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Resourceful entrepreneurs from the bottom up- A conceptual framework for new product development in emerging markets

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Abstract

Adopting a linear innovation model with the four sequential phases of concept ideation, product development, primary target market introduction, and subsequent secondary market introduction, this study expands the espoused definition of reverse innovation beyond its market-introduction focus with reversals in the flow of innovation in the ideation and product development phases. is a major directive at worldwide. This study gives a comprehensive overview of the commonly used terms jugaad*, frugal innovation, frugal engineering, constraint-based innovation, Gandhian innovation, catalytic innovation, grassroots innovation, indigenous innovation, and reverse innovation. The presented framework supports further research in new paradigms for research and development (R&D) in developed market firms (DMFs), particularly in relation to emerging markets. This framework enables scholars to compare concepts from developed and emerging markets, to address studies specifically by using consistent terms, and to advance research into the concepts according their characterization.*

Keywords: *Conceptual framework, Jugaad, Frugal, Reverse, Indigenous Innovation, Core Dimensions, Developed Market Firms (DMFs), R&D.*

Introduction

In the current phase of globalization, emerging market firms (EMFs) have begun to catch up with those from developed economies in terms of developing innovative capabilities. Western companies entered emerging markets thinking they could simply harvest the fruits of research and development (R&D) and innovation skills painstakingly developed in their home countries. However, while there are several examples of successful technology transfers from one country to another country, and there have been several unsuccessful attempts as well.

Innovation

The body of knowledge on contemporary innovation management mainly focuses on new products and services targeted at markets in developed countries where customers are capable of purchasing expensive high-end products. At the same time, rapid population growth is ongoing in developing countries, where people are naturally

seeking new ways to improve their life, so those countries have become a focal point for new markets. However, products designed by Western firms for wealthy customers are not affordable for the majority of people in low-income emerging markets. Consequently, the solution is to innovate and work differently; merely stripping down existing products is not going to be the answer.

Western companies are now encountering a reverse effect of their investments in developing countries because of the exponential growth of those markets. Over the last decade, these countries generated an average growth rate of about 4.5%, despite the global financial crisis. Whereas countries with a developed economy achieved a growth rate lower than 2% (International Monetary Fund 2012).

Low-income emerging markets increasingly provide new sources of innovation. This trend will deliver new prospects for innovative and open-minded firms to find new business opportunities. What this means in practice is that the innovation loci and foci are changing and there is a need to update innovation management theories, models and frameworks. Frugal and reverse innovations are creating new markets both in emerging economies and developed countries by serving previously underserved customer groups. So both of these concepts entail the idea of targeting a new customer base. Even though the target customers for frugal products and reverse innovation.

The economic rise of emerging markets, especially in China and India, has created a new market segment, variously referred to as the middle market, the low-income market, and sometimes the good-enough market. The fierce competition among firms fighting for the middle-class consumers emerging in these areas has made this market segment the “next global battleground”. However, despite increasing incomes, emerging middle-class consumers still have little excess income compared to Western consumers and often suffer from additional constraints, such as poor public and private infrastructure or poor service availability. As a result, firms have started to develop market-specific solutions that are characterized by high value and low costs.

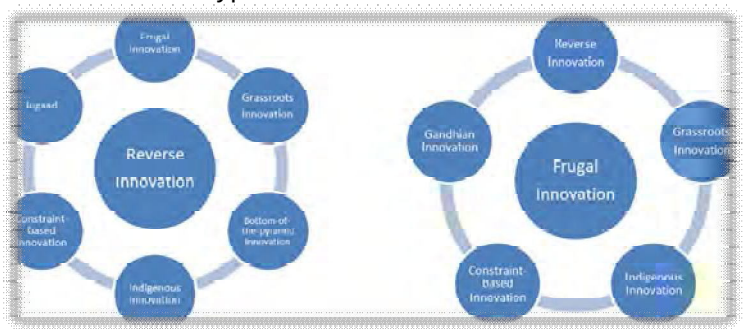
The Study:

These solutions, which have attracted much attention from both managers and researchers, have been captured under the terms cost innovation, good-enough innovation, frugal innovation, resource-constraint innovation, trickles-up innovation and reverse innovation. The innovation types described by these terms are structurally different from each other with respect to their original motivation, value proposition, and value creation mechanisms. For example, while some solutions may emerge from the redesign of an existing product to make it drastically cheaper, others may be entirely new and create new markets, as well.

However, researchers and practitioners alike often use these terms interchangeably, obscuring the important strategic implications of the differences among them. In fact, based on a survey of the literature and a series of case studies, we argue that there are three distinct types of resource-constrained innovation for emerging markets: cost, good-enough, and frugal innovation. These three types differ from each other with respect to their technology and market novelty and therefore significantly affect how firms approach, develop, and position solutions. Therefore, a sound conceptualization of the different innovation types is essential for management practice and research to move forward in a systematic and fruitful manner.

