# Acer, Inc:  Taiwan's Rampaging Dragon

With a sense of real excitement, Stan Shih, CEO of Acer, Inc., boarded a plane for San Francisco in early February 1995.  The founder of the Taiwanese personal computer (PC) company was on his way to see the Aspire, a new home PC being developed by Acer America Corporation (AAC) Acer's North American subsidiary.  Although Shih had heard that a young American team was working on a truly innovative product, featuring a unique design, voice recognition, ease-of-use, and cutting-edge multimedia capabilities, he knew little of the project until Ronald Chwang, President of AAC had invited him to the upcoming product presentation.  From Chwang's description, Shih thought that Aspire could have the potential to become a blockbuster product worldwide.  But he was equally excited that this was the first Acer product conceived, designed, and championed by a sales-and-marketing oriented regional business unit (RBU) rather than one of Acer's production-and-engineering focused strategic business units (SBUs) in Taiwan.

Somewhere in mid-flight, however, Shih's characteristic enthusiasm was tempered by his equally well-known pragmatism.  Recently, AAC had been one of the company's more problematic overseas units, and had been losing money for five years.  Was this the group on whom he should pin his hopes for Acer's next important growth initiative?  Could such a radical new product succeed in the highly competitive American PC market?  And if so, did this unit—one of the company's sales-and-marketing-oriented RBUs—have the resources and capabilities to lead the development of this important new product, and, perhaps, even its global rollout?

## Birth of the Company

Originally known as Multitech, the company was founded in Taiwan in 1976 by Shih, his wife, and three friends.  From the beginning, Shih served as CEO and Chairman, his wife as company accountant.  With $25,000 of capital and 11 employees, Multitech's grand mission was "to promote the application of the emerging microprocessor technology."  It grew by grasping every opportunity available—providing engineering and product design advice to local companies, importing electronic components, offering technological training courses, and publishing trade journals.  "We will sell anything except our wives," joked Shih.  Little did the founders realize that they were laying the foundations for one of Taiwan's great entrepreneurial success stories.  (See **Exhibit 1**.)

## Laying the Foundations

Because Multitech was capital constrained, the new CEO instituted a strong norm of frugality.  Acting on what he described as "a poor man's philosophy," he leased just enough space for current needs (leading to 28 office relocations over the next 20 years) and, in the early years, encouraged employees to supplement their income by "moonlighting" at second jobs.  Yet while Multitech paid modest salaries, it offered key employees equity, often giving them substantial ownership positions in subsidiary companies.

Frugality was one of many business principles Shih had learned while growing up in his mother's tiny store.  He told employees that high-tech products, like his mother's duck eggs, had to be priced with a low margin to ensure turnover.  He preached the importance of receiving cash payment quickly and avoiding the use of debt.  But above all, he told them that customers came first, employees second, and shareholders third, a principle later referred to as "Acer 1-2-3."

Shih's early experience biased him against the patriarch-dominated, family-run company model that was common in Taiwan.  "It tends to generate opinions which are neither balanced nor objective," he said.  He delegated substantial decision-making responsibility to his employees to harness "the natural entrepreneurial spirit of the Taiwanese."  With his informal manner, bias for delegation, and "hands-off" style, Shih trusted employees to act in the best interests of the firm.  "We don't believe in control in the normal sense. . . . We rely on people and build our business around them," he said.  It was an approach many saw as the polar opposite of the classic Chinese entrepreneur's tight personal control.  As a result, the young company soon developed a reputation as a very attractive place for bright young engineers.

Shih's philosophy was reflected in his commitment to employee education and his belief that he could create a company where employees would constantly be challenged to "think and learn."  In the early years, superiors were referred to as "shifu," a title usually reserved for teachers and masters of the martial arts.  The development of strong teaching relationships between manager and subordinate was encouraged by making the cultivation and grooming of one's staff a primary criterion for promotion.  The slogan, "Tutors conceal nothing from their pupils" emphasized the open nature of the relationship and reminded managers of their responsibility.

This created a close-knit culture, where coworkers treated each other like family, and the norm was to do whatever was necessary for the greater good of the company.  But is was a very demanding "family," and as the patriarch, Stan Shih worked hard to combat complacency—what he called "the big rice bowl" sense of entitlement—by creating a constant sense of crisis and showering subordinates with ideas and challenges for their examination and follow-up.  As long as the managers took responsibility for their actions—acted as responsible older sons or daughters—they had the freedom to make decisions in the intense, chaotic, yet laissez-faire organization.  Besides his constant flow of new ideas, Shih's guidance came mainly in the form of the slogans, stories, and concepts he constantly communicated.

This philosophy of delegation extended to organizational units, which, to the extent possible, Shih forced to operate as independent entities and to compete with outside companies.  Extending the model externally, Shih began experimenting with joint ventures as a way of expanding sales.  The first such arrangement was struck with a couple of entrepreneurs in central and southern Taiwan.  While capturing the partners' knowledge of those regional markets, this approach allowed Multitech to expand its sales without the risk of hiring more people or raising more capital.

Early successes through employee ownership, delegated accountability, management frugality, and joint ventures led to what Shih called a "commoner's culture."  This reflected his belief that the way to succeed against wealthy multinationals—"the nobility"—was to join forces with other "commoners"—mass-market customers, local distributors, owner-employees, small investors and

supplier-partners, for example. The "poor man's" values supported this culture and guided early expansion. As early as 1978, Shih targeted smaller neighboring markets that were of lesser interest to the global giants. At first, response to Multitech's promotional letters was poor since few foreign distributors believed that a Taiwanese company could supply quality hi-tech products. Through persistence, however, Multitech established partnerships with dealers and distributors in Indonesia, Malaysia, Singapore, and Thailand. Shih described this early expansion strategy:

> It is like the strategy in the Japanese game *Go*—one plays from the corner, because you need fewer resources to occupy the corner. Without the kind of resources that Japanese and American companies had, we started in smaller markets. That gives us the advantage because these smaller markets are becoming bigger and bigger and the combination of many small markets is not small.

