

## Reverse Innovations and Paradigm Shifts in Business Excellence: A Global Perspective

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### Abstract:

Reverse innovation is also called as trickle up innovations wherein inventions first happens or seen in developing countries and subsequently adopted by developed countries. The term reverse innovation is a buzz word in the modern competitive and knowledge oriented economies of the world. Our own TATA group of company innovations like NANO, For instance Tata introduced the Tata Nano for the price conscious consumer in India in 2009 and now Tata plans to launch Tata Nano in Europe and U.S, subsequently the FMCG products Kurkure and others, generating power through rice husk is few examples of reverse innovation. In India the opportunities for innovations and creativity is used and limitless. The indigenous technology and innovations received global acceptances. The least cost innovations have profound effect on business, economy and society at large. Our own Indian Prof.Vijay Govindarajan (Dart mouth University) coined the term and developed the concept worldwide. The reverse innovation is selling fast to the developed countries from developing countries. This process has produced several benefits for both developing countries as well as developed countries in terms of variety of goods at cheaper prices, rise in employment opportunities, technology advancement etc. The present paper traverses through the leading case studies and examples of reverse innovation of India and other developing countries. This paper will go a long way in enlightening the readers all about reverse innovations business models for excellence in the world trade era.

**Keywords:** Reverse innovation, business, society.

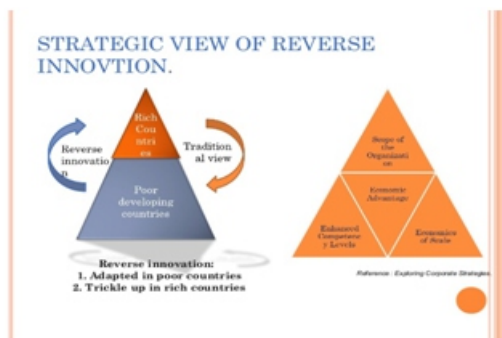
### Introduction:

Innovation is a key phenomenon in business world which is supposed to be the righteous of developed countries because of their ability to undertake intensive research and development work.

Cameras, phones, computers etc. all are originated in developed countries and later on flowed to developing countries as per their requirement and affordability. But, in present era, innovations are gradually taking place in emerging countries and then replicated in developed countries as per their demands. This is termed as reverse innovation. The concept is coined by Vijay Govindarajan and Chris Trimble a world expert on strategy and innovation, Jeffrey Immelt in 2009. The major drivers of this reverse flow of innovations from developing countries to developed countries are fast pace of internationalization in the world economy, slowing down of rich countries and rising level of income and growth in emerging countries. Because of these factors foreign MNCs prefer to develop the products as per the huge demand of emerging economies and even undertaking the research and development activities in these countries. This enables them to take the advantage of low cost and huge pool of human and natural resources of these economies. Indian MNCs also, to take the advantage of internationalization making efforts to redesign the products according to the requirements and conditions of the developed economies. This process has produced several benefits for both developing countries as well as

Developed countries in terms of variety of goods at cheaper prices, rise in employment opportunities, technology advancement etc. In this way Reverse Innovation has gradually revolutionized the production pattern, consumption trends across the world. India has also experienced the same benefits when its Indian MNEs adopted the Reverse Innovation strategies as per the requirement of the different developed countries. At this backdrop, the study aims to explore the gains of reverse innovation strategies in India. For this purpose, different case studies of few successful companies have been undertaken to explain the benefits reaped by these companies in terms of their increased revenues, share and positioning across the World. A reverse innovation is any innovation likely to be adopted first in the developing world.

For example, companies develop products in countries such as China and India, and then distribute them globally. Globalization strategies assume that innovation has already occurred, and that developing nations are in a slow and evolutionary process of catching up with the rest of the richer world. They will import what the richer world develops as soon as they can afford to do so. Globalization is the process that companies use to export modified versions of global products originally developed for rich-world consumers. Examples of Reverse Innovation: Tata Motors – Tata Nano, GE – GE MAC 800, Procter and Gamble (P&G) – Vicks Honey Cough – Honey-based cold remedy, Nestle – Low-cost, low-fat dried noodles, Hewlett-Packard (HP) – Research Labs in India, Godrej – Chotukool Refrigerator, Tata – Swacch – World’s cheapest water purifier, Pepsico – Kurkure and Aliva.



## Highlights of Key benefits:

- Better products for consumers and a variety of options to choose from at reasonable prices
- Companies investing higher amounts in building the sustainable technological infrastructure that would facilitate advanced engineering. It would thus further stimulate industrialisation
- Rise in the demand for engineers

Reverse Innovation would definitely reform, and revolutionise industry standards, market imperatives, and global expansion and success strategy perspectives for the Multinationals who constantly require to keep exploring various distinctive ways and means to become resilient in the perilous market conditions.

