Reverse Innovation—A Decade+ of Trickle-Up Corporate Empathy!

(Please bring this to the attention of your students, vis-à-vis sustainability targets and key performance indicators in sustainability which could be useful for beginning their research studies.)

STRATEGIC EMPATHY: This is a term being used to describe the reverse innovation movement—a long-awaited approach to corporate planning. MNCs have gained from their experiment with bottom-up innovation over the last several years. Instead of thrusting products designed for Western customers upon end users in developing economies, they now acknowledge that unique solutions for customers at the Bottom of the Pyramid must be part of corporate strategy. By immersive research into their specific needs, MNCs have an opportunity for finer-grained knowledge acquisition about emerging markets. New innovations then trickle upward into the developed world, and new business possibilities arise both up and down the supply chain. By reimagining its opportunities in this manner, the corporation can open up new competitive advantages for itself. Then the innovations from the developing world trickle upward to benefit users in the developed world. This is an example of Adam Smith’s “Invisible Hand”—the notion that by following their own self-interest—firms can create an efficient allocation of resources for the whole of society.

The concept was given the name “reverse innovation” by Professors Vijay Govindarajan and Anil Gupta in 2008. Unlike traditional innovation, the notion reverse innovation is the process of empathizing with socio-economic and cultural needs of emerging markets the voices from the field are heard for better and more sustainable outcomes.

Examples of some of these are explained below:

**GE’s HAND-HELD ULTRA-SOUND MACHINES:** When GE’s ultra sound scanners sold poorly in rural Chinese clinics--primarily due to high cost and unnecessary bells and whistles within them; GE’s then CEO Jeffrey Immelt brought Professor Govindarajan to GE and GE’s strategy of innovation from the bottom tiers of society was born. To achieve this the company created an independent unit in China to develop a scanner just for the Chinese market. It was portable, easy to use, light weight and at $15,000 it cost 15% of GE’s existing low-end ultra sound machine. As a result GE’s sales and profits soared, and the new machines also found their way into American ambulances and in other venues in developed nations, where portable ultrasound devices were appreciated. (Image right: GE.com)

**LOREAL FINDS “HALAL” SOLUTIONS FOR ITS BEAUTY PRODUCTS IN THE INDONESIAN MARKET:** L’Oreal found that the beauty needs for Indonesian women included the use of “halal” components in cosmetics. Since, for religious reasons Indonesians wash their faces five times a day it signaled that water resistant beauty products would be essential. Marketing to women in Indonesia now emphasizes halal-endorsed cosmetics and are shown by celebrity models wearing the traditional hijab. As a result Indonesian adaptations were useful for other Muslim women not only in Muslim nations but in Western ones as well (L’Oreal Groupe, 2021). The L’Oreal Groupe’s corporate statement says a lot about empathy, “We are a global beauty company and we pride ourselves on being very local and grounded in local insights and leveraging our global strength and scale and learnings rather than the other way around.”

**ZIPLINE’S DRONES DELIVER BLOOD TO RWANDA’S CLINICS:** Delivering blood supplies to Rwandan hospitals had always been a supply chain issue. But, in 2016, the autonomous robotics company, San-Francisco based, Zipline, found a way. By joining with the Rwandan government in 2016, to make up to 150 blood drops from parachutes from drones. When it began, the head surgeon at Nyanza Hospital Maternity Hospital said in amazement: “Before, it took at least three hours to get blood in an emergency. Three hours can make the difference between saving or losing a life. Now we get blood in 15 minutes.” (Image above left: Inc.com; Image right: CNET). Rwanda has

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5 Khan, M. (2021) 20 Inspirational Reverse Innovation Examples in Business, in Insight & Innovation

now ordered 2 million drone-drops by 2029. Drone delivery of blood also has useful applications to the military around the world, especially in conflict zones, and to hospitals and clinics in other regions. From Rwanda drone delivery of blood has led to other medical uses like delivery of organs for transplants in America.

**THE TATA NANO MOTOR CAR:** Tata’s Nano vehicle has been designed specifically for developing economies—such as India, China, and Brazil. The Nano is the cheapest car in the world at ₹ 100,000 or US $1,300. Nano was developed by Tata Motors as a low-cost vehicle intended to allure riders of motorcycles and scooters into motor cars. The Nano is a compact hatch-back of a length of roughly 3 meters, the Nano about the size of a BMW Mini. It The Tata Nano is a compact city car, that seats up to six passengers. was designed to reduce congestion on the roads, and at the same time bring affordable solution to those who could not afford other cars from the West, or manufactured with a Western purpose. In a reverse innovation manner, Tata has also developed a Nano for Europe. (2023, “Here's What Made The Cheerful Tata Nano The World’s Cheapest Car” in *HotCars*, Amujo Olasoji, 2023).

