested Wozniak to help him and he accepted his offer. Atari paid a bonus every time a game designer was able to reduce the number of chips in

a game because fewer chips resulted in cost reduction to the organization. Wozniak is excellent in using fewer resources to produce better things. Jobs gladly agreed to share the bonus with his friend, which he said would be $700. Later Wozniak came to know that he sold the game for 7,000 $ to Atari and went to the commune. Meanwhile, Wozniak after leaving Berkeley got a job at Hewlett-Packard designing calculators. His heart is in computers. He started attending the Homebrew Computer Club in Menlo Park, a group of engineers, programmers, and technicians and hobbyists who met once in two weeks to discuss building small computers. This was in 1975, when computers were huge, room-sized costing large amounts of money that were programmed by punch cards. The business organizations and governmental agencies in USA and other advanced countries could afford them. One of the passions of these Homebrew Club was to wrest the monopoly of computers away from these institutions and provide them as a tool for liberation of the people. The early meeting was really not really productive but there are signs of success. It was clear that micro processors are getting dramatically cheaper, smaller, less complex, and more powerful. Through miniaturization, engineers had gotten the computing power of a house-size mainframe onto a chip of silicon. Members of the club began sharing, swapping, and selling electronic parts. Homebrew Club members were enthralled when on January 1975 Popular Electronics announced the release of the Altair 8800, the first computer kit for hobbyists. The sale price of the product was $375. It came without software or even an operating system, so it had to be programmed by the purchaser. It needed to be soldered together by the buyer and attached to additional memory chips and a teletype or TV screen before it would do anything that can be called interesting. The actual cost of owning the game went up to 3,000 $.

Altair thought that computing by individuals was possible and the Homebrew Club spent a lot of time thinking about small computers. Manufacturers at the time thought they would mostly control machines and appliances, but the Homebrew club came up with more exiting propositions. They imagined that Personal computers could be used to control burglar alarms, car engines, heating systems, music, edit text, play games etc.Wozniak did not have enough money to have Atari. Besides, just building a kit wouldn't have been a challenge. He started designing his own microcomputer, using parts that he and Jobs designed. Some times the methods adopted were not above board. Atari tightened up security when it discovered that it was losing an average of $800 in boards and chips every day.Wozniak's new computer was not the first one. In fact it was build when he had joined with a friend and assembled primitive device that would multiply simple numbers. San Jose Mercury's reporter came to see the devise and unfortunately the devise burned out. They lost an opportunity to be called be called as heroes at that time. However, he persisted and came with a solution and the computer worked exactly as he demonstrated. But when he offered manufacturing rights to his managers at Hewlett-Packard, they turned him down, saying "HP doesn't want to be in that kind of market." Steve Jobs was convinced and started persuading Wozniak about selling copies of Wozniak's circuit board as a kit for members of the Homebrew Club and other hobbyists. Jobs suggested they start their own computer company, and he even had a name picked out. He remembered his days in the Orchards on the farm commune in Oregon, and also wanted a name that would appear before Atari in the phone book. He suggested the name Apple Computer.

Wozniak wanted something more technical, more serious, more in keeping with the technical traditions of Silicon Valley firms. Some of the names considered were Executek or Matrix Electronics. He was also afraid that the Beatles will take them to court of law since their product is also called Apple Corps. But Wozniak eventually agreed that he no word better than Apple can be thought of, and the name was finalized signed an agreement on April Fools' Day,1976. However, Beatles sued them during 1981 when Apple entered music business. In order to start the enterprise they are in need of money. Wozniak sold his HP-65 calculator for $500; Jobs, not wanting to let on that he still had $5,000 in the bank from the sale Atari, sold his VW van to raise his half of the money. Reaction at the Homebrew Club was not encouraging. Enthusiasm was shown by small stores owners who were catering to the needs of computer hobbyists. The person who encouraged them was Paul Terrell. He suggested Wozniak that he didn't want the circuit board, since it requires his customers to assemble the computer. He wanted a fully assembled unit and was willing to buy fifty Apple I computers. He was even ready to pay cash. It is great news for both of them. However, they had to secure a capital of $25,000 in credit to assemble the parts.

They set up shop in the garage of Jobs' parents' house and recruited members of the Jobs family to help, paying Steve's younger sister one dollar a board to insert capacitors and resisters . They finished the computers, added up their costs, and decided that the computer should cost $666.66. Terrell, however, was not very happy. The "computers" were boards without cabinets, without keyboards, without operating system software to make them run, without disk drives or any other way to load programs, and without monitors. The Apple I was sold as a motherboard (with CPU,RAM, and basic textual-video chips) — not what is today considered a complete personal computer. The user was required to provide two different AC input voltages (the manual recommended specific transformers), wire an ASCII keyboard (not provided with the computer) to a DIP connector (providing logic inverter and alpha lock chips in some cases), and to wire the video output pins to a monitor or to an RF modulator if a TV set was used. Terrell paid anyway and hired a cabinetmaker to build wooden cases to mount the pieces in. Nonetheless, the Apples were not sold for a long time. Meanwhile, Wozniak started working on the Apple II. This time he was determined to make a computer that will make a better impact. It would have a keyboard and built-in BASIC software. It would have sound and color so he could play his game. And it would have a lot of slots to slide new boards in so it could be expanded and updated and customized. Jobs came up with a compact molded plastic case that was a marked contrast from the squatty sheet metal cases of other minicomputers. They were now ready to take the computer world by storm.

Questions
Please reflect on these issues
1) The founders started their encounter with business,with dishonest intentions. However, it gave raise to a 100 billion $ corporation. What is positive about them?
2. They have self disclosed to the public and never acted that they were good. However, can they go be free from guilt? Find from further analysis how they overcame the guilt.
2) How with such great innovations Apple is not the Number 1 in Operating systems.
3) What kind of advise you give to both of them if they have come to you during 1977 for advice.
4) Who is a "prosumer"?
5) Reflect and post your thoughts and insights.

This is prepared for students of MBA to understand the beginning of organizations and entrepreneurial spirit.