

Leading By Example: *Leonard Shih Of GCC*

By Alan Farb



GCC president Leonard Shih, Ph.D., in his office.

GCC head office in Taipei, Taiwan.



Some people are meant to lead. Something in their character, something in their demeanor, something in their skill set, something in the way they assess what works—or should work—sets them apart.

In them, one meets a decision-maker who listens to others, evaluates situations and options, then acts.

Leonard Shih is that type of person.

Shih didn't deliberately, purposefully start out on the road to be a leader, but the road led him there nonetheless. That is, Leonard Shih was meant to lead.

His formal education, life's learning, family and personal interests all have added to his clear real-world view, bringing Shih to where he is now, and since 2000, president and CEO of Great Computer Corp., Taipei Hsien, Taiwan. Among GCC's products is the LaserPro series of laser engravers, which Shih helped to bring to fruition.

Well grounded in mechanical technology—with a Ph.D. in mechanical engineering with a focus on servo control systems, and years of working on and leading research and design teams—Shih continually looks at the big picture in the business and technical worlds in which he operates, keeping as much abreast of marketing, selling and commerce as he does with product development and manufacturing.

"You must always look at a machine and see how it is made to work with the customer," he says. "Getting engineers to think through a problem, to solve it, is important. If a customer isn't happy, I resolve the problem."

Leonard Shih's road to leadership began in his youth, before he even realized it; in due course, it placed him in the right place at the right time of his life.

Jim Lai, GCC's founder and chairman, approached Leonard Shih in 1992 while Shih worked as a principal engineer for the Lockheed Corp. (now, Lockheed Martin) in Los Angeles, Calif. There, Shih employed his servo control systems' exper-

tise. Before Lockheed, he worked for 3 1/2 years as a research scientist for Eastman Kodak Co., in Rochester, N.Y.

Lai knew of Shih's work and background, and wanted him to join the then three-year-old GCC and apply his expertise there. With the opportunity to return not just to his homeland, but so near to the community where he grew up, Shih found Lai's offer to join him as vice president of research and development irresistible. This also afforded his wife and two sons the opportunity to be close again with family.

When Shih joined GCC in 1992, about 30 people worked there. "To me, it was like a start-up venture," he says. "I could challenge myself and fully apply my skills to the business. That was why I decided to join GCC."

LESSONS IN LIFE & EDUCATION

Born in Hsin-Chu, about an hour away from GCC's Taipei offices, Shih is the eldest of four brothers, one of whom also is an engineer.

Though his middle-class working parents didn't pressure him to become an engineer, societal influence compels top students to choose eminent career paths in the science and math professions. In Taiwan, engineering is one of those distinct professions, like medicine, that is honored, touted and strongly encouraged.

"Engineering is treated as a privilege," says Shih. "It's a good direction for young people to go."

Taiwanese families invest a lot in their children's learning. Getting into the best schools often is a priority.

Shih began his schooling at age seven at a co-educational elementary school comprised of the brighter students, where an entrance exam determined acceptance; students were expected to go on to college. Even early on, his interest in engineering had taken wing. He would take things apart, examining how they worked, and he'd build motorized model cars.

"Maybe I was already influenced by our culture's opinion," he says. "But fortunately, I did know what I wanted to do when I was pretty young."

At 13, Shih moved to Taipei and entered a private school where, again, he had to pass a specific entrance exam—as he later would for high school—in order to attend the best institutions that would cater to and enhance his engineering potential.

In high school, as a top student and athlete, the 6-foot-tall Shih played basketball, volleyball and soccer, as well as competing in 100- and 400-meter races. His sports prowess afforded him recogni-

Shih meets with sales department.



Engineer testing the machine.



tion and some celebrity at school.

Still, classwork and homework were serious business, and scholastic competition was keen. The school day began at 8 a.m. and finished at 5 p.m. Sometimes there were Saturday classes and night classes, as well. And when he could, he would read a variety of literature, gaining a sense of people, society and culture, beyond the linear thinking of math and science.

"If you read history novels, you learn how to deal with politics and how to deal with people," he says.

Being in the academic top 10 of his class, Shih knew he could get into the better universities. But he wanted to get into the best: National Taiwan University. Even being in the top 10, he says that students with higher scores might have been admitted before him. Yet his superior scores in literature pushed him ahead of the others, as the university recognized his

well balanced education.

The world began to open up even more to Shih when he came to the United States to do his graduate studies at the University of Wisconsin at Madison in 1982. He was married, and committed now to his wife as well as his studies. His wife works as an occupational therapist; her expertise focuses on the elderly.

