Apple Technology Aesthetics: Apple’s Era, Apple’s Way
Lessons learned for Taiwan’s Service-Economy-Oriented Growth

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ABSTRACT

Taiwan has always been a center of OEM manufacturing of computers and peripherals. The importance of contribution from Taiwanese firms cannot be overemphasized. People in Taiwan humored the fact with: Who said OEM is not a good task?!

One of the shining achievements was done by Foxconn, which magnified Apple’s market shares across full product spectrum. Overall, apple’s overall market share has increased from 5 percent to 25 percent; and is on its way to an expected 41%. Foxconn had created the sixth forces, known as the complementor, in Michael Porter’s Five Forces framework for Apple. The partnership between Apple and Foxconn had evolved beyond the so-called Brand and OEM relationship. And en route this evolution, the scarcity of value had progressed to the fair-price indulgence of luxury goods. Apple actually has preserved the capacity to create the expected prospect of low-price indulgence of luxury goods.

Apple has demonstrated superior prudence of providing products and services: intelligent Internet interface, uploading and downloading services and infrastructure for software creators. Apple has facilitated the creation of markets and cash flows for software writers and for Apple herself. The technology superiority, clouds-computing application creation and facilitation, and the linkage and integrated development among such, had pushed Apple to the commanding height leadership on technology aesthetics. No wonder we say: Apple’s era, Apple’s way.

We study Apple phenomenon from all angles to discover its implication on Taiwan’s effort on creating the service-economy-oriented economic plan. We also contrast Apple’s success with Volvo’s dilemma to draw inferences.

Keywords: iPad phenomenon, co-evolution of Apple, Foxconn and supply chain, monetary economics, content business, Apple Computers, aesthetics and technology.

DEDICATION

Taiwan’s Studio Classrooms and Apple embrace the same philosophy: paramount quality in aesthetics. This working article is most gratefully dedicated to Studio Classrooms and the Founder and CEO Professor Doris Brougham for her dedication and insistence on the highest delivered quality in serving the English learning needs for everyone in Taiwan in the past half century. We wish Prof. Brougham happy and healthy everyday; and continue to teach so many of us in Taiwan.

Photo: The Taiwan Elités 100 for the 100-th Celebration for ROC, taken at the Exhibition in Taiwan High-Speed Rail, Zuoying Station, Kaohsiung, Taiwan on May 28, 2011. Credit of photo: Jack and Heng-Chih.

APPLE TECHNOLOGY AESTHETICS: APPLE’S ERA, APPLE’S WAY

Introduction

Taiwan has always been a center of OEM manufacturing of computers and peripherals. The importance of contribution from Taiwanese firms cannot be overemphasized. People in Taiwan humored the fact with: Who said OEM is not a good task?!

The government of Taiwan, ROC, encouraged Taiwanese firms to engage in their own brand image creation to enhance the profit margin. Thereafter Taiwan had seen Acer, Asus and HTC, among other internationally recognized Taiwanese brands. Most of the time, Taiwanese brand are equipped with excellent technological specifications yet within an affordable price range. No wonder the products of Taiwanese brands sell well in many countries, including many major chain stores in United States. The great market shares of Taiwanese brands...
made all Taiwanese most proud of their achievements.

One of the shining achievements was done by Foxconn, which magnified Apple’s market shares across full product spectrum. Overall, apple’s overall market share has increased from 5 percent to 25 percent; and is on its way to an expected 41%. Foxconn had created the sixth forces, known as the complementor, in Michael Porter’s Five Forces framework for Apple. The partnership between Apple and Foxconn had evolved beyond the so-called Brand and OEM relationship. And en route this evolution, the scarcity of value had progressed to the fair-price indulgence of luxury goods. Apple actually has preserved the capacity to create the expected prospect of low-price indulgence of luxury goods. But as a for-profit business, Apple has chosen not to do it.

The Value Net of Apple Computer

Figure: Foxconn had created the sixth force for Apple

Before encountering Foxconn, Apple never thought of turning big in market share. There may have been a whim, but Apple’s then CEO was from a beverage giant company and was most familiar with commodity marketing and selling. The commodity marketing mindset and then immature global sourcing (at the inception stage of supply chain) had created a bulk quantity of all kind of configurations with varying component quality and overall integrity. A lot of remanufactured Apple products went into auctions as a result. The Apply crowd was not spirited. Then we saw the legend coming back of Steve Jobs. His landmark style brought Apple back to elegant product line. Each product in the line is featured by excellent technology that amazes users.

