

Reverse innovation process challenges marketing essay



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In the modern world, Innovation has become a need for survival for organizations. Whether they are technology based companies developing high tech modern products or service oriented companies, Innovation helps them create efficient and effective solutions. These solutions not only help the firms, but in large, benefit various members of society. Increasing competitive space is forcing the organizations worldwide to develop newer products and services and deliver them quickly to market to maintain their competitive edge. This has created a huge need for companies to stay focused on their ability to innovate not just with their products but within their processes. While, at the outset, innovation within organizational domain could be seen applicable for research and development teams only, it could be applied equally across various functions with a goal to create greater value to the customer. Organizations who have imbibed innovative culture have proven that innovation could be applied to strategic planning, product design, sourcing, supply chain, manufacturing and operations, marketing and sales, customer support and finance. The organizational structure along with the dynamics within various functions plays a key role in creating its innovative culture. With the need to innovate becoming a norm, organizations have starting investing heavily on innovation across various functions to cover into aspects like introducing market focused products, frugality in product development, process improvements on reliability and stability, reducing time to market, creative marketing for better positioning, etc.

Research around Innovation is not new, Joseph Schumpeter, the economist who coined ' creative destruction' in 1950s, believed innovation would

always come from larger firms that have sufficient capital to invest on it. This is because the innovation would promote 'creative destruction' that replaces incumbent ideas, business models, products, entire companies and sometimes markets. However, many of us today see it differently. We all believe innovation mostly happens in smaller setups or startups and the large organizations mostly work on products that are evolutionary. A stronger rationale that could justify this is, larger organizations have strong customer base and fixed revenue streams, a disruption could cannibalize its existing business and the revenues from cash cows could get affected. Also the risks with these disruptions are always high since its long term benefits are always speculative due to its novelty. Hence the larger organizations need to think of managing its resources, jobs, justifying investments in past, sanctions & subsidies from government, etc. before they proceed on adopting any disruptive solution. The smaller setups on the contrary are not sensitive to many of these issues and are free to be more disruptive in their innovation modes. Hence in many cases it can be said, organizational success becomes an obstacle for nature and amount of innovation.

The influence of customer in innovation process is always debatable with two strong compelling views. While many believe innovation starts with customer needs and the innovations like customer needs are essentially evolutionary in nature, there is also a stronger school of thought that customers do not know what they need. For them its only after a solution is present that one would start thinking about problems, the classic example given in this case is of Apple's iPod, one of the greatest disruption ever which was never seen or needed by customers before. However, it could well be argued that iPod

emerged when both portable music players and mobile phones coexisted and a convergence was a needed. Hence the need always existed.

In all, both the views believe that innovation should be centered on creating value to the customer. With this being established, organizations operating across various countries are being challenged at defining a strategy that would fit to customers across geographies with varied needs, wants and behaviors. The phenomena of “ Reverse innovation” is getting popular in this background, wherein the firms innovate solutions relevant in emerging countries first and then trickle up the successful and relevant ones to developed countries. While as of today, there are too many successful products, the theory sounds promising and is seen to help organizations get a sustainable competitive advantage. However, the theory raises several interesting questions about what are the innovations that could survive, why will they diffuse across other economies, how does this affect the global strategy and organizational structure of these firms.

Objective

The aim of the current project is to understand and analyze the concepts of “ Reverse Innovation” in the context of multinational firms with specific focus on India. It begins with understanding the evolution of innovation and need and applicability of Reverse Innovation to multinational firms worldwide. Further would focus on Reverse Innovations from India and based on the study and analysis on Reverse innovations and its relation to Brand India.

Literature Review

2. 1 History & Evolution of “ Innovation”

While the innovation in the West started in eighteenth century alongside its industrialization, the process has been streamlined by the early twentieth century with organizations institutionalizing their innovation capabilities with more focused R&D departments and standardizing their processes.

Organizations had their major focus on “ identified” luminary markets for their innovations. These markets are either existing customer base, or a new customer segment in an existing market. This belief was around the “ Pareto principle” that says, 20% of the total customers define the need and other 80% accept the product. These 20% are the luminaries who help organizations achieve their profitability and hence the firms strived to innovate and create products to meet their needs and believed that these could be a fit to a majority. For example designing a product to meet an American customer could automatically fit to the ones in Europe and Japan with a slight local adaptation. The affluent customers from “ poor” countries always tried to reach out to these products. The only reason these firms wanted to reach out to the markets abroad was the increase the scale for the existing products. This stage was called “ Globalization”. Products built for similar markets spread across different economies where identified and served. Multinationals adopting “ Globalization” strategy started seeing competition from local firms, who could design to meet the local specific needs of the mass-market and hence forced them to have a very limited market share.

