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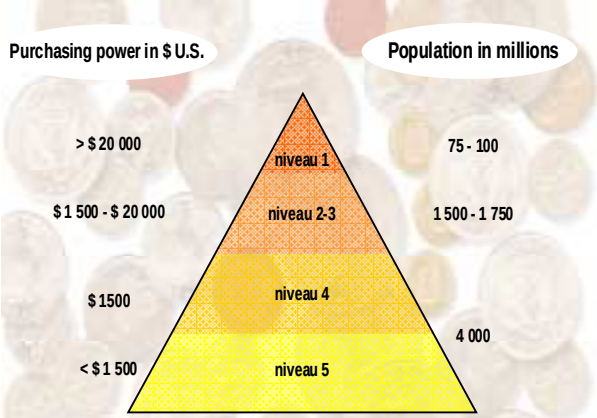
GLOBALIZATION : TOP-DOWN OR BOTTOM-UP?

It's 7 in the morning at the hospital, and the surgeons are looking at the list of operations sequenced by a small software package using various criteria, one of which is the preference of each patient for a particular doctor. Four operating tables function slightly staggered in the theater, each surgeon operating in turn at one of two adjacent tables. When the first patient is finished, the second has been prepared for the surgeon. At the same time, the third patient, who had been waiting on a bench in the theatre, is prepared on the first table. This rhythm goes on, and at the end of the morning each surgeon will have performed 25 operations.

Is this an advanced hospital in the West? Advanced yes, but it's located at Madurai in India and belongs to the Aravind Company.° The market being served is the "bottom of the pyramid", the 4 billion people living on about $1000 dollars a year, or $3 per day, of which 2 billion people live on less than $2 a day :

Our Technical Newsletter No. 20, « The Pyramid and the Onion », already talked about the disconnect between the pyramid and the true Normal distribution of human aptitudes. By changing the pyramid progressively into a Normal distribution, from the bottom up, this huge economic and human waste can be eliminated. Finland's excellent school system has done that: "it was better to push up the bottom level to the middle than to push the middle to the top…the top will go to the top anyway."°°



Source: C.K. Prahalad and stuart Hart, 2002. The Fortune at the Bottom of the Pyramid, Strategy+Business, Issue 26, 2002. Reprinted with permission from strategy+business, management quarterly published by Booz Allen Hamilton.www.strategy-business.com

Today, the bottom of the pyramid is on the move; witness the Grameen Bank in Bangladesh and the $100 PC being build by MIT Media Labs. Beside the Aravind Company cited above, another group has created a 'LifeStraw' whose seven filters allow drinking from contaminated water ; which costs $7 ; and which lasts about a year°°°. Although the prices are low, this isn't about charity. It's industry, or more precisely, design/development, production and distribution in a complete supply chain.

The common trait of these successes is to "stand the Western design process on its ear", to find new products, services and supply chains. If that sounds like Lean, it's no accident! For example, the poor farmer doesn't pump water with Diesel pumps, which are too expensive and often broken down. But a treadle pump costing him $8 plus $16 for drilling, pipes and tubes, can triple his income. °°°

Another example : the Indian division of Unilever, Hindustani Lever, completely rethought soap and detergent marketing for the needs of the poor consumer. Instead of the usual boxes of detergents in Western markets, the soap is designed for hand washing, sold in individual doses, and contains a special formula for use with dirty water°.

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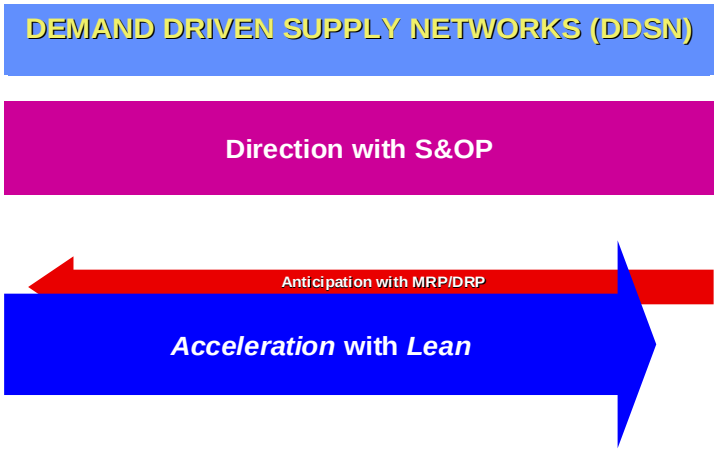
Production is rethought as well to be done at low cost. For Africa, the Bobs Davies Company (U.K.), working with the Intermediate Technology Development Group (ITDG), created a windmill in lightweight titanium, and which can be assembled by one person, with no soldering.

Another example is the fabrication of colored baskets from palm leaves, done by 100 women living in Darfur. They receive $12 for each basket made, 30% more than on the local market. Customer orders for the baskets are taken by Internet in the U.S. The $65 price per basket covers material + labor + logistic costs and leaves a profit of $40. Computers as communicators also play a major role in the sale and distribution of soybeans, thanks to the creation in rural India of local infocenters linked to the Internet.°°°°.

Note the Lean thinking in these examples. First, **listen to the Voice of the Customer**. Then, **calculate the cost starting from the mandatory market price**, less the profit required to survive and to invest. **Design and develop in close relation with the rest of the supply chain**, taking into account both the information flow from customer to supplier and the physical flow from supplier to customer. **Eliminate activities that don't add value.**

This new way of managing has a large strategic planning component including new products, a large Lean component for creating flows without wasting resources, and, et a small detailed planning and execution component using information technology. It resembles the new « Demand Driven Supply Networks » approach for advanced supply chains :



Also, a cataract operation costs $2600 to $3000 in the US but only $50 to $100 in India. The cost of an artificial foot is 200 times less than in the West. It's not a question of inferior Quality. When a surgical team performs 25 to 30 operations a day, it becomes very proficient very quickly.

All of these examples for selling to 85% of the planet, are exactly the opposite of our classical methods, which work for 15%. They are radically different, just as Lean is radically different. The movement today is clearly from the bottom to the top, a current Lean can help us to learn to swim with.

° C. K. PRAHALAD, The Fortune at the Bottom of the Pyramid, Wharton, 2005.
°° Marie-Laure LE FOULON, Le rebond du modèle scandinave, 2006.
°°° Brian KNOWLTON, « Turning out gadgets for a $2-a-day multitude », International Herald Tribune (IHT), Dec.31, 2005 – Jan. 1, 2006, p. 2.
°°°° www.amberchandcollection.com et IHT, 5 janvier 2007