Expansion abroad—primarily through Asia, Middle East and Latin America—was greatly helped by a growing number of new products. In 1981, Multitech introduced its first mainstream commercial product, the "Microprofessor" computer. Following the success of this inexpensive, simple computer (little more than an elaborate scientific calculator), Shih and his colleagues began to recognize the enormous potential of the developing PC market. In 1983, Multitech began to manufacture IBM-compatible PCs—primarily as an original equipment manufacturer (OEM) for major brands but also under its own Multitech brand. In 1984 sales reached $51 million, representing a sevenfold increase on revenues three years earlier.

By 1986, the company felt it was ready to stake a claim in Europe, establishing a marketing office in Dusseldorf and a warehouse in Amsterdam. Multitech also supplemented the commission-based purchasing unit it had previously opened in the United States with a fully-fledged sales office.

## Birth of the Dragon Dream

By the mid-1980s, Multitech's sales were doubling each year and confidence was high. As the company approached its tenth anniversary, Shih announced a plan for the next ten years that he described as "Dragon Dreams." With expected 1986 revenues of $150 million, employees and outsiders alike gasped at his projected sales of $5 billion by 1996. Critics soon began quoting the old Chinese aphorism, "To allay your hunger, draw a picture of a big cake." But Shih saw huge potential in overseas expansion. After only a few years of international experience, the company's overseas sales already accounted for half the total. In several Asian countries Multitech was already a major player: in Singapore, for example, it had a 25% market share by 1986. To build on this Asian base and the new offices in Europe and the United States, Shih created the slogan, "The Rampaging Dragon Goes International." To implement the initiative, he emphasized the need to identify potential overseas acquisitions, set up offshore companies, and seek foreign partners and distributors.

When the number of Acer employees exceeded 2000 during the tenth year anniversary, Shih held a "Renewal of Company Culture Seminar" at which he invited his board and vice presidents to identify and evaluate the philosophies that had guided Multitech in its first ten years. Middle-level managers were then asked to participate in the process, reviewing, debating, and eventually voting on the key principles that would carry the company forward. The outcome was a statement of four values that captured the essence of their shared beliefs: an assumption that human nature is essentially good; a commitment to maintaining a fundamental pragmatism and accountability in all business affairs; a belief in placing the customer first; and a norm of pooling effort and sharing knowledge. (A decade later, these principles could still be found on office walls worldwide.)

Finally, the anniversary year was capped by another major achievement: Acer became the second company in the world to develop and launch a 32-bit PC, even beating IBM to market. Not only did the product win Taiwan's Outstanding Product Design Award—Acer's fifth such award in

seven years—it also attracted the attention of such major overseas high-tech companies as Unisys, ICL and ITT, who began negotiations for OEM supply, and even technology licensing agreements.

## Rebirth as Acer: Going Public

Unfortunately, Multitech's growing visibility also led to a major problem. A U.S. company with the registered name "Multitech" informed its Taiwanese namesake that they were infringing its trademark. After ten years of building a corporate reputation and brand identity, Shih conceded he had to start over. He chose the name "Acer" because its Latin root meant "sharp" or "clever", because "Ace" implied first or highest value in cards—but mostly because it would be first in alphabetical listings. Despite advice to focus on the profitable OEM business and avoid the huge costs of creating a new global brand, Shih was determined to make Acer a globally recognized name.

Beyond branding, the success of the 32-bit PC convinced Shih that Acer would also have to maintain its rapid design, development and manufacturing capability as a continuing source of competitive advantage. Together with the planned aggressive international expansion, these new strategic imperatives—to build a brand and maintain its technological edge—created investment needs that exceeded Acer's internal financing capability. When officials from Taiwan's Securities and Exchange Commission approached Shih about a public offering, he agreed to study the possibility although he knew that many Taiwanese were suspicious of private companies that went public.

A program that allowed any employee with one year of company service to purchase shares had already diluted the Shihs' original 50% equity to about 35%, but in 1987 they felt it may be time to go further. (Shih had long preached that it was "better to lose control but make money" and that "real control came through ensuring common interest.") An internal committee asked to study the issue of going public concluded that the company would not only raise needed funds for expansion but also would provide a market for employee-owned shares. In 1988, Acer negotiated a complex multi-tiered financing involving investments by companies (such as Prudential, Chase Manhattan, China Development Corporation, and Sumitomo), additional sales to employees and, finally, a public offering. In total, Acer raised NT $2.2 billion (US $88 million). Issued at NT $27.5, the stock opened trading at NT $47 and soon rose to well over NT $100. After the IPO, Acer employees held about 65% of the equity including the Shihs' share, which had fallen to less than 25%.

## The Professionalization of Acer

While the public offering had taken care of Acer's capital shortage, Shih worried about the company's acute shortage of management caused by its rapid growth. In early 1985, when the number of employees first exceeded 1,000, he began to look outside for new recruits "to take charge and stir things up with new ideas." Over the next few years, he brought in about a dozen top-level executives and 100 middle managers. To many of the self-styled "ground troops" (the old-timers), these "paratroopers" were intruders who didn't understand Acer's culture or values but were attracted by the soaring stock. For the first time, Acer experienced significant turnover.

### Paratroopers and Price Pressures

Because internally-grown managers lacked international experience, one of the key tasks assigned to the "paratroopers" was to implement the company's ambitious offshore expansion plans. In late 1987, Acer acquired Counterpoint, the U.S.-based manufacturer of low-end minicomputers—a business with significantly higher margins than PCs. To support this new business entry, Acer then acquired and expanded the operations of Service Intelligence, a computer service and support organization. Subsequently, a dramatic decline in the market for minicomputers led to Acer's first

new product for this segment, the Concer, being a dismal disappointment. Worse still, the substantial infrastructure installed to support it began generating huge losses.