At Wisconsin, Shih was exposed to a world of ideas unlike the more restrained and focused atmosphere of his Taiwan university where he says his teachers lacked practical experience. "Everything was taught like you were in a math class," he says. "There was no physical meaning to relate to."

At Wisconsin, his professors knew "the real way to apply what we were learning to the real world," Shih says. "I was a sponge. I'm really grateful for that education. It was very open, very creative. I really loved that school."

He continues his education on his own, nowadays reading more about business and management. When he can, he reads literature and plays tennis.

And while he's a proud father, he understands if his sons' educational and professional pursuits don't follow his own: "They should be left to their own interests, to learn about the world."

TEAM BUILDING

In a global company like GCC with more than 460 employees in Taiwan, China, the United States and Europe—about 90 of whom are dedicated to the laser engraving market—managing a far-flung workforce means hiring the right people and trusting them to carry out their tasks and make the best decisions.

Shih trusts his engineers. He knows that when faced with a task they invariably come through with solutions: "If they try hard, they can get it," he says. "I always tell them, 'Stretch your potential.'"

Encouraging young engineers to think through projects—to think both analytically and with a thought to that human being who will ultimately use the equipment—gives Shih an added boost, not only as the president and CEO, but as a fellow engineer, albeit one with more overall experience. He strives for his technical staff to be well rounded, not simply well skilled. "One needs to know literature, one needs to know human beings," he says.

"Don't just become a well trained dog. Think," he adds, recalling the words from a book by a University of Cambridge-trained engineer. "In other words, don't do just what you've been taught, think about human beings."

An engineer without a sense of culture or of humanity, Shih maintains, won't accomplish the ultimate end: "You won't

have a very good design of the product."

Shih's experience as a mechanical engineer coupled with his management and leadership goes a long way toward overcoming hurdles in the design of equipment. Case in point: Sometimes his engineers might resist a new idea. For example, in designing doors for the LaserPro that permit engraving oversize objects, it required moving the laser tube and its mechanisms. Several times, Shih recalls, his engineers came to him saying the task was too difficult. But Shih believes strongly that if a machine feature is for the benefit of the end user, he will insist that it should be incorporated. His team found the means.

"In the R&D process you always encounter some difficulty and face some uncertainty," Shih says. "It is a joy for me to help our engineers to overcome any difficulty and find a solution during the R&D stage.

"Nothing is simple. To be able to satisfy our customers, you need to take care of every detail. If you overlook any single detail, you will be in trouble."

Shih holds weekly in-house R&D seminars, one-on-one sessions with engineers, meets with his sales and marketing staffs, and participates in training for new employees.

Half of the year, Shih travels throughout the United States, the other half in Europe and China. That's not to say he's on the road all year long, but as the company president Shih says it's important to interact with his customers.

AN ENGRAVER IS BORN

Shih's fit with GCC seems a perfect one. Perhaps, meant to be.

Jim Lai founded Great Computer Corp. in 1989 providing such PC products as mainframe boards. Another part of the

company manufactured computer peripherals: computer-aided design (CAD) applications and ink pen plotters for mechanical drawing. Lai, with a master's in business administration, concentrated on the more critical areas of finance.

After Shih came on board, GCC moved into manufacturing sign-cutting plotters, creating the SignPal vinyl plotter in 1995. And although the first generation SignPal made up in pricepoints what it lacked in meeting the market's needs, Shih says, it "gave us growth opportunity from which we learned valuable experience from the market."

"GCC, however, did win a very good response from the market in the second generation of the SignPal vinyl cutter," which, ever since, has been a stalwart of the sign industry.

1995 also was a milestone year for GCC, when it began to become profitable. Before that, "people didn't know whether it would survive," Shih adds.

Meanwhile, company owner Lai and his staff had been taking note of the emerging laser engraving industry.

"The laser market had great potential and the competition situation was not insurmountable," Shih recalls. "From the marketing standpoint, GCC had a very good chance. The technology required in laser engraving had a large overlap with our core technology. We were already familiar with the X-Y table, so all we needed to do was develop the optical module and then we could build lasers."

It was 1996 when Shih assembled a team of engineers to design a laser engraver. It was a challenge and a labor of love for this creative and analytical man.

Two years of development led to GCC's first laser engraving system, the LaserPro, in 1998. The engraver incorporated a DC servo motor to drive the laser, "which allowed it to deliver greater precision at higher engraving speeds than a stepper motor of the same size," says Shih. Stepper motors operate in small, preset increments—in steps—as they rotate without any position feedback signals.

