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Master of Science in Product Development

Capstone Research Project

November 18, 2009

# Developing New Products For Emerging Markets: A Competency Based Approach

K.C. Kang, M.M. Place, D.R. Seyler



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FACULTY ADVISOR

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# Developing New Products For Emerging Markets: A Competency Based Approach

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# Abstract

Emerging markets as represented by BRIC (Brazil, Russia, India and China) countries signify an enormous growth opportunity and a “must win” market for MNCs (multinational companies). It is estimated that by 2013, the middle class in BRIC countries will be larger than the population of Western Europe, USA and Japan combined. For companies focusing on developing new products, emerging markets represent a large and potentially attractive new customer base.

Unfortunately, MNCs are strategically disadvantaged in developing new products for the emerging markets. Compared to developed markets, emerging markets have significant geographical, economic, social, culture, infrastructure and governmental differences. The problem is exacerbated as MNCs continue to rely on predictable business models that have been built on years of experience in developed markets. To become a market leader, MNCs must seriously challenge their existing business model and strategic framework to address the nuances of emerging markets. BRIC should be viewed through a different lens and the deeply embedded values, processes and resources modified to win in emerging markets.

## Executive Summary

Emerging markets as represented by BRIC (Brazil, Russia, India and China) countries signify an enormous growth opportunity and a “must win” market for MNCs (multinational companies). It is estimated that by 2013, the middle class in BRIC countries will be larger than the population of Western Europe, USA and Japan combined (Pelle, 2007). For companies focusing on developing new products, BRIC represents a large and potentially attractive new customer base. Furthermore, Goldman Sachs in their 2003 publication, “Dreaming With BRICs: The Path to 2050” predicted the combined BRIC GDP will equal half of G6’s (U.S., Japan, U.K., Germany, France, Italy) in 2025 and completely overtake them by 2040.

Unfortunately, we believe MNCs are strategically disadvantaged in developing new products for the emerging markets. Compared to developed markets, emerging markets have significant geographical, economic, social, culture, infrastructure and governmental differences. To make matters worst, there has been a lack of solid market data that forces MNCs to extrapolate inferences from macro economic data such as GDP, levels of consumer wealth, and people’s propensity to consume. These approaches can result in inaccuracies and are symptoms of a larger root cause – MNCs find comfort in relying on predictable business models that have been built on years of experience in developed markets.

Our paper suggests that the traditional capabilities that allowed MNCs to successfully develop new products for developed markets do not assure that the same firms will have success in emerging markets. This capability is best represented by the RPV (resources, processes, values) framework outlined by Clayton Christenson and Tara Donovan. Evidence of differing RPs between emerging markets and developed markets appeared in our case study of Tata Nano. In launching the world’s cheapest car for the Indian market, Tata Nano exhibited RPs that are significantly different that the global automakers’ which included GM, Toyota, Ford, Honda, Chrysler and Nissan.

The RPV differences were further supported by our secondary research of six firms (GE, Haier, Nokia, PepsiCo, Caterpillar and Shanghai GM) that have a demonstrated track record of success in emerging markets. Of the eleven common successful characteristics, five appeared in all six firms. Below are the five recommendations associated with those characteristics that MNCs can adopt to increase success in emerging markets:

- Motivation: MNCs must abandon the need to please Wall Street and demonstrate a sincere effort to improve the emerging countries.
- Risk acceptance: MNCs must be willing to accept a higher risk profile and make bold investments.
- Customer insights: MNCs must recognize market data is scarce and often unreliable, thus firms must increase their ability to sense customer needs and adapt product offerings.
- Relationships: MNCs must realize that relationships are crucial for success in EMs, and they must work to build strong relationships with key decision makers and not ignore special interest groups.
- Brand image: Strong brand image alone is not enough. MNCs must gain emerging market consumer trust through delivery of quality products and addressing local needs.

When comparing our list of best practices to five Upstate New York firms interviewed, we discovered these firms were generally aware of what is required to be successful in emerging markets. Some interviewed firms were more aware than others depending on their exposure to emerging markets. However, most firms currently lack the capability to execute these best practices. This further supports our hypothesis that firms have ingrained resources, processes and values common to developed markets and face tremendous challenges in adapting to emerging markets.

As final recommendations, we strongly advocate that MNCs to perform a competency based evaluation. They should determine if the firm's resources, processes and values fit with the successful characteristics required in emerging markets. Once their ability to align their RPV is determined, they need to evaluate their understanding of external factors related to the particular emerging market in which they're seeking to engage. With clear assessment of the firm's internal and external fit, the scenario based approach outlined in Chapter Five can be utilized to develop appropriate strategies. Regardless of which approach MNCs choose, they must remain committed and stay patient. If not, they risk losing both long term market leadership and presence in emerging ma



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# Chapter One

## Emerging Markets and Why They're Important to MNCs

Emerging markets represent an enormous growth opportunity and a “must win” market for MNCs (multinational companies). Before proceeding, it is important to define emerging markets in the context of this paper as it has been a loosely used terminology depending on the organization or entity that published it. The emerging market term was originated by Antoine W. van Agtmael of the International Finance Corporation back in the early 1980s (Pacek & Thorniley, 2004). He was trying to start an equity fund for developing countries. However, he was unable to attract funding due to the stigma associating developing countries with lack of progress. Thus, he coined the term “emerging market” to better describe those markets as “progress, uplift and dynamism” (Economist, 2008). Essentially, emerging markets must demonstrate a track record of high GDP (Gross Domestic Product) growth with a sustainable social, political and economical environment. A more refined definition is given by the Center for Knowledge Societies. They defined emerging economies as those “regions of the world that are experiencing rapid informationalization under conditions of limited or partial industrialization” (Center for Knowledge Societies, 2008).

For this paper, we will use a more narrowly focused definition of the emerging market. We will concentrate on BRIC (Brazil, Russia, India and China) economies. The terminology was first introduced by Goldman Sachs in their landmark paper titled “Building Better Global Economic BRICs”. Using BRIC economies as yardstick for emerging markets is very compelling. These four countries represent more than forty percent of the world’s population with average GDP per country exceeding six percent. This exceeds the world average GDP per country of 3.7 percent (Pelle, 2007). For companies focusing on developing new products, BRIC represents a large and potentially attractive new customer base.

These BRIC economies are expected to surpass G6 countries (US, Japan, UK, Germany, France and Italy) in total GDP. Wilson and Purushothaman predicted BRIC economies will equal half of G6’s in 2025 and completely overtake them by 2040. The GDP comparison between BRIC and G6 economies is given in Figure 1.1. Goldman Sachs paper did make several assumptions in the projected GDP model. Among them were: the continuation of policies supporting stable macroeconomics; strong political governance supporting open trade; and, higher levels of education (Wilson & Purushothaman, 2003). There may be some risk in these assumptions, but few would argue the enormous market

presence the BRIC economies have played in today's global business. GM's (General Motors) only bright spot in the tough economic conditions of 2009 is China. GM expects its sales volume growth in China to exceed 20% this year, which is sharply higher than 2008 (Ho, 2009). The question is not whether BRIC will overtake the G6 economies but when.

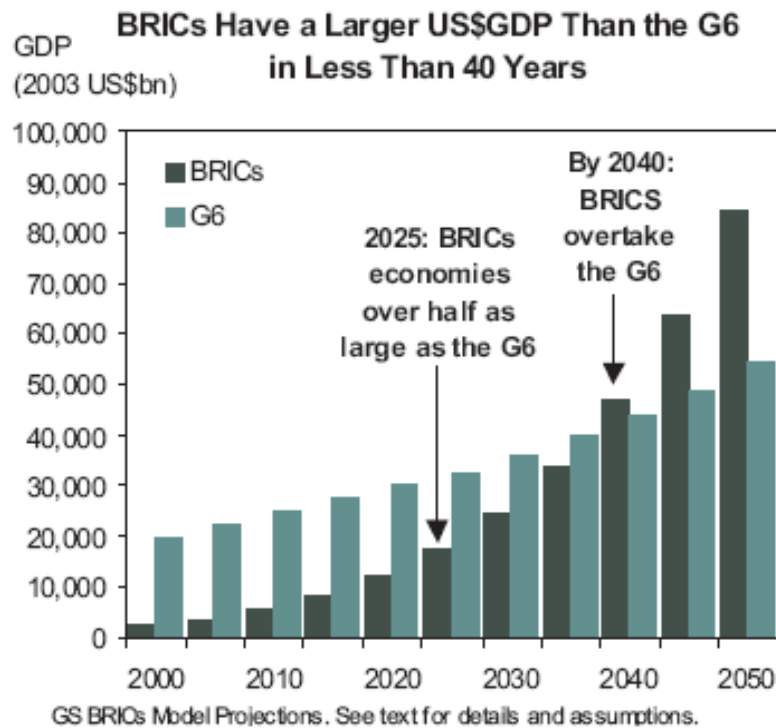


Figure 1.1: Prediction of BRIC economies surpassing G6 within 40 years (Wilson & Purushothaman, 2003).

As BRIC countries undergo significant economic growth, their socio-economic structure will evolve. Using per capita income as a metric, the population can be stratified into the shape of a pyramid with three major segments (Figure 1.2). The Tier 1 apex represents only five percent of the population but commands the highest earning per capita. This is a cosmopolitan group composed of middle and upper income people in developed countries and the few rich elites from the emerging world (Pralahad & Hart, 2006). In contrast, the base of the pyramid represents the lowest per capita income earners characterized by hard labor and difficult working environments. Pralahad and Hart defined them as "Bottom of the Pyramid" with annual per capital income of less than USD\$1,500. However, the most interesting segments are Tier 2 and 3 in the middle of the pyramid. They represent the "emerging market middle class" and the primary indigenous beneficiary as their BRIC country climbs up in the world economic ladder.

Annual Per Capita Income*	Tiers	Population in Millions
More Than \$20,000	1	75-100
\$1,500-\$20,000	2 & 3	1,500-1,750
Less Than \$1,500	4	4,000

Figure 1.2: The World Economic Pyramid (Pralahad & Hart, 2006)

This paper will primarily focus on the emerging middle class as the target market. It represents an attractive market segment for MNCs to sell new products and services. When the Goldman Sachs report was first published in 2003, an emerging BRIC middle class of more than 250 million was estimated (Pelle, 2007). In 2007, the size had crossed 400 million and was rapidly growing towards the 800 million estimated by Goldman Sachs for the year 2013 (Pelle, 2007). If that forecast holds true, by that date the BRIC countries will have a total middle class size larger than the population of Western Europe, USA and Japan combined (Pelle, 2007).

MNCs are not the only one seeing this enormous opportunity in BRIC markets. Local homegrown BRIC companies are beginning to show their strengths and proving themselves to be strong contenders. This includes the Tata Group that popularized the Nano car – the world’s cheapest car initially targeted at families in India that rely on two-wheel transportation. With total sales of USD\$65 billion and 350,000 employees worldwide, Tata Group represents a respected global company (Tata Group, 2009). Their local market presence enabled them to produce new products such as the Nano car that meets the needs of the emerging Indian middle class.

Similarly Haier, a well known Chinese brand, was able to edge over MNCs such as GE, Whirlpool and Electrolux by developing better products that meet Chinese consumer needs. For example, Haier identified the humid weather in Chinese cities such as Shanghai and Shenzhen requires people to change clothes frequently. In response, Haier designed a tiny washing machine that cleans a single set of clothes. It immediately became an instant hit with customers as the tiny washing machine not only met their needs but also reduces the cost of ownership as it uses less electricity and water (Khanna & Pelepu, 2006).

Furthermore, some local BRIC companies harbor global ambitions. In December 2004, Lenovo made headlines by announcing a USD\$1.75 billion acquisition of the IBM personal computer division to become a global technology giant (Quelch & Knoop, 2006). Similarly, in 2008 Tata Group acquired the Jaguar and Land Rover companies for USD\$2.3 billion. The takeover was part of Tata's global ambition which enabled them to include luxury brand names as part of their stables of diversified companies (Kumar, Mohapatra & Chandrasekhar, 2009). After establishing leadership in the "white goods" market in China, Haier ventured abroad into Indonesia, Philippines, Malaysia and Yugoslavia. In 1997, Haier entered the first Western market in Germany by introducing Haier branded refrigerators (Khanna & Pelepu, 2006). Two years later, Haier established a design center in Boston, a marketing operation in New York and a manufacturing facility in South Carolina (Khanna & Pelepu, 2006). With home field advantage, these established local companies will provide fierce competition to MNCs in capturing market leadership in BRIC.

### **Common MNC mistakes in BRIC markets**

MNCs are strategically disadvantaged in developing new products for the emerging BRIC markets due to geographical, economic, social, culture and governmental differences. The geographic distance creates barriers for transportation and makes communication difficult (Ghemawat, 2001). Western and Eastern hemisphere employees often have to make sacrifices by either coming to work early or staying late to talk to their counterparts. Even when both parties are present, barriers could still exist in the form of culture and government. For instance, "Guanxi" is very important in conducting business in China. It is a Chinese word meaning relationship or connection. The origins of "Guanxi" can be traced back to the Confucianism teachings that emphasized hierarchy of social relationships. In this hierarchy, families are considered to be the highest form of "Guanxi" and are the only ones to be trusted. The "Guanxi" relationships become weaker as it goes outside the family circles including distant relatives and friends. This strong emphasis on family in Confucian society explains why most businesses in China are still family run.

In contrast, Westerners not familiar with the Chinese culture would consider "Guanxi" as a sordid form of favoritism and nepotism. They tend to view successful negotiations as revolving around technology exchange, pricing, quality of a tendered product or service (Yeung & Tung, 1996). Individuals engaged in favoring families or friends in business engagements are considered shameful and punishable by Western standards. For example, Paul Wolfowitz resigned from his position as President of the World

Bank after being accused of offering his romantic partner a promotion and a number of large pay raises (Goldenberg, 2007).

McDonald's learned the importance of "Guanxi" the hard way. The Chinese authorities requested McDonald to relocate away from a lucrative property near Tiananmen Square despite having signed a 20 years lease. That property was then turned over to Hong Kong billionaire Li Ka-Shing (Loeb & Martin, 1995). A high ranking Chinese official involved is known to have a strong relationship to Li Ka-Shing (Yeung & Tung, 1996). Although McDonald's did not acknowledge the reason, one could conclude that "Guanxi" between Li Ka Shing and the Chinese official played a role.

Khanna, Palepu and Sinha commented that MNCs often take for granted the "soft" infrastructure abundantly existent in developed markets. This included, but was not limited to, the absence of EM market research data with reliable customer preferences (Khanna, Palepu, Sinha, 2005). The lack of solid market data forces MNCs to develop CPA (Country Portfolio Analysis) by extrapolating inferences from macro economic data such as GDP, levels of consumer wealth, and people's propensity to consume (Ghemawat, 2001). These approaches can provide "deceptive results, particularly when the product represents a novelty, thus the consumption is clearly not well understood" (Pelle, 2007).

These mistakes underlie symptoms of a larger root cause. MNCs often transpose basic business assumptions of their developed home markets to BRIC markets. Rather than seeing the risk and uncertainty of the specific local market, MNCs find comfort in relying on predictable business models. A relevant example is the launch of the Fiat Palio in India. After successfully launching Palio in Brazil, Fiat assumed they could replicate the success by introducing the same car in India (Pelle, 2007). The lack of sales in India was attributed to poor fuel efficiency and the absence of adequate post-sale customer support and service infrastructure (Pelle, 2007). Fiat underestimated the lack of infrastructure such as dealers and the importance of fuel economy to the low disposable income of the middle working class in India.

Another well known failure is media mogul Rupert Murdoch's disastrous venture with Star TV. In 1993, Murdoch bought Star TV from Hong Kong billionaire, Li Ka-Shing, for USD\$525 million (Shennon, 1993). Murdoch's ambition was clear. He wanted to realize his vision of creating a truly global media empire by capturing the emerging Asian market. Star TV's five satellite channels were broadcasted to



thirty-eight countries in the Middle East and Asia including China and India (Shennon, 1993). With a proven track record of the News Corporation parent company, many expected Murdoch's strategic acquisition to be successful. However history proved otherwise. Between 1996 and 1999, Star TV suffered accumulative losses of \$500 million excluding losses on a joint venture with Phoenix TV in China (Ghemawat, 2001). Furthermore, Star TV did not turn in a positive operating profit until 2002; 9 years after Murdoch purchased the company (Ghemawat, 2001).

Despite having large financial backing and management experience running a multibillion dollar business, MNC success in BRIC markets is often unpredictable. Many act like Monday morning quarterbacks by simply questioning the tactical mistakes Murdoch made. Rather the failure can be traced back deeper within the MNCs perception and misunderstanding of the BRIC market. Murdoch overestimated the attractiveness of the Asian market and most importantly, underestimated the difference between developed and emerging markets. For example, Murdoch made a critical mistake by giving a speech that offended the Chinese government several months after Star TV purchase. He said, "Star TV have proved an unambiguous threat to totalitarian regimes everywhere ... satellite broadcasting makes it possible for information-hungry residents of many closed societies to bypass state-controlled television channels" (Monbiot, 2008). The Chinese leaders were furious and in response imposed restrictions on Star TV broadcast that prevented it from reaching most of China (Monbiot, 2008).