The next step of evolution was when the organizations started focusing on increasing their market share abroad. The strategy adopted at this stage was to design products that originated from needs of home country but would have ability to modify or adapt to local market needs. Many times, it was also seen as de-featuring the products made in developed countries and selling them in emerging markets to meet the price pressures from the local competition. This process was called “Glocalization”. Typical glocalized products were seen to be successful where the markets are broadly similar in nature. Organizations started creating “Scalable” platforms to manufacture products and this model was proved to be profitable with a right tradeoff being defined between scalability to global needs and local customization. The “Glocalization” strategy had a major issue that it had over dependence on developed western markets as the only key customers and it saw emerging economies as its key customer base. It was due to this notion that the organizations could only tap the “Top of the pyramid” in developing countries, which is only less than 10% of the overall market size.

The changing economic landscape fuelled by economic growth of developing nations made “Glocalization” to lose its relevance. The global economy started getting equally shared by markets on both developing and developed worlds. However the customer base of these markets is widely different. The per capita income and spending trends of the customers in both these markets are completely different. However, the presence of large markets in developing world, owing to its huge population, makes it a “mega market” with “micro customers”. Organization started realizing the huge potential that these markets have and a need to focus on tapping into “Bottom of

Pyramid” of these countries. The focus now is not just on increasing the share in existing market but to create a new larger market.

The first step that many global organizations took in this direction was to promote “ Local innovation”. The idea here is to take a “ market- back” approach. Organizations began to start with understanding the needs of local customers and try and build solutions to cater to unmet needs using the global resource base that they have. This methodology started to prove more relevant in developing countries where the new products coming from global organizations were very well received. The focus increased on local research and development and local marketing power to cater to local needs. However, the key issue here was that these products were assumed to be applicable only to local markets and organizations were unsure about their long term strategy and global relevance.

The next stage of innovation, where the organizations realized that the innovations meant for local markets were also relevant globally. This was “ in country, for the world”, which is the reverse innovation. At this stage the organizations started focusing on taking the innovations emerging from developing countries and adapt them to fit into some of the untapped global markets. This sometime could mean scaling up of some features and enforcement of stringent regulatory requirements onto the products that were initially developed for local markets. Also a key prerequisite would be that they are successful in local markets.

2. 2 Changing world & Issues with Innovation in Organizations

Innovation was one of the key reasons for the Industrialization of the west in 19th century. Many great impactful innovations of these times came from the scientists, explorers, farmers and industrial pioneers, from Thomas Edison to Benjamin Franklin to Henry Ford to Wright brothers, all of them had mastered their own art to generate products based on innovation. This spurred the industrial revolution leading to economic leadership of the west, which lasted for almost the entire century. As the world crept into Second World War, Industrialization rapidly expanded in North America and Europe. This forced the industries to structure themselves into process driven, systematic and predictable machines that can be fully controlled. This required streamlining various disciplines within each industry including innovation. Innovation capabilities were being restricted to the R&D departments and standardized operating processes were defined to take ideas from conception into product. This structured approach helped the firms to plan focused budget allocations on innovation, control the access of its information and standardize the process across different geographies where it operates. These strategies help firms become greatly successful through the early part of 20th century, which made them believe that this structured approach as gold and hence started the stage of creative accumulation.

As the world moved post world war, research and development wings of large firms focused mostly on generating incremental improvements to the existing product streams and capitalizing the existing competences to the

fullest. The technology stabilized and the product advancement was solely around the trajectories followed by the fixed technology used to build them. These large firms operated in markets where entry barriers are high, due to both appropriation and cumulativeness of knowledge along with higher costs for innovation. The past innovations made by the firms were seen relevant and hence focusing on structured approach to incremental innovations. The initial success led the firms to believe they could deliver more innovation with more resources supplied leading to greater investments flown into R&D wings. In 2010 alone, the top thousand companies in the world spent \$550,000,000,000 on their R&D capabilities. However, there is no strong correlation seen in these firms with respect to the amount of budget allocation to the number of products developed. Hence it could be wise to state- Money cannot buy innovation. Also since the financial and natural resources are scarce to come by, more investments into innovation meant increase in the effective cost and the result was seen on customers, who started paying hefty premiums for each of the new innovation the firm generated.

The major issue with this structured innovation approach was it lacked flexibility, which is heart of innovation. The standardized processes like Six Sigma promote ' Sameness' doctrine, which enables organizations to be stable and more predictable. The creative destruction that arises from naïve innovations does not fit into organizations, as the structure was too deep and these innovations were seen as competence destroying discontinuities, which are too expensive for organizations to handle.