Under the leadership of Steve Jobs, the products under Apply umbrella are featured by aesthetics; and equally importantly, the technology superiority. The product line is short but complete with diamonds-like. The OEM role played by Foxconn is featured by superior capacity: fastest speed, lowest cost, and most stringent quality assurance. Foxconn had helped Apple create the monopoly market of technology aesthetics. The only potential and possible competitor of Apple is probably Sony, another technology giant. The matching strategies of Apple include: devising affordable pricing, embracing the Microsoft Windows system. Altogether, the grand strategy had grounded solid foundation for Apple’s dominating presence.

The co-evolution of Apple and precision OEM manufacturer Foxconn reminded us the legend Fuji Apple species in Switzerland, which is rich in antioxidant content and may help keep people healthful and young. With Taiwan’s superior agriculture technology, the close-to-extinct precious species can be saved and can multiply to benefit millions of potential consumers. Such aesthetics stories are not isolated incidences; they are creating the new landscape of businesses with their complementors. Assuming that Mercedes or BMW encounters its complementor to magnify the throughput exactly and affordably, will there still any room for mediocre cars? Aesthetics echoes the phenomenon coined by Schumpeter: Creative destruction. Creative destruction is powered by amazing forces which pave the roads for superior innovation by sweeping into ashes the obsolete and inferior products.

APPLE’S SNOWBALL EFFECTS

The bigger grows even bigger phenomenon usually exists only in merchandise of digital content. However, it has also realized in Apple aesthetics. We also discovered such realization in other key technology aesthetics: Dyson on vacuum cleaners and bladeless fans, Mercedes on sports cars, Studio Classroom on English-learning as the second language. Each of the aforementioned technology aesthetics giants share a common feature: deep technology pocket. As organization theorist James March vividly said: Such technology dominating players possess a current garbage can (a diamond case in disguise for tomorrow) with answers and breakthrough know-how to tomorrow’s demand-driven innovations. Only those companies striving for excellence on a day-to-day diligence will be ready to cherry-pick the markets when the door of opportunities suddenly unfold.

Apple has demonstrated superior prudence providing products and services: intelligent Internet interface, uploading and downloading services, interfaces and infrastructure for software creators. Apple has facilitated the creation of markets and cash flows for software coders and for Apple herself. The technology superiority, clouds-computing applications creation and facilitation, and the linkage and integrated development among such, had pushed Apple to the commanding height leadership on technology aesthetics. No wonder we say: Apple’s era, Apple’s way.

The emergence of Apple series drew a clear line with other commodities. To certain extent, Apply had weakened other delicate products to ordinary yet pricey commodities. What had caused the decline in PC sales may well have been caused by PC becoming furniture or commodity. After all, not all families need to replace furniture yearly. Nowadays when customers busy shopping PCs they feel amazed by manufacturers’ churning and flooding of products of similar specifications without genuine technology aesthetics. Another obstacle for advancing PC sales may also have been triggered by people asking themselves: Why do I want another PC? Shouldn’t I get an iPad instead? This is indeed a million
Apple’s iPad is ideal for all users, old and young; and for all purposes, recreational and professional/serious. iPad helps software engineers create and learners learn. The unbeatable advantages of iPad arise from its creation of the sustainable snowballs. Each snowball expands when the critical mass enjoys the iPad and iPhone, and escort the market merits and growth of Apple, along all product lines. Each snowball of Apple’s has full potential becoming a niche market wave-front—once exploited it will transform the snow into Haagen Dazs or Moven Pick to capture more frontier and advanced opportunities. Apple’s rich snow ball effects include:

**Snow Ball Effect One**

The joining of digital content participants. Famous publishers including Economist Magazine, Harper Collins Business Series, McGraw-Hills College Textbooks Publishing, Studio Classroom were all suspicious about digitalizing their authoritative content time ago; but have all chosen to work with the leading brand Apple to test the market. The reason is obvious, the amazing power of Internet may magnify any smaller but good player in digital content providing business to surpass the incumbent leader. Not too long ago Apple acquired a popular music subscribing services provider LuLu; and it expressed Apple’s determination of continuing to be the leader in Internet platforms of uploading new creation in music and of downloading music.

**Snow Ball Effect Two**

Snow Ball Effect Two: Apple’s market creation power and platform providing have created a wonderful meeting place for digital content lovers and creators, known as the primary market for creative enterprises. The cradle for tomorrow’s stars has helped many to chase and realize their dreams at most affordable price and with satisfactory efficiency.