### **Tata Nano - The People's Car**

Six years ago Tata Group Chairman, Ratan Tata, surprised the world by announcing his ambition of building the cheapest car in the world; Tata Nano. The target price was Rs100,000 which was approximately USD\$2,500 which was less than half the price of the next cheapest car (IBN Live, 2008). Ratan Tata's vision for building the cheapest car was crystal clear. He put it succinctly, "For families that normally ride on two wheelers - the father driving, his kids standing in front, his wife seated behind him holding the baby - Tata Nano is a safe, affordable all-weather form of transportation" (Bickerstaffe & Honeywill, 2008).

When Ratan Tata announced his ambition to build a USD\$2,500 car, many established Western and Japanese automotive companies were surprised. Their low cost car product development model indicated that significantly higher costs were required. For instance, Renault launched Dacia Logan with

a starting price tag of USD\$7,300 in Eastern Europe and USD\$9,000 in Western Europe (Shirouzu & Power, 2006). Daimler-Benz lowest price offering of its well known SMART car was USD\$11,990 (Smart USA, 2009). Similar efforts are being pursued by Volkswagen, Toyota and Hyundai with comparable price points as Dacia Logan. Tata Nano's closest competitor, Suzuki Maruti 800 has its cars priced at USD\$4,500 (Fitzsimmons, 2008); however, it was nowhere close to the Tata Nano USD\$2,500 offering.

Tata Motors successfully brought the Nano to the market on March 23, 2009 (Times of India, 2009). The Tata Nano is an extremely compact car measuring only 10 feet long; 2 feet shorter than a Mini Cooper. With a snub nose and a sloping roof, the world's cheapest car can hold five people - if they squeeze (MSN Money, 2008). It has a top speed of 60 mph, and the company also claims the car will be able to deliver 50 miles per gallon which would make it one of India's most efficient vehicles and vastly more efficient than the average car in the United States (Robinson, 2008). All of these features were designed to initially target India's emerging middle class pocket book and lifestyle.

The model used by Tata to develop the Nano could potentially be the ideal general business model for manufactured consumer products in emerging markets. Tata is one of six foreign carmakers applying for government incentives to manufacture mini passenger cars with at least an annual production capacity of 100,000 units in Thailand (Reuters, 2009). In countries like Indonesia and Vietnam where large automotive manufacturing is absent, "Tata Nano could create a big presence among middle class fed up with motorbikes" (Fitzsimmons, 2008). All this is excluding the enormous market potential in China, Brazil and other Southeast Asian countries (excluding Thailand and Vietnam).

Among the first major established automotive competitors that took Tata Motors challenge seriously was Nissan CEO, Carlos Ghosn. In an interview with the Wall Street Journal published on 28 January 2008, he stated that he has giving up hope in creating a cheap car by de-costing the Western or Japanese car development model. He concluded that it would be impossible for French or Japanese engineers to produce a USD\$2,500 car to compete with the Nano using traditional new product development approaches (Murphy, 2008). Instead, he pursued a strategy partnering with Bajaj Auto Limited; a low cost Indian three-wheeler manufacturer (Murphy, 2008).

This paper will examine the reasons behind Carlos Ghosn's strategy in competing with Tata Nano to gain insight for MNCs (multinational companies) targeting emerging markets.<sup>1</sup> Is his approach representative of the kind of strategy developed nation companies will have to follow to enter emerging markets? Does it potentially signify the obsolescence of traditional product development framework in creating new products for these markets? Why would he partner with an Indian low cost three-wheeler manufacturer instead of developing the low cost car in France or Japan and manufacture it in India? Alternatively, could the development and manufacture of the car be done in India? Answering these questions will reveal important considerations for MNCs targeting emerging markets as part of their growth strategies.

### **The Importance of Strategy**

Given the predicted explosive growth, BRIC countries are a must win market for MNCs. MNCs will not only compete with each other for market leadership but will also face threats from increasingly formidable home grown BRIC companies, which have enormous home field advantage. To become a market leader, MNCs must be cognizant that they may need to adapt their traditional strategies to fit emerging markets. This is the case because MNCs strategic framework has been built through accumulative years of experience in developed markets. Instead BRIC should be viewed through a different lens, with the idiosyncrasies and unpredictability of an unknown market.

While it should be clear that the business model must be adjusted to win in Emerging Markets, the challenge is to determine how MNC can build an effective strategy for those markets. "How MNCs can successfully enter these low income markets has not been effectively addressed in the literature on global and emerging market strategies" (London & Hart, 2004). We will start by examining conventional theories and strategies which have been tremendously successful within developed markets. Examples of firms that have successfully deployed those strategies will show that – within a given industry – all MNCs behave very similarly. Then, that conventional theory will be used as a framework to examine those situations where MNCs have been highly profitable in selling new products into emerging markets. Panasonic is an example of a company that recognized the need to change by developing a strategy where products are specifically designed for each market, and that "if it starts with a Japanese idea or Japanese design, this [strategy] is impossible" (Wakabayashi, 2009). Furthermore, Nissan's Carlos Ghosn took the situation seriously and made a strategic decision to partner with Bajaj. We hope that

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<sup>1</sup> MNCs (Multinational Corporations) primarily located in developed countries with well established markets.

this research paper will provide sufficient insight to enable us to assess whether or not that was a good approach.

### **The RPV Model Explained**

Christenson and Donovan made a significant contribution to management strategy with their “RPV Model” outlined in the article, “Putting Your Finger on Capability” which argues that an organization is much more than the combined skills of the people. They assert that managers need to think about organizational capabilities versus individual capabilities in order to best leverage the corporation, and suggest that an organization’s capabilities are made of resources, processes and values.

Resources are easily explainable as the collection of “people, equipment, technology, product designs, brand reputations, information, cash and relationships with suppliers and customers in a company [that] constitute the resources that can be utilized to create value” (Christensen & Donovan, 1999). They have the character of assets as they can be hired/ fired, bought/ sold, upgraded/ depreciated, and they can be changed much more readily than processes or values.

Processes are the patterns of communication, interaction and coordination through which employees transform inputs of information, materials, technology, labor and money into things of greater value, i.e., products and services (Christensen & Donovan, 1999). These processes can be formal documented and controlled procedures, or they can be informal “habitual” routine undocumented methods. Furthermore, they can also be “embedded” routines that are unconscious, assumed, and difficult to describe, but which encompass the culture. As one would expect, processes can vary greatly in their efficiencies, and – due to the unwritten detail as well as the culture which guides them – they are extremely difficult to precisely transfer from one organization to another.

The values of an organization are defined as “the criteria that employees in an organization employ to make decisions”. They “include the standards by which employee’s judge” and as such, reflect the company’s culture, cost structure and business model (Christensen & Donovan, 1999). It is essential that employees have the ability to make independent decisions that are consistent with strategic direction, and a clear set of values enables this. These values also clarify what cannot be done, in other words, those things that don’t make sense for the organization.

Processes and values are deeply entrenched in the culture of a firm; therefore, they define organizational capability to a greater extent than the resources that can be more readily replaced. As implied above, processes and values are less flexible because they are embedded in informal routines and behaviors which are “tuned” to a particular business model. We know it is difficult to change behavior, and a firm hoping to modify itself will need to focus more on its processes and values than on its resources.

Since resources, processes and values define organizational capability, the “RPV Model” is an important approach for determining the optimal “mix” for a given company and strategy because, in the end, “focused organizations perform so much better than unfocused ones: their processes and values are matched carefully with the set of tasks that need to be done” (Christensen & Donovan, 1999). In order to accurately assess any market opportunity, it is essential that an organization assess its RPV. “Making a clear-headed, honest assessment of an organization’s capabilities and disabilities by disaggregating its resources, processes and values is a critical first step in the path to successful innovation” (Christensen & Donovan, 1999). This understanding is even more critical in emerging markets since values and processes can become obstacles to success given that they are very difficult to change.

The RPV become tuned to a business strategy and interact to give shape to “core competencies” which are tailored to a market opportunity. Prahalad and Hamel stated that “Core competencies are the collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technologies” (Prahalad & Hamel, 1990). They maintain that the core competencies which make growth possible are specific to a business model as well as to the specific type of market. They must be identified and cultivated in order to be successful in global competition. Core products are the manifestation of these core competencies, and “Resources, Processes and Values” are the building blocks – they give the competencies shape and character. As mentioned previously, a firm’s business model and strategy may have to be modified for emerging markets, and this implies that the MNC RPs which have become tuned to developed markets are likely to be different than the RPs that are required for success in emerging markets.

## Application of RPV

Toyota is an example of a Japanese MNC that successfully leveraged its RPV for the global automobile market. To illustrate "Process" we need only examine their production practices which many companies have tried unsuccessfully to adopt. This is because there are "unwritten rules" – or embedded processes - that "govern how people carry out their jobs, how they interact with each other, how products and services flow, and how people identify and address process problems" (Spear & Bowen, 1999). In addition, their "set-based concurrent engineering" product development method discussed by Ward in "The Second Toyota Paradox: How Delaying Decisions Can Make Better Cars Faster" is another example of how its values, resources and processes are finely tuned to a business model (Ward & Liker, 1995). In this development model, Toyota "Values" associated with speed to market, minimizing waste, and high quality are evident as they drive decisions on potential design solutions that follow a parallel development process. Design standardization across different models is an illustration of these values; for example, the seat belts that are identical in both the Camry and Sienna. Their "Resources" – the people, technology, facilities and capital that were acquired to uphold the business model - support Toyota's very efficient development process which can "consistently bring a new body....from styling freeze to start of production in just 15 months" in comparison to 24 to 30 months for most of their competitors (Morgan & Liker, 2006). Clearly, Toyota's unique RPVs create strong competencies in proficient development and manufacturing and they provide a competitive advantage.

Similar to Toyota, Kodak was also a successful example of how the RPV Model is applied and aligned to an industry. Kodak, founded in 1880, had an extraordinary 100 year run of success using the same basic strategy. A primary value was that image quality was number one. Others were related to high gross margins, international distribution, customer focus, and profits from consumables (versus hardware) which required continuous improvement to manufacturing to lower costs. Its values produced a motivation to win customers and also drove R&D investment decisions. In addition, it had tuned its development processes to enable speed to market which edged out the competition. Furthermore, these values caused management to pursue relationships and processes with retailers and advertising/brand name enhancement to generate the volume to enable global low cost. In 1976, Kodak provided 90% of the film and 85% of the cameras in the United States (Gavetti, Henderson & Giorgi, 2005).

Generations of employees and managers deeply believed the strategy because it worked so well for so long – the processes and routines which supported the strategy to provide customer value became

highly tuned and extremely embedded. While these “strategic frames” – which were based on their values - created enormous success, they unfortunately also ultimately led to Kodak’s downfall. Their faith in the old business model made them blind and unresponsive to trends related to lower priced film and digital photography – a condition referred to as “active inertia” (Sull, 1999). Due to the huge monetary investment and the sizeable physical and emotional effort required to change strategies and systems, managers succumbed to wishful thinking about “staying the course”, practiced selective hearing, filtered the information, and failed to confront reality and react. An honest assessment of the market situation should have been made and the insight embraced to motivate adaption of their resources, processes and values to those tuned to digital photography.

Herein lies the caution for MNCs considering entrance into emerging markets. The RPVs that enable success in a developed market might not be relevant to emerging markets and may in fact be barriers to change, thwarting a company from adopting new approaches. Similar to how Kodak missed the transition from silver-halide to digital photography, the emerging market presents a significant shift from the developed market. The magnitude of change required to re-align RPV is potentially very large – as was the case with Kodak – and there are even more complexities and variables associated with MNC RPV alignment in an unknown emerging market. These complications include language, cultural norms, infrastructure, and the government role, just to name a few. For example, emerging markets might not yield success because they often lack intermediary firms and regulatory systems that MNCs depend upon. “Companies in developed countries usually take for granted the critical role that “soft” infrastructure plays in the execution of their business models in their home markets” (Khanna, Palepu, Sinha, 2005). Socio-economic climates are also often different and require new considerations which must be accommodated. “Reaching these markets involves bridging the formal and informal economies. In the informal economy, relationships are grounded primarily on social, not legal contracts...” (London & Hart, 2004). In addition, MNCs are “increasingly being expected to consider the societal and environmental impacts of their activities” (London & Hart, 2004). Furthermore, the work to understand these complexities is a multiple of the various markets – versus the relatively homogenous developed market.

Unfortunately, even Toyota has had problems in emerging markets as its sales in China declined in the first quarter of 2009 (versus gains by GM) due to a failure to anticipate an increase in demand for small cars (Shirouzu, 2009). The Kodak and Toyota examples provide an analogy of how companies that fail

to adapt to changes in the environment are often unsuccessful in the marketplace. Thus, it is critical that businesses stay tuned into the external environment, and this is a reminder to MNCs to be cognizant of active inertia regarding the developed market – they need to stay open to the nuances of the emerging market.

### **RPV and the Global Automobile Industry**

To gain additional understanding, let's examine the global automobile industry in further detail. Similar to how Kodak evolved its RPV to build a successful film-based business model, the global auto industry corporations (E.g., GM, Ford, Toyota, Chrysler, Honda, Nissan, Hyundai, VW) cultivated their RPV over several decades to the point where all companies look very similar – the distinguishing differences are in how RPV are leveraged and aligned to strategy. Careful analysis of these various automobile companies will help us outline the common strategic approaches utilized by the global automobile industry for developed markets. These common developed market approaches can then be compared to the Tata Nano to determine distinctions associated with success in emerging markets. Based upon case studies and learning's from the Rochester Institute of Technology Masters in Product Development Leadership program, the following common characteristics of developed market automobile MNCs' strategies were delineated (and discussed in the following paragraph):

- Global Focus
- Capital Intensive
- Vertical Integration
- Platform Based
- Incremental Technology
- Feature/Options Driven
- Internal Innovation
- Supplier Relationships are Specification Driven
- Short Term Financial Focus

The MNC automobile companies have a global focus, targeting developed countries where they can sell higher priced vehicles with a larger profit margin. These companies are typically vertically integrated - providing the majority of the engineering, manufacturing, and technical service. Due to the expense of the parts and final product, as well as the large production facilities and emphasis on automation, they



have immense capital investments. In order to minimize cost and risk while also optimizing design enhancements, the companies adopt a platform development approach which stresses incremental changes and known customer valued features. Finally, innovation occurs within the vertically integrated company and they provide to common suppliers very specific requirements for those parts which are manufactured externally. These characteristics just outlined are direct outcomes of the business model which was shaped by their inherent RPV. Values associated with keeping stock holders happy end up supporting a financial outlook which encourages the lower risk strategy of incremental change associated with the legacy platform approach. This further promotes the control associated with vertical integration as well as the development of associated processes such as Stage-Gate, Project Portfolios, and MBOs. The resources (people, capital, technology) are selected and developed to support the model. From this it can be seen that the RPV describes a framework of what a company can do and what it can't do, and it further portrays a "strategy canvas" in which the business operates.

In order to succeed developed country MNCs typically benchmark each other within a given market and adopt the same recipe for success. Therefore, the RPVs are similar for all MNCs within a given market because they're targeting the same consumers which results in the emergence of a dominant business model. The focus of the managers in these competing companies is to increase corporate performance by improving the RPVs that are associated with the dominant business model. In developed markets, for a given industry, the successful businesses all look the same and have comparable RPV with differences only in how they leverage and execute them. With almost everyone behaving similarly, a Red Ocean<sup>2</sup> has been created in the competitive business space within developed markets. "As the market space of red oceans gets crowded, prospects for profits and growth are reduced. Products become commodities, and cutthroat competition turns the red ocean bloody" (Kim & Mauborgne, 2005).

### **Global Automakers vs. Tata and the Nano**

To determine if there are significant differences between the strategies and RPV of global automakers to those developing products for emerging markets, we will take an in-depth look at the strategies practiced by Tata to develop the Nano. The key strategic differences identified will be evaluated against

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<sup>2</sup> From Kim & Mauborgne in their article based on the "Blue Ocean Strategy", red oceans exist where "industry boundaries are defined and accepted, and the competitive rules of the game are known. Here companies try to outperform their rivals to grab a greater share of existing demand. The dominant focus of strategy work over the past twenty-five years has been on competition-based red ocean strategies.

the RPV exhibited by Tata to determine if there are any factors which MNC automobile companies need to address and incorporate with their existing RPV framework to be successful in emerging markets.

To start, we will compare and contrast the characteristics of MNC auto companies discussed previously with the respective characteristics exhibited by Tata. Table 1.1 below is a summary of these characteristics which will be discussed in detail.