Servos combine a motor, a controller that continuously adjusts the position or speed, and a position feedback sensor. The servo in a laser engraver offers acceleration in the engraving process; that is, it allows the mechanics to get the laser to a point quicker, and makes the engraving process faster, especially when it is image resolution that is key.

"Our strength in technology is the multi-axes motion control system," Shih adds. "We have digital servo control technology. We have electro-mechanical system



GCC's newest professional cutting system.

design capability. The laser engraver fits in our technical coverage."

The first order for the laser engraver went to a U.S. customer, a reseller, Shih recalls. He's candid in noting that that first generation of the laser engraver "was not that successful, just like most new products. It took us about three years to be successful in the worldwide market."

Allowing the engraving of long objects required developing front and back doors to the laser engraver. This was an industry first that Shih says GCC developed for the marketplace. Performing 3-D engraving of woods and marble was another first, he cites.

Shih also likes to address the issue of productivity vs. speed, a topic often talked about in the laser engraving industry.

"Speed does not equal productivity," he says. "Inches per second (speed) don't equal throughput." By way of example he points to an inkjet printer: "Do you want to know how many inches per second it prints, or do you want to know the pages per minute it will produce? It is like a Yugo and BMW. They both can reach 120 miles per hour (speed). But as we know, the BMW is much faster than the Yugo. There are some other factors such as acceleration, handling, etc., that affect the true performance. So, do not be fooled by the maximum speed of the specification of a laser engraver. There are some other factors to determine the productivity of a laser engraver."

Though it manufactures its own machines, GCC's LaserPro laser tubes are American made, from either Coherent or Synrad, of which one or the other are employed in at least two other renowned laser engraver manufacturers. At press time, Coherent Inc. was in the process of buying Excel Technology Inc., Synrad's parent company; the federal regulatory process to okay the buyout continued.

AN INTERNATIONAL CONCERN

An international company like GCC considers ideal locations for manufacturing. China has been one of those places. Even so, frustrations in working with the Chinese are inevitable. Politics, of course. China insists Taiwan is a Chinese island; even some Taiwanese think the tiny, independent nation should rejoin China.

Although GCC operates in Shanghai,

China, where it currently manufactures vinyl cutters, and is building a new 60-acre factory there, it must operate vicariously through a third-party country in order to conduct business within China.

"It's all indirect," says Shih. What should be, for instance, a one-hour flight from Taipei to Shanghai can take most of Shih's business day because he must fly first to Hong Kong, then continue on.

China is a vast potential marketplace, as well as a source for inexpensive labor. Companies around the world have been flocking to the largest Asian nation in size and population as it moves into the modern world marketplace.

"People know China as a manufacturing base, and the domestic market is a huge one," Shih says. "Many products, of course, are imported from China."

The Chinese market, however, Shih notes, is extremely price sensitive, and low-quality products tend to be the standard with Chinese-operated companies, even as the workers perform their jobs well. For example, Shih cites less expensive glass laser tubes manufactured by the Chinese have a high failure rate, sometimes as soon as every two months.

This isn't unfair criticism; rather, it's a business manufacturer's straightforward observation. After all, GCC is growing its own presence there, with plans to hire 100 workers for its manufacturing, marketing and technical support. The new Shanghai operation also will employ five of GCC's Taiwanese managers.

With product lines spanning laser engravers, vinyl cutters, and thermal and UV printers, GCC's vision, says Shih, is "to become a global high-tech company with innovations and capabilities in its related businesses."

The company operates on every continent in more than 70 countries through both its manufacturing and dealer networks. Managing so many people and monitoring so vast a network can prove complex, which is why Shih travels so much throughout the year.

The future brings added consideration as to how the world will conduct business. Part of what Shih envisions is the way people—end users—will buy, and he sees the Internet as the tool. Especially with such products as GCC manufactures.

"Internet marketing is very important.

It is how people will conduct their purchases," he says. "For example, you want to buy a car, you do research. If it's a high-ticket item, you do your homework; today, that's on the Internet."

Shih looks to investing more in marketing through Internet search engines. Once the consumer, such as an awards dealer looking to purchase, say, a laser engraver, has done the research, he or she will then use dealers or trade shows to test drive the machine.

"One of the areas that I enjoy in my business, my job, is helping our partners, customers and employees to resolve their problems," he says. "We commit to our products and customers. Innovation and service are our main focus."

That's what Leonard Shih strives for as GCC's president and CEO—as a leader who carries his company's standard, as a leader who has the desire to take his company further, and as a leader who works closely with and encourages his engineering, sales and marketing teams.

And as for what he aims to achieve personally in the business world, Shih says he wants to accomplish whatever is best for the industry as a whole, not only for GCC.

That's Leonard Shih.

A&E



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