**LOGITECH’s INNOVATIVE COMPUTER “MOUSE-TRAP”:** When Rapoo, a Chinese company, began selling computer wireless mice at one-third the cost of Logitech’s computer mouse strategy in China, this became a threat to California-based enterprise. Logitech, however, rose to the challenge by cutting its entry-level price from $50 to $19.99--almost matching Rapoo’s price. Logitech’s innovative approach served up mice with less memory and simpler software. However, but could still perform the functions most consumers wanted—The redesign went global, and within a year Logitech had shipped 4.5 million units. (Tuck School of Business Reverse Innovation: Firms innovate for developing countries and then export to the West.”) Image. Upper right: Logitech).

**THE SMALL REFRIGERATOR, CHOTUKOOL, BY GODREJ, LTD:**

Godrej & Boyce Manufacturing Co Ltd, in 2010, is the Godrej Group’s appliances division. It was here that a battery-operated economy refrigerator, hailed as the world’s cheapest model at Rs 3,250, ( $39.52.00 ) was designed. It was targeted toward India’s rural areas and her less-privileged city dwellers. Known as Chotukool (small cooler) is an illustration of reverse innovation. This model is a low-cost alternative to more costly models used by the

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7 Khan, M. (2021) 20 Inspirational Reverse Innovation Examples in Business, in *Insight & Innovation*

8 ibid

9 ibid
affluent, and is specific to these unique Indian markets. *Chotukool* was designed to meet the needs of consumers in developing countries, rather than developed ones. (Image left: New Atlas).

**BETTER PLACE: ISRAEL’S SMART GRID OF BATTERY CHARGING/swap terminals:** ¹⁰

In Israel, the Better Place, a provider of electric vehicle (EV) services, developed smart grid of battery-charging terminals and battery-swap stations. Better Place is now operational in many countries, including China, Japan, Australia, the United States, Canada, France, and Denmark, and Better Place is currently working on building networks of charging points in Israel, China, Australia. (Image, right: The NY Times).

**VICK’S HONEY COUGH: P&G’s HONEY-BASED COLD REMEDY: **¹¹

This Proctor and Gamble’s cough remedy was created and formulated explicitly for emerging economies. It was designed to melt quickly in the mouth, dissolving more rapidly than tablets or syrups that are hard and bitter on the throat. Having conducted research with an emphatic focus for local needs, P&G consulted with mothers who were looking for a medicine that would not only cut short their child’s cough, but also tasted good to children. Called the “Honey-Cough” this honey-based cold therapy had a taste that became popular in European and US markets, but it only reached these markets because P&G originally had targeted users in developing countries. As such it is an example of reverse innovation because it was designed to meet the needs of consumers in developing countries. It is a low-cost alternative to more expensive cold remedies and meets the specific needs of these markets.

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¹⁰ Ibid

¹¹ ibid
PEPSICO’s– KURKURE AND AVILA, DEVELOPED FOR WEST ASIAN MARKETS:

PepsiCo’s Kurkure is a spicy and crunchy, puffed corn “nosh” made up of rice, lentil and corn, that comes in various flavors and spiciness. The Kurkure snack originated in India and was launched in 1999. PepsiCo’s Kurkure showed remarkable growth in less than ten years. PepsiCo’s taste creation is distributed in certain markets, including West Asia. It is a popular snack wherever it is sold. (Image left: Indiamart.com). Aliva, is another creation of PepsiCo. (Image right: avilanaturalle.com). “With Aliva, we aim to replicate the success we achieved with Kurkure in a shorter time span” PepsiCo President Gauthum Mukkavilli enthusiastically told reporters. (Business Standard, Business Budget 2023). Product improvement and a strong marketing approach are credited its success.

THE UNITED NATIONS’ SUSTAINABILITY DEVELOPMENT GOAL #17: The above examples of reverse innovation are congruent with the global thinking of the UN’s SDG compact with nations designed in the Paris Accords in 2015. These include targets such as: financial inclusion, social welfare, diversity and equity, technology, science, multi-stakeholder partnerships and voluntary commitments, trade, and capacity development to be achieved for a world-wide sustainable future by 2030.

Disclaimer: The list of reverse innovations from the corporations that provide them, as shown above, is not meant to be exhaustive in this document. This report is provided as a way to start your sustainability research studies—i.e., for JHBC term papers, projects, journal articles, etc.

Created for JHBC’s PRME Platform by Professor Breena E. Coates, for use by faculty and students in Ethics, and Sustainability Studies

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