**Snow Ball Effect Three**

Snow Ball Effect Three: Emerging market Apple fans have joined the Apple crowd at amazing speed for the Apple aesthetics and the “I”-ego. It’s not the usual passing fad; it has embraced the disparity of hardware vs. software acquiring costs, seen often in emerging market. Such disparity created the psychology of iPad being amazingly great and affordable. We can foresee that in the near future, when US college E-textbooks become prevalent in Asia, even more netbook users will jump ship to join iPad group to enjoy the greatest pleasure of reading and learning. Converters will soon find that iPad will help embark on knowledge management and time management; and iPad will act as an indispensable helper and housekeeper in the era of knowledge economy.

**Snow Ball Effect Four**

Snow Ball Effect Four: Beneath the shining surface and glory of Apple, lies constant cultivation and long-term effort. Apple has reached out student population for long time by providing huge discounts and financing services to students and faculty at colleges in United States. Apple knows that college students are the most sophisticated users (of her innovative gadgets) among all; and college kids will provide the immediate feedback for product improvements. Apple can perfect her products with the enthusiastic feedback from the advanced users; and Apple benefits the most. The computer user club or group in colleges gathers snow and momentum, and over time forms a snowball of ever-increasing size and a host of niche opportunities (e.g., in forming elite social networks). When the smart kids promote the Apple gadgets to friends and families, they become the most enthusiastic volunteer teachers and help boost and retain the user population.

How affordable is the price of Apple iPad to U.S. college students? It’s not even a sweet burden—just sweet and no burden. On average, an U.S. college textbook costs US$200; and an iPad costs three times of that. However among its many functions, iPad can be used as a highly capable carrier of e-Textbook which is priced at one-third of the price of a hardbound copy. Therefore, savings from swapping printed textbooks with e-Textbooks for four courses will pay for a long-lasting iPad. Beyond the e-Texts, learners may also have access to magnificent collection of e-Magazines and e-content in US college libraries. Acquiring an iPad is much like obtaining a fishing rod and receiving free fishes at the same time. No wonder that we see every students having one iPad on campuses; and it’s not to our surprise that when the lady lost her bag, she worried most about her iPad in the lost bag.

Not just iPad, iPhone also possesses the merits of saving money for users. For such reason, it pays off quickly on Apple users’ investments in gadgets. Remember what we learn from finance: “A penny saved is a penny earned.” If you ask a free lance writer or software coder about Apple’s power of helping users save, you will receive an immediate and definite answer. Didn’t we see the free lance software coder concentrated on his/her creation at Starbucks, with the standard and parsimonious equipment set: a cup of coffee, an iPad, and an iPhone.

When the overwhelming portion of our spending sprees on reading and recreational audio-video enjoyments flows like water into a reservoir, water-level or business opportunities arise. Digitalization had accelerated the injection into the reservoir; and reservoirs formed and attended by digital content creators, Internet and phone services providers, among others, are all centered about the super-sized reservoir: Apple

The seemingly insignificantly cash flows generated from Apple’s services charges on content providing and Internet and communications services facilitating is long-lasting and stably increasing. The cash flow decreased Apple’s dependence on the revenue streams generated from selling the hardware gadgets, which in turn provide Apple with the margin and capacity to lower the price to help realize the desire of indulging the fairly-priced luxury and even the dream of indulging the easily affordable luxury.
Apple aesthetics and technology superiority granted Apple with the power of pricing; and better still, passing through the surplus to the contributors in or along the value chain and supply chain according to the significance of the contribution. For example, Morris Chang at TSMC proudly claimed: TSMC receives 7 US Dollars for each unit of iPhone manufactured. The pricing power allows Apple to enjoy a fat margin and the power to price strategically. The overwhelming crowd provides the efficient amortization of the fixed cost to sustain Apple’s intensity, dedication and momentum on research and development.

