



## A brighter, whiter future

**Dental health is increasingly important to Indonesians, but high equipment costs are a hurdle that newly qualified dentists often find hard to take in their stride. Locally made alternatives may be the answer, reports **Sashia Samira**.**

**I**N MID-2009, FIVE ENGINEERING students from the 10th November Institute of Technology (ITS) in Surabaya, working with the regional office of the Department of Manpower and Transmigration, took on as their graduate project the transformation of an outmoded, obsolete dental chair into a new, high-tech piece of equipment.

The space-age recliner they created was equipped with an LCD-output, an intra-oral camera that allows the patient to watch what's happening, an automatic motor instead of the typical hydraulic pump and a motion-activated faucet for rinsing.

The chair, now back in the surgery of dentist Alfita A'izatin, warrants a submission to the government's "Technopreneurship" program, according to the students' proud advisor. Already primed for competition, the students are optimistic their chair with its affordable price will outclass current products from China and Brazil.

Since the 1960s, many Indonesians have tried to gain a foothold in the domestic market for dental equipment, but in the end, only one has survived. For John Takili, his entrepreneurship has reflected the tactics of legendary Chinese general Sun Tzu: "Know both yourself and your enemy, and

your victory will be assured."

John is one of 15,000 registered dentists in Indonesia but stands out due to his ambition to better the stakes for Indonesia's dentists. As the founder of PT Andini Sarana, John has continued his mentor's dream to create Indonesia's first locally made dental chair.

In 1965, aged just 24, John had just graduated from Surabaya's Airlangga University. Finding work was difficult in an industry that gave little support to newcomers, and it was only his entry to the military that allowed John to begin to practice dentistry, at the Ladokgi Marine Dental Institute in Jakarta.

At the same time, a more senior dentist, Liem Tjing Kiat, had produced his first dental chair and was seeking backing for the project. The prototype was approved by President Sukarno but the aborted communist coup in September that year pushed the program off the government's agenda. Production of the Indonesian dental chair was postponed and the entire project was eventually forgotten.

Already the admirer of the dedication and passion of Liem, John continued his

career at Ladokgi until 1970, then joining the Jakarta Health Agency, where he worked for almost a decade 10 years before leaving full-time practice.

"I was saturated by my routine and I was moved to do something else, something different. Besides, I couldn't afford a Mercedes Benz if I continued working as a civil servant," he says with a laugh.

## Reverse-engineering

JUST LIKE 1965, JOHN FOUND HIMSELF facing a completely new start in the early 1980s. Just out of the civil service, he began visiting foundries and workshops to educate himself on steel framing, motors and hydraulics. For John, these research forays would become the seeds of his next venture.

PT Andini Sarana was established in 1983 with start-up capital of only Rp5 million. Located in a 100 sq m workshop, John and a staff of six attempted to "reverse engineer" their competitors' products. John says he doesn't feel he's cheating in the least by reproducing the frame of a Japanese dental chair, and says his technique is justified.

"We just aren't capable of creating our own, we don't have the professionals. Everybody in the world is copying – it's just the brand name that makes it different. We are copying the technology, not the brand, and if we don't do that, dentists will have no choice but to keep importing."

It took a year for John to finish his first replica. After adding his own tweaks and improvements, he was brave enough to take it to the ministry of industry, where Hartarto Sastrosoenarto was in charge. He received a positive response but the government didn't see domestic manufacture of dental chairs as a priority justifying its support.

John decided to take control of his destiny and develop a business model for his own, independent productions.

"Even now, I cannot yet construct a fully domestic product," he says. "I need more support from the industry, so about a fifth of the components come from overseas," he admits.

The benefit of working directly with a foundry and metallurgists, says John, was that he developed a network of friends to help him along. From forging to welding and construction, John received good support, enabling him to create blueprints for

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chairs that were uniquely his.

At the moment, Andini produces five different models of dental chair. Each can be customized for the individual client. Competitive pricing means that dental practices will at least include his chairs in a short-list of what they can buy.

"Our prices range from Rp25 million to Rp50 million for standard models, not including custom work," says John. "We have lower prices compared with the Germans and Americans but our main competition comes from China, whose chairs still sell at a lower cost."

Achi Harahap, a dental student at Jakarta's Moestopo University, says she has to work toward a return on the cost of her study by opening a private practice, and that at Andini's prices saving to set up in business will not be a burden.

Some dentists continue to believe that local products still have too far to go to beat imports. Flarina Auri, who practices both in the public sector and at her own clinic in Jakarta, says price reflects the quality of equipment. For more established dentists, she says, choosing equipment with a good reputation outweighs the extra cost.

The cost of foreign chairs can range from Rp50 million to Rp500 million, with Indonesian dentists seeing German products as the best.

Aware of his limitations, John remains unmoved by being in the lower rungs of the industry. "I create affordable dental chairs so that the new generation of dentists won't have to suffer as I did, unable to afford an expensive, imported chair," he says. "Now they have Andini to suit their budget."