Meanwhile, the competitive dynamics in the PC market were changing. In the closing years of the 1980s, Packard Bell made department and discount stores into major computer retailers, while Dell established its direct sales model. Both moves led to dramatic PC price reductions, and Acer's historic gross margin of about 35% began eroding rapidly, eventually dropping ten percentage points. Yet despite these problems, spirits were high in Acer, and in mid-1989 the company shipped its one millionth PC. Flush with new capital, the company purchased properties and companies within Taiwan worth $150 million. However, Acer's drift from its "commoner's culture" worried Shih, who felt he needed help to restore discipline to the "rampaging dragon." The ambition to grow had to be reconciled with the reality of Acer's financial situation.

## Enter Leonard Liu

Projected 1989 results indicated that the overextended company was in a tailspin. Earnings per share were expected to fall from NT $ 5 to NT $ 1.42. The share price, which had been as high as NT $150, fell to under NT $20. (See **Exhibit 2**.) Concerned by the growing problems, Shih decided to bring in an experienced top-level executive. After more than a year of courting, in late 1989, he signed Leonard Liu, Taiwan-born, U.S.-based, senior IBM executive with a reputation for a no-nonsense professional management style. In an announcement that caught many by surprise, Shih stepped down as president of the Acer Group, handing over that day-to-day management role to Liu. In addition, Liu was named CEO and Chairman of AAC, the company's North American subsidiary.

Given Shih's desire to generate $5 billion in sales by 1996, Liu began to focus on opportunities in the networking market in the United States. Despite the continuing problems at Counterpoint and Service Intelligence, he agreed with those who argued that Acer could exploit this market by building on its position in high-end products, particularly in the advanced markets of the United States and Europe. In particular, Liu became interested in the highly regarded multi-user minicomputer specialist, Altos. Founded in 1977, this Silicon Valley networking company had 700 employees, worldwide distribution in 60 countries, and projected sales of $170 million for 1990. Although it had generated losses of $3 million and $5 million in the previous two years, Liu felt that Altos's $30 million in cash reserves and $20 million in real estate made it an attractive acquisition. In August 1990, Acer paid $94 million to acquire the respected Altos brand, its technology and its distribution network.[1] Almost immediately, however, powerful new PCs began to offer an alternative means of multi-user networking, and, as if to remind management of the eclipse of Counterpoint's minicomputers, within a year of its purchase, Altos was losing $20 million. Through the 1990s, AAC's losses increased.

In addition to this strategic thrust, Liu also began working on Acer's established organization and management approaches. For example, under Shih's leadership, while managers had been given considerable independence to oversee their business units, they had not been given profit and loss responsibility. Furthermore, because of the family-style relationship that existed among long-time company members, inter-company transfers were often priced to do friends a favor and ensure that a buyer did not "lose face" on a transaction. Even outsourced products were often bought at prices negotiated to make long-term suppliers look good. With no accountability for the profits of their business units, managers had little incentive to ensure quality or price, and would let the group

---

[1] Because this was a much larger deal than either Counterpoint (acquired for $1 million plus a stock swap) or Service Intelligence (a $500,000 transaction), Shih suggested the deal be structured as a joint venture to maintain the Altos managers' stake in the business. However, Liu insisted on an outright acquisition to ensure control, and Shih deferred to his new president's judgment.

absorb the loss.  As one Acer observer noted, the company was "frugal and hard-working, but with little organizational structure or procedure-based administration."

As Shih had hoped, Liu brought to Acer some of IBM's professional management structures, practices and systems.  To increase accountability at Acer, the new president reduced management layers, established standards for intra-company communications, and introduced productivity and performance evaluations.  Most significantly, he introduced the Regional Business Unit/ Strategic Business Unit (RBU/SBU) organization.  Acer's long-established product divisions became SBUs responsible for the design, development, and production of PC components and system products, including OEM product sales.  Simultaneously, the company's major overseas subsidiaries and marketing companies became RBUs responsible for developing distribution channels, providing support for dealers, distributor networks, and customers, and working to establish JVs in neighboring markets.  All SBUs and RBUs had full profit responsibility.  "The pressure definitely increased.  I was eating fourteen rice boxes a week," said one RBU head, referring to the practice of ordering in food to allow meetings to continue through lunch and dinner.

By 1992, in addition to the four core SBUs, five RBUs had been established: Acer Sertek covering China and Taiwan; Acer Europe headquartered in the Netherlands; Acer America (AAC) responsible for North America; and Acer Computer International (ACI), headquartered in Singapore and responsible for Asia, Africa, and Latin America.  (See **Exhibits 3a** and **3b**.)  One of the immediate effects of the new structures and systems was to highlight the considerable losses being generated by AAC, for which Liu was directly responsible.  While no longer formally engaged in operations, Shih was urging the free-spending Altos management to adopt the more frugal Acer norms, and even began preaching his "duck egg" pricing theory.  But demand was dropping precipitously and Liu decided stronger measures were required.  He implemented tight controls and began layoffs.

Meanwhile, the company's overall profitability was plummeting.  (See **Exhibits 4** and **5**.)  A year earlier, Shih had introduced an austerity campaign that had focused on turning lights off, using both sides of paper, and traveling economy class.  By 1990, however, Liu felt sterner measures were called for, particularly to deal with a payroll that had ballooned to 5,700 employees.  Under an initiative dubbed Metamorphosis, managers were asked to rank employee performance, identifying the top 15% and lowest 30%.  In January 1991, 300 of the Taiwan-based "thirty percenters" were terminated—Acer's first major layoffs.