Technology and aesthetics giant Sony is a rare competitor of Apple, having equally profound technology base across far many more domains. Apple has been talking to Sony regarding sourcing its camera lens technology (Sony’s Alpha series are featured by the shake-resistant proprietary technology) to further perfect iPad and iPhone. It’s foreseeable that iPad3, iPhone5 and the series on the road will be even better than what we could expect. No wonder the forward-looking financial analysts are modifying up Apple’s financial forecasts to reflect the ever better prospect. Actually Apple’s heyday is yet to come and the real success and dominating market share will be achieved when Apple maneuvers pricing schemes to unfold to general public the possibility of indulging easily affordable technology aesthetics. If Apple chooses to do so, then Apple’s market share will be as high as Apple ever wants it to be. But we know that Apple will not engage in such a strategy any time soon or ever. Instead Apple will just shorten time to market from the research hub to maintain the technology and aesthetics leadership, with lucrative margins. Apple’s objective has always been striving for excellence. Competitors may create their competitive edge via health and environmental merits of reduced electromagnetism waves, or via acquiring exclusive privileges over rights showing over Internet the Royal Palace collections in Taipei and temple cultural aesthetics in Tainan, or via the convenient and free access to Chinese cultural treasure (burned into the gadget’s ROM), or via creating a critical mass from populations of Chinese origins in Taiwan, Hong Kong, Singapore and China.  

When Technology Superiority Encounters Monetary Policy Initiatives

Apple caught the perfect timing of quantitative easing (or the weakening of US Dollar) in the States and accelerated her domination role on technology aesthetics to the blue sea. Foxconn also strived to capture the timing and advanced advantage of tariff free (to the Americas) via free trade agreement by storing up capacity in Brazil. That is, when Apple is opening up markets globally while US Dollar is weakening, Foxconn also is also working on deepening costing down effort via tariff reducing and manufacturing at (or near to) where the markets are to enhance savings from economy of scale.

That’s why Foxconn has been acclaimed as the super OEM manufacturer! Beyond the track record of superior manufacturing capability and capacity on handling large and sudden orders, Foxconn has repeatedly demonstrated visionary judgment on grasping timing and advantage over trade treaty. Foxconn has therefore been acclaimed as the legendary partner of Apple.

In general, when local currency depreciates, or when competitor’s chain breaks due to disasters, it’s time to broaden the incumbent’s business landscape and market share. For example, after the bursting of European financial crisis, Euro adjusted downward and the imports of Mercedes and BMW to California surged. After the outbreak of 311 earthquake in Japan, the luxury Japanese cars faced the broken chain and once again have to recede in market shares in global markets to Mercedes and BMWs.

During the recovery from the recession in the United States, Intel and Apple, among other highly innovative corporate America had protected the technology core and technology advances of US economy from deteriorating. Apple’s technology and aesthetics further proved that technology originates from the objectives of serving human needs and creating inspiration for better life. Technology with aesthetics may create, increase and sustain social surpluses. Apple fulfilled our wildest expectation in fulfilling such a goal; and created the trend of facilitating the majority’s indulging superior technology aesthetics within their means. Apple not only helped sustained US economy, but also benefited customers and investors alike. In addition, Apple had helped boost US GDP! What a great achievement have you made, Apple!

WHAT CAN TAIWAN LEARN FROM APPLE’S TECHNOLOGY AESTHETICS AND SUCCESS?

Taiwan may learn to develop his service-economy-enhanced plan from the Apple experience. We notice that Apple tried to
be the best it can be, before ever thinking of turning big. There is a great wisdom and philosophy supporting this strategy. This is a portable concept in service-economy-enhanced endeavors. Let’s illustrate this with Yale’s Asian Campus Initiatives in Singapore. Since Yale had taken the cream of the crops in the States, Yale hopes to also take the best and the most representative young scholars in the fast-growing Asia, Yale set a quota of 1,000 intake in her proposed Asian campus in Singapore. It’s a small, quality-dominating, yet influential program for Asian elites and future leaders. When the program has achieved record success, it may expand. Without the complementor or the magnifying glass, the Yale in Asia program better be small since small is beautiful at the inception! That’s the essence in Apple’s technology and aesthetics at the inception.

LESSONS LEARNED FOR TAIWAN’S SERVICE-ECONOMY-ORIENTED GROWTH

Example One for Taiwan

Let’s think of another example in Taiwan. ROC government is proposing to start English education as a second language early in elementary school. We strongly support it and we know that since it’s about Taiwan’s infrastructure enrichment and soft power development, we have to start the early English education initiatives in grand scale so as to harvest with the highest throughput. However, when we think about the English-Taught Degree Programs in colleges, we have to think about Apple’s aesthetics philosophy, i.e., “small is beautiful” at the inception stage. Due to the desired high quality on exchange and local English-taught programs, we have to create partnership or alliances among universities within a nearby cluster of universities. Each program hosts the best available faculty for the highest teaching quality on their cups of tea. Then promote cooperation within cluster and across clusters to magnify without incurring extra costs. We have to use the established infrastructure advantages in Taiwan (e.g., the high speed bullet train may connect the south and north in Taiwan in just 1 hour and 36 minutes) to allow small and beautiful programs to exchange, to cross-support, and to magnify. We can make sure that the money is well spent and the achieved results are excellent and sustainable.