## How would Reverse Innovation benefit India:

Primarily Reverse Innovation would lead to further boom in industrialisation. As more and more Multinationals adopt and opt to produce and/or invent new products in India for local as well as western markets, the Indian economy would witness an increase in FDI's and also the Indigenous Multinationals would instinctively raise their investments to build advanced R&D facilities that would inspire cutting edge innovation and engineering. It also means the engineers would experience higher employment opportunities, and the consumer market would profit from better products developed to cater to their needs at reasonable prices. Besides OEMs, Reverse Innovation would also lead to the overall development of the entire eco-system comprising of Tier I and II suppliers, technology vendors, educational institutions which support, fortify and facilitate this unprecedented growth through concurrent engineering, providing smart and agile engineering and production solutions to complex challenges, and development of resources.

Reverse innovation is bringing the countries and global markets further closer by fading the global borders to make “one world, one market” phenomenon a more reality. Reverse innovation would provide further impetus to the globalisation while increasing the influence of cross economic dependency and making cross border production and marketing viability plausible and effective.

## Aims and objectives:

1. To understand nuances of reverse innovation.
2. To assess the benefits of reverse innovation with the help of case studies.
3. To find the gaps that distinguishes emerging-market needs from familiar rich-world needs.

## Review of literature:

Role of Reverse Innovation in Business: A Case of Few Companies Sonia Lohia<sup>1</sup> and Rashmi Taneja- Multinationals innovated in rich countries and sold those products in poor countries. Reverse innovation is doing just the opposite. It is about innovating in poor countries and bringing those products to rich countries. In this way Reverse Innovation has gradually revolutionised the production pattern, consumption trends across the world.

India has also experienced the same benefits when its Indian MNEs adopted the Reverse Innovation strategies as per the requirement of the different developed countries. From Cost to Frugal And Reverse Innovation: Marco B. Zeschky, Stephan Winterhalter, and Oliver Gassmann (2014): Product and service innovations aimed at resource-constrained customers in emerging markets have recently attracted much research and management attention. Despite the prominence of this topic, however, there are some misconceptions around the different innovation types in this domain that may limit managers' ability to derive informed implications for strategy and operations. This article analyzes the different types of resource-constrained innovation—cost, good-enough, frugal, and reverse innovation—conceptualizes the distinctions between them, and discusses the implications for strategy providing a framework for managers to systematically analyze their own approaches to resource-constrained innovation and craft proper development processes.

IIT Bombay—Historically, multinationals innovated in rich countries and sold those products in poor countries. Reverse innovation is doing exactly the opposite. It is about innovating in poor countries and selling those products in rich countries. Since two-thirds of world's growth in GDP is likely to come from poor countries, reverse innovation is an important phenomenon. Reverse innovation is also a significant learning opportunity for students in engineering. Engineering graduates are good at solving problems. Once given a problem, they tackle it rigorously. But what if these individuals weren't handed problems and instead sought them out? Engineers have an opportunity to reframe the problem space and identify a whole new set of problems if they ask this question: How do we engineer and design products to solve the world's toughest challenges.

## Scope:

This is the reverse innovation study and limited to only Indian companies' product. This study is carried out to understand the benefits of reverse innovation and also to find the gap that distinguishes emerging-market needs from familiar rich-world needs.

## Methodology:

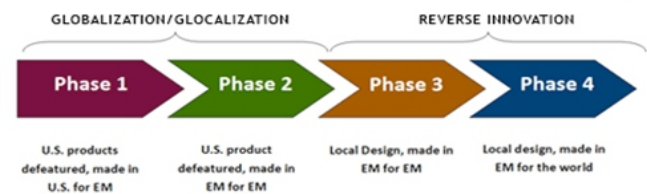
From the literature review it is very clear that very little research has been done in India. This paper is conceptual in nature and the data was collected with the help

of secondary sources i.e., Books, Case studies, Research Articles, Journals, Newspapers, Internet and Magazines. Finally we have analyzed Reverse innovations and paradigm shifts in business excellence.

## Results and Analysis:

The American Multinational Approach to Emerging Markets (EM) The globalization journey of American multinationals has followed an evolutionary process which can be seen in distinct phases.

THE AMERICAN MULTINATIONAL APPROACH TO EMERGING MARKETS (EM)



**Phase 1** — Globalization — Multinationals built unprecedented economies of scale by selling products and services to markets all around the world. Innovation happened at home, and then the new offerings were distributed everywhere.