The cumulative effect of declining profits, layoffs, more "paratroopers," and particularly the new iron-fisted management style challenged Acer's traditional culture.  In contrast to Shih's supportive, family-oriented approach, Liu's "by-the-numbers" management model proved grating.  There was also growing resentment of his tendency to spend lavishly on top accounting and law firms and hire people who stayed at first-class hotels, all of which seemed out of step with Acer's "commoner's culture."  Soon, his credibility as a highly respected world-class executive was eroding and Acer managers began questioning his judgement and implementing his directives half-heartedly.

In January 1992, when Shih realized that Acer's 1991 results would be disastrous, he offered his resignation.  The board unanimously rejected the offer, suggesting instead that he resume his old role as CEO.  In May 1992, Leonard Liu resigned.

## Rebuilding the Base

Shih had long regarded mistakes and their resulting losses as "tuition" for Acer employees' growth—the price paid for a system based on delegation.  He saw the losses generated in the early 1990s as part of his personal learning, considering it an investment rather than a waste.  ("To make Acer an organization that can think and learn," he said, "we must continue to pay tuition as long as

mistakes are unintentional and long-term profits exceed the cost of the education.") As he reclaimed the CEO role, Shih saw the need to fundamentally rethink Acer's management philosophy, the organizational model that reflected it, and even the underlying basic business concept.

## "Global Brand, Local Touch" Philosophy

At Acer's 1992 International Distributors Meeting in Cancun, Mexico, Shih articulated a commitment to linking the company more closely to its national markets, describing his vision as "Global Brand, Local Touch." Under this vision, he wanted Acer to evolve from a Taiwanese company with offshore sales to a truly global organization with deeply-planted local roots.

Building on the company's long tradition of taking minority positions in expansionary ventures, Shih began to offer established Acer distributors equity partnerships in the RBU they served. Four months after the Cancun meeting, Acer acquired a 19% interest in Computec, its Mexican distributor. Because of its role in building Acer into Mexico's leading PC brand, Shih invited Computec to form a joint venture company responsible for all Latin America. The result was Acer Computec Latin America (ACLA), a company subsequently floated on the Mexican stock exchange. Similarly, Acer Computers International (ACI), the company responsible for sales in Southeast Asia planned an initial public offering in Singapore in mid-1995. And in Taiwan, Shih was even considering taking some of Acer's core SBUs public.

As these events unfolded, Shih began to articulate an objective of "21 in 21," a vision of the Acer Group as a federation of 21 public companies, each with significant local ownership, by the 21st century. It was what he described as "the fourth way," a strategy of globalization radically different from the control-based European, American or Japanese models, relying instead on mutual interest and voluntary cooperation of a network of interdependent companies.

## Client Server Organization Model

To reinforce the more networked approach of this new management philosophy, in 1993, Shih unveiled his client-server organization model. Using the metaphor of the network computer, he described the role of the Taiwan headquarters as a "server" that used its resources (finance, people, intellectual property) to support "client" business units, which controlled key operating activities. Under this concept of a company as a network, business units could leverage their own ideas or initiatives directly through other RBUs or SBUs without having to go through the corporate center which was there to help and mediate, not dictate or control. Shih believed that this model would allow Acer to develop speed and flexibility as competitive weapons.

While the concept was intriguing, it was a long way from Acer's operating reality. Despite the long-established philosophy of decentralization and the introduction of independent profit-responsible business units in 1992, even the largest RBUs were still viewed as little more than the sales and distribution arms of the Taiwan-based SBUs. To operationalize the client server concept, Shih began to emphasize several key principles. "Every man is lord of his castle," became his battle cry to confirm the independence of SBU and RBU heads. Thus, when two SBUs—Acer Peripherals (API) and Information Products (IPG)—both decided to produce CD-ROM drives, Shih did not intervene to provide a top-down decision, opting instead to let the market decide. The result was that both units succeeded, eventually supplying CD-ROMs to almost 70% of PCs made in Taiwan, by far the world's leading source of OEM and branded PCs.

In another initiative, Shih began urging that at least half of all Acer products and components be sold outside the Group, hoping to ensure internal sources were competitive. Then, introducing the principle, "If it doesn't hurt, help," he spread a doctrine that favored internal suppliers. However, under the "lord of the castle" principle, if an RBU decided to improve its bottom line by sourcing

externally, it could do so.  But it was equally clear that the affected SBU could then find an alternative distributor for its output in that RBU's region.  In practice, this mutual deterrence—referred to as the "nuclear option"—was recognized as a strategy of last resort that was rarely exercised.  Despite Shih's communication of these new operating principles, the roles and relationships between SBU and RBUs remained in flux over several years as managers worked to understand the full implications of the client server model on their day-to-day responsibilities.

## The Fast Food Business Concept

But the biggest challenges Shih faced on his return were strategic.  Even during the two and a half years he had stepped back to allow Liu to lead Acer, competition in the PC business had escalated significantly, with the product cycle shortening to 6 to 9 months and prices dropping.  As if to highlight this new reality, in May 1992, the month Liu left, Compaq announced a 30% across-the-board price reduction on its PCs.  Industry expectations were for a major shakeout of marginal players.  Given Acer's financial plight,  some insiders urged the chairman to focus on OEM sales only, while others suggested a retreat from the difficult U.S. market.  But Shih believed that crisis was a normal condition in business and that persistence usually paid off.  His immediate priority was to halve Acer's five months of inventory—two months being inventory "in transit."

Under Shih's stimulus, various parts of the organization began to create new back-to-basics initiatives.  For example, the System PC unit developed the "ChipUp" concept.  This patented technology allowed a motherboard to accept different types of CPU chips—various versions of Intel's 386 and 486 chips, for example—drastically reducing inventory of both chips and motherboards.  Another unit, Home Office Automation, developed the "2-3-1 System" to reduce the new product introduction process to two months for development, three months for selling and one month for phase-out.  And about the same time, a cross-unit initiative to support the launch of Acer's home PC, Acros, developed a screwless assembly process, allowing an entire computer to be assembled by snapping together components, motherboard, power source, etc.[2]  Integrating all these initiatives and several others, a team of engineers developed Uniload, a production concept that configured components in a standard parts palette for easy unpacking, assembly, and testing, facilitating the transfer of final assembly to RBU operations abroad.  The underlying objective was to increase flexibility and responsiveness by moving more assembly offshore.