THE CONCEPTUAL FRAMEWORK: In the context of innovation from emerging markets, the above mentioned terms are presented in detail.

- **JUGAAD INNOVATION**: An improvisational approach to solving one's own or others' problems in a creative way, at a low cost, in a short amount of time, and without serious taxonomy or discipline applied by people at the Base of pyramid as a result of poverty and exigency.
- **FRUGAL INNOVATION:** A derived management approach, based on jugaad, which focuses on the development, production, and product management of resource saving products and services for people at the Base of pyramid by achieving a sufficient level of taxonomy and avoiding needless costs\
- **FRUGAL ENGINEERING/CONSTRAINT-BASED INNOVATION:** Describes a process-oriented approach to adapt existing technologies to local challenges by dint of the integration of the local society in order to reduce inherent development costs and time.



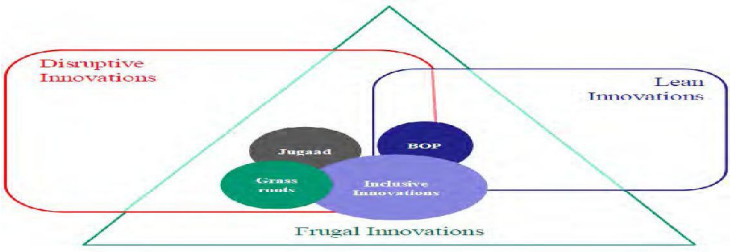
- GANDHIAN INNOVATION: An approach that takes advantage from the adaption of existing technologies by integrating them into local context or/and establishing local expertise by spill over through collaborations in order to increase social wealth of people from the Base of pyramid.
- CATALYTIC INNOVATION: An approach that focuses on social change by breaking down existing social and economic structures and creating new market structures which involves new development approaches of systematic, sustainable, and system-shifting kind.
- GRASSROOTS INNOVATION: Represents a bottom-up development approach that includes social integrity and local civilians as inventors by connecting peoples through social or technical networks in order to develop ecologically and socially acceptable products and services.
- INDIGENOUS INNOVATION: Considers technology transfers, predominantly technology inflows, from developed to emerging countries and their effects on local entrepreneurs at the Base of pyramid.
- REVERSE INNOVATION: Represents the development of new products in and for emerging countries by DMFs or EMF which will be introduced equally in developed markets if the demand in developed markets is identified. The extreme case of reverse innovation is the development of new products in emerging countries which are only introduced in developed markets.

Alignment of Terms

This approach involves the development of a conceptual framework that explains the relationships between the terms. This analysis and development is based on the traditional scientific method of inquiry including three stages - theory conception and articulation, empirical testing and refinement, and theory affirmation and extension.

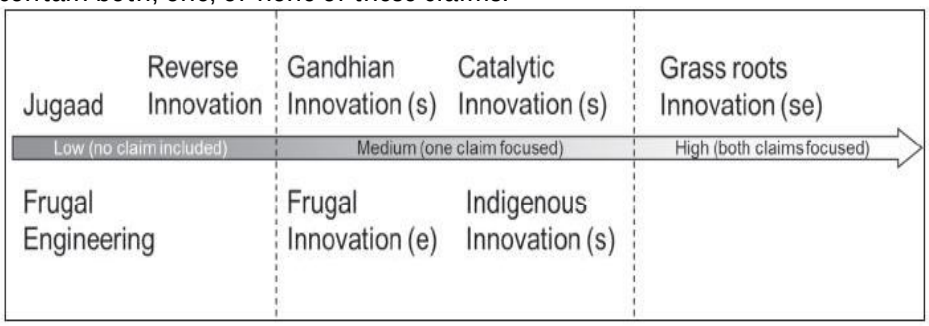
The different types of innovations can be evaluated and assigned to these categories in order to differentiate them from each other.

- Sophistication: The considered attributes reflect a certain object with a specific degree of sophistication and complexity. It plays a role in matters of coordination or communication as well as to achieve a minimum level of taxonomy and discipline within the terms. The sophistication of a term is evaluated by the complexity of inherent processes as well as the interaction of the categories involved (communication and coordination level).

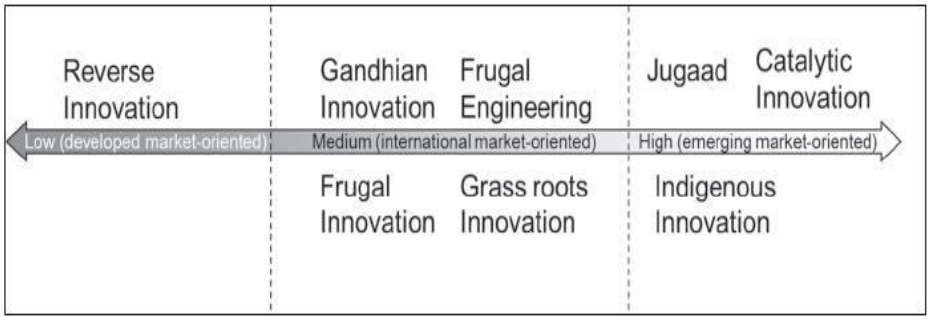


Conceptual Context of Innovations

- **Sustainability:** The attributes involve up to two claims: social and ecological responsibility. The claims are considered equivalent. The terms investigated contain both, one, or none of these claims.