Example Two for Taiwan

Another important initiative from ROC Government is to enhance the overall English capabilities of the career professionals. Again it is a key infrastructure development project and demands grand-scale effort and harvesting alike since time being a key strategic dimension. Here the “small is beautiful at the inception” is realized by taking what you need from the complete spectrum (in terms of difficulty) of the highest quality. Such a spectrum is available in Taiwan in the premier series of Studio Classroom (Basic, Intermediate, and Advanced) and available in the States from McGraw-Hill English Learners’ Series. The Studio Classroom series is also available via Internet, broadcasting, e-Text, and iPad-catered edition. The beauty of cherry-pick-in-a-complete-spectrum resides in its flexibility as à la carte or buffet meal, contingent upon the reader’s appetite or capacity. After the study and test period, learners will enter the long-stay stage in an all-English environment to create the needed seasoning and critical experience; and the momentum of continued study.

Example Three for Taiwan

Taiwan is developing her service-industry-oriented economic plan, among other vivid engagements and efforts. The author noticed in his recent trips to the Hsin-Yi District in Taipei that whether it is about progress made on infrastructure enrichment, on the atmosphere of city buzz and sense of prosperity created, or on the fashion and stylishness of dressing nurtured, the business district in Taipei is on par with the ones in major Asian cities. The key question is: How may we best replicate and multiply the success to the key cities in Taipei and in Taiwan, and then again to the second-tier cities? In addition, the author found though, Taipei may host more boutique stores at varying and complementary price ranges. The best way is to joint-venture with some key US Outlet Malls (e.g., Nordstrom Racks, Marshalls, T.J. Marx) to have exhibitions and sales in Taipei exhibition centers near the Taipei World Trade Center during the non-peak seasons in the States. It’s also possible to work with CostCo (Price Club) to create increased selection on key brands (e.g., Polo Ralph Lauren) in a wide price and selection spectrum to create pleasant choices across all income levels.

Contrasting Apple’s Success with Volvo’s Dilemma

A company excels in technology and aesthetics may still face difficulties in flourishing or stay sustainable. One such example is Volvo Cars, a privately-held company excels in R&D and product integrity. The failure of creating profits or staying afloat has caused Volvo to be sold twice, at a significantly lower price at the second time. It remains doubtful regarding Volvo Cars’ sustainability and its long-term fate. We contrast Apple’s and Volvo’s strategies in Table 1—the essential one being Apple is for profit while Volvo has multiple objectives and questionably strikes between for profit and not-for-profit enterprises. Volvo is similar to Apple in terms of having a deep technology pocket, emphasizing R&D and enjoying great accumulated results (e.g., patents, technology know-how), paying full attention to product aesthetics, details, integrity, and product integrity. Volvo’s product line is just like that of Apple’s: elegant yet adequate. The patronage of loyal drivers of Volvo is also not seconded by that of Apple’s.

However, Volvo falls way behind of Apple in term of agility of sourcing globally and producing and assembling globally at (or near) where the markets are. Volvo preserves most job opportunities in Sweden (under his strong union and by revealed corporate objectives) and to maintain the highest quality. By so doing Volvo incurred a high factors price at overly strong Sweden SKR and failed to increase price in the major market (i.e., US) due to the severe price competition. Volvo’s time to market from laboratory is relatively slow—an example being the commercialization of the C30 hybrid; three more years to go to mass produce after the prototype had been
released. When Volvo lost money in 2008 and beyond, the company had to cut the payroll and layoff most significantly, let alone preserving enough number of jobs in Sweden. We do believe that Volvo Cars should adopt an objective of maximizing the surplus; so that it may preserve the values that the company cherishes.

Table: Apple vs. Volvo on Sustainability

<table>
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<th>Apple</th>
<th>Volvo</th>
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<tr>
<td>Profit Optimization</td>
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<td>In Red Ink</td>
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<td>In Black</td>
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<td>Growth</td>
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</table>

Table: Sheer competition among luxury cars in the US markets.

Table: Apple vs. Volvo on Sustainability

Competitiveness is Real Exchange Rate (“<1”) for mature technology under shining brand names

Volvo

BMW

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