<b>Auto Manufacturer Strategy Characteristics</b>	
<b><i>Global Auto Companies (Developed)</i></b>	<b><i>Tata Nano (Emerging)</i></b>
Global Focus	Local Focus with Customer Immersion
Capital Intensive	Labor Intensive
Vertical Integration	Decentralized Manufacturing and Assembly
Platform Driven Strategy - <i>Features/Options Driven</i> - <i>Incremental Technology Improvements</i>	Low Price Point Driven Strategy - <i>"Good enough" features</i> - <i>Discovery Driven Planning</i>
Internal Innovation	Suppliers as Innovators
Specification Driven Supplier Relationships	Function Driven Supplier Relationships
Focus on Stock Holder Needs	Focus on Altruistic Needs

Table 1.1: Strategy Comparison

### **Global Market Focus vs. Local Focus with Customer Immersion**

The Nano technology strategy varied significantly from that of a typical MNC. Tata's approach was to deliver a car to people who previously couldn't afford one. This method of creating products based on "sensed" customer needs rather than direct VOC is vastly different than that practiced by MNCs. As mentioned, Ratan Tata sensed that he could create a huge market for a cheap car that would replace the motor bikes that Indian families used for transportation (Bickerstaffe & Honeywill, 2008). There was no established market in India for cars that have price points similar to two-wheelers, thereby enabling the mass population to afford them (Kumar, Mohapatra & Chandrasekhar, 2009). In contrast, MNCs often develop products targeted at meeting the needs of established global markets. They search out markets where

they can easily sell current models and platforms with minimal changes to strategy. In these markets, information relating to market size and segmentation, customer needs and behaviors, and interactions of regulatory bodies is easy to obtain, and thus the product is tailored to meet those conditions. Given that the ultra-low cost market didn't exist, this type of information was not available when attempting to fill the sensed customer needs as Tata did with the Nano.

### **Capital Intensive vs. Labor Intensive Development and Manufacturing**

Tata's approach to manufacturing the Nano was significantly different than that of developed MNCs. Tata utilizes its extensive pool of inexpensive labor to manufacture their cars, whereas a typical global automaker may focus significant resources and capital on developing automated manufacturing platforms for their vehicles to keep costs down (Pullin, 2006). However, Tata's labor intensive process poses product quality challenges. Automated systems are typically much more repeatable than manual labor, thus high quality levels are easier to achieve through automation. To overcome this issue, the Nano needed to be designed in a way that would assure assembly could only be performed in one way - the right way, every time. To achieve this, Nano engineers and technologists utilized many DFSS-like tools commonly utilized by global automakers. Things such as Poke-yoke and Design for Assembly were at the forefront of the overall design of the Nano, enabling Tata to manufacture the car with a labor intensive model rather than one which required extensive capital investment (Pullin, 2006).

### **Vertical Integration vs. Decentralized Manufacturing and Assembly**

Where Global Automakers are highly vertically integrated, controlling most major steps of the supply chain from development to manufacturing to delivery, Tata has stepped in with a different approach. This approach, which utilizes small, independently owned dealer shops as assemblers for the Nano, has dramatically decentralized the typical assembly and delivery processes practiced by developed global automobile manufacturers. Rather than completing final assembly at the plant and shipping to large centralized dealerships, Tata plans to utilize a radically different distribution network. They plan to send complete "kits" to many small localized dealers which will be assembled directly for the customer at their designated pickup location (Scanlon, 2009). This method is will likely keep costs down significantly and has been identified

as one of the key innovations of the Nano project (Fogerty, 2009). However, this process poses quality challenges similar to those just discussed between automation and manual labor. It requires Tata to design the Nano in a robust manner to insure that a Nano from one assembler was of the same quality as one received from another (Pullen, 2006).

### **Platform Driven Strategy with Incremental Improvements vs. Price Point Driven Strategy with Emphasis on “Good Enough” Features**

The Nano does not represent an incremental product enhancement typically seen when MNC companies develop new products. Rather the Nano represents a ground up, leave no stone unturned, kind of product development approach. Engineers and Suppliers were instructed to think with a clean sheet of paper and only design parts to the required function (Fogerty, 2009). They did not want designs that provided additional incremental improvements to current components as would typically be desired in an MNC development effort. Rather they were looking for the minimum set of features to meet a defined function (Scanlon, 2009).

In order to achieve the price goals of the Nano, Tata completely abandoned the historical platform based car development model. The historical approach by an MNC to develop a USD\$2,500 car would likely have been to de-feature a current low end car model to reduce costs. Tata took a different approach. They started with a concrete price goal and worked the equation backwards (Fogerty, 2009). Once the price goal was established, the strategy was to develop components as cheaply as possible, which would then be integrated into the final design. This is a complete 180 degree from the historical method of a starting with a holistic concept, designing the parts and determining how much it would cost to build (Scanlon, 2009). In order to make this work, Tata forced innovation not from a technical level, but from a cost conscious approach to meet the low price point. This required direct involvement of suppliers and strong management of the assumptions made along the way. Tata's overall approach is resemblant of the premise of Discovery Driven Planning, which emphasizes starting with the end-point in mind, and understanding the assumptions that enable you to get there (McGrath & MacMillan, 1995).

The Nano team acted in a dynamic manner to achieve the end goal of producing a USD\$2,500 car. Although their goal was very focused and rigid, the manner in which it was achieved was

not. The team worked hand in hand with suppliers and was able to continuously change direction as suppliers developed new innovative cost conscious parts for the Nano. They focused on driving down costs rather than providing additional optional features as would typically be desired in an MNC development effort. To meet the low cost requirements, Nano engineers and suppliers continuously evolved their clean sheet concepts and designs to a point where they could achieve the required function for the lowest cost possible (reference Figure 1.3 below). This required Tata engineers and managers to act in a fluid manner in which an execute-learn-change technique could be embraced (Fogerty, 2009).

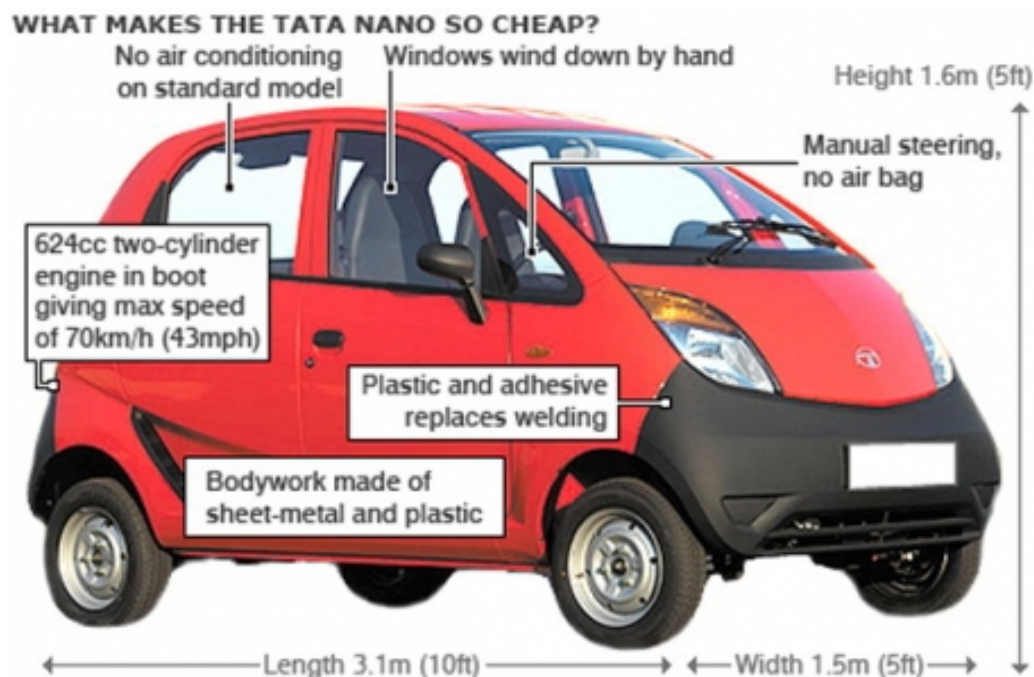


Figure 1.3: Illustration of Nano Components (Wordpress, 2009)

### Internal Innovation vs. Suppliers as Innovators

To achieve the level of innovation required to develop the Nano and meet cost targets, Tata relied heavily on their suppliers. Rather than attempting to utilize internal resources to achieve innovation, as would likely occur in global automakers, Tata realized that the breakthroughs needed could not be achieved utilizing their internal core competencies alone. To be successful, they would need to rely on the technical competencies of their suppliers and leverage their collective expertise to meet the desired cost targets (Bickerstaffe & Honeywill, 2008). Given the importance of the relationship with suppliers, Tata spent considerable time not only reviewing the designs suppliers provided, but also their credentials. Tata believed that to

be successful they would need to establish strong relationships and high levels of trust with their suppliers. Meeting the price goal alone was not enough, like it may be for an MNC automaker (Bickerstaffe & Honeywill, 2008).

### **Share Holder Focused vs. Altruistic Focus**

In comparison to the typical focus of MNCs to keep shareholders and other owners happy, the goal of Ratan Tata with the Nano was to please the public. Many MNCs, especially those who are publicly held, are extremely focused on short term returns and growth. For the Nano, it was a completely different story. Rather than focusing on providing value to stakeholders, Tata's main goal was to develop a car cheap enough that the average family could afford to purchase it (Kumar, Mohapatra & Chandrasekhar, 2009). Additionally, Ratan had other intentions with the Nano. He planned to inspire entrepreneurship within India through the numerous small remote assembly shops that would be responsible for assembling and delivering the Nano to the customer. Tata's vision was to create numerous opportunities for younger Indian entrepreneurs, which would ultimately lead to a higher standard of living (Farris & Lemley, 2009). Tata truly wants to use the Nano to dramatically change the lives of Indians and better the country as a whole. Overall, this effort was very well aligned with Tata's long track record of philanthropy and community service (Kumar, Mohapatra & Chandrasekhar, 2009).

With these visions in mind, Tata Corporation realized that they would need to approach the project with a long term return on investment (ROI) expectation centered on a high volume, low margin business model. Given Tata's primary was focus bettering India, their ROI expectations seemingly took a backseat. It is estimated that it will take Tata 4-5 years to achieve a return on the Nano (Thottam, 2009). This strategy of focusing on the community with long-term ROI expectations is one that would likely not be supported by the typical MNC given their focus meeting the short term needs of the share holder.

### **Other Factors to consider**

In addition to the contrasting characteristics exhibited above, Tata had to overcome certain factors that were inherently related to developing a new product with a breakthrough price, for a target market that didn't yet exist. First, Tata's level of risk acceptance was significantly high for the Nano project. Given that the USD\$2,500 price goal was set by an "off the cuff" statement made while Ratan Tata was being

interviewed, a high level of risk was immediately assumed. Ratan's commitment to deliver the car, quickly coined as the "Peoples Car", at that price point was something that he was not willing to abandon, thus he committed the company to something that they were unsure could be achieved (Kumar, Mohapatra & Chandrasekhar, 2009). This level of risk acceptance is not something that would commonly be embraced by global automobile manufacturers, given their values would typically favor more risk adverse investments for which an in depth risk assessment should be performed.

The second hurdle Tata faced was with relationships. Tata failed to evaluate their relationship with Indian farmers located where they planned to build Nano manufacturing plant. Farmers were strongly opposed to having a manufacturing plant in their backyard and did not want India to adopt the "Western" lifestyle that the Nano seemingly represented. Additionally, the methods by which the land was to be acquired were questionable. First, they did not feel that they were being properly compensated for their signing over the land to the government. Second, they questioned why Tata had been given a significantly larger piece of land than competitors Honda, Toyota and Maruti who were only given 250 acres each vs. Tata's 1200 acre allotment (Press Trust of India, 2006). Groups of protesters who supported the farmers and were against converting farm land into manufacturing land were led by Mamata Banerjee, the leader of Trinamool Congress. They united and revolted against Tata and the Government organizations that were involved with securing the land for the Singur Nano plant. Violence continually erupted and after a year of activity, protestors successfully forced Tata out of Singur, prompting Tata to move the plant to Gujarat (Khanna, 2008).

This had detrimental effects on Nano launch timing; pushing it back several months (Thottam, 2009). The incident is a great learning opportunity that should be studied by MNCs attempting to enter emerging markets, and it highlights the importance of relationships and of understanding the local culture in an emerging market. Although Tata had overwhelming support from local government agencies, their lack of sensitivity to the local culture and activist organizations ultimately led to the turmoil. This example suggests that government support alone is not enough when attempting to enter an emerging market, and that companies need to focus on balancing the conflicting needs of all parties, either government or social, to be successful.

## **Tata RPV vs. Global Automaker RPV**

Tata's approach to the Nano outlined above suggests a significantly different strategy to developing, designing and manufacturing an automobile. However, the question that arises is what enabled Tata to operate in this manner? The answer, we believe, lies in Tata's successful alignment of strategy to their internal RPV.

From a resource perspective, Tata's plan to leverage the India's pool of inexpensive labor and utilize the small service shops which exist in remote locations to manufacture and assemble the Nano are great examples of aligning strategy with capabilities. Each of these examples demonstrates the importance of tailoring available resources to the needs of the market, which in essence enabled them to keep costs down. If a developed MNC automaker had attempted to build the Nano, their RPV would likely have guided them to utilize elaborate automation, which is capital intensive and would overlook a key resource – inexpensive labor. Additionally, they would have likely attempted to develop a vertically integrated supply chain with the typical dealer network present in developed markets, which again, would have caused them to spend more, further increasing the cost of the car.

Tata was also very successful in aligning their internal processes with their strategy as well. The processes required to develop the Nano were a significant departure from that typically required to develop an automobile in a developed market. From Tata's utilization of suppliers as innovators, to the focus of function driven requirements rather than optional feature driven requirements to keep costs down, all of Tata's processes directly reflected their core competencies. Rather than relying on historical big car company competencies like engines, drive trains and performance, the Nano development team required highly tuned integration and collaboration competencies. Tata did not view themselves as a car company that could deliver a technically superior product to the market to compete with the likes of BMW, Toyota or Volkswagen. Instead they were driven to be the company that could deliver an acceptable level of technology at a much cheaper price point (Honeywill, 2008). Given this mentality and realization of core competencies, it is no wonder they created significant relationships with their suppliers as part of the Nano project. They truly put the technology ownership on their suppliers and focused on what they do best - integrating components into an automobile that can be delivered for a cost which can't be achieved by their competitors.



From a values perspective, the approach was no different. Tata Corporation has historically been touted as key promoters of community and the betterment of India as a whole. Tata has always operated in a philanthropic manner, donating approximately two-thirds of its profits back to the communities where they operate their businesses (Kumar, Mohapatra & Chandrasekhar, 2009). For the Nano project, these values were instilled in both the initial vision and development strategy. Ratan Tata's vision to replace the family carrying two-wheelers with safer four-wheeled automobiles is a direct reflection of Tata's intent to improve the standard of living in India. This is a significantly different approach than would typically be supported by global automaker's RPV which would likely require more benefit to the stakeholders than the community as a whole. Additionally, Tata's values aligned well with the Nano's projected low profit margin, high volume strategy, which again would likely not be accepted in the case of developed automakers whose RPV would have them focus on higher profit margin, incremental growth products.

Finally, Tata's continued commitment to deliver the car for \$USD2500 resembles a value that likely would have been abandoned by an MNC automaker. Tata was willing to make all the necessary trade-offs in the design phase to assure that the car could be delivered at the \$USD2500 price point that would enable the masses to afford the Nano. This is a distinct diversion from MNC car manufacturers values which likely would allow the target price to creep up to add all of the features commonly available on models which exist in developed markets.

Overall, the continual focus on alignment of RPV to emerging market conditions outlined above separates the Tata approach from global automakers whose RPV are more representative of Red Oceans. Given the distinction in RPV characteristics and market conditions, it is fair to suggest that Tata's strategy is more representative of a Blue Ocean<sup>3</sup> Strategy (Scanlon, 2009). The term 'blue ocean' is an analogy to describe the wider potential of market space that is vast, deep and not yet explored (Kim & Mauborgne, 2005). Blue Ocean strategies require that firms execute a different "strategy canvas" which is unique from the dominant business model already existing in an industry. This is precisely what Tata did with the Nano – they took a completely new strategic approach to develop a car for a price point which created a new market segment that previously had not been explored.

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<sup>3</sup> Again from Kim & Mauborgne, "It is the whole-system approach that makes the creation of blue oceans a sustainable strategy. Blue ocean strategy integrates the range of a firms' functional and operational activities. In this sense, blue ocean strategy is more than innovation. It is about strategy that embraces the entire system of a company's activities."

## Tree Analogy

If we develop a metaphor of a tree to illustrate a given business in a given market (see Figure 1.4 below), we see that its roots are deep in the culture of the market with influences related to society, government, language, education and infrastructure. From that “soil” grows the unique RPV (the trunk of the tree) that interact and give shape to core competencies which create value via development and deployment of a business strategy (branches) tailored to the opportunity. The strategy is unique to the market and “evolves” via survival of the fittest into a model that best suits the environment based on the nature of the soil. A tree that survives in the red ocean of the US car market might not survive in the blue ocean of India because it has a set of RPV factors tailored to one type of soil and climate.

This illustration can be extended by considering the inability to simply transfer managers from Detroit and have them develop strategies that would succeed in India. That would be equivalent to cutting off a branch and grafting it to a tree in India. Branches survive based on unique RPV, and likewise, the managers from Detroit have the wrong resource skills, processes and values for success in India. These new RPV must be adapted to the soil and climate of the target market where a different strategy is required.