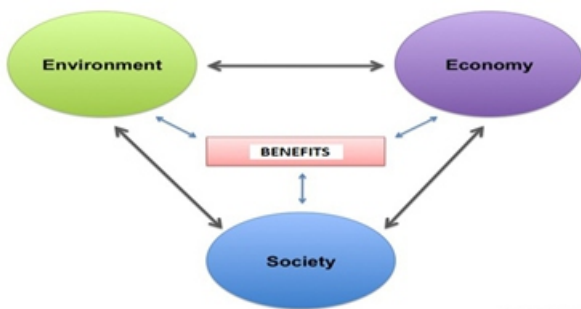
**Phase 2** — Globalization — In this phase, multinationals recognized that while Phases 1 had minimized costs, they weren't as competitive in local markets as they needed to be. Therefore, they focused on winning market share by adapting global offerings to meet local needs. Innovation still originated with home-country needs, but products and services were later modified to win in each market. To meet the budgets of customers in poor countries, they sometimes de-featured existing products.

**Phase 3** — Local Innovation — In this phase, the first half of the reverse innovation process, multinationals are focusing on developing products “in-country, for country.” They are taking a “market-back” perspective. That is, they are starting with a zero-based assessment of customer's needs, rather than assuming that they will only make alterations to the products they already have. As teams develop products for the local market, the company enables them to remain connected to, and to benefit from, global resource base.

**Phase 4** — Reverse Innovation — If Phase 3 is “in country, for country,” Phase 4 is “in country,

for the world.”Multinationals complete the reverse innovation process by taking the innovations originally chartered for poor countries, adapting them, and scaling them up for worldwide use. Dominant Logic Every organization that has enjoyed great success is sustained and endangered by what it has learned in the past. Reverse innovation requires that you set aside the logic of the past. If you fail to do so, you will not have the humility necessary to admit you still have much to learn. “Reverse innovation begins not with inventing, but with forgetting.... You must let go of the dominant logic that has served you well in rich countries.... In fact, it’s best to assume that you’ve just landed on Mars”

### Benefits of Reverse Innovation:



1. Reverse Innovation would lead to further boom in industrialisation. As more and more Multinationals adopt and opt to produce and/or invent new products in India for local as well as western markets, the Indian economy would witness an increase in FDIs and also the Indigenous Multinationals would instinctively raise their investments to build advanced R&D facilities that would inspire cutting edge innovation and engineering. It also means the engineers would experience higher employment opportunities, and the consumer market would profit from better products developed to cater to their needs at reasonable prices.

2. Reverse Innovation would lead to the overall development of the entire ecosystem comprising of Tier I and II suppliers, technology vendors, educational institutions which support, fortify and facilitate this unparalleled growth through concurrent engineering, providing smart and agile engineering and production solutions to complex challenges, and development of resources.

3. Reverse innovation is bringing the countries and global markets closer by fading the global borders to make “one world, one market” phenomenon a more reality.

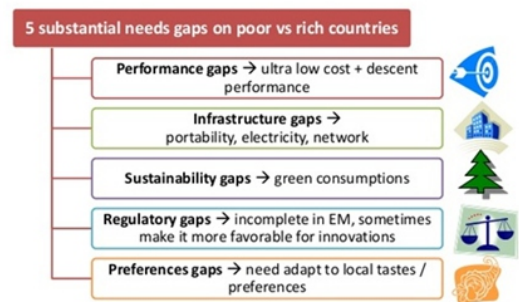
Reverse innovation would provide further impetus to the globalisation while increasing the influence of cross economic dependency and making cross border production and marketing viability plausible and effective.

4. Better products for consumers and a variety of options to choose from at reasonable prices.

5. Companies investing higher amounts in building the sustainable technological infrastructure that would facilitate advanced engineering. It would thus further stimulate industrialization the benefit of reverse innovations can be assessed with the help of few successful innovation in emerging economies and their adoption in developed countries at the later stage.

Gaps that distinguish emerging-market needs from familiar rich-world needs.

### Differences in product needs at emerging market vs rich countries are driven by 5 gaps



### •Performance Gap

Simply put, with fewer dollars in hand, buyers in the developing world are willing to accept lower performance. This sounds simple enough, but it is not as straightforward as it at first appears. Consider a typical “good-better-best” rich-world product line. When global corporations headquartered in the rich world export to the developing world, the tendency is to focus just on the “good” offering, or perhaps even to water down the “good” 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 — say, 10 percent — is not nearly enough to make a difference to mainstream customers in the developing world, who may have only one-tenth the income of buyers in the rich world. Such low incomes,

however, do not mean that developing world customers do not need innovative products. Indeed, 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 percent performance at a 15 percent price by diluting existing offerings. The only way to get there is to start from scratch, considering entirely new technologies.