## Lucrative business

ALTHOUGH ANDINI IS THE MAIN DOMESTIC manufacturer, it does not hold a monopoly in the Indonesian market. Drg Soemitro, head buyer for the Moestopo Faculty of Dentistry, says that because Moestopo solicits tenders for its equipment, foreign brands still have market access.

Drg Trinil, head buyer at Ladokgi, says the institute accepted a tender from Andini in 2002, and the chairs are still functioning.

"We have four chairs, and we are satisfied enough. But by comparison with the latest products, Andini should consider updating their designs."

At an average selling price of Rp38 million per unit, John expects to be able to sell 300 chairs in a year, giving him a turnover of Rp11.4 billion just from his inventions alone. Then there's additional income from the sale of equipment such as hospital beds and other medical and dental equipment. John also acts as sole distributor for popular American brands of equipment.

Warsono, factory head for Andini, says that for several years there has been no significant change in the growth of the dental chair industry, and that medical equipment has enjoyed better sales.

"Drg John began manufacturing medical equipment five years ago, and the fiscal growth was amazing," Warsono said.

"We cannot compare this with the field of dental chairs, because our chairs might last four to seven years before our buyers need a new model. But medical equipment? It's like selling peanuts."

Now, Andini products are scattered across the globe. The company exports mostly to neighboring countries such as Malaysia and Singapore, and John says he wants to focus on reaching more of the domestic market.

John, who still practices private dentistry, next plans to open more clinics throughout Jakarta for newly graduated students. For those with little financial backing, John says, these clinics will provide an opportunity to gain knowledge and experience without making the costly investment of opening a private practice.

"It's our 2010 target. We will create job resources for those in need, and at the same time, promote our brand. It would make me very proud to say I took part in improving the dental industry in Indonesia." GA

## Dental market still import-dominated

IT'S NO SECRET THAT, WITHIN THE MEDICAL FRATERNITY, DENTISTS are often belittled by their professional colleagues. If you've failed your medical exams, they say, give dental school a try.

Though dwarfed in number by general practitioners, dentistry is an important field of health, and one we often take for granted. It's better to suffer heartache than toothache, people say.

As with medicine, dentistry demands a significant investment, both financially and in time expended for the study involved. However, unlike graduate doctors, newly qualified dentists are burdened with the purchase of specific, high-cost, often imported equipment.

Even with a practicing license in hand and a line of patients at the door, a dentist without a dental chair and equipped surgery is no dentist at all.

Currently, general medical equipment still comprises a greater portion of the market, but the potential for growth in the dental sector is unquestionable.

In China, with a population of over 1.3 billion people, there are over 25,000 operating dental

hospitals and clinics. Over 90% of all dental procedures in China occur in state-owned facilities, where it is mandated that at least half of all equipment be locally produced.

Unlike in Indonesia, China's domestic industries are satisfying the dental market from low- to high-end. The cost of locally made dental chairs can be as low as 10% of that of imported products, making them logical purchases even without local-product directives.

In China, the entry of foreign brands to the market does not constitute a threat so much as an expensive, if ostentatious alternative.

For Singapore, imports from America, Germany and Japan lead the market in dental chairs. American products enjoy a reputation for quality, are acknowledged as superior in technology and reliability, and, according to the US Commercial Service, are experiencing increased demand off the back of a weakened US dollar.

With only two major players in its local industry, PT Andini Sarana and PT Denitia Sejahtera,

Indonesia has become a great market for dental care. However, imports still dominate, with local units relying on foreign parts.

Sharon Chandra, dental market analyst from the US Commercial Service, has stated in her research that Indonesian imports of dental equipment and supplies reached an estimated \$34 million in 2008, with 10% to 20% growth over the next three years.

With a 50%-plus share, the market is dominated by Asian manufacturers, principally Japan and Korea. Following these are European brands from Germany and Italy, while the US holds an 11% import share.

In Jakarta, the Ladokgi Institute of Dentistry typifies the Indonesian taste for foreign imports. Drg. Trinil, dentist and Ladokgi head buyer, has told GlobeAsia that about 80% of the company's chairs and equipment are imported brands, mostly from Germany and America, with only the remaining 20% domestic-made. The foreign brands are more durable and of higher quality, she says.

For her own private practice, Trinil says she's chosen Gnatux, a Brazilian dental chair.

Trinil said she was not troubled choosing foreign brands over those made in Indonesia. As Ladokgi's buyer, she says, the main determinants are patient convenience and the need to keep purchases up to date.

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Sari, one of Ladokgi's patients, says she is not concerned about the origin of the equipment, as long as it looks impressive.

"Imported chairs are more fashionable, with a high-tech look. I haven't heard of the local brands – maybe I've sat on one, but most dental chairs I've seen are imported."

A US Commercial Service report says increased awareness among the general population of the need for good dental care has influenced the direction of the Indonesian market. The middle and upper sectors of the market are more aware of the need for regular checkups, and cosmetic dental work is also becoming popular.

More than 15,000 dentists are registered throughout Indonesia, and about 60% have their own private practice. With the majority of dental equipment imported – whether high-end brands like Adec from the US or less-expensive products from China – buyers are currently spoiled for choice.