Uniload's ability to assemble products close to the customer led the CEO to articulate what he termed his "fast-food" business model.  Under this approach, small, expensive components with fast-changing technology that represented 50%-80% of total cost (e.g., motherboards, CPUs, hard disc drives) were airshipped "hot and fresh" from SBU sources in Taiwan to RBUs in key markets, while less-volatile items (e.g., casings, monitors, power supplies) were shipped by sea.  Savings in logistics, inventories and import duties on assembled products easily offset higher local labor assembly cost, which typically represented less than 1% of product cost.

As Shih began promoting his fast-food business concept, he met with some internal opposition, particularly from SBUs concerned that giving up systems assembly would mean losing power and control.  To convince them that they could increase competitiveness more by focusing on component development, he created a presentation on the value added elements in the PC industry.  "Assembly means you are making money from manual labor," he said.  "In components and marketing you add value with your brains."  To illustrate the point, Shih developed a disintegrated value added chart that was soon dubbed "Stan's Smiling Curve."  (See **Exhibit 6**.)

---

[2] To promote the innovative idea, Shih sponsored internal contests to see who could assemble a computer the fastest.  Although his personal best time was more than a minute, experts accomplished the task in 30 seconds.

## The Turnaround

Describing his role as "to provide innovative stimulus, to recognize the new strategy which first emerges in vague ideas, then to communicate it, form consensus, and agree on action," Shih traveled constantly for two years, taking his message to the organization. Through 1993, the impact of the changes began to appear. Most dramatically, the fast-food business concept (supported by Liu's systems) caused inventory turnover to double by late 1993, reducing carrying costs, while lowering the obsolescence risk. In early 1994, the Group reported a return to profit after three years of losses.

# Acer America and the Aspire

After Liu's resignation in April 1992, Shih named Ronald Chwang to head AAC. With a Ph.D. in Electrical Engineering, Chwang joined Acer in 1986 in technical development. After overseeing the start-up of Acer's peripherals business, in 1991 he was given the responsibility for integrating the newly acquired Altos into AAC as president of the Acer/Altos Business Unit.

Because AAC had been losing money since 1987, Chwang's first actions as CEO focused on stemming further losses. As part of that effort, he embraced the dramatic changes being initiated in Taiwan, making AAC's Palo Alto plant the first test assembly site of the Uniload system. Under the new system, manufacture and delivery time was cut from 80 days to 45 days, reducing inventory levels by almost 45%. To support its Uniload site, AAC established a department of approximately 20 engineers, primarily to manage component testing, but also to adapt software design to local market needs. By 1994, AAC was breaking even. (See **Exhibit 7**.)

## Birth of Aspire

Despite these improvements, AAC and other RBUs still felt that Acer's Taiwan-based SBUs were too distant to develop product configurations that would appeal to diverse consumer and competitive situations around the globe. What might sell well in Southeast Asia could be a year out of date in the United States, for example. However, the emerging "global brand, local touch" philosophy and the client server organization model supporting it gave them hope that they could change the situation.

In January 1994, Mike Culver was promoted to become AAC's Director of Product Management, a role that gave him responsibility for the product development mandate he felt RBUs could assume under the new client-server model. The 29-year-old engineer and recent MBA graduate had joined Acer America just 2½ years earlier as AAC's product manager for notebook computers. Recently, however, he had become aware of new opportunities in home computing.

Several factors caught Culver's attention. First, data showed an increasing trend to working at home—from 26 million people in 1993 to a projected 29 million in 1994. In addition, there was a rapidly growing interest in the Internet. And finally, developments in audio, telecom, video, and computing technologies were leading to industry rumblings of a new kind of multimedia home PC. Indeed, rumor had it that competitors like Hewlett Packard were already racing to develop new multimedia systems. Sharing this vision, Culver believed the time was right to create "the first Wintel-based PC that could compete with Apple in design, ease-of-use, and multimedia capabilities."

In October of 1994, Culver commissioned a series of focus groups to explore the emerging opportunity. In one of the groups, a consumer made a comment that had a profound impact on him. She said she wanted a computer that wouldn't remind her of work. At that moment, Culver decided

that Acer's new home PC would incorporate radically new design aesthetics to differentiate it from the standard putty-colored, boxy PCs that sat in offices throughout the world.

By November, Culver was convinced of the potential for an innovative multimedia consumer PC, and began assembling a project team to develop the concept.  While the team believed the Acer Group probably had the engineering capability to develop the product's new technical features, they were equally sure they would have to go outside to get the kind of innovative design they envisioned. After an exhaustive review, the team selected Frog Design, a leading Silicon Valley design firm that had a reputation for "thinking outside of the box."   Up to this point, Culver had been using internal resources and operating within his normal budget.  The selection of Frog Design, however, meant that he had to go to Chwang for additional support.  "The approval was incredibly informal," related Culver, "it literally took place in one 20 minute discussion in the hallway in late November.  I told Ronald we would need $200,000 for outside consulting to create the cosmetic prototype."  Chwang agreed on the spot, and the design process began.

In 1994, Acer was in ninth place in the U.S. market, with 2.4% market share, largely from sales of the Acros, Acer's initial PC product, which was an adaptation of its commercial product, the Acer Power.  (See **Exhibit 8** for 1994 market shares.)  Culver and Chwang were convinced they could not only substantially improve Acer's U.S. share, but also create a product with potential to take a larger share of the global multimedia desktop market estimated at 10.4 million units and growing at more than 20% annually, primarily in Europe and Asia.