- **Emerging market orientation:** The terms vary concerning emerging, developed, or international markets in matter of sales or supply market.



General Tendencies among Terms

Owing to the strong growth of economic power in emerging markets, all the concepts discussed involve either the attempt of EMFs to compete with DMFs in new ways or the reaction of DMFs by adapting their own R&D to global challenges such as competition from emerging markets. The will and ability of DMFs to open up their corporate R&D to external sources and approaches indicate the increasing need for global R&D that:

(1) Considers emerging markets to be equally relevant to markets in developed economies;

(2) assesses these markets as development sites, rather than simply production sites and sales market; and (3)

assigns R&D in emerging markets to create innovative products - that is, new products, not only adaptations - to align with existing products.

This new point of view changes the approach to current global R&D from its foundations. Even though the concepts have come to prominence only in a very limited circle of companies thus far, the first successes indicate the potential of successful products out of emerging markets and may spark interest in global companies.

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".

Reverse Innovation

"Five wide gaps distinguish emerging-market needs from familiar rich-world needs."

"The context within which emerging giants globalize today is very different. The world itself has dramatically changed in the past four decades. For example, it is flatter today than it was in the 1970's, thereby opening up different globalization paths."

Changing the Management Model

Reverse innovation requires a decentralized, local-market focus. Most if not all the people and resources dedicated to reverse innovation efforts must be based and managed in the local market. Local Growth Teams (LGTs) must have P&L responsibility - this is a key hurdle for American multinationals. LGTs must have the decision-making authority to choose which products to develop, how to make, sell, and service them. LGTs must have the right (and support) to draw from the companies' global resources. Once tested and proven locally, products developed using reverse innovation must be taken global which may involve pioneering radically new applications, establishing lower price points, and even cannibalizing higher-margin products.

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.

Strategy

1. To capture growth in emerging markets, you must innovate, not simply export.
2. 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.
3. Keep so-called emerging giants on your radar screen. These small but rapidly growing companies, headquartered in the developing world, have global aspirations that could one day threaten your own.
4. Move people, power, and money to where the growth is – the developing world.
5. Create a reverse innovation mind-set throughout the corporation. 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.

6. Create separate business scorecards for developing nations with full P&L responsibility and an emphasis on growth metrics.

Project Organization

7. Commission local growth teams (LGTs) with full business capabilities for each reverse innovation opportunity. LGT's should act like brand-new companies.

• They must conduct clean-slate needs assessments.

• They must develop clean-slate solutions.

• They must practice clean-slate organizational design.

8. Enable LGT's to leverage your company's global resource base through carefully managed partnerships.

9. Manage reverse innovation initiatives as disciplined experiments, with a focus on resolving critical unknowns quickly and inexpensively.

Starting Points

• Geographic expansion is not the answer.

• Companies must have intense curiosity about how the needs of developing countries differ from their own.

Source of Growth

• 85% of the world's citizens live in poor countries.

• Poor countries will account for at least 2/3 of world GDP growth in future decades.

Selected Examples of Frugal Innovations for and From India

Conclusion

Today, a singular focus on technology-driven, "high tech, high price" innovations runs the risk of losing the sight of the changing consumer wants both in emerging economies and in the industrialized West. Frugal innovations, with a "high tech, low cost of ownership" approach are the need of the hour and very probably a promising strategy for the foreseeable future in both business-to-consumer and business-to-business segments.

Innovation for resource-constrained consumers in emerging markets has received increasing attention, but the discussion thus far has lacked a common understanding with regard to the definition of the various types of resource-constrained innovation. As emerging markets continue to grow, capabilities for resource-constrained

innovation of all types will become key elements of growth for global firms. A clearer understanding of the various types of innovation in play, and their requirements and challenges, is important for firms seeking to craft appropriate offerings for emerging markets—and, ultimately to bring them back to Western markets. Relying on process improvements and offshoring to create a cost innovation is a very different undertaking from developing entirely new products tailored to resource-constrained markets, and each offers different advantages. Entering resource-constrained markets with a simple set of cost innovations offers different competitive advantages and strategic options than altering products to create a good-enough innovation.

Our conceptualization contributes to a clearer understanding of existing innovation concepts for resource-constrained environments and thereby provides the grounds for systematic future research.

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