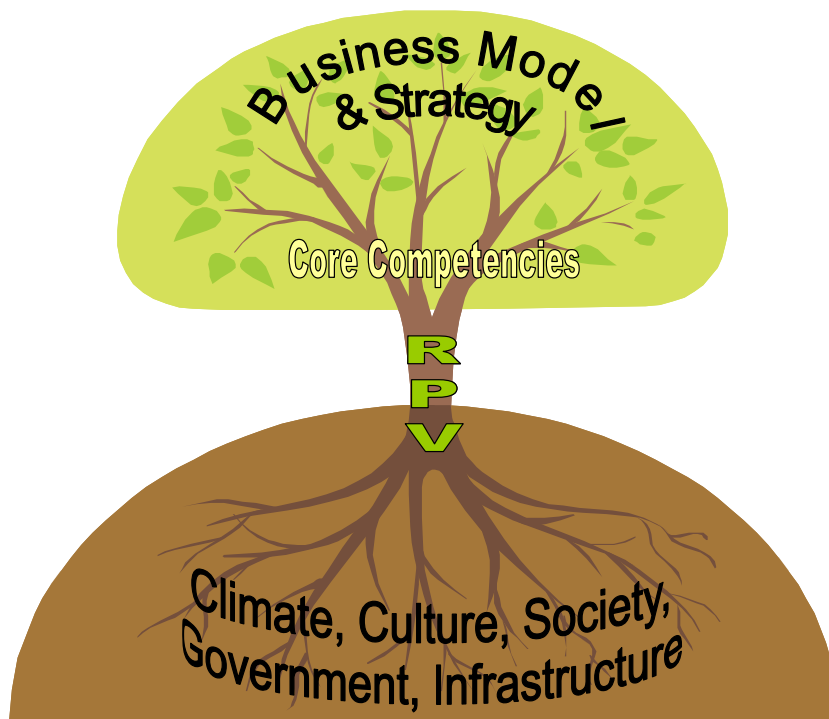


Figure 1.4: Illustration of Business Model Tailoring to Environment

## Capstone Hypothesis

Overall, the Nano project represents a strong example which emphasizes the importance of aligning the company's RPV and core competencies to the climate which exist in an emerging market. This is similar to the analogy of the having the right tree in the soil. Our belief is that this is a critical factor required for MNCs to achieve success in these new markets. We believe the findings from the comparison of Tata to global automakers represent empirical evidence indicative of the larger differences between developed and emerging markets. With that, our research hypothesis is the following:

*The traditional stock of resources, processes, and values that allowed MNCs to successfully develop products for developed markets, do not assure that the same firms will have success in emerging markets. The required set of RPV for emerging markets is vastly different than those in developed markets.*

To further prove this hypothesis, we will evaluate numerous other successful product development efforts in emerging markets. We will evaluate if the strategic approaches exhibited in those successful efforts correspond with those that Tata used to develop the Nano. We will look for both positive and negative correlations to support or disprove our hypothesis.

## Research Methodology

In the second half of this report we will examine specific emerging markets and other MNCs in order to identify the changes required to enable success in bringing new products into the emerging market. The secondary research will consist of reading academic journals, business magazines, and books focusing on developing new products for emerging markets.

Primary research will consist of selected interviews with experts on the subject, and with executives from MNCs who have responsibility for emerging market strategy. This first hand research should represent real and meaningful feedback related to a topic that will likely have significant impact on those corporations' long term strategic growth.

The intent is to use critical thinking and reflection of the information gathered through primary and secondary research sources to augment existing theory. Our objective is to determine what it takes to develop a profitable presence in emerging markets from the technology development, engineering,

manufacturing and commercial perspectives by evaluation of approaches and outcomes in the MNCs studied. Our observations will be used to test our hypothesis and suggest adjustments to MNC strategy to increase chances of success in the emerging markets.

If our hypothesis is correct, changes to a firm's RPVs are required to assure long term strategic success in emerging markets. A framework tailored to emerging markets will be proposed which will prompt MNCs to evaluate current approaches and changes required. An underlying assumption to this work is that common trends exist related to success factors for new product development for emerging markets.

Our research will focus on consumer products targeted at the working middle class in India and China. We will avoid products related to staples, services and infrastructure, and we will also stay away from third world/ bottom of the pyramid situations. Furthermore, Brazil will be excluded from our research since it is currently a much smaller market, and Russia will be excluded because market access is unique and complicated. Finally, our point of view will be on the long term and not on short term market entry strategies.

We feel that this work will contribute to the state-of-the-art knowledge associated with new product development. Although literature provides much data relative to emerging markets and encouragement to develop strategies to capitalize on these opportunities, very few experts actually suggest strategies. Furthermore, we hope to add to the knowledge base by not only assessing fit, but providing suggestions on how to develop a strategy in the absence of fit. Our Capstone is intended to identify what it takes for MNCs to develop a profitable long term presence in an emerging market; specifically, a sub-set of the "BRIC" countries identified by Goldman Sachs as having the potential to become larger than the G6. As part of this effort, we plan to determine whether or not companies without indigenous manufacturing, R&D, Engineering and Commercial functions have the ability to succeed in emerging markets. Finally, this work should enable a corporation to determine the management approaches required to increase the potential for success in an emerging market.

## Chapter Two

### Successful MNCs in Emerging Markets

Our in-depth evaluation of Tata's approach in introducing a low cost car into the Indian market shows a significant departure from the strategies of global automakers. The difference in strategies can be further broken down into the RPV framework. The Tata Nano RPV framework was different from the global automakers. Take for instance the platform driven approach of the global automakers. It has a relatively high fixed cost which drives the base car price. To meet the low cost goal, global automakers began de-featuring the car by reducing accessories to meet the cost target. As Carlos Ghosn soon realized, this is a futile attempt. The Nano instead took a new approach by having a clean slate and working backwards from the low price point in driving manufacturing, technology and components decisions. This example alone shows the differences between Tata and global automakers strategies.

Due to historical precedence, MNCs have successfully refined their strategic framework to thrive in developed markets. On the other hand, emerging markets represent a new "playing field" with an entirely different set of rules. Based on the detailed comparison between Tata and the global automakers, we are beginning to see several divergent traits. Our hypothesis assumes this divergence represents a different set of rules for emerging markets and is best represented by using a RPV model. The RPV model is especially insightful in comparing and contrasting organizations as it highlights the alignment between resources, processes and values to the market place. By assuming that Tata represents traits needed to be successful in emerging markets, we can now compare and contrast the RPV of developed markets. The RPV of developed markets are derived from inferences from global automakers and lessons taught in the MPD program. The RPV comparison is shown in Table 2.1 and discussed in following paragraphs below. In describing the developed markets, we will use the example of the global automakers.

	Developed Markets (DM)	Emerging Markets (EM) as represented by Tata
<b>Values</b>  The criteria by which the firm makes decisions. The standards by which employee's judge which reflect the company culture, cost structure and business model.	Varying price points with preference for short term, high margin & high ROI opportunities.	Price point tailored for economic conditions of the local target market and tolerance for long term ROI (Return on Investment).
	Driven to meet Wall Street expectations.	Monetary motivation balanced with altruistic national aspirations and social needs.
	Methodical market research and analysis of the opportunity is completed (and is possible) due to existence of data.	Market needs sensed through means such as customer immersion and/ or observation; data does not pre-exist to validate opportunity.
	Prefer to pursue risk adverse opportunities.	Higher tolerance for risk given large opportunity.
<b>Processes</b>  The patterns of communication, interaction & coordination through which employees transform inputs into things of greater value. Processes describe how work really gets done in the firm and can be broken down into three types: <ul style="list-style-type: none"> <li>• Formal: Documented processes</li> <li>• Informal: Habitual routines</li> <li>• Embedded: Routines which employees unconsciously follow.</li> </ul>	Product design driven by optional features and cutting edge technology.	Product design fulfilling local market needs and "Good enough" specifications.
	Organic internal technology development derived from scientific research and historical experience.	Technology development and transfer through partnership.
<b>Resources</b>  The collection of assets used to create value, that can be changed more readily than processes or values:  Tangible: People, equipment, technology, facilities, mineral deposits, cash Intangible: Brand equity, customer and supplier relationships, intellectual property	Global brand well known for differentiated products.	Local brand well known for addressing local market needs and contributing to improving the standard of living in the EM.
	Complex, well developed supply chain and business infrastructure - typically based on "lowest cost wins" approach.	Under developed, fragmented supply chain and business infrastructures - often based on relationships.
	Highly specialized engineers with in-depth knowledge of a specific engineering/scientific function.	Engineers with skills in applying existing technology, cost reduction and accustomed to local needs.
	Trend towards use of capital intensive automation or skilled labor	Leverage low cost labor and relatively low capital investment
	Government and regulatory policy conformance are crucial for success.	Personal relationships with government, regulatory agencies and society are crucial for success.

Table 2.1: RPV framework for emerging and developed markets.

**Values:** From values standpoint, Nano represented a low price point target car for Indian market. It is tailored for the economic conditions of the local target market. The company expected to make profits through high sales volume and have tolerance for long term ROI. In contrast, global automakers are not willing to reduce the price to achieve the level of Tata's profit margin. Their emphasis tends to be

towards higher profit margin either through higher sales pricing or emphasis on efficiency through automation. As stated earlier, the relatively high fixed cost of the platform based approach drives the car base price. Tata also differs from the global automakers in the purpose of the enterprise pursuit. When Ratan Tata envisioned the Nano low cost car, he not only saw a product that would make money for his company, but he also aspired the product to elevate the living quality of Indian working middle class and cultivate local entrepreneurship. In contrast, global automakers (especially publicly traded companies) have tremendous pressure to deliver strong financial earnings. Meeting altruistic national aspirations and social needs, though important, are secondary to the primary objectives of making money.

With very little market information on such low price point car, Nano also represents a sensed needs market judgment. Ratan Tata saw such needs and, along with it, took considerable risk given the USD\$2,500 price goal was set by an “off the cuff” statement made while Ratan Tata was interviewed. This approach would have been difficult with global automakers, as they would prefer to do a methodical market research and out of it, pursue a risk adverse opportunity. This explains why global automakers tend to release incremental breakthrough cars.

**Processes:** The processes between Tata and global automakers differed significantly. Tata began the Nano design by fixing the low price point. Then they made decisions through design, material selection and manufacturing methods that would meet the established price. Due to the low price point, Tata focused on functional aspects of the car with “good enough” specification that met the local market needs. In contrast, global automakers focused their product design on features and technology. To ensure technology delivery, global automakers usually have organic R&D derived from detailed scientific research. Tata, on the other hand, did not have the luxury of the global automakers and relied on their partners, including suppliers for technology.

**Resources:** Due to the different business environment, Tata and the global automakers make different choices around resources. Tata is a well-known established brand in India known for addressing local market needs and contributing to improving the standard of living of the country. Locals also see Tata as a proud homegrown brand with global aspirations. Global automakers’ brands carry a different prestige compared to the Tata brand. Their brands are respected for global market leadership and well being known for premium or differentiated products. These well-known global automakers’ brands have flourished in well established markets common to developed countries. For instance, the global

automakers can rely on an extensive and comprehensive supply chain including their network of car dealerships.

On the other hand, Tata operates in a market where its infrastructure is still under development. For instance, in absence of car dealerships, Tata sent Nano “kits” to many small localized dealers which will be assembled directly for the customer at their designated pickup location. This was made possible by engineers who are cost conscious and familiar with the local market conditions. The availability of low cost labor gravitated Tata towards establishing low capital investment in the manufacturing facilities. Global automakers not having the low cost labor pool instead pursues capital intensive automated factories that employ highly skilled labor. The focus on product design driven by features and technology also takes advantage of the availability of highly specialized engineers with in-depth knowledge of a specific engineering or scientific functions.

Nano also highlights the relationship challenges companies will face in emerging markets. Although Tata obtained legal rights for the plot of land for manufacturing, they faced criticism from the local farmers. The farmers were unhappy with the low monetary compensation of sold land and concerned about the “Western” culture Tata would be bringing to their city. Global automakers also face challenges in dealing with government, regulatory agencies and society. However, in developed markets there are policies and guidelines in place that reduce the uncertainty. Thus, companies serious about succeeding in emerging markets must work hard to understand, appreciate and establish strong personal relationships.

In the next step, we will extend the in-depth analysis to include other MNCs that have shown success in emerging markets. The purpose is similar to our approach in studying Tata Nano; to identify traits in the form of RPV that distinguishes their approach in the emerging market. In this investigation, we included both global and indigenous MNCs for the following reasons. By studying successful MNCs in emerging markets, we could identify the struggle the organization had to face in adapting itself to the new market environment. We did not exclude indigenous MNCs as they represent another opportunity to study successful organic growth of an organization in their own market. It also provides an opportunity to contrast approaches taken by all of the successful MNCs. The team agreed to analyze six MNCs companies which meet the established the set of criteria below:



- Year 2008 sales revenue must exceed \$4.6 billion, which qualifies them as a Fortune 500 company
- Percentage of sales from emerging market must be at least one-fifth of total revenue.
- Demonstrated continuous engagement in emerging markets for at least 10 years.

With the established guidelines, we have identified six MNCs companies in Table 2.2; five Western and one Chinese.

Company	Corporate Headquarter	EM Product	Total Sales	% Sales from EM	Entry Year
General Electric	United States	Medical Devices	\$182 Billion	~ 25%	Late 1980's
Haier	China	Home appliances	\$17.5 Billion	~ 35%	Late 1980's
Nokia	Finland	Handheld communication devices	\$50 Billion	~35%	Mid 1990's
PepsiCo	United States	Beverages & snack foods	\$43 Billion	~30%*	1970's
Caterpillar	United States	Commercial heavy equipment	\$51.3 Billion	~30%	Mid 1970's
General Motors	United States	Automobiles	\$149 Billion	~ 40%	1990's

\*LAF = \$5.9; UKEU = \$6.4 (UKEU includes Russia; estimate 30% for Russia = \$1.9); MEAA = \$5.6; Total = \$13.4 = 31%

Table 2.2: Summary of six successful MNCs in emerging markets

### General Electric (GE)

GE is a well known and respected company with sales revenue totaling \$182 billion in 2008 (GE, 2008). Fortune magazine named the company in the Top 10 among "50 Most Admired Companies in the World" in its prestigious 2009 listings (Fortune, 2009). The company has a truly diversified portfolio in technology, media and financial services. Its product and services range from aircraft engines, power generation, water processing and security technology to medical imaging, business and consumer financing, media content and industrial products. GE is currently run by CEO Jeff Immelt who succeeded the charismatic Jack Welch when he stepped down for retirement in 2000.

When Jeff Immelt took over GE, he continued his predecessor's effort to invest in emerging markets. Opportunities in emerging markets are estimated to contribute up to one-fifth of GE's 2008 revenue and

its growth is expected to further accelerate (Reuters, 2008). It became one of the “Six-part Growth Processes” that he rolled out in the new corporate strategic framework (Bartlett, 2006). By emphasizing emerging markets as a high business priority, Jeff Immelt made it a critical value in the decision making of the company. The ramification of this new priority is clear particularly in the GE Healthcare division. Recently, the division announced that it has earmarked USD\$6 billion as part of its five-year global expansion drive in India (CNBC, 2009). The new commitment follows a long and consistent string of efforts ever since Jack Welch visited India in 1989 and opened the first R&D laboratory in Bangalore in 2000 (Roy, 2009).

However, GE faced tremendous challenges in their early efforts in penetrating emerging markets particularly in India and China. GE business leaders were accustomed to designing premium products that capture high profit margin for developed markets and were not cognizant of emerging market needs. In the early years when GE began selling medical systems in Indian market, they were unsuccessful. The price tag was too high for poor Indian hospitals and too complicated to use. Similar failures occurred with the early ultrasound machines sold by GE in China during the 1990s. The ultrasound machine produced high resolution images but was expensive and bulky in design. As suspected, both machines were originally designed in developed countries where performance mattered most. However in emerging markets like China and India, “price mattered most, followed by portability and ease of use” (Immelt, Govindarajan & Trimble, 2009).

Recognizing their mistakes, GE reinvented their approach in entering emerging markets. The company became more aware of the need to create value driven product features and pricing. GE Healthcare India began to offer lower price point medical systems by refurbishing old equipment. The company also appealed to doctors who travelled frequently by introducing laptop machines (Jain & Harris, 2008). In China, GE took a more radical approach by redesigning the ultrasound machine resulting in cheaper price point. Its performance was not as high but good enough for simple applications such as detecting enlarged livers, gallbladders and stomach irregularities. The product was an instant hit with Chinese doctors not only for the reasonable pricing but the emphasis around portability. Since the company launched the product globally, sales have increased from \$4 million in 2002 to \$278 million in 2008 (Immelt, Govindarajan & Trimble, 2009).