Working jointly with designers from Frog Design, the project team talked to consumers, visited computer retail stores and held discussions to brainstorm the new product's form. After almost two months, Frog Design developed six foam models of possible designs.  In January 1995, the Acer team chose a striking and sleek profile that bore little resemblance to the traditional PC.  Market research also indicated that customers wanted a choice of colors, so the team decided that the newly named Aspire PC would be offered in charcoal grey and emerald green.   (See **Exhibit 9**.)

Meanwhile, the team had been working with AAC software engineers and a development group in Taiwan to incorporate the new multimedia capabilities into the computer.  One significant introduction was voice-recognition software that enabled users to open, close, and save documents by voice commands.   However, such enhancements also required new hardware design: to accommodate the voice-recognition feature, for example, a microphone had to be built in, and to properly exploit the machine's enhanced audio capabilities, speakers had to be integrated into the monitor.  The multimedia concept also required the integration of CD-ROM capabilities, and a built-in modem and answering machine incorporating fax and telephone capabilities. This type of configuration was a radical innovation for Acer, requiring significant design and tooling changes.

In early 1995 the price differential between upper-tier PCs (IBM, for example) and lower-end products (represented by Packard Bell) was about 20%.  Culver's team felt the Aspire could be positioned between these two segments offering a high quality innovative product at a less-than-premium price.   They felt they could gain a strong foothold by offering a product range priced from $1,199 for the basic product to $2,999 for the highest-end system with monitor.  With a September launch, they budgeted US sales of $570 million and profits of $17 million for 1995.  A global rollout would be even more attractive with an expectation of breakeven within the first few months.

## Stan Shih's Decisions

On his way to San Jose in February 1995, Stan Shih pondered the significance of the Aspire project.  Clearly, it represented the client-server system at work: this could become the first product

designed and developed by an RBU, in response to a locally sensed market opportunity. Beyond that, he had the feeling it might have the potential to become Acer's first global blockbuster product.

Despite its promise, however, Shih wanted to listen to the views of the project's critics. Some pointed out that AAC had just begun to generate profits in the first quarter of 1994, largely on the basis of its solid OEM sales, which accounted for almost 50% of revenues. Given its delicate profit position, they argued that AAC should not be staking its future on the extremely expensive and highly competitive branded consumer products business. Established competitors were likely to launch their own multimedia home PCs—perhaps even before Acer. Building a new brand in this crowded, competitive market was extremely difficult as proven by many failed attempts, including the costly failure of Taiwan-based Mitac, launched as a branded PC in the early 1990s.

Even among those who saw potential in the product, there were several who expressed concern about the project's implementation. With all the company's engineering and production expertise located in Taiwan, these critics argued that the task of coordinating the development and delivery of such an innovative new product was just too risky to leave to an inexperienced group in an RBU with limited development resources. If the project were to be approved, they suggested it be transferred back to the SBUs in Taiwan for implementation.

Finally, some wondered whether Acer's client-server organization model and "local touch" management would support Aspire becoming a viable global product. With the growing independence of the RBUs worldwide, they were concerned that each one would want to redesign the product and marketing strategy for its local market, thereby negating any potential scale economies.

As his plane touched down in San Francisco, Shih tried to resolve his feelings of excitement and concern. Should he support the Aspire project, change it, or put it on hold? And what implications would his decisions have for the new corporate model he had been building?

**Exhibit 1**    Selected financials:  Sales, Net Income, and Headcount, 1976-1994

| | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sales ($M) | 0.003 | 0.311 | 0.80 | 0.77 | 3.83 | 7.08 | 18.1 | 28.3 | 51.6 | 94.8 | 165.3 | 331.2 | 530.9 | 688.9 | 949.5 | 985.2 | 1,259.8 | 1,883 | 3,220 |
| Net Income ($M) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 1.4 | 0.4 | 5.1 | 3.9 | 15.3 | 26.5 | 5.8 | (0.7) | (26.0) | (2.8) | 85.6 | 205 |
| Employees | 11 | 12 | 18 | 46 | 104 | 175 | 306 | 592 | 1,130 | 1,632 | 2,188 | 3,639 | 5,072 | 5,540 | 5.711 | 5,216 | 5,352 | 7,200 | 5,825 |