Moreover, creative accumulation forced the organizations to order their

thinking into a fixed framework giving very little room for destructive innovations. Classic innovations that are born in disorderliness are restricted to very small firms from new entrants who could afford to leap into path breaking technologies. However, they die down premature in both Blue Ocean and Red Ocean markets due to their inability to meet the value -cost tradeoff that comes with the scale. Many large firms believe that holding the intellectual property firmly within by insulating key technologies would help them win the market place. However, the downside of this is that the innovation around this space has been made insular and is forcefully restricting the access to few elite. This would mean that the ideas could not be found, shared and integrated even within the firm and with their customers. The ideas coming from non-R&D divisions die down or cannot be percolated up due to this very insularity within the organization.

Today, about 85% of world's population, 5.8 billion people, live in the poorer countries with majority of them in China, India & Brazil. However in terms of growth rate measure, total gross domestic products (GDP), these economies are growing faster, at least double the rate than the developed nations.

Hence it is estimated by IMF, that within a decade, the two-thirds of world's GDP would come from these "poorer" countries. This means there will be heavy increase in spending patterns in developing countries like China, India, Brazil & Russia. Hence, these "poorer" countries as now considered as "emerging" economies, which require a lot more focus by the firms from the west. This meant that the firms who practiced structured innovation focusing on developed economies of the west are facing challenges to meet the new

needs of “ global” customers. Delivering flexibility with cost efficiency to customers worldwide is the greatest challenge that firms are facing today.

The customers in “ emerging” economies are focused on the superior value generated from a product than the cool features or the latest technologies offered by it, which matter to their western counterparts. The cost conscious buyers have stronger bargaining power, the market in “ emerging” economies are the middle and lower middle class population who have low earning profile but a very stronger yearn for goods and have greater willingness to buy. The huge population of this section offers a unique opportunity for the organizations to tap-in and generates greater revenues. A classic example of recent times is Danone, the world no. 1 in fresh dairy products, recently flexed their strategy to tap the emerging economies. Instead only introducing localized versions of their diverse global products, Danone chose to understand the needs of Bottom Of Pyramid (BoP) and hence came up with innovative packaged Lassi with three flavors - masala, sweetened and mango, each at Rs 15 for 165ml. This was created uniquely for Indian market to reach out to masses. Hence today, in order to stay competitive in the changing world, firms should be prepared to address the needs of developing countries, specifically those in “ emerging” economies, than trying to import from developed world. Hence a need to revisit a structured style of innovation exists.

Reverse Innovation

3. 1 Definition of Reverse Innovation

Vijay Govindarajan and Chris Trimble, in their book on Reverse Innovation defined the term “ Reverse Innovation”; they define it as any idea, which will be first adopted in developing world. This phenomenon was not very common in the past for a simple reason that the rich and affluent that had the ability to demand were mostly concentrated in developed nations. Demand drove the technology and hence most of innovations happened in the west. United States and Germany have about 300 noble laureates in science and technology, while India and China who are six times in population have less than ten of them in total. Most of the solutions that were innovated in the west were hence imported. Slightly modified versions of the global products, mostly their low-end were “ Glocalized” and were seem to be most relevant.

This view, over time, is seemed to be no longer accurate. The nature of consumers in developing nations is lot different. The needs of affluent customers in the west are lot different from those in emerging economies. Emerging economies have mega markets with micro consumers. Simply put, if developed countries have few customers who could spend ten dollars each, the developing countries have hundreds who are willing to pay one dollar. The profile of these two customers is hugely different and the scale that latter would offer makes it a greatly attractive market. Hence, Reverse Innovation requires a thorough understanding of the gaps in the needs of the customers worldwide.

3. 2 Gaps in Needs of Customers

The five needs gaps, as identified by Vijay Govindarajan et al, as the starting points for reverse innovation opportunities are:

Performance Gap: The classic thinking of “ low cost” design has been stripping down the features of an existing product and offering this lower performance version at cheaper price. This stream of products do not capture greater market share in “ emerging” economies, because of the knowledge of breakthrough technologies available in these countries and unattractive performance gap. This is counter to the philosophy in the West, where a customer agrees to buy lower performance products for lesser price. Hence, creating a disruptive cutting edge technological solution with decent cost and lowest cost could capture greater pie in emerging economy market.