The recent successes of GE in India and China highlight another important subtlety of emerging markets. For MNCs to be successful in these markets, they must balance their monetary motivation with the country national aspirations and social needs. In a country with more than ninety percent of the population still relying in poorly funded and low tech hospitals, Chinese doctors must often travel to these rural outposts to treat their patients. So when GE introduced the compact ultrasound machine in China, it fulfilled not only the needs of the doctors but also accommodated the China national healthcare infrastructure (Immelt, Govindarajan & Trimble, 2009). GE also learned that they must be sensitive to the country cultures. They got into trouble with scandals involving Indian doctors misusing the company ultrasound machine to determine the sex of the unborn baby. The illegal usage of ultrasound has been linked with an increase in abortions of baby girls. Indian healthcare officials have derided the company for aggressively promoting the product without regard to the moral ramifications of the technology usage. GE has responded by working with healthcare officials to develop a stringent sales policy around ultrasound in India (Jain & Harris, 2008).

GE is also making radical efforts in transforming their resources to be successful in emerging markets. One good example is how they structured the emerging market organizations. Conscientious of the enormous growth potential of ultrasound products in China, Omar Ishak, who is the President of GE Healthcare Systems, had the local product development China team reporting directly to him. It created an anomaly within the division as the small China team had not yet produced any significant sales. However, the direct reporting structure to Ishak enabled him to protect key resources within the team from being diverted to other more profitable business units. Under his watch, the China team expanded from 132 to 339 employees in 2007, and, more impressively, the number of engineers increased by five times during that same period (Immelt, Govindarajan & Trimble, 2009).

Ishak went one step further by giving broad authority to the GE China team, enabling creation of their own organic business structure ranging from sourcing, manufacturing, marketing, sales and service (Immelt, Govindarajan & Trimble, 2009). This enabled them to develop processes and assemble resources to match the country needs. For instance, the China team recognized that doctors in rural China were less familiar with the medical equipment that GE was selling compared to doctors in rural cities. In response, they developed sales and service strategies by emphasizing training, offering online guides, designing simpler keyboards and created built-in presets for certain tasks. The GE China team also created its own built in-country teams instead of relying on the company global customer support

and replacement parts organizations. In respect to time to market, Ishak shortened the product development cycle as China government approval is less intricate than wealthy countries. All these decisions have enabled GE to be nimble and cost effective in China (Immelt, Govindarajan & Trimble, 2009).

In meeting the emerging market challenges, GE recruits heavily from local workforce. This approach is not only practical from cost standpoint as local employees including engineers demand lower salary but these resources also have expertise absent in developed countries. In the compact portable ultrasound development in China, GE was able to hire engineers with a deep knowledge of miniaturization and lower power consumption, and a commercialization team well versed in health care in rural China. However, these local resources usually lack deeply specialized technical knowledge available in developed countries. For the compact ultrasound machine development in China, Ishak tapped into GE's vast global R&D resources and was able to obtain three highly respected development engineers from Israel, Japan and South Korea. They bring highly specialized skills not available in the China team. The combined technical talent and well funded R&D budget (\$15 billion for 2008) enabled them to launch a dramatically cheaper ultrasound model in China (Immelt, Govindarajan & Trimble, 2009).

A smaller and less resourced company would not have been able to pull this off. Another "upper hand" that GE has in being successful in emerging market is their strong brand name. BusinessWeek in its 2008 ranking, named GE the fourth most valuable brand in the world (BusinessWeek, 2009). The strong branding helps GE enormously in creating an effective presence among the public, businesses and government officials in the emerging countries in which it operates.

## **Haier**

Haier company is one of the largest home appliance manufacturers in the world with sales revenue totaling \$17.5 billion in 2008. The company started from humble origins as a failing China state owned enterprise and was later turned around by Haier founder; the charismatic Zhang Ruimin. Today the company's four leading product categories including refrigerators, refrigerating cabinets, air conditioners and washing machines captures over 30% of the China market. In overseas markets, Haier products are available in twelve of the top fifteen chain stores in Europe and ten leading chain stores in the USA (About Haier, 2009). Haier is also working to extend its market leadership in the technology domains of

intelligent integrated home furniture, networked home appliances, digitalization, and large scale integrated circuits.

One of Haier's unique characteristics is it currently represents one of only a few Chinese indigenous companies that have broken out to become a global competitor. Their success is made possible by the strong values instilled by Zhang Ruimin. When Zhang took over debt ridden Qingdao General Refrigerator factory in 1984, he quickly fostered the importance of high quality products as a key value among its employees (Paine, 2001). Frustrated that his initial effort was not gaining momentum, he pulled out 76 flawed refrigerators and ordered employees to smash them. The example sent a strong message to the employees that quality cannot be compromised. The lessons in emphasizing quality are still continued today. In daily morning production briefings, supervisors will call out the names of the employees who had made the most mistakes the previous day and lecture them in front of everyone (Newsweek, 2005). Haier's emphasis on quality is an abnormality among Chinese products which are known only for their low price point.

Haier's focus on quality differentiated them from about 300 refrigerator manufacturers when the company started in 1984. Customers were frustrated of unreliable competitor refrigerators and flocked to buy Haier's when it was first introduced in three Chinese major cities. In the second year, Haier's profit reached RMB 1 million; an impressive accomplishment for an indigenous Chinese company. Throughout the four years of explosive growth, Haier resisted mass production while continuing to focus on delivering quality. More impressive, Haier was able to command a 15% price premium even though the refrigerator market tanked in 1989 (Palepu, Khanna & Vargas, 2006).

Another one of Haier's unique values originates from its indigenous origins. Being a former government enterprise entity, Zhang has to meet the delicate needs of the corporation to make profit while also fulfilling the social needs of its employees and pleasing government officials. Collective enterprise has clear obligations to the Communist Party; however, for former large collective enterprises like Haier, the laws governing relationships between the entity management and politicians becomes murky. In absence of defined relationships between entity and government, established customs and negotiations with local politicians become the default approach. This makes Zhang's job difficult as he must serve the needs of municipal government even though he is no longer a government administrator of Haier. "He could be fired under the pretense of various excuses such as poor profitability, labor disputes or

mismanagement of funds. Zhang summarize this best with the following remark, "You have to have three eyes: one on the market, one on workers, and one on the government" (Palepu, Khanna & Vargas, 2006).

Other than obligations to the government and employees, Zhang made it a priority to be a good citizen. He felt that the company role should not only be to make profit, but also must be able to "repay the society and better human life" (Paine, 2001). As the company grew, Zhang initiated many projects geared towards sustainable and environmentally friendly products. He began research and development on a green refrigerator; a CFC free, low energy consumption model designed in cooperation with the U.S. Environmental Protection Agency. At corporate level, he made the manufacturing of environmentally friendly products a new goal for Haier. The company was also active in the community, making significant commitments in "sponsoring education programs including funding primary schools for impoverished children, educational cartoons and popular children science magazine" (Paine, 2001). The altruistic value held by Zhang seems especially similar to the values expressed by Ratan Tata when he introduced the Tata Nano. Both see their product creations not only as means of achieving monetary gains but also as alleviating the living standards of their people.

Haier has refined its internal processes to understand and meet the salient needs of its customers. For instance, the company's 42 distribution centers throughout China were given enormous latitude to operate as independent sales companies. This unique arrangement creates a very responsive organization to the needs of the customers. As an example, Haier developed a new washing machine to wash not only clothes but also sweet potatoes and peanuts. For western customers, this seems highly unusual; however, the unique product line satisfies the needs of rural farmers who see washing machines as dual purpose. A similar approach was taken by Haier in designing a refrigerator with a special compartment for pickling Korean kimchee cabbage. The company recognizes Korean's obsession with the pickled cabbage and designed a product to meet their unique needs (Palepu, Khanna & Vargas, 2006).

Through listening openly to the feedback of customers, Haier was able to create 96 product categories and 15,100 customized specifications (Palepu, Khanna & Vargas, 2006). Haier executives contend that they were able to offer so many varieties and still keep cost down by maintaining modular product architectures. To do this, Haier also relied on their current design and R&D center. This in-house

capability originated through infusion of foreign technologies into the company. A good example was Haier's early partnership with Liebherr-Haushaltsgerate of West Germany. Haier offered Liebherr-Haushaltsgerate sales channel access into China in exchange for West Germany modern refrigerator manufacturing technology. A similar partnership was struck with Mitsubishi of Japan for licensing their refrigeration technology (Paine, 2001).

In terms of resources, Haier has established 29 manufacturing bases, eight comprehensive R&D centers, and 19 trade companies throughout the world (Haier, 2009). In 1990, Haier set up a service center in Qingdao that used a computerized system to track tens of thousands of customers. Haier also possesses a highly efficient distribution system. Unlike other Chinese indigenous companies, Haier adopted a vertically integrated distribution system. The system integrates every supply chain from purchasing, raw materials delivery and product distribution. To maintain the cost of covering the large geographic distance of China, the company developed a JIT (Just-In-Time) inventory management system (Palepu, Khanna & Vargas, 2006). Of all Haier's resources, the most important is the company brand image. CEO Zhang has worked tirelessly to build a brand based on unrivaled quality and customer service.

Zhang's dedication is paying off by the various recognitions the company has received. IDG (International Data Group) and RBI (Reed Business Information) ranked Haier 18<sup>th</sup> among "2008 Global Top 50 Consumer Electronics Brand" and 1<sup>st</sup> for the third time in a row in "2008-2009 Top Brands" from China (Reuters, 2009). Despite the accolade of global rankings, the most important are the stories of loyalty among Haier's customers such as the one from taxi driver Chu Xiaoming. Chu called Haier's customer hotline half-heartedly to fix his 10 year old Haier refrigerator that broke down. To his surprise a uniformed serviceman showed up on his doorstep the next day and fixed the refrigerator for less than USD\$36; a relatively small sum (Palepu, Khanna & Vargas, 2006). It is this base customer loyalty that continues to fuel Haier's growth.

## **Nokia**

Nokia is the world's leading maker of mobile devices and a pioneer in mobile telecommunications. In 2009 it was recognized as 5th most valued brand in the world, and in 2008 Nokia had net sales

exceeding USD\$50 billion and employment of approximately 125,000 people world-wide (Nokia Now, 2009).

A large factor in how it attained this status was growth in emerging markets (primarily India and China) where it obtained approximately 35% of its total revenue in 2008. Nokia started out in telecommunications in the 1980's by developing and manufacturing products for both the European markets undergoing deregulation, and for mobile networks which were becoming global. In 1987 the Global System for Mobile communications (GSM) was adopted as the European standard for digital mobile technology, and in 1991 Nokia equipment was used to make the world's first GSM call (The Move, 2009). In 1992, Nokia made one of its most important strategic decisions in its history and decided to focus on its telecommunications business, and it became the world leader by the end of the decade (Mobile, 2009). "After the strategic change of 1992, Nokia saw a huge increase in sales to North America, South America and Asia" (Leading, 2009). In 2005, the billionth Nokia phone was sold (Nokia Now, 2009), and approximately one in three phones in use today is a Nokia phone (Our Commitment, 2009).

In 2005, both Nokia and Motorola were poised for growth in emerging markets, being described as "the only serious contenders in this segment", and that "as the world's No. 1 and No. 2 makers, respectively, they're the only companies able to churn out ultra-cheap phones with the features, quality, and brand names customers want" (Reinhardt & Johnson, 2005). Also in 2005, it was suggested that EMs could be "gold mines" for companies that go downscale, and that Nokia and Motorola had models priced under \$50 with expectations of growing 100% annually for the next five years (Reinhardt & Johnson, 2005). But by 2008, Motorola dropped to fourth place (Ihlwan, 2009). Why?

In 2004, the developed world had 60% cell phone penetration; therefore, this drove an expectation in Nokia that 80% of new customers would be from EMs. This belief became a criteria by which they made decisions (a "value"), and they cut costs to enable profits on revenues of \$10/ customer (Reinhardt, 2004). Values reflect a firm's business model and this could be seen in 2006 with the aggressive promotion of phones costing as cheap as \$35 as part of their global emerging-market strategy, since it was clear that falling handset prices play a big part in making mobile phone use affordable (Balfour, 2006). The decision to push into India, China and other emerging markets was a key in sales success with over 60 million mobile devices sold in the fourth quarter of 2006 – more than



half of the devices sold worldwide (Norton, 2007). But, by 2007, further price declines rocked Motorola, whose values and business model caused them to focus too heavily on the highly popular midrange "RAZR" without finding a similar hit. Nokia could also better withstand price declines because of its sheer size, and because it made decisions to spread its risk more widely across product lines (Norton, 2007). Through diversification of its products (having a lineup of some 100 models) and increasing its geographical reach, Nokia was less vulnerable to shocks than it was previously (Ewing, 2007, Jul 20) (Norton, 2007). Nokia's values also drove decisions to accumulate USD\$9.5 billion in cash and practically no debt, so it can invest far more than rivals on developing new products or conquering new markets -- and thus build even more intimidating economies of scale" (Ewing, 2007, Jul 20).

"Nokia relies on a strong corporate culture and the company values: customer satisfaction, respect for the individual, achievement, and continuous learning. Their management approach – the 'Nokia way' - comprises the Nokia values, its organizational competencies, and its mode of operation and processes used to maintain operational efficiency" (Masalin, 2003). Nokia is characterized by a fast, flexible, and networked organization that emphasizes understanding the market to get winning foresight, and effective execution. Value-based leadership is key with leaders possessing speed, openness, integrity, humbleness, accountability, and responsibility as well as embracing teamwork, empowerment, and efficient process thinking (Masalin, 2003).

It is easy to see how Nokia's values drove the establishment of world-class processes in product development, manufacturing and distribution which further enabled it to maintain its business model emphasizing good profit margins while shifting to low-cost phones. Operating profits in the first quarter of 2007 were 16.8% on mass-market mobile phones compared to 18.8% for high-end multimedia devices. "Nokia makes money at the low end because of its superefficient supply-chain and manufacturing systems. It also keeps costs and complexity under control by sharing components among devices and designing phones that have fewer parts than competing models" (Ewing, 2007, Jul 20). This pushed Nokia to the number one spot in AMR Research's 2007 survey of top supply-chain operators, which was ahead of both Toyota and Wal-Mart (Ewing, 2007, Jul 20).

But what also enables low cost manufacturing as well as sales is a good design process, and Nokia "has applied both a macro and micro focus to its design strategy across a spectrum of demographics, concentrating much of its effort on developing markets" ("Alastair Curtis", 2008). This has been enabled

by the creation of design centers in emerging markets which give designers and researchers the opportunity to dig into the local communities to yield products that address the needs and desires of the specific market. One example is a phone which can be shared among multiple users, has an easy grip design for high humidity situations, and a dust-repellent keyboard, as well as a flashlight for power outages ("Alastair Curtis", 2008). This illustrates a key part of Nokia's plan to add 2 billion new users by reaching out to emerging markets, including China, Brazil, Indonesia, Africa, and India. Their process begins with anthropologists and psychologists that spend time with people around the world to understand how they behave and communicate in order to spot early signals of new behavior patterns. All of these observations generate ideas in teams that look out five to fifteen years to identify megatrends, and to come up with concepts on what mobile design could do to influence and react to them. Also considered are long-term, societal trends in addition to short-term trends around colors, textures and fashions. Local and country-specific trends are identified and compared across countries to identify similarities in lifestyles and global trends (Lakshman, 2007).

Translating these findings into functionality is the next challenge of the design process. One of the barriers to communication in rural areas was cost and it resulted in the aforementioned sharing of mobile phones among villages or families. This opposes a basic assumption that a mobile phone is owned and used by one person, and it impacted the design. A new phone was developed that had a top priority of shared usage where each member could save contacts and numbers separately from others. It also has a call tracker to enable the setting of either a time or cost limit on calls. But the studies also incorporate other cultural and consumer findings. For example, they can include localized languages, and have a "demo mode" to enable a new user to quickly learn how to use the phone (Lakshman, 2007). In addition, they are designing address books that uses symbols instead of names since often people are semi-literate (Upbin, 2007). Furthermore, a couple of models were created just for China which use stylus input to handle written Chinese characters (Tan, 2007). Clearly, their process which includes the practice of "ethnography" is highly valued by Nokia to gain key customer insight.

Due to economies of scale and their highly tuned manufacturing and supply chain processes, even their entry-level phones offer extras for low-income customers, and it's what's helped to "generate sales in 2006 of USD\$3.7 billion for Nokia in India, making the company the market leader in the fastest-growing mobile-phone market in the world" (Ewing, 2007, May 4). "Meanwhile, Motorola's low-cost phone for

India has been a flop despite a USD\$35 price tag, in part because its limited features didn't convey a sense of status to potential buyers" (Ewing, 2007, Jul 20). "In these markets the brand is a very important part of what a mobile phone represents; it's how people express themselves" (Capell, 2007). In India, there's aspiration associated with the purchase and it has to project the right image, but in China it has to be the right bargain so pricing is important (Lakshman, 2007). Nokia's product development process enabled it to understand the different customers better than Motorola. In addition, phone quality and service after sale are highly valued and enhance the brand image. A farmer who came to the Nokia van to get his phone tuned up was quoted as saying, "My family members are all using Nokia," he says. "It's a very good-quality hand phone. You can drop it on the ground many times and it still works" (Tan, 2007).