**Exhibit 2**    Acer Share Price History, November 1988-January 1995.
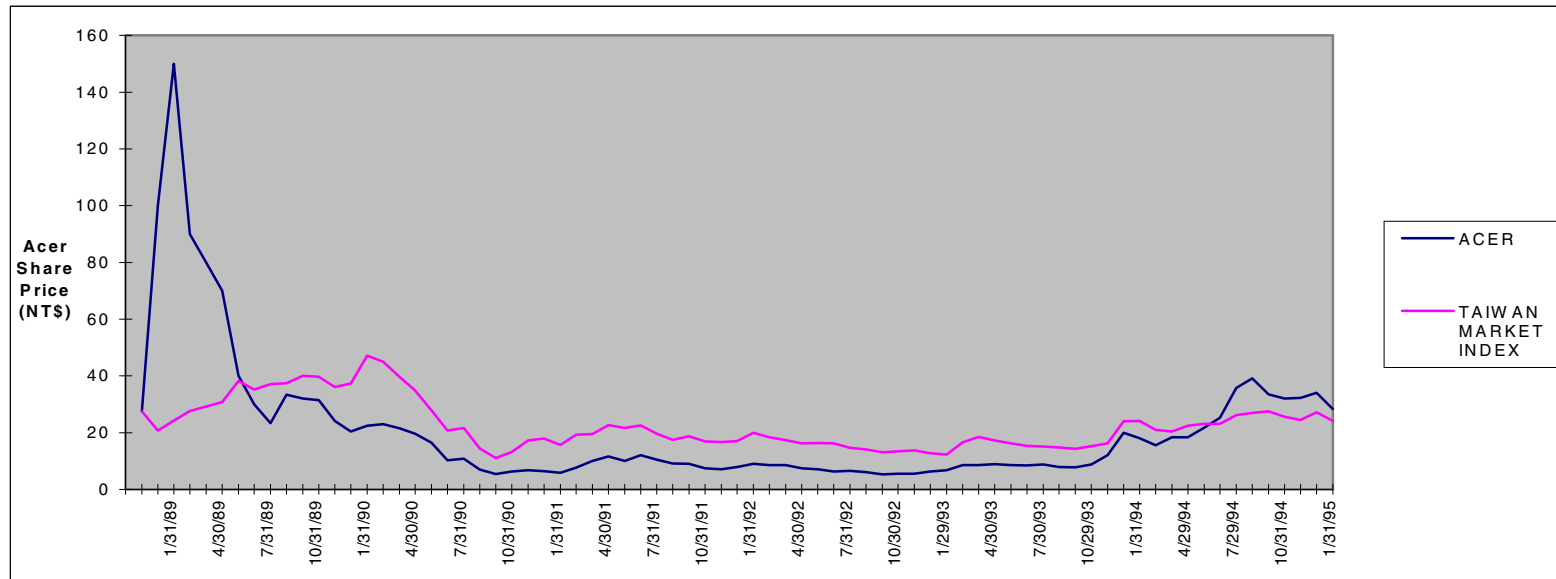


Source:    Datastream

Note:    Acer stock price in Taiwan dollars.

**Exhibit 3a**    The Acer Group in 1994

| Acer America Corporation (AAC) | Acer Europe | Acer Sertek (Taiwan and China) | Acer Computer International (ACI) (Rest of World) | *Fora Inc. (Trading)* |

**Acer Group** (Headquarters)

*Acer Property Devpt.*

| **Info. Products Group** Servers, Desktops, Notebooks, Motherboards, Multimedia, Video Conferencing SIMM | **Acer Peripherals** Monitors, Keyboards, Scanners, CD-ROM, Mobile Phones | **TI-Acer** DRAMs | **Acer Laboratories** ASICs | *Acer Third Wave Publ.* Periodicals & Software |

Names in plain text are RBUs, names in **bold** are SBUs, and names in *italics* are classified as "Other."

**Exhibit 3b**     Acer's Geographical Distribution in 1994

**Amsterdam:**
Acer Europe
**Subsidiaries:**
Belgium
Holland
France
Germany
Austria
Norway
Hungary
Italy
Denmark
United Kingdom

**Taiwan:**
Acer Group Headquarters
Information Products Group
Acer Peripherals Inc.
TI-Acer
Acer Laboratories
Fora, Inc.
Acer Property Development
Acer Sertek (PRC & Taiwan)

**Beijing:**
Acer Market Services, Ltd.

**San Jose:**
Acer America
Corporation (AAC)

**Mexico City:**
Acer-Computec Latin America
(ACLA)
**Subsidiaries:**
Argentina
Colombia
Newtec (Mexico) (J.V.)
Venezuela

**Singapore:**
Acer Computers Int'l (ACI)
**Subsidiaries:**
Hong Kong
Middle East, UAE
Turkey
Japan
Korea
Malaysia
Thailand
India
Australia
New Zealand
CIS
Acer Africa (South Africa)

**Exhibit 4**    Acer Combination Income Statement, 1988-1994

| Income Statement ($ millions) | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|
| TURNOVER | 530.9 | 688.9 | 949.5 | 985.2 | 1,260 | 1,883 | 3,220 |
| Cost of sales | (389.4) | (532.7) | (716.7) | (737.7) | (1,000) | (1,498) | (2,615) |
| | | | | | | | |
| GROSS PROFIT | 141.6 | 156.3 | 232.8 | 247.5 | 260 | 385 | 605 |
| SG&A expenses | (88.2) | (118.2) | (192.2) | (217.2) | (217) | (237) | (316) |
| R&D and other expenses | (17.9) | (25.4) | (47.7) | (42.3) | (38) | (48) | (59) |
| | | | | | | | |
| OPERATING PROFIT/(LOSS) | 35.6 | 12.7 | (7.1) | (12.0) | 5 | 100 | 230 |
| | | | | | | | |
| Non-operating profit/(loss) | (8) | (6.3) | (1.5) | (15) | (4) | (11) | (19) |
| | | | | | | | |
| PROFIT BEFORE TAX | 27.6 | 6.4 | (8.6) | (27.0) | 1 | 89 | 212 |
| Tax | (1.2) | (1) | (1.2) | 1 | (3) | (3) | (7) |
| PROFIT (LOSS) AFTER TAX | 26.4 | 5.4 | (9.8) | (26.0) | (3) | 86 | 205 |
| **Sales by Region (%)** | | | | | | | |
| | | | | | | | |
| North America | na | 31 | 31 | 31 | 38 | 44 | 39 |
| Europe | na | 32 | 28 | 28 | 22 | 23 | 17 |
| Rest of World | na | 37 | 41 | 41 | 40 | 33 | 44 |
| **Combination Revenue by Product (%)** | | | | | | | |
| | | | | | | | |
| Portables | na | na | 3.2 | 2.9 | 7.9 | 18 | 60% |
| Desktops and Motherboards | na | na | 60.9 | 56.3 | 54.9 | 47 | |
| Minicomputers | na | na | 13.9 | 11.3 | 6.6 | | |
| Peripherals and Other | na | na | 22 | 29.5 | 30.6 | 35 | 40% |
| **Combination Revenue by Business (%)** | | | | | | | |
| | | | | | | | |
| Brand | na | 53 | 47 | na | 58 | 68 | 56% |
| OEM | na | 34 | 22 | na | 18 | 32 | 36% |
| Trading | na | 13 | 31 | na | 24 | na | 7% |

Source:   Company Annual Reports   Year ending December 31.