### •Infrastructure Gap

In the rich world, most every citizen has access to modern transportation, communication, and energy systems, plus schools, hospitals, banks, courts, and more. In the developing world, most infrastructure is mostly still under construction. This does not mean, however, that developing nations can only gradually catch up. Precisely because they are building from scratch, they can invest in the most modern technologies. Meanwhile, the rich world will only invest as existing infrastructure reaches replacement age, and, even then, will be constrained by the necessity to make any new systems compatible with what already exists. As a result, developing nations are hot, new construction markets, while rich nations are tepid, maintain, repair, and replace markets. The infrastructure gap, however, affects much more than infrastructure products and services. It affects any offering that relies on infrastructure — anything that plugs in, connects to a network, or moves from place to place, and more. 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 the 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 developing 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.

### •Sustainability Gap

Worldwide, as the economy grows, the conflicts between economic vitality and environmental sustainability are likely to become more severe. That said, 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. In certain cities in China, for example, air pollution problems are extreme.

As such, it is hardly a surprise that China is poised to take the lead in electric cars.

### •Regulatory Gap

When regulations function appropriately, they eliminate business behavior that is at odds with societal good. They keep consumers safe and markets fair. That said, when regulations become too complex, captured by vested interests, or technologically out-of-date, they can become needless barriers to innovation. Regulatory systems in the rich world are the result of decades of development while those in the developing world may be incomplete. Whether this is good or bad from a societal perspective is well beyond the scope of this paper, but 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.

### •Preferences Gap

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 existing offerings. PepsiCo, for example, is developing new snack foods, starting with a new base ingredient. Corn is not nearly ubiquitous in India as lentils, so Pepsi is commercializing lentil-based chips. Because of these five of enormous needs gaps, the commonplace strategy of trying to win in the emerging economies by making light adaptations of successful rich world offerings is inadequate. Reverse innovation is the antidote, and reverse innovation is clean-slate innovation. It starts with reassessing customer needs from scratch.

### Findings

•The company which are in reverse innovations are Tata Motors – Tata Nano, GE – GE MAC 800, Procter and Gamble (P&G) – Vicks Honey Cough – Honey-based cold remedy, Nestle – Low-cost, low-fat dried noodles, Xerox – Innovation Managers, Microsoft – Starter Edition, Nokia – New business models, Hewlett-Packard (HP) – Research Labs in India, Godrej – Chotukool Refrigerator, Tata – Swacch – World's cheapest water purifier, Pepsico – Kurkure and Aliva, Bharat Forge – Maintenance Management Practice, KFC – Taco Bell – Yum! Restaurants, Husk Power Systems, LG – Low-cost Air Conditioners

(AC), Renault – Logan, Better Place – Smart Grid of Battery charging/Swap terminals, GE India – Steam Turbines, Coca-Cola – eKOCool, Vodafone – Zoozoos, Coca-Cola – Minute Maid’s Pulpy, Wal-Mart – Small format stores in Mexico, Levi’s – dENiZEN brand imported to the U.S, Amazon’s BOLD hiring strategy in India.

- 85% of the world’s citizens live in poor countries, these countries will account for at least 2/3 of world GDP growth in future decades.
- Better products for consumers and a variety of options to choose from at reasonable prices
- To capture growth in emerging markets, you must innovate, not simply export.
- Leverage opportunities to move emerging-market innovations to other parts of the world: to poor countries, to marginalize markets in rich countries, and eventually, to mainstream markets in rich countries.

### Conclusion:

According to the leading business strategist, vijaygovindarajan, reverse innovation represents one of the biggest opportunities for corporate growth in America over the next several decades. Reverse innovation will transform just about every industry, including energy, health-care, transportation, housing and consumer products. Reverse innovation is about far more than reducing cost for the sake of poor consumers. “It is about pushing the performance paradigm and offering more for less,” Govindarajan explained. “As counterintuitive as it may seem, the quality demanded by poor people tends to be higher. But few companies experience this kind of renaissance, because reverse innovation— developing ideas in an emerging market and coaxing them to flow uphill to Western markets—poses immense challenges. It inevitably requires a company to overcome at least some aspects of the institutionalized thinking that guides its actions. Typically that involves major changes: throwing out old organizational structures to create new ones from scratch, revamping product development and manufacturing methods, reorienting the sales force.

### Suggestions and Recommendations:

1. Create a reverse innovation mind-set throughout the corporation.
2. Put the spotlight on emerging markets through the use of expatriate assignments, immersion experiences, corporate events that are held in emerging markets, creative board appointments, and highly visible CEO actions.

3. Government should help and support reverse innovation in the form of providing subsidies, incentives etc.,
4. Create separate business scorecards for developing nations with full income statements and an emphasis on growth metrics.

### Direction for the future study:

The current study is based on secondary data and this is conceptual in nature, same study can be empirical by collecting data through primary source.

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