But Nokia's initiatives for emerging markets extend beyond product innovation and manufacturing. It is also breaking new ground on its processes related to marketing, sales, distribution and service in emerging markets. During a visit to slums outside Nairobi, Nokia representatives learned that people will form clubs to buy handsets one at a time by pooling money, until eventually every member has one. Nokia is now developing ways to encourage this type of self-financing, knowing it has to explore many ideas in order to maintain sales growth (Ewing, 2007, May 4). Another example of a new process which is tailored to emerging markets is "eRefills" which decrease prepaid service administration costs while also boosting usage by cash-strapped customers who can purchase very small increments of airtime from street vendors.

The processes discussed thus far, that provide cost-effective value to customers, are not possible without the appropriate resources – the people, equipment, technology and relationships. For example, Nokia used new technology to reduce the number of required towers, as well as the expense of each tower, which enabled them to cut operating costs and lower the price of service. In addition to "eRefills" technology alluded to above, Nokia even provides a technology that allows conversion of voicemail to text to reduce usage of airtime for just listening. "Nokia has gone further than any company in pulling together a complete packing of equipment, software and services aimed specifically at less-wealthy countries" (Reinhardt, 2004).

Additionally, "The company has invested hundreds of millions of dollars building distribution systems and networks of retailers in developing countries, including vans that bump along the rural roads of India

between stops for instruction on how to use mobile phones" (Ewing, 2007, May 4). This is because emerging markets have a different sales model. Up to 90% of handsets in the U.S. and much of Western Europe are sold via operator-linked stores. But in China, for example, this accounts for only about 5% of sales, with the rest happening via independent retailers. Reaching deep into countries to develop relationships with resources, such as stores, requires substantial marketing spending and years of steady effort. Nokia, more than any other company, has managed to accomplish that in booming markets such as China and India. "Nokia is way ahead of anyone else in reaching consumers through these retailers" (Capell, 2007).

Nokia also reacted more quickly than Motorola in cutting its national-distributor resources and adding provincial distributors along with a large direct-sales force (Tan, 2007). In 2007, Nokia had 90,000 points-of-sale in India, and 40,000 in China for its phones, ranging from "makeshift kiosks" to modern stores. However, this presents challenges in the control of product display and pitch. Insight into rural India was accomplished via use of Nokia-branded vans that "prowl the rutted country roads" that are parked on market days to enable crowds to hear how the phones work and how to purchase them (Ewing, 2007, May 4). "You have to understand where people live, what the shopping patterns are," You have to work with local means to reach people—even bicycles or rickshaws" (Ewing, 2007, May 4). Nokia's RPV enabled it to have "an industry-leading operating profit margin of 25% on handset sales in the fourth quarter of 2007" and to be "one of the most efficient manufacturers on the planet" and be able to invest "more than \$8 billion in research and development last year" (Ewing, Ihlwan & Lakshman, 2008).

Moving forward, Nokia's values related to customer satisfaction, continuous learning and achievement have caused it to set its sites on becoming an internet company. Most new internet users will be from emerging markets and most of those will get online via a mobile device since computers require reliable electricity. Therefore, Nokia has an opportunity to "become synonymous with the Web much the way Google, Yahoo and Baidu are for millions now" (Upbin, 2007). Not many companies (if any) know more about how phones are used than Nokia. They intend to introduce devices and services to enable extension of the Web to rural Indians which provide email for those without access to a computer, and crop information for farmers such as weather, fertilizers and buying/selling advice (Ewing, 2008). Research has demonstrated that economic well-being is improved when there is access to telecommunications, and Nokia hopes to "enhance the economic impact of mobile phones on poor

users' lives by means of a new information service, Nokia Life Tools". There has been little relevant information to people who live in remote regions, and one useful service is to offer educational programs (Ewing, 2008). These objectives underscore the effectiveness of Nokia's RPV because its values keep the company making the right decisions for growth, while its processes and resources enable successful execution.

## **PepsiCo**

"PepsiCo offers the world's largest portfolio of billion-dollar food and beverage brands, including eighteen different product lines that each generate more than USD\$1.0 billion in annual retail sales." The main businesses - Frito-Lay, Quaker, Pepsi-Cola, Tropicana and Gatorade - make hundreds of products for consumers in over 200 countries, and in 2008, PepsiCo employed approximately 198,000 people, and had more than USD\$43 billion in revenues with ~30% from emerging markets (Corporate Profile, 2009).

The PepsiCo corporate website states that they believe in being responsible corporate citizens, with a vision of continually improving all aspects of the world in which they operate - environment, social, economic. They have a commitment to build shareholder value by making PepsiCo a truly sustainable company and the process by which they accomplish this is "through programs [with] a focus on environmental stewardship, [and] activities to benefit society". The phrase "Performance with Purpose" has been coined to demonstrate the value they place in both achieving business success and leaving a positive impact on society, while also striving for honesty, fairness and integrity in everything they do (Our Mission, 2009). Furthermore, the website states that "Our Values & Philosophy are a reflection of the socially and environmentally responsible company we aspire to be. They are the foundation for every business decision we make." They clearly understand that values drive decisions.

Further emphasis is given to six additional second level values: 1) Care for our customers, our consumers and the world we live in; 2) Sell only products we can be proud of; 3) Speak with truth and candor; 4) Balance short term and long term; 5) Win with diversity and inclusion; and, 6) Respect others and succeed together (PepsiCo Values, 2009). The values associated with "Performance with Purpose" enabled the establishment of the following processes and resources – many of which also support success in EMs:

- Committed >USD\$16 million to organizations working to bring safe water to developing countries
- Conserved nearly 5 billion liters of water and nearly 500 million kilowatt hours of energy worldwide in 2007 as compared to 2006
- Reduced PET bottles, paperboard, and corrugated materials by more than 20 million pounds (PepsiCo Progress, 2009)
- Launched the food industry's first Carbon Reduction Label
- Supported Educampo – a program designed by the Mexican Foundation for Rural Development to provide educational, technical, and financial support to small and mid-sized corn-producers in poor farming communities to reduce poverty, profitability, and sustainability of small-scale farming without the need for charity (Educampo, 2009).
- Tropicana 64-ounce container of Pure Premium Orange Juice is the first consumer product in North America to receive Carbon Trust certification (PepsiCo and Carbon, 2009)

These underscore PepsiCo's value relative to stewardship in the countries in which they do business, and this value has helped PepsiCo to achieve outstanding success in emerging markets. But significant presence versus its main rival, Coca-Cola did not occur until it made a decision in 1998 to concentrate on markets where it could prosper alongside Coca-Cola, rather than trying to defeat it. This decision caused PepsiCo to tune its processes associated with product development, promotion, sales and distribution to emerging markets. To that end it made additional moves off-shore, including the BRIC countries, with an adaptation to market differences. In addition, due to an observation that there are more similarities than differences in process operations around the world, they focused on standardizing best practices to improve the effectiveness and efficiency of operational process capability. "The common thread is doing an extraordinary job of managing our costs to offer the absolute best price at maximum profitability" ("Pepsi-Cola's international", 1998). But – the biggest priority remained on staying tuned into customers' needs in order to identify opportunities to steer the product design process.

PepsiCo's strategy was to focus on markets that were less developed, but with a lot of potential – particularly China and India. These markets have huge populations but low consumption of soft drinks (Madden & Chawla, 2000). Compared to the United States per capita consumption of soft drinks of 840 servings in 2003, China and India were less than 25 (Creswell & Schlosser, 2003). In 2000, Coca-Cola had control of China's carbonated beverage market with a 33% share for Coke, versus 13% for Pepsi.

However, the situation was different in India with Pepsi-Cola having a ~27% share, versus 10% for Coke (Madden & Chawla, 2000). There, one-third of the population was below age 18, and PepsiCo focused on “working our way into the skin of younger people”, while Coke “failed to cue into a new generation” (Madden & Chawla, 2000). For example, Pepsi’s marketing understood that “the Indian consumers like a blend, so its ads were in Hinglish or a mix of Hindi and English” (Madden & Chawla, 2000).

In addition to focusing its marketing on the younger generation, PepsiCo also launched a series of innovative products tailored to the tastes of the unique cultures. For example, “Chinese consumers have gobbled up the idea of “cool lemon” and cucumber-flavoured Lay’s potato chips in the summer, while enjoying stewed-meat, five-fish and Peking duck-flavoured ones in the winter” (Pooley, 2005). Furthermore, since cinnamon is considered to be a low-class ingredient, the company introduced fish-flavored Quaker Oatmeal in China (Pooley, 2005). Additionally, PepsiCo is planning to launch milk and soya-based drinks in India (“PepsiCo to concentrate”, 2008). Given the low consumption of carbonated beverages in emerging markets, PepsiCo’s foray into juice and water products (Tropicana, Aquafina, Gatorade, SoBe, Lipton, etc) in response to developed market trends, also helped it to gain ground in emerging markets.

In the midst of this growth, both Coke and Pepsi have faced brand damaging allegations about excessive levels of pesticides in their beverages produced in India (Jones, 2003), and regarding excessive water usage in countries with limited supplies (Bogomolny, 2004). Water is a key raw material resource for PepsiCo and there is an expectation that global brands “treat all consumers equally and honestly, regardless of location. It is widely recognised that a failure to do so will create a backlash” (Jones, 2003). Regarding the water shortage, Pepsi responded by helping to build a municipal well and reopened operations in a month; whereas, Coca-Cola’s plant was still down five months later at a cost of millions to the company (Bogomolny, 2004). The pesticide situation has been a bit more complicated. An anti-corporate group applied enough pressure after environmental tests showed soft drinks contained pesticide levels that exceeded proposed standards, that several Indian states banned the sale of Coke and Pepsi (Bremner & Lakshman, 2006). This was despite the fact that no Indian soft drink makers had been tested (Bremner & Lakshman, 2006), and that local tea and milk contained many thousand times the amount (Brady, 2007). In addition to that, the standards were only proposed and not yet formalized (Bremner & Lakshman, 2006). The situation is detrimental to India

overall because it needs investment in manufacturing to create jobs and improve the lifestyles of its hundreds of millions living in poverty, and this could detract investors (Bremner & Lakshman, 2006). It underscores the importance of not only securing raw material resources, but of also managing relationships as key resources in enabling a firm to create value.

The water situation in India is a particularly sensitive arena and it "illustrates an escalating global backlash against the ways multinationals consume natural resources" (Brady, 2007). In India this is exacerbated by the meaning that water holds for Indians – even though it has some of the worst in the world. But since soft drinks and bottled water comprise only <0.04% of India's industrial water use, the attention given to PepsiCo is because of what they represent, not what they use. Clearly perceptions matter. "What we don't want is for people to think that industry is taking out of the ground God-given natural resources and depleting that community of its livelihood or requirements for existence" (Brady, 2007).

Although PepsiCo has invested considerable sums in digging village wells (where people had to walk hours a day to get water), harvesting rainwater, and providing instruction in better growing techniques, its marketing strategy made things worse. They ran "splashy ads bursting with Indian celebrities" rather than promote their efforts to improve water and crops (Brady, 2007). Certainly, PepsiCo has had much action on this front that they could have promoted. For example, a bottling facility near New Delhi had reduced water usage down from 35 liters in 2005 to 8.6 liters in 2007 for each two-dozen 8-oz. bottle case (Brady, 2007). One of the world's largest public health problems is clean water, and nearly half the world's population will live in severe water stress regions by 2030 (Wright, 2009). If a firm wants to do business in those regions, then they need to have a vested interest in helping residents get good water, and PepsiCo has "has committed more than USD\$16 million to organizations working to bring safe water to developing countries" (Wright, 2009).

In addition, companies will engage local suppliers since their products depend on the agricultural supply chain, and both Pepsi and Coke have been working with Indian farmers for production of fruit for juice drinks. However, they may have to be patient for the efforts to positively affect sales (Lakshman, 2006). Furthermore, PepsiCo purchased recycled PET from an Indian firm which benefits the very poor people who pick through waste and have driven the recycle rate of PET in India up to 60% (Toloken, 2005).



PepsiCo has seemed to embrace the value that they have to do more than just conserve water in their operations. PepsiCo's CEO Nooyi, states "We have to invest, too, in educating communities in how to farm better, collect water, and then work with industry to retrofit plants and recycle." (Brady, 2007) The other benefit associated with this is that this activity provides favorable publicity which "serves as a great recruitment tool, aides employee retention, improves employee relations and boosts productivity." (Wright, 2009) Citizens appreciate it when a company puts part of its profit back into the community and it cements relationships with employees (Wright, 2009).

"The main point is that the bigger the company, the more vulnerable it is...sometimes as much as 50% of the brand value can disappear overnight" (Jones, 2003). This causes investors to question if the company they're considering investing in is positioned to address the social, environmental and governance issues that can affect performance (Bogomolny, 2004). The bottom line is that "socially responsible investing is gaining ground" (Bogomolny, 2004), and the company that responds to this will be more successful. The positive side of the pesticide and water situations is that it's created keen awareness within PepsiCo of the need to be socially and environmentally responsible and this has set the stage for even greater achievement.

Indra Nooyi took this situation seriously when she became PepsiCo's CEO in 2006, saying that "managing business results and social responsibility simultaneously is a delicate balancing act." (Lakshman, 2006). Much of the company's growth is from overseas where Pepsi gets about 40% of its sales of beverages, food and snacks (Saporito, 2007). In India, the colas that were once 60% of a USD\$1.7 billion soft-drink market were reduced to 50% (Lakshman, 2006). But India is a "cold-drink market" not a soft-drink market, and it's also been affected by Western health trends. In response to this PepsiCo is identifying ways to address high levels of fats, sugar and salt in snacks and drinks. "By emphasizing baked whole-grain snacks and vitamin-enhanced water, Pepsi can lead the industry's push toward better nutrition. That, she argues, would benefit not just consumers, but investors, too." (Brady, 2007) Nooyi is a global thinker and "performance with purpose" is her vision. "It's about sustainability on multiple levels: human, talent and environment" to create a better community. (Saporito, 2007)

After review of these situations related to pesticides, water usage and agriculture, it's easy to see how PepsiCo developed its values and six guiding principles around being socially and environmentally responsible. Clearly, values around sustainability have driven processes to develop products and

resources tailored to success in emerging markets, and its desire to achieve business success keeps the company pressing forward with additional investments.

Moving forward, PepsiCo recently announced its largest investment in China in the ~30 years that they've been in the country. The USD\$1.0 billion commitment over four years is aligned with its strategy of investing in high-growth emerging markets ("PepsiCo to invest", 2008). The funds will be directed at developing resources and used to "expand manufacturing, R&D, sales force, brand-building and new products tailored to the Chinese market". Additionally, PepsiCo will "expand its efforts in China to promote environmental sustainability, particularly related to local agriculture and resource conservation, and to support community-focused programs" ("PepsiCo to invest", 2008). Finally, PepsiCo has committed to investing USD\$1.0 billion in Russia over a three-year period (Bauerlein, 2009).

## **Caterpillar**

With 2008 sales of USD\$51.3 billion, Caterpillar is regarded as one of the leading manufacturers of commercial construction, mining, and power equipment in the world (About CAT, 2009). Established in the mid 1920's, Caterpillar has become a truly global company playing a huge role in building the infrastructure in many countries throughout the world. Their large product line includes numerous models of construction and mining equipment, diesel and natural gas engines, and industrial gas turbines. Additionally, the company consists of numerous service groups including Cat Financial Services, Cat Remanufacturing Services, Cat Logistics Services and Progress Rail Services. Caterpillar operates in more than 50 countries globally, with more than 60% of their total revenues coming from markets outside of North America (About Cat, 2009). Figure 2.1 below illustrates their 2008 geographical sales.

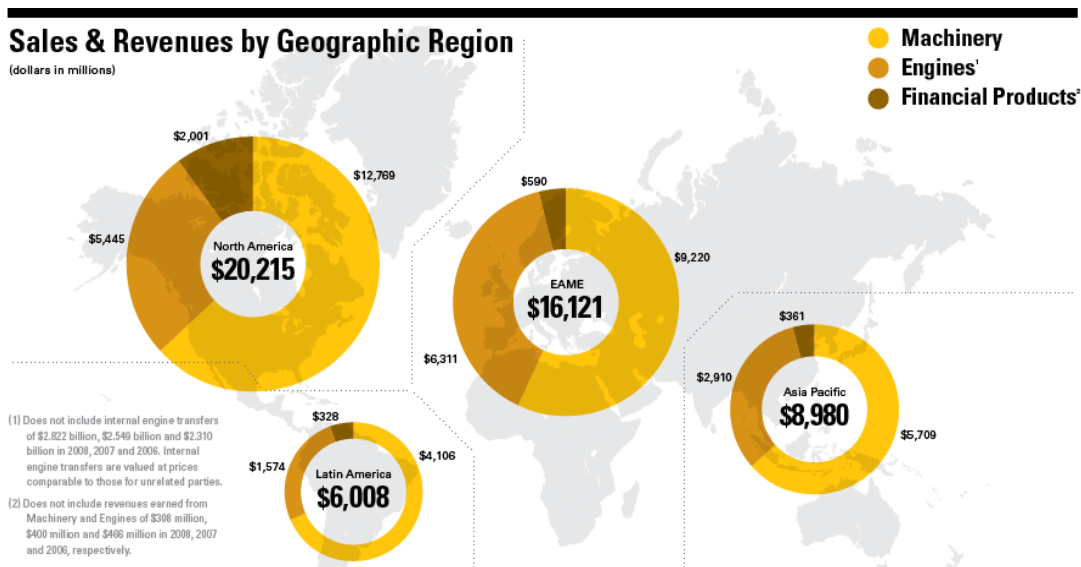


Figure 2.1: Caterpillar Geographical Sales (Source: Caterpillar 2008 Annual Report)

Given their product line, developing nations represent enormous growth potential for Caterpillar. Specifically, the company sees China as one of the most important markets for long term growth. In 2005, Caterpillar CEO Jim Owens outlined the company's new enterprise strategy to meet their vision for 2020. In this strategy, seven critical success factors were outlined, one of which was China (Brugmann, 2007). In 2006, Caterpillar's sales revenue from China was ~ USD\$1.0 billion. This number was expected to double by 2008, and double again by 2010, reaching USD\$4.0 billion. To achieve this goal, they have committed to investing over USD\$1.0 billion capital in emerging markets over a three year period (Zhihong, 2008). This investment signifies the importance of these markets to Caterpillar, as well as the company's commitment to the critical success factors outlined in their 2020 enterprise strategy.