Infrastructure Gap: The developing countries do not have similar infrastructure settings available like in the West. The existence of well-developed infrastructure in the West forces one to rely on legacy systems and build solutions around or over it. However, unavailability of infrastructure offers a greater opportunity for firms to start on clean slate and adopt or setup a state of art and high tech solution first time. Best example is the China and India are the world’s top two mobile phone markets and hence any new technological advancement in mobile telephone would happen in these countries almost simultaneous with the west. With this gap getting narrower between both the worlds, the emerging economies have leapfrogged on existing available high tech solutions and are venturing in as early adopters for highly scalable futuristic cutting edge solutions.

Sustainability Gap: In order for firms to sustain, the challenges one faces might be different in both the worlds. The concerns related to environment and pollution are quite different in China and India as opposed to that in United States and hence the needs of the people in these countries could be hugely different. The mass consumption in the emerging nations is not met in environmentally friendly way, the result could be catastrophic, hence the products designed for here need to be ahead by several miles in terms of their “ greenness”.

Regulatory Gap: Today there are not many strict regulations governing innovation in developing nations as compared to the developed nations. While this gap could get narrowed with time as there could be stricter regulations being applied to make markets fair and consumers safe. However, currently the additional overhead added due to regulations is minimal here and this could prove to be a huge advantage in terms of faster innovations with lower resistance. Any simple and inexpensive solution could be launched into the market quickly with least resistance.

Preferences Gap: The tastes, practices and rituals followed across the world are different and so are their preferences. This gap would remain for long, since the anchors that drive them are deep rooted. Hence, it is critical for the firms to understand the “ local” preferences and address those preferences that can be considered similar across the globe.

While these gaps clearly establish that the consumers in developing nations need to be looked as a unique set of parameters, most of these needs are not very new in developed world. Every developed country also has a

marginal market with needs similar to those of developing countries; historically the large multinationals have been ignoring them given the size of that market. Hence, it can be well understood that a product designed to bridge the gaps above could well be fitting into the marginal markets of the developed countries.

Most relevant example could be of Tata Nano, one of recent innovations in India of a Car at an ASP of about \$2500. This ultralow cost was only a result of lot of new designs, frugal engineering and innovative supply chain partnerships. At the outset, this experiment was aimed at the capitalizing the growing Indian (lower) middle class market, amongst which about 60% could afford it, and who otherwise could not have dreamt of a four-wheeler vehicle. However, TATAs are seeing this car also being “ export” ready to tap into the marginal markets of the West.

Another similar example could be drawn on “ Micro finance” model. Historically banking has always been focused on addressing the needs of “ rich”. Globally most of the successful banks failed to consider the opportunity to be able to lend smaller amounts to poor and enable them small business capitals. While this has a greater social implication of creating a better ecosystem, the smaller quicker returns coming from larger number of customers could turn banks profitable. The Grameen bank in Bangladesh is a proof of this successful model, and Muhammad Yunus, the brainchild behind this model has won a Noble prize for pursuing the microfinance revolution in Bangladesh. This solution is now getting popular in west, where many large banks.

These are classic cases of business innovations that are created primarily to address the needs in the developing worlds while still being seen relevant in global context, in terms of the untapped markets in the west. The key aspect to note here is that these are not to be seen as the “ low cost” or “ cheap” solutions but are able to serve “ mission-critical” value to the customers, which is supposed to be the bare bone for any solution.

3. 3 Reverse Innovation as a process

While the traditional innovations assume that the resources available are redundant, Reverse Innovation at the outset assumes them to be scarce. This assumption forces one to think of the solution to be improvised solution using ingenuity. Most often the reverse innovation could begin with reverse engineering and come up with flexible solution to meet the challenge of shortage of resource. Traditionally the freedom to innovate was restricted to an elite class seated in huge sophisticated laboratories, most of the times in the headquarters in the west. They conceived ideas and solutions which percolated to teams offshore to support in specific functionalities. While this process ensured confidentiality to maintain the intellectual property of the firm at all the levels. The major disadvantage was the visibility of this elite class to the global markets was restricted. With the changing innovation scenario, even the paradigm of process of innovation is shifting. Most of innovators today are the young brains coming from the bottom of the organizational pyramid, which have the visibility into the local customer problems purely on need basis. These innovators need not be elite PhDs, but a common man who is facing a problem and needs a solution to address the problem at an affordable price. Conventional process improvement

strategies like Six Sigma, which could fit well for markets with predictable environment, may not be applicable for these markets as the hunger for cost effective solutions is increasing the need to disrupt from current and create new ideas.

While there are several theories proposed in recent times on adoption of frugal engineering and reverse innovation process, the simple way to define a framework to generate a cost effective solution that works constrained environment could be defined in three simple steps mentioned below -

Keeping Cost low - Build efficient low cost products

Keeping Complexity low - Focus on simple solutions

Keeping Durability high - Build products capable of working in tough environments.

3.3.1 Build efficient low cost products

Designing low cost products does not mean tearing down the expensive products to create cheaper versions, but to frugally design an innovative solution to meet all the requirements efficiently, with a focus on lowering the overall cost of the system. These requirements need to be relevant to the environment where the system has to operate. A classic example of coming recently from rural India is "Mitticool- An innovative cost effective refrigeration solution" designed by a potter by trade from Gujarat, Mansukh Prajapati. He built a "Poor man's refrigerator" that works without electricity. A high school dropout, Prajapati, understood that the core requirement for refrigeration was to create a compact closet that could preserve the food

(fruits, vegetables and milk) at lower temperatures to keep them fresh.

Achieving this in a rural setting where electricity is extremely scarce was the key challenge to address; also the poor cannot afford expensive refrigeration systems available. He built a refrigerator with clay walls and a cooling unit built with water flowing through the sidewalls, this overall would keep the temperature inside the lower chambers low through evaporation and hence preserve the food. Priced at Rs 2000 this fridge consumes no electricity, is 100 % biodegradable and produces zero waste during its lifetime. Prajapati proved to the world that Innovation doesn't require qualification, rather it needs is a mindset, a thinking that can break barriers and develop solution with available scarce resources.

Similar example to this is a lifesaving product - the Embrace portable infant warmer. The inventors here focused on critical need for incubators, which was to keep the neonates warm in a setup similar to that of mother's womb. The traditional warmers were powered by electricity, which is an extreme scarce in rural parts of the subcontinent. This thought process helped them come up with a sack like setup called " Embrace", a bag with a pouch made of phase change material, which is like a wax that keeps the babies warm up to 6 hours at regular body temperatures. This pouch requires about 30 mins of electricity to chargeup to full charge. This product is priced at Rs 10000, which is about 10% of the cost of traditional baby warmers from the west. Multinationals like GE are not behind in this frugal race, to create newer markets in the emerging economies. The firm revolutionized the healthcare market with their portable cost effective ECG solution MAC 400, which was built around the core essential features keeping the rural market needs in

mind. This product had several frugal innovations like replacing expensive printer, with a compact printer used by bus conductors to print ticket was used. This not only helped reduce the weight of the machine, but made it compact. The product is described in detail in the later sections. All these examples prove that it is not essentially tearing or stripping the features down that is required in emerging countries, but a frugal novel solution that can operate well in a different constrained environment.

3. 3. 2 Build Simple Solutions

The incremental nature of innovation that drove the product creation so far has created complexity around usage requiring advanced skills and training. With majority of the customers in the developing world being young and naïve, the overall skill is much lower than in west and hence there is a critical need to design simple solutions. This could only be achieved that the products should be built from bottom up approach, which is to understand the most critical need and create a simpler way to solve it. The solution need not be “high tech” to solve the problem, but should be good enough to meet its goal.

A classic example of Aakash could be taken here, the western PC makers have long tried to make low-cost computers for emerging nations, but have not been majorly successful. They were always seen as complex to use or expensive. A UK based startup DataWind, came up with an affordable low cost tablet for Indian schools and colleges called Aakash. A touch screen tablet, built on open source technologies has a simple user interface supporting basic capabilities like browsing, video and word processing along with preloaded educational software all available in local languages. The <https://assignbuster.com/reverse-innovation-process-challenges-marketing-essay/>

rechargeable solar cells help the table recharge itself continuously. The aim is not to get a sophisticated solution, but to get something simple that even school children can be easily trained to use. Priced at Rs 3000, this tablet PC is promoted as world cheapest tablet and endorsed by Government of India to make it available at a further subsidized price to Rs 1750 in schools and college.

Another example coming from technology giants Nokia, is Nokia 1100, built for the first time to cater to Indian market. The researchers here realized that the Indian customers do not need the complex features and needed simpler solution so that the mobile could be integrated into their routine. A rugged minimalistic design that allowed calling, texting and can longer battery life was created as Nokia 1100. This model additionally had an integrated bright flash light along with support of local languages. This not only brought the cost down, but was made very relevant to Indian rural villages with limited English knowledge and extreme shortage of electricity. Torch lights were more common there and hence this mobile phone could simply integrate into their lives.

Thus simple affordable solutions are need to reach the lower end markets of the emerging markets, both to achieve the lower price points and also for them to be acceptable by wider crowds.

3. 3. 3 Build Durable Solutions

Many of the low end products designed from upscale R&D labs do not consider the conditions where the products operate. In an urge to create a simple inexpensive product, once should always not forget the importance of

the longevity of product's life while designing for emerging countries, where the environment plays tough role. The environment here refers to the rough operating conditions along wi