

Fact Sheet 10 Exploring Knowledge Transfer: Water Supply Industry in Can Tho City

by QUY HANH NGUYEN

Severe pollution caused by intensive agricultural production and environmentally uncontrolled industrial expansion has counteracted traditional water collection methods in Can Tho City and beyond. Further, since piped water networks are insufficient, purified drinking water has been identified as an alternative source for drinking water although it is rather expensive for rural inhabitants. A 2007 German-Vietnamese survey revealed that purchased purified water is the most popular drinking water source in the peri-urban community of An Binh (Herbst et al. 2009: 225f). In view of demand, the purified water supply industry in Can Tho City is growing continuously, as the following chart illustrates.

Number of registered purified water companies in Can Tho City by districts

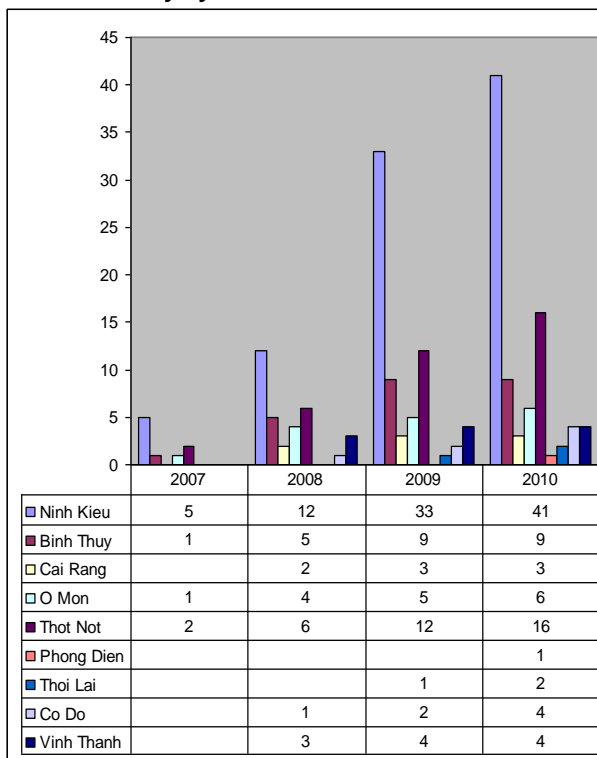


Chart: Quy Hanh Nguyen (2010)

Eighty-six registered businesses were operating in 2010 in Can Tho, making a nine-fold increase over the previous four years. The enterprises are typically located in populated and better off areas, such as Ninh Kieu and Thot Not, yet purified water supply services are also increasing in less developed hamlets. The major products are 20-litre jars, followed by 0.5, 1.0 and 10-litre bottles. Differing by seasons, the average sale quantity is estimated at 100-500 jars/day/unit. With free delivery, dwellers from residence centres pay US\$ 0.40-0.70/jar, while inhabitants in remote areas pay slightly more because they are supplied by scattered retailers. Typical enterprises are small in scale (3-10 employees) and can be grouped into three business models: subsidiaries, multi-businesses and household-based enterprises.

The rapid growth of this industry has been confronted with water quality management, which, to a large extent, depends on the water treatment technology in use. Nonetheless, little is known about how water producers acquire and apply the relevant skills and knowledge and how they deal with gaps in this knowledge.

In line with the above mentioned three forms of enterprises we examined the transfer and use of knowledge in regard to water treatment and processing technology at the stage of a company's establishment and in the context of everyday operation. In the parent-subsidiary model, parent companies directly plan and implement the transfer of advanced technology to their subsidiaries.

After successful adoption, the subsidiaries continue to disseminate the technologies to branches under their control. Technical divisions are staffed by technical workers who are sent to Ho Chi Minh City (HCMC) for three to five months' training before taking up employment in the company, after which they are responsible for the smooth operation of machines in the subsidiary and its branches, as well as for training the employees of new branches. An illustrative example is the purified water company headquartered in HCMC, with branches in Bien Hoa, Dong Nai and Can Tho. The director of the company is a Vietnamese-American, an expert in water technology, who decided to make his business back in Vietnam with internationally standardised facilities. In the multi-business group, bottled drinking water is often an "added" product of limited liability companies that possess relevant water purifying technologies. Their advantage is that the relevant human and technical resources are already available. A domestic ice manufacturer, for example, or a beer producing company, both distilling water as an input material, now also produce it as a final product. Most commonly, water filtering technology worth US\$ 2,385-14,305 is bought from Vietnamese companies in HCMC, which specialise in water facilities and provide free installation and training for their trading partners in Can Tho. Similarly, for most household-based businesses, the application of water purifying technologies is greatly dependent on HCMC providers. In some cases, however, technology transfer has been achieved among family members, sometimes through generations. For example, siblings help to establish a new enterprise or a son inherits his father's drinking water business. Knowledge sharing in the first business model is done professionally between in-network managers, heads and technicians and through formal periodic meetings or informal telephone conversations. Once a

problem arises, a technician visits that branch and knowledge sharing happens through learning by doing. In single private enterprises, the technician (often the enterprise owner) acquires knowledge from the HCMC technology provider via telephone consultancy or reparation trips. As a result, the knowledge is restricted to the technician and possibly to his/her family members, and shared only with non-competitors. A company director explained that businessmen in the same locality do not exchange experience; he would only share his knowledge with far-away fellow traders.



Photograph: Quy Hanh Nguyen (2010)

Knowledge sharing thus mainly occurs between technology/knowledge providers and receivers and within the organisation. The formation of professional associations in the region could promote knowledge exchange and capacity building between the different water producers and technology suppliers, and in turn achieve better ways of managing of drinking water quality.

Further Reading

HERBST S. AND S. BENEDIKTER ET AL. (2009) Perceptions of Water, Sanitation and Health: A Case Study from the Mekong Delta, Vietnam. *Water Science & Technology* 60 (3): 699-707.

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