**Exhibit 5**    Consolidated Balance Sheet, 1988-1994

| Acer Group Balance Sheet ($ millions) | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|---|---|
| **Current Assets** | 277.30 | 448.80 | 579.50 | 600.90 | 700.20 | 925.00 | 1355.00 |
| **Fixed Assets** | | | | | | | |
| Land, Plant, and Equipment (after depreciation) | 53.10 | 126.90 | 191.10 | 161.50 | 179.60 | 590.00 | 645.00 |
| Deferred charges and other assets | 11.50 | 22.90 | 60.90 | 239.50 | 212.30 | 69.00 | 82.00 |
| **Total Assets** | 341.90 | 598.60 | 831.50 | 1001.90 | 1092.10 | 1584.00 | 2082.00 |
| Total Current Liabilities | 189.40 | 248.60 | 464.60 | 505.80 | 504.20 | 752.00 | 1067.00 |
| Long-Term Liabilities | 11.20 | 16.60 | 43.70 | 168.50 | 214.30 | 342.00 | 312.00 |
| **Total Liabilities** | 200.6 | 265.20 | 508.40 | 674.30 | 718.50 | 1094.00 | 1379.00 |
| **Stockholders Equity and Minority Interest (including new capital infusions)** | 141.30 | 333.40 | 323.10 | 327.60 | 373.60 | 490.00 | 703.00 |

Source:  Company documents

**Exhibit 6**     Stan Shih's PC Industry Conceptualization
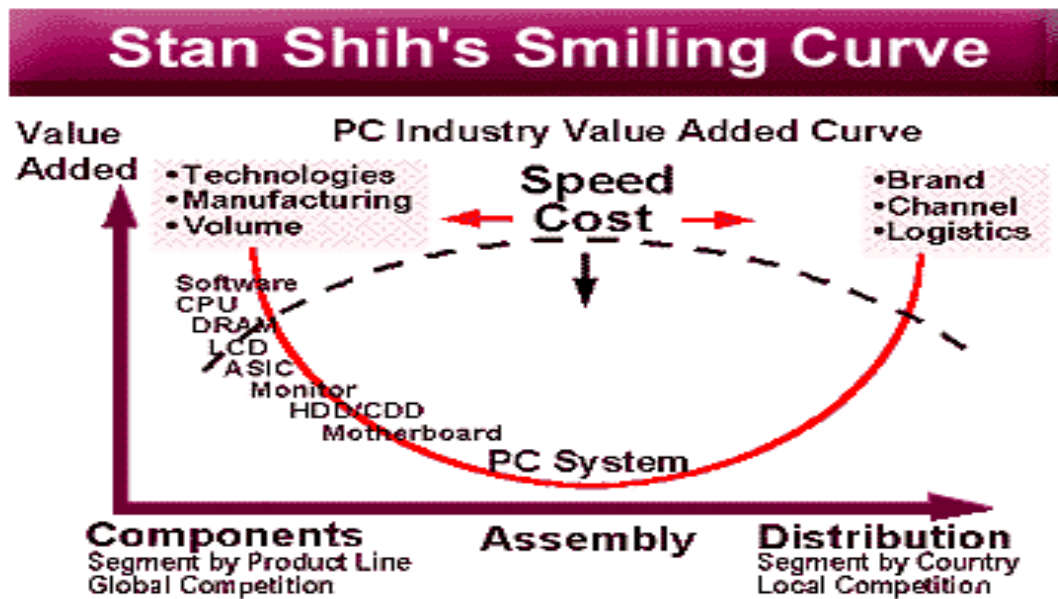


Source:  Company document

**Exhibit 7**  AAC Selected Financials (1990-1994)

| AAC Results ($millions) | 1990 | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|---|
| Revenue | 161 | 235 | 304 | 434 | 858 |
| Cost of Sales | 133 | 190 | 283 | 399 | 764 |
| Selling and Marketing | 27 | 61 | 25 | 23 | 55 |
| General Administration | 20 | 16 | 17 | 19 | 20 |
| Research and Development | 5 | 8 | 6 | 4 | 4 |
| Operating Profit/(Loss) | (24) | (40) | (26) | (11) | 15 |
| Non-operating Profit/(Loss) | (1) | (7) | (3) | (5) | (3) |
| Profit/(Loss) Before Tax | (25) | (47) | (29) | (16) | 12 |
| Tax | 1 | (2) | 0 | 0 | 1 |
| Net Income/(Loss) | (26) | (45) | (29) | (16) | 11 |
| | | | | | |
| Current Assets | 155 | 153 | 123 | 144 | 242 |
| Fixed Assets (net) | 39 | 43 | 28 | 25 | 25 |
| Other Assets (net) | 37 | 37 | 31 | 19 | 11 |
| TOTAL Assets | 231 | 233 | 182 | 188 | 278 |
| | | | | | |
| Current Liabilities | 155 | 169 | 154 | 136 | 218 |
| Long-term debt | 17 | 15 | 18 | 58 | 47 |
| Stockholder Equity (including additional capita) | 58 | 50 | 10 | (6) | 12 |
| Total liabilities | 231 | 233 | 182 | 188 | 278 |

Source:  Company documents

(*Note***:** Totals may not add due to rounding.)

**Exhibit 8**  Top Ten PC Manufacturers in the U.S. and Worldwide in 1994

| Company | U.S. Market Share | Worldwide Market Share |
|---|---|---|
| Compaq | 12.6% | 9.8% |
| Apple | 11.5% | 8.1% |
| Packard Bell | 11.4% | 5.1% |
| IBM | 9.0% | 8.5% |
| Gateway 2000 | 5.2% | 2.3% |
| Dell | 4.2% | 2.6% |
| AST | 3.9% | 2.7% |
| Toshiba | 3.6% | 2.4% |
| Acer | 2.4% | 2.6% |
| Hewlett Packard | 2.4% | 2.5% |

Source:  *Los Angeles Times*, January 31, 1996

**Exhibit 9**    First Generation Aspire Prototype Design