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Reverse Innovation and Intercultural Management Aspects

Abstract:

In today's changing and competitive environment, innovation is crucial for the survival of any business in the marketplace. Globalization has brought both opportunities and challenges for companies in emerging economies. The intense competitive environment is compelling these companies to innovate, so as to sustain and survive. That is why the emerging market economies are transforming into centers of innovation. These innovations associate with low-cost products like health care devices, wind power, micro finance, electric cars and many more. Multinational companies used to launch new products in the developed world and later on sell the stripped-down version of products to developing parts of the world. Since a few years ago this proces is changing its direction in an opposite way. Innovations initially launched in developing countries are introduced to advanced countries (reverse innovations). This kind of actions make the managers to change the management models of their companies and deal with different intercultural aspects. The aim of this article is to present the reverse innovation idea and typology and identify the most important intercultural aspects in their management.

Key words:

reverse innovation, emerging markets, intellectual aspects.

Introduction

Years ago multinational companies earned most of their revenues and grew in home markets. Today maturity and saturation of these markets caused that nothing in the global ecosystem is static. Most of untapped buying power is in the emerging markets of Asia, South Asia, Africa and Latin America.

For multinationals truly a global strategy must develop innovation capabilities and find smart pathways to making the most of emerging market opportunities. These pathways are intended to combine global vision and mission with an intense focus on local needs and preferences.

Multinational companies have all strengths (resources, people – talents, broad reach) to execute such a global – local juggling act. The evidence shows that some of them have already found that innovating for emerging markets, rather than simply exporting, can unlock a world of opportunities for them. This kind of innovation V. Govindarajan and C. Trimble call reverse innovation and it means any innovation that is adopted first in the developing world (2012, p. 4).

For years reverse innovation has been rare. The general and popular direction was different than nowadays. The dominant idea – also called as glocalization – was as follows: innovations were created in rich countries for demanding customers, who wanted the latest and the greatest. However, developing nations naturally are engaged in a slow and evolutionary process of catching up with the rich countries, both economically and technologically. According to this idea developing countries did not need innovation. Multinationals could tap emerging markets simply by exporting lightly modified versions of global products developed for rich-world customers.

Experiences of PepsiCo, Procter & Gamble, Harmand and many other multinational companies show that what works in rich world will not automatically achieve wide acceptance in emerging markets where customers' needs are different. Generally, developing economies are different. In the rich countries there are a few people who can spend a lot. In the developing countries there are a lot of people who each spend a little. This implies a striky different business challenge.

This specific business challenge is strictly connected with different intercultural aspects that managers and multinational companies' employees will face adopting reverse innovation strategy. That is why, the aim of this article is to present the reverse innovation idea, typology and intercultural aspects that can appear in their management. The main research method will be literature review and analysis.

Reverse innovation definitions and typology – literature review

The term of „*reverse innovation*“ has become popular in both academic and managerial discussions to describe innovations as emanating from developing rather than advanced countries, and has been used to present developing country-targeted innovation by foreign multinationals that otherwise have been considered a form of advanced product localization. Common is the implication that the developing country is at the center of innovation (Zedtwitz, Corsi, Soberg, Frega, 2013). Immelt, Govindarajan and Trimble (2009) describe reverse innovation as the opposite of the „glocalization“ process, in which multinational companies first make products at home market and subsequently localize them to other, usually less sophisticated markets. Building on this idea Govindarajan and Ramamurti (2011) characterized reverse innovation as the process in which an innovation is adopted first in developing (low income) countries before being implemented in advanced (high income) countries.

Beside the glocalization concept, the idea that innovation originates in other than advanced countries is not new. Brown and Hagel (2005) used the term "*blowback innovation*" to describe innovative solutions developed and adopted first in emerging markets. Hart and Christensen (2002) applied the disruptive innovation concept to new products coming from developing countries. In the literature one can find an important stream of international business and innovation research focused on the role and evolution of foreign subsidiaries of multinational companies and their strategic contribution back to the parent organization (Birkinshaw, Hood, 2001). The role of actors in global R&D and innovation, especially domestic firms in developing countries.

Reverse innovations are often identified with frugal innovations, cost innovations, innovations of the bottom of the pyramid, disruptive innovations, etc. (see Table 1).

Companies confront various challenges to serve the increasing number of low income customers who clamor for affordable solutions that are sufficient enough to meet their needs. Reverse innovation is compared to frugal innovation, which is an innovation with low-cost, simple usability, efficient and aims at large low-income customers (Soman et al., 2012). Frugal innovation is an innovation which is mainly based on extreme resource constraints to meet the needs of low-income customers who otherwise remain un-served. For example, Renault-Nissan has taken very active steps for frugal innovation to innovate faster and cheaper aiming at unmet customers. The same idea realized companies as Procter and Gamble, GE, PepsiCo and Siemens to achieve sustainable growth.

Table 1. Related definitions to reverse innovation

Type of innovation for/from Developing Economies	Definition	References
Disruptive innovation	Afordable, „good enough“ products that meet consumers’ basic needs at a relatively low cost.	Hart, Christensen (2002)
Innovation at the Bottom of the Pyramid	Innovation developed in and targeting the large unserved segments of poor people inhabiting emerging economies.	Prahalad (2004), London i Hart (2004)
Trickle-up Innovation	Innovations developed for the bottom of the pyramid that subsequently trickle up to the developed world.	Prahalad (2004)
Indigenous innovation	A proces of making use of technologies transferred from the advanced economies to develop superiour technologies at home .	Lazonick (2004)
Blowback innovation	Innovative solutions developed and adopted first in emerging markets.	Brown, Hagel (2005)
Cost innovation	Levaraging developing economies’ cost advantage to develop innovation at dramatically lower costs.	Zeng, Williamson (2007)
Reverse innovation	Innovations adopted first in poor (developing) countries before being adopted in advanced economies.	Givindajan, Trimble (2012)
Shanzhai Innovation	Chinese low-quality, low-price imitations of foreign branded products.	Peng, Xu, Lin (2009)
Frugal innovation	Innovation that has a large cost advantage and in some cases inferior performance, compared to existing solutions, and developed in a resource-constrained context.	Zeschky, Widemayer, Gassmann (2011)
Resource-Constrained innovation	Innovation developed in emerging economies in a context characterized by lower power of purchase, lower understanding of technology, and lower investment resources.	Ray, Ray (2011)

Source: based on: von Zedtwitz M., Corsi S., Soberg P., Frega R., *A Typology of reverse Innovation*, GLODAR working paper no. 2013-03 for “Journal of Product Innovation Management”, p. 4. www.glodar.org.

Reverse innovation is an aftermath consequence of frugal innovation. Frugal innovation aims to serve low-income customers in developing countries while reverse innovation turns frugal innovations into reverse innovation bringing them into the developed countries sometime with modified offerings. Reverse innovation is creating a new market demand for rich countries. It requires major changes in organizational culture: discarding old organizational structure to create new one, reorientation of product development and innovation method, and arraying sales force with new settings, etc. (Govindarajan, 2012).

The debate on reverse innovation has so far focused on introduction of innovations from a market point of view. Reverse innovation direction is from poor countries to rich countries. In this *market introduction-based definitions* of the reverse innovation, the authors accurately imply that an innovation can be new to the market without necessarily being new to the world, and that perception of the customer determines whether an innovation is "reverse" in the sense of having been introduced in an emerging market first before being introduced in an advanced country later.

Zedtwitz, Corsi, Soberg, Frega add the voice to the discussion on reverse innovation and ask a question if the geographical origin of reverse innovation matters (2013, p. 10). They propose the *development-based definition*. This definition of the reversal of innovation denotes a product or service developed in a developing country and, at a later point in time or immediately at product launch, introduced in an advanced country. The authors underline the importance of R&D process, draw attention to the locus and contribution of innovators in developing countries in this crucial step in the value chain of a product. It is during the development phase of an innovation that the core architecture of a product is implemented and key performance-defining features are added.

Analyzing innovation process and global innovation context, above mentioned authors distinguish also the *ideation-based definition* of reverse innovation. It denotes the creation of the original idea or concept in

a developing country and its subsequent transfer to an advanced country where this concept is implemented further. Zedtwitz, Corsi, Soberg and Frega present a map of global innovation flows with reverse innovations in the strong and weak sense (2013, pp. 12–20). **Reverse innovation in a strong sense** is a reverse innovation that has at least two of its key innovation phases (concept – development – market introduction) taking place in a developing country. **Reverse innovation in a weak sense** has only one of its key innovation phases taking place in a developing country.

From globalization to reverse innovation

The globalization process is a natural source of reverse innovation. It was started by American multinational companies and continued by others. The journey from globalization process to reverse innovation can be divided into 4 phases. Sinha (2013, p. 73) calls the phases: globalization, glocalization, local innovation and reverse innovation.

Phase 1 – Globalization – It is a process which is marked by increased interconnectedness among countries in the areas of economics, politics, and culture. The multinationals by virtue of their innovation attain economies of scale and look for the global markets for the sale of these products.

Phase 2 – Glocalization – In this phase multinational companies focus on gaining the market share by developing a product or service which is created specifically for each locality or culture it is marketed later on to win customers in diverse markets. Still innovation originates in home-country but products and services were later modified to win in each market. Sometimes, even de-featured products are launched to meet the budgets of customers in poor countries.

Phase 3 – Local innovation – This phase depicts the onset of first part of reverse innovation process, where multinational companies start focusing on developing products “in country, for country”. It refers to the process of

developing new and improved ways of doing things by using own resources and their own initiative. This may be possible by brainstorming new ideas or possibilities out of curiosity, may be responding to in the condition of natural resources, disasters, climate change, availability of assets, markets and other socio-economic and external influences. These innovations, also called incremental, are new in local terms and specific locality but may be already practiced elsewhere.

Phase 4 – Reverse innovation – This phase is an actual phase of reverse innovation where products are developed with the objective of “in country, for the world”. Multinationals initiates the reverse innovation process by taking local market focus, a decentralized innovations originally made for poor countries and scaling it up for worldwide use.

Intercultural aspects of reverse innovation

Reverse innovation is all about intercultural aspects, change of thinking and acting. Doing business in rich countries managers must start thinking in different way. Govindarajan and Trimble describes the idea of reverse innovation as follows: “Reverse innovation begins not with inventing, but with forgetting. You must let go of what you’ve learned, what you’ve seen, and what has brought you to your greatest success. You must let go of the dominant logic that has served you well in rich countries. If you want to use today’s science and technology and address unmet needs in the developing world, then you must start with humility and curiosity... You have just land on Mars” (2012, p. 14).

Reverse innovation requires change of managers’ logic. The way of thinking should flow away from dominant logic of glocalization, thinking in terms of:

- Optimize products for the developed world customers,

- Cutting-edge, technologically sophisticated performance-rich products with many features, new and fancy applications,
- Take the simplest possible approach to designing offerings for emerging markets: remove features to reduce costs,
- Premium price, high-margin orientation,
- Technology push, product out approach,
- Look for customers to sell products to,
- Sell products to current customers of the product,
- Gain market share,
- Leverage current core competencies,
- Exploitation mind-set for emerging economies,
- Use developed world products to transform emerging markets.

Instead the reverse innovation strategy should include:

- best solution for the emerging-market customer,
- frugal, functional, good-enough quality products,
- reinvent the product from the ground up, clean-slate innovation,
- low-price, high-volume orientation,
- customer-centric, market-back approach,
- identify customer pain points, and develop products to solve customer problems,
- create new consumption among noncustomers,
- create the market, build new core competencies,
- exploration mind-set for emerging economies,
- build new global growth platforms based in emerging markets.

The reverse innovation strategy and logic suggests that there are two the most important intercultural aspects connected with managing reverse innovation. One of them is the money people in developing economies have to spend. The second is customers' needs. Buyers in the developing world have less money – but that is only the obvious beginning. The differences run much deeper. There are at least five enormous gaps that

separate needs in the rich world from those in the developing countries. Govindarajan (2012, pp. 13–25) calls them: performance gap, the infrastructure gap, sustainability gap, regulatory gap and preferences gap.

With fewer dollars in hand buyers in the developing countries are willing to accept lower performance. This sounds simple enough, but it is not as straightforward as it at first appears. Considering good product line in developed country, when global corporations headquarters in the rich world export to the developing countries, the tendency is to focus just on the good offering, or perhaps even to water down the food offering a little bit further, from good to fair, to achieve the lowest possible price point. This seems sensible enough on the surface. The problem is that a modest price cut (example by 10%) is not nearly enough to make a difference to mainstream customers in the developing world, who may have only one-tenth of the income of buyers in the rich world. Such low incomes, however, do not mean that developing countries' customers do not need innovative products. What they need is radically reinvented designs that deliver at least decent performance at an ultra-low price. But there is no way to deliver 50% performance at 15% price by diluting existing offerings. The only way to get there is to start from scratch, considering entirely new technologies.

In developed countries, most every citizen has access to modern transportation, communication and energy systems, schools, hospitals, banks. In the developing world, most infrastructure is mostly still under construction. The infrastructure gap affects more than infrastructure products and services. It affects an offering that relies on infrastructure – anything that plugs-in, connects to a network, or moves from place to place. Rich world offerings are designed with the implicit assumption that they will be consumed by those with access to rich-world infrastructure. Logitech's mouse was designed for use in the office, not in the living room, because people in rich world still largely consume video entertainment via cable or satellite, with no mouse in sight. Such offerings do not export well, so an innovation strategy is a must. New offerings must be designed with the develop-

ing world infrastructure in mind. In major cities, this may mean an enviable, next-generation infrastructure. In rural areas, it may mean no infrastructure at all. When GE designed an ultra-low-cost portable EKG machine for rural India, for example one of the top considerations was long battery life.

Worldwide, as the economy grows, the conflicts between economic vitality and environmental sustainability are likely to become more severe. The pressures will not rise uniformly. In many cases, the intensity of sustainability issues are highest in the developing world. Winning in emerging markets requires recognition of these differences. For example in China, in some cities, the air pollution is a huge problem. As such, it is hardly a surprise that China is poised to take the lead in electric cars.

Regulatory systems in rich world are the result of decades of development while those in the developing countries may be incomplete. The difference can make the developing world a more favorable environment for innovation in certain cases. Products and services designed around rich world regulations may become needlessly complex or expensive for developing world markets.

The world's great diversity of tastes, preferences, rituals and habits adds spice to international travel. It also sometimes makes it nearly impossible to achieve full potential in the emerging economies through a simple strategy of exporting offerings. PepsiCo, for example, is developing new snack foods, starting with a new base ingredient. Corn is not nearly so ubiquitous in India as lentils, so PepsiCo is commercializing lentil-based chips.

Conclusions

Reverse innovation is becoming important for the multinational companies as it demonstrates the possibility of offering double-digit growth to them. If an industrial company from the developed economies has not ventured into emerging markets, then its long term survival rate is at risk. The other

side, in absence of any multinational company, local company can innovate and make the customers happy and then those innovations will turn up into the developed country as competition. Also the products innovated by the developed economies can create brand-new markets in the developed world by starting lower price points or pioneering new applications. There are three factors critical to the success and the implementation of reverse innovation. First, the resources and decision-making must be localized in emerging markets. Second, the local organization has to be supported by the global technology and third, organization should be willing experiment and take risk. Conventionally, multinational companies keep the power at the headquarters to innovate at home and take those products abroad. But the on-going concept of reverse innovation requires multinational companies to decentralize power and resources in emerging economies. The crucial aspect is to pay a lot of attention to intercultural aspects that, as many examples show, may be a key to success.

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