Caterpillar's current growth in China, as well in other BRIC markets highlights the level of success that they have achieved in emerging markets. The question however is whether these successes are simply a result of their product offerings or if they are based upon other factors that set Caterpillar apart from their competition. To understand this, we will evaluate the Resources, Processes and Values that define Caterpillar and their approaches to emerging markets.

At the core of Caterpillar's enterprise strategy is a clear focus to continually grow and promote the company as a global leader. The company views their values as a primary mechanism to achieve this stature. In order to ensure global cohesiveness of the commitment to their core values, Caterpillar has

an in depth Code of Conduct, actually titled “Our Values in Action”, which all employees are required to fully understand and utilize in their daily activities. This code of conduct spells out the expectations that Caterpillar has of their employees relating to integrity, excellence, teamwork and commitment, all of which rolls up into the values that Caterpillar believes will continue to drive future global success (Caterpillar, 2009).

In addition to the deep commitment to the organizational values that were discussed above, numerous other values exist within the company that have helped propel their success in emerging markets. One of these is Caterpillar’s acceptance of the need for a long-term investment with limited short-term returns. In order to be successful, they realize that they need to be patient and truly understand that their best opportunity for growth is to grow along with China (or other emerging markets) as a whole. Caterpillar first entered the Chinese market more than 30 years ago and has grown slowly in tandem with China as it has developed. They sold their first products in 1975, however they did not open their first factory until 1994 (Zhihong, 2007). The time between 1975 and 1994 was spent establishing relationships with government and local companies with whom they signed technology transfer agreements. These agreements did two things. First they allowed local companies to produce Caterpillar licensed products, which helped Caterpillar get their name into the market. Second, local Chinese heavy equipment manufactures benefited tremendously as they were exposed to the leading edge technologies in the industry. This helped develop the industry and greatly improved the level of quality and performance available from all manufacturers (Zhihong, 2007). The key point of interest here is that Caterpillar willingly helped develop the capabilities of their competition (a risky move), but did so realizing that growing the industry in China as a whole was just as important as growing Caterpillar in China. The above example, while it highlights Caterpillar’s long-term commitment to grow in China, also demonstrates Caterpillar’s values supported an altruistic agenda. They realized that the quicker the industry evolved in China, the quicker China could develop the infrastructure to improve their way of life.

Further evidence of Caterpillars altruistic focus in China relate to its willing contributions to sustainability in China. Two programs in particular are great examples of Caterpillar working with Chinese agencies to develop programs that will improve the quality of life in China. The first is a remanufacturing effort in which Caterpillar brought sophisticated technology to China to set up a recycling program. This process reduces cost by turning end-of-life components into like-new components, which dramatically reduces waste and raw material consumption, leading to sustainable operations (Zhihong, 2008). This is critical

due to the limited natural resource availability in China. To support and continue the development of this program, Caterpillar has signed letters of intent with the National Development and Reform Commission (NDRC) in which both parties have agreed to promote China's remanufacturing industry. As part of these agreements, Caterpillar will provide their expertise to assist the NDRC and Chinese Universities in creating remanufacturing processes for other industries within the country (Zhihong, 2008).

The second program to promote sustainability is a methane gas power project. Under this effort, the extremely high levels of methane gas which exist in China's coal mines is captured with a Caterpillar generator which converts the gas into electrical power (Zhihong, 2008). This effort is extremely important for two reasons. First, it converts harmful greenhouse gas emissions into usable energy. This is critical due to the fact that China is the largest consumer and miner of coal in the world, thus this effort both reduces pollution levels and increases clean energy production. Second, this project increases the safety of mining operations. Methane gas buildup in mines leads to explosions which are the leading cause of mining related deaths. Through the use of this methane gas power generation equipment, the build up doesn't occur, thus the level of mining related injuries and deaths have dramatically decreased as a result (Zhihong, 2008).

The values discussed above are key elements that have helped pave the way for Caterpillar's success in China. In addition, the values above are key enablers of certain processes which have supported their efforts. One such example of their values defining their processes is related to how Caterpillar achieved growth in China. Although Caterpillar achieved significant growth organically, they also utilized relationship based business agreements to gain entry into Chinese markets. In the early years of growth, Caterpillar primarily sold its products to government agencies which utilized them on National infrastructure improvement projects (Gadiesh, Leung & Vestring, 2007). These relationships with government agencies represent the avenue that Caterpillar used to get their high-end products into a market which was previously dominated with low-end products from indigenous companies. Without government purchases, Caterpillar would have likely struggled due to the fact that many private firms would not be able to pay the premium for their product (Gadiesh, Leung & Vestring, 2007).

Although Caterpillar utilized the above relationship based entry process to gain access to the market, they also spent considerable effort working hand in hand with Chinese Regulatory and Safety Standards agencies to improve the processes and standards used to develop, test and specify industry

regulations. Caterpillar has been a leading advocate of a “One Test, One Certification” type of system that would promote standardization in the Chinese heavy equipment industry (Gehner, 2007). While some may view this as a selfish movement, a common standard actually makes it easier for their lower-end, indigenous competitors to develop and manufacture products for the mid and high-end markets. This, in effect has helped develop Chinese heavy equipment manufacturers processes and enabled them to meet international standards which allow them to sell their products globally, further increasing Caterpillars competition in other global markets (Gehner, 2007). This example further highlights Caterpillar's commitment to promote the overall well being of the Chinese economy.

One of the major enablers of Caterpillars success has been their wide scale adoption of Six Sigma Processes in all of their operations, not just manufacturing (Goryunov, 2003). While they have spent considerable time (and plan to continue to invest in) developing the Caterpillar Production System (CPS) to improve efficiency and quality in their manufacturing operations, they have also deployed numerous other Six Sigma efforts. For instance, a project team utilized Caterpillar's Six Sigma methodology to promote creativity and innovation in operations at Caterpillar Marine Asia Pacific. They utilized this effort to plan the move of the Caterpillar Marine Headquarters, which enabled them to complete the move without causing any business or service inconveniences to their customers (Brugmann, 2007). Additionally the process was used to develop a Marine Best Practices program which enables their dealers to align their strategy and operations with that of Caterpillar. This innovative program has allowed the entire dealer network to adopt best practices which align with the overall company strategy, ultimately leading to global consistency in operations (Brugmann, 2007).

From a resource perspective, Caterpillar has found that given the nature of economic conditions in high growth countries, private firms often times do not have enough capital to purchase their equipment outright, nor do the necessary financing channels exist in these markets for these companies to obtain financing for equipment. To address this, Caterpillar set up a financial division, Caterpillar Finance, to aid such companies in acquiring funding to purchase their equipment (Caterpillar, 2009). In one example a paving company was offered a special financing deal to enable them to complete a key project with Caterpillar equipment. In this deal, a Caterpillar financial lease with only 15% down payment and a fixed 7.5% interest rate was offered to the contractor. This deal made it much more affordable for the contractor to utilize Caterpillar equipment given the typical terms of heavy equipment leases in China were a 30% down payment with an 11% floating interest rate (Caterpillar, 2009).

Caterpillar's extension of its financial resources to the customer through this type of flexible and competitive financing has positively impacted both Chinese contractors as well as Caterpillar.

Related to the above, another key area where Caterpillar leveraged resources to achieve growth was with relationships. In addition to the relationships with government, universities and other agencies discussed above, Caterpillar has been very successful at leveraging customer relationships to propel growth. As more and more customers utilized Caterpillar finance to procure high-end equipment at mid-market prices, Caterpillar began to increase both product sales, and parts and service sales. Caterpillar's commitment to the customer showed and thus many customers adopted a loyalty towards them, and considered them a partner in their operations.

Caterpillar's usage of relationships is also prevalent on the development side of the business. Customers often come to Caterpillar as a source of a better solution to a technology or performance problem. One example is Caterpillar's work with Marine Patrol agencies in China. China has a vast harbor area to secure and patrol, however the vessels available to carry out the patrol lacked the desired performance capabilities of the agencies involved (Brugmann, 2007). To address these needs, Caterpillar partnered with these agencies to integrate their engines and marine technologies into the patrol and rescue vessels built by local naval companies. As a result, much faster and capable craft were built, ultimately improving response time to emergencies and increasing port security (Brugmann, 2007).

In addition to the financial and relationship resources above, Caterpillar also relies heavily on their global supply chain resources to meet the demands of the Chinese market. To address the needs for a quick turn around time on both complete units and spare parts, Caterpillar has invested significant resources in Caterpillar Logistics, headquartered in another emerging market, India. Caterpillar Logistics is a dedicated entity of their business whose primary objective is to achieve world class distribution of inventory throughout the globe. This venture has dramatically improved Caterpillar's product fulfillment capabilities, which is a very critical aspect of insuring customer satisfaction given the significant reliance most CAT customers have on their equipment (Solving, 2004).

## General Motors

General Motors Company, one of the world's largest automakers, was founded in 1908 by William C. Durant. By 1931, GM had earned the title of being the world's largest automaker and maintained that title for 77 consecutive years until 2007. GM's 2008 sales revenues were USD\$148.98 billion, making them the sixth largest company according to the Fortune 500 Rankings. GM's massive product line is made of numerous brands including: Buick, Cadillac, Chevrolet, GMC, GM Daewoo, Holden, Opel, Vauxhall, Wuling, and numerous others. (About GM, 2009)

### GM's Global Footprint

GM employs approximately 235,000 people in more than 140 countries worldwide. They currently manufacture their vehicles in all parts of the globe, with production facilities in 34 countries (About GM, 2009). GM's largest market is the U.S., followed by two emerging markets, China and Brazil. Due to the global economic downturn of late 2008, GM United States sales decreased by 21%. However, this was offset by strong performance in key emerging markets, including all BRIC markets, where GM sales increased for 2008. According to Jonathan Browing, Vice President of Global Sales, Service and Marketing, "We (GM) saw sales volume increases in the key four emerging markets of Brazil (up 10 percent), Russia (up 30 percent), India (up 9 percent), and China (up 6 percent)" (GM, 2009). Given the strong performance of emerging markets highlighted above, it is clear that GM's future relies heavily on continued success in these markets.

### GM in China

GM's presence in China can be traced back to the early 1920's, when GM moved its Manila branch to Shanghai. In 1924, GM sold a Buick sedan to Pu Yi, who was the last emperor of China (Tao, 2005). However, due to massive political changes and unrest in China during much of the mid 1900's, GM did not really begin to invest and grow in China until the 1990's. In 1997, GM entered into a 50-50 partnership with SAIC, the Shanghai Automotive Industry Corporation, forming a dedicated Chinese division Shanghai General Motors, or SGM. GM invested over USD\$2.6 billion in this deal, showing their level of commitment to the Chinese auto market. SGM first began producing cars under the Buick brand, due to its popularity in China prior to the Communist Party uprising in 1949, with an initial capacity of 100,000 units per year (Tao, 2005). In 1999, Buick's demand exceeded expectations, and by 2004, SGM's sales growth outperformed that of the entire Chinese auto industry, demonstrating that the company had become a force with which to be reckoned.



To achieve this level of explosive sales growth in China, GM relied heavily on its internal values, especially relating to their understanding of market opportunities. GM utilized intuitive market judgment when approaching product portfolio decisions in China. Many other their competitors assumed that the Chinese would be completely satisfied with old models and out-dated technology, and thus their strategies were to simply export as many lower featured cars to the Chinese market as the Chinese government would allow (Tao, 2005). This created a significant opportunity for GM, as they sensed that the Chinese consumer, or at least a significant portion of consumers, desired more sophisticated cars with the highest level of technology available (Tao, 2005). To fill this segment of the market, Shanghai GM began work to produce Buick and Cadillac models specifically for the Chinese market. This proved to be a smart strategy, as the Buick brand in particular became widely popular.

One of the key resources GM used to gain entrance and growth in China was relationships. The biggest challenge of entering the Chinese auto-market was the involvement of the government in the industry. The Chinese government regulated the industry and forced them to adopt a "Big Three" type concept similar to that present in the U.S. (Tao, 2005). In addition, they mandated that any partnerships formed with these big three companies needed to be built upon the premise that at least 50% of the entity formed through the partnership needed to be controlled by the Chinese partner (Tao, 2005). This made entry into this market challenging.

The way that GM navigated around this was through a "priority based" relationship between Rudolph Schlais, GM Chinas President of Operations, and the senior leaders of the Chinese Government. Through these meetings, GM and China came to an agreement that GM would be given rights to manufacture and sell their cars in China, provided they bring their advanced automobile technologies to China, to aid in the development of the Chinese automobile industry. This is very similar to the Caterpillar example above where Caterpillar provided technology to develop the market in exchange for rights to operate in the market.

Through the agreement established, GM leveraged its technological resources, and established a sophisticated research and development center in China. The computers at the center were linked to other GM research centers worldwide, which created an instantaneous source of the latest designs and technologies for engineers in China. Furthermore, GM signed agreements with five universities and

research institutes to promote advanced automotive technology development in China (Tao, 2005). Additionally, individuals from these universities and institutes were sent to observe plant start-ups in Canada to give them exposure to start-up of new car models and production facilities.

GM had grand visions of creating a holistic supply chain in China. They planned to leverage as many resources as possible and felt that controlling as much of the supply chain as possible would be critical to their success. Given GM's relationship with government and regulatory agencies, they were granted permission to establish their own distribution and sales networks in China (Tao, 2005). This allowed them to develop a supply chain that directly resembled the one they created in the U.S., which enabled them to leverage their existing RVP.

From a process perspective, one of GM's major goals was to achieve a zero defects production process. As part of this, GM leveraged its engrained quality values, along with its vast technical resource pool to develop a manufacturing plant which could operate at this extreme level of quality. One of the key factors in achieving this goal was working with suppliers to help them develop their internal processes to suit the needs of SGM (Tao, 2005). They strived to work hand and hand with these suppliers in an effort to insure that the highest part quality was achieved.

As far as the design process is concerned, SGM utilized the technical resources of the Pan Asia Technical Automotive Center (PATAC) to develop new concepts for cars geared specifically for the Chinese market as well as to integrate new features and modifications into the design of imported models to increase their appeal to the Chinese customer. PATAC, created as part of the partnership between GM and SAIC (the government controlled auto company in China), was a state-of-the-art research and development center where ~400 Chinese automotive engineers were employed (Tao, 2005). Engineers at this facility could connect with automotive engineers and scientists throughout the globe to share ideas, concepts and product designs, as well as take part in design reviews of other GM vehicles. This process enabled Chinese engineers to stay in tune with technology development that occurred across the entire globe. It made it easy for engineers who were working to modify portions of imported models (from developed markets) to contact engineers involved with the initial development of the respective model being modified to get answers to questions they had regarding original design drivers and other technical information. Overall this process was key to both reducing design cycle time as well as developing domestic automotive engineering talent.

# Chapter Three

## Introduction to Analysis of Secondary Research

With the completion of the research into the six MNCs that have had success in emerging markets, we are now able to complete the analysis of the data. To accomplish this we will utilize the format developed in Chapter Two, Table 2.1, “RPV framework for emerging and developed markets”, which compares Resources, Processes and Values associated with MNCs that create products for developed markets, versus those associated with Tata in producing the Nano for the emerging markets. The research from Chapter Two will be summarized into RPV tables to compare traits, identify trends, and draw inferences. In addition, we will search for other traits which might not have been identified in our Tata Nano research. Table 3.1 below provides an overview of the RPV framework that will be used to summarize the research, and against which we will test our hypothesis regarding MNC requirements for success in EMs:

*The traditional stock of resources, processes, and values that allowed MNCs to successfully develop products for developed markets, do not assure that the same firms will have success in emerging markets. The required set of RPV for emerging markets is vastly different than those in developed markets.*

	TRAIT	DM Characteristics	EM Characteristics (Nano)
VALUE	Financial Approach (V)	Varying price points with preference for short term, high margin & high ROI opportunities	Price point tailored for economic conditions of the local target market and tolerance for long term ROI.
	Motivation (V)	Driven to meet Wall Street expectations.	Monetary motivation balanced with altruistic national aspirations and social needs.
	Customer Insight (V)	Methodical market research and analysis of the opportunity is completed (and is possible) due to existence of data.	Market needs sensed through means such as customer immersion and/ or observation; data does not pre-exist to validate opportunity.
	Risk Acceptance (V)	Prefer to pursue risk adverse opportunities	Higher tolerance for risk given large opportunity
PROCESS	Product Design Requirement Drivers (P)	Product design driven by optional features and cutting edge technology.	Product design fulfilling local market needs and “Good enough” specifications.
	Technology Development (P)	Organic internal technology development derived from scientific research and historical experience	Technology development and transfer through partnership

Table 3.1: Overview of RPV Framework from which to Test Hypothesis (continued on next page)

	TRAIT	DM Characteristics	EM Characteristics (Nano)
RESOURCE	Brand Image (R)	Global brand well known for premium or differentiated products.	Local brand well known for addressing local market needs and contributing to improving the standard of living in the EM.
	Business Infrastructures & Supply Chains (R)	Complex, well developed Supply Chain and business infrastructure - typically based on "lowest cost wins" approach.	Under developed, fragmented Supply Chain and business infrastructures - often based on relationships.
	Technical skills in the market (R)	Highly specialized engineers with in-depth knowledge of a specific engineering/scientific function.	Engineers with skills in applying existing technology, cost reduction and accustomed to local needs.
	Labor characteristics in the market (R)	Trend towards use of capital intensive automation or skilled labor	Leverage low cost labor and relatively low capital investment
	Relationships (R)	Government and regulatory policy conformance are crucial for success.	Personal relationships with government, regulatory and society are crucial for success.

Table 3.1: Overview of RPV Framework from which to Test Hypothesis (continued from previous page)

The next portion of this chapter provides separate tables for each of the RPV traits listed in Table 3.1 above. These tables contain brief comments related to the traits for each of the six companies studied, and further indicate which behavior we believe the company exhibited – developing market or emerging market. Our general observations and conclusions associated with each trait are provided in paragraphs preceding the tables which are followed by an overall summary.

## Financial Approach

Due to the substantial opportunity that the EMs represent, and the corresponding requirement for very large investments in order to pursue the markets, most companies recognize that the payback period will be lengthy, and therefore have a long term horizon for obtaining an ROI. Indeed, all six of the successful MNCs studied have been engaged in the emerging market for a minimum of ten years. This long term need was further supported by Tarun Khanna, "Yes, a company can make money in China and India, but it cannot do so overnight and may have to wait five years or more to realize profits. A lot depends on how much a foreign company is willing to respect and work with indigenous ways of doing business, including adapting to government regulations and the political climate" (Khanna, 2007).

However, our evidence shows that companies do not necessarily need to tailor their pricing to the poor economic conditions of the consumers in the EMs. In the examples of CAT, Haier and GM, premium price points were conserved. This is because their product offerings provided the consumers with

desired features that were not available in their market. Therefore, MNCs need to carefully evaluate product offerings and corresponding pricing. In the cases of Nokia and PepsiCo which sell lower price products, high volume is an expected requirement of the business model to offset the large capital investments; this is not necessarily required for high price products.

Value	Financial Approach		
Developed Market Characteristic	Varying price points with preference for short term, high margin & high ROI opportunities		
Emerging Market Hypothesis	Price point tailored for economic conditions of the local target market and tolerance for long term ROI.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE Healthcare developed low price point compact portable ultrasound for China. Since the company launched the product globally, sales have increased from \$4 million in 2002 to \$278 million in 2008. GE India Healthcare kept its prices down by refurbishing old equipment and marketing "economy" models in poorer areas. The company also targeted doctors who traveled frequently by marketing laptop machines.		X
Haier	Haier maintained 15% price premium over competitors even though the refrigerator market tanked in 1989. That was a testament of the strong association of quality to the company brand name	X	
Nokia	Cut costs to enable industry leading profit margins in 2007. Financial success relies on global economies of scale: in 2007 more than half of the phones sold world wide were from Nokia. Has superefficient supply-chain and manufacturing systems. Keeps costs and complexity under control by sharing components and designing phones that have fewer parts.		X
PepsiCo	PepsiCo's business model requires they do an extraordinary job of managing costs to offer the absolute best price at maximum profitability. The specific strategy was to focus on markets that were less developed, but with a lot of potential – particularly China and India due to huge populations (i.e., high volume).		X
CAT	Caterpillar sold high-end equipment at premium price to the govt. Typical Chinese-built machines are inexpensive and not expected to last. Caterpillar's business model is to build the market for its world class products. "Caterpillar's business model has always been to support its equipment from cradle to grave," says Davis. "It's no different in China. The big difference is we have to take time to change the mindset here. We have to sell the value of what we do rather than beating a machine sold on price that will be thrown away."	X	
GM	Due to the mix of products, a variety of business models were utilized. Long term was acceptable.	X	X

Table 3.2: Summary of Research for "Financial Approach" Value.

*Summary: MNCs must be willing to accept longer ROI periods. In most cases, price point should be tailored to the specific target market, unless product features enable premium pricing.*

## Motivation

While growth and financial gain are the primary motivations for an MNC to enter an emerging market, our research indicates that this success is very difficult – if not impossible – unless the corporations also seek ways to help improve the society. This often means that financial objectives must initially be a lower priority. The indigenous citizens and government have more respect for corporations that recognize the need for stewardship. EMs need to be able to trust that the MNC is not entering solely to “feed” off the opportunity, but is also committed to help support the aspirations of the country and improve the way of life of the citizens. This “partnership” between the MNCs and society enables the brand to gain local cooperation in advancing growth objectives. Corporations can no longer enter emerging markets as they did in previous years with a “colonial” mind-set. Rather, they must demonstrate sincere intentions of helping to make the countries in which they have business engagements a better place overall. This insight gained from our secondary research was also supported in other literature. “The most successful multinationals, those building long-term positions in either country, invariably pay more attention to contributing to local welfare than to their bottom lines. Landing on foreign soil to make a quick buck virtually never works.” (Khanna, 2007, p. 141).

Value	Motivation		
Developed Market Characteristic	Driven to meet Wall Street expectations.		
Emerging Market Hypothesis	Monetary motivation balanced with altruistic national aspirations and social needs.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE Healthcare's long term commitment to health care development in China meshed with Chinese leaders aspiration to improve public health care. GE India worked with healthcare officials on sales policies of ultrasound machine to avoid misuse.		X
Haier	Haier CEO Zhang made it a priority to be a good citizen. He felt that the company role should not only be to make profit but must be able to “repay the society and better human life.”		X
Nokia	Nokia desires to have a positive influence on society through the distribution of mobile service into remote areas. In addition, to further enhance the way of life in EMs, they have implemented "Nokia Life Tools". But of course, the corporation also has a priority on maintaining its solid financial performance.		X
PepsiCo	PepsiCo has a strong vision of continually improving all aspects of the world in which they operate - environment, social, economic. They believe that this further supports their commitment to build shareholder value by making PepsiCo a truly sustainable company. This is the essence of the "Performance with Purpose" philosophy. Of course they also clearly covet the approval of Wallstreet, and this has drove investment decisions related to markets and product offerings.		X

Table 3.3: Summary of Research for “Motivation” Value (continued on next page)

Company	Example	Behavior Exhibited	
		DM	EM
CAT	Caterpillar recognizes the need to be patient and truly understand that their best opportunity for growth is to expand along with the emerging markets as a whole, as well as pursue activities to help society. E.g., 1) Removed Methane from mines to increase safety, and use it to produce electricity which reduces pollution levels and increases clean energy production. 2) Improved maritime patrol vessel performance to increase level security in ports. 3) Partnered with Chinese government to create sustainability institute based on CAT's knowledge of remanufacturing processes		X
GM	GM worked with SAIC (govt control auto organization) to develop PATAC, an automotive technology R&D center which trains Chinese engineers (including non-GM engineers) in the latest automotive design & production technologies.		X

Table 3.3: Summary of Research for "Motivation" Value (continued from previous page)

*Summary: In developing EM strategies, MNCs must abandon the need to meet short term Wall Street financial expectations. They should have a vested interest in improving the way of life of the indigenous citizens, and have solid commitment to work with local government in meeting the country's national aspirations.*

## Customer Insight

MNCs entering developed markets today typically have the advantage of purchasing existing marketing data which can be analyzed to assess opportunities and expected payback. This method enables corporations to have a strong position in determining the activities necessary to develop a product, and the required levels of investment. However, little – if any – existing marketing data is available for emerging markets. Therefore, MNCs must recognize that they will need to rely on different techniques to acquire emerging market insight. In addition, they should expect a higher level of uncertainty associated with assessing opportunities and the required levels of investment. The majority of the MNCs in our research found it necessary to develop specific insight via customer immersion methods and personal observation. Godrej, an India group, saw citizens buying millions of new cell phones a month in rural areas; therefore, it looked for an opportunity as well. "It sent surveyors into village huts for months at a time to discover the needs of farm families" and found that less than twenty percent of homes had refrigerators and "figured it could attract a huge new group of consumers if it could get the price right" (Bellman, 2009). Because these markets are developing rapidly, this insight must be continuously monitored and maintained to keep up with the rate of change.

Value	Customer Insight		
Developed Market Characteristic	Methodical market research and analysis of the opportunity is completed (and is possible) due to existence of data.		
Emerging Market Hypothesis	Market needs sensed through means such as customer immersion and/ or observation; data does not pre-exist to validate opportunity.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE entry into EM can be attributed to Jack Welch who visited India in 1989 and "sensed" enormous growth opportunity; long before India expertise was recognized in global outsourcing. He followed up his "sensed needs" market by establishing the first US R&D in India in 2000.		X
Haier	Zhang sensed customers were not satisfied with inferior quality of "white goods" made in China. So Haier fostered the importance of high quality products among its employees.		X
Nokia	Nokia developed strong market sensing ability via ethnography to dig into the local communities to design products for the specific market. Also employed anthropologists and psychologists that spend time with people and incorporate other cultural and consumer findings. Believe they must understand the market to get winning foresight.		X
PepsiCo	A high priority was put on sensing customers' needs in order to identify opportunities to support their intent to adapt to market differences. This type of insight required market research in the country to generate data. It enabled them to successfully launch a series of innovative products tailored to the tastes of the unique cultures, and to also cue into the younger generation in its marketing.		X
CAT	CAT sensed that in order for China (as well as other EMs) to grow, they need to make substantial investment in infrastructure and thus would require heavy equipments to meet the needs of developing the country.		X
GM	Intuitive market judgment when approaching product portfolio decisions in China. GM sensed that a significant portion of consumers desired more sophisticated cars. Many other their competitors assumed that the Chinese would be completely satisfied with old models and out-dated technology, and thus their competitors' strategies were to simply export as many lower featured cars to the Chinese market as the Chinese government would allow		X

Table 3.4: Summary of Research for "Customer Insight" Value.

*Summary: Due to lack of solid market data and the fast paced change occurring in EMs, MNCs must recognize that they need to increase their ability to sense opportunities and rapidly tune offerings, and also be willing to make decisions based on little information and sensed data.*

## Risk Acceptance

The emerging market has many unknowns and uncertainties associated with understanding the society, language, education, government and infrastructure. As a result, the path for market entrance is



unclear and therefore requires MNCs to make certain leaps of faith based on lower amounts of data. MNCs will need to formulate assumptions which will be monitored and tested as they also adapt to new information (a "Discovery Driven Planning" type approach as mentioned in Chapter One). Major investment will be required, with the possibility of losing everything put into the effort. In addition, MNCs may be required to share proprietary information – sometimes even with competitors - in order to develop industry state-of-the-art technology and grow the market into which they wish to enter. Because there are so many unknowns, and because so much is at stake from a monetary and technology perspective, MNCs who wish to enter emerging markets must be willing to accept a higher risk profile.

Value	Risk Acceptance		
Developed Market Characteristic	Prefer to pursue risk adverse opportunities		
Emerging Market Hypothesis	Higher tolerance for risk given large opportunity		
Company	Example	Behavior Exhibited	
		DM	EM
GE	It can be assumed that GE risk tolerance is high given their persistence in developing healthcare products despite early failures in India and China. The high risk tolerance is partly due to GE's long term growth expectations from emerging markets. Opportunities in emerging markets are estimated to contribute up to one-fifth of GE's 2008 revenue and its growth is expected to further accelerate.		X
Haier	Zhang took tremendous risk in assuming the collection of government enterprises which represents Haier. He believed in a long term market need for "reliable white goods" products and put tremendous effort in installing the importance of quality.		X
Nokia	Nokia made extremely large investments based on the belief that 80% of new customers would come from EMs. It also made bets on its ability to develop products customers would want, and that it would be able to reduce costs to the point of profitability. They demonstrate a value to be pro-active in identifying and managing risks; one example is their highly diversified product line to spread out risk.		X
PepsiCo	PepsiCo assumed a high level of risk when it decided to concentrate in markets where they thought they could prosper along side Coke. Furthermore they made significant investments in developing products specific to those markets - potentially ones that would not result in a good ROI. Finally, they made enormous investment in the EM societies - assuming a risk of brand acceptance.		X
CAT	Caterpillar brought technology to the China heavy equipment market. They worked with domestic equipment supplier to improve their technology, thus increasing their competitors ability to compete with Caterpillar. That was acceptable because CAT realized the only way to increase their sales was to grow the overall market.		X
GM	GM agreed to transfer highly technical knowledge and IP of automotive design & manufacturing to China in exchange for participation in the local market. Jonathan Browning, VP-global sales, service and marketing, comments on GM's image in emerging markets: "The large, slow-moving organization perception of GM in the U.S. is different in emerging markets," he said. "There, GM is seen as an agile, flexible and risk-taking organization."		X

Table 3.5: Summary of Research for "Risk Acceptance" Value.

*Summary: MNCs must be willing to accept a higher risk profile when investing in EMs. This includes addressing all of the EM unknowns, making large monetary investments with uncertain payback, and transferring technology - potentially even to competitors - to develop the broad market into which they're entering.*

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## Product Design Requirements Drivers

Our research showed that consumers in emerging markets are not afraid to embrace new technology if it fulfills local needs, and they are willing to pay a premium if it brings value-added features and capability. These findings are in strong agreement with Heyde and Sundjaja in their Harvard Business article, "Five Myths About Emerging Markets". They state that emerging markets will rapidly adopt technology and that "more than 80% of consumers in key emerging markets have sufficient disposable income to allow them to purchase technology" (Heyde & Sundjaja, 2008). But this does not mean that MNCs should simply sell existing products into EMs, or just de-feature them to reduce the price. The bottom line is "that companies should create offerings with product features and pricing tailored to the specific needs of consumers in developing markets" (Heyde & Sundjaja, 2008). Features and capabilities that fulfill unaddressed needs will be successful if the product is affordable to the targeted consumer. However, for high end markets such as what CAT and GM targeted, highly featured, technologically advanced DM products can be sold in EMs when the level of technology available in the EM is relatively low and consumers desire increased functionality.

Process	Product Design Requirement Drivers		
Developed Market Characteristic	Product design driven by optional features and cutting edge technology.		
Emerging Market Hypothesis	Product design fulfilling local market needs and "Good enough" specifications.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	The company targeted doctors who traveled frequently by marketing laptop machines as many clinics are located in rural areas. GE China designed a less expensive and portable compact ultrasound machine.		X
Haier	Haier developed a new washing machine to wash not only clothes but also sweet potatoes and peanuts. Haier developed refrigerator compartment for pickling Korean kimchee cabbage.		X

Table 3.6: Summary of Research for "Product Design Requirement Drivers" Process (con't on next pg).

Company	Example	Behavior Exhibited	
		DM	EM
Nokia	Not the "high end" phones sold into DMs, but quality phones that added features which fulfilled local needs. Designers dug into communities to develop products to address specific market requirements.		X
PepsiCo	Significant adaptation to market differences; food products catered to local markets tastes.		X
CAT	Their equipment was highly featured and initially targeted at the high end of the market. Caterpillar's equipment provided a much higher level of functionality and useful features that were not available from "good enough" heavy equipment manufacturers in China.	X	
GM	GM found that "good enough" features were not necessarily what the Chinese consumer desired and thus developed cars with more technology and advanced features.	X	

Table 3.6: Summary of Research for "Product Design Requirement Drivers" Process (continued from previous page).

*Summary: MNCs should design products tailored to the local market and incorporate technology and features where they are needed. For high end markets, highly featured, technologically advanced DM products can be sold in EMs.*

## Technology Development

The data above indicates that partnerships can be key in developing products and advancing manufacturing methods, but perhaps not as necessary for commodities, as was the case with PepsiCo. There appear to be two primary reasons why technology development in EM is often performed through partnerships: 1) to obtain technical know-how that's outside of MNC core competencies or previous experiences in EMs; and, 2) to build relationships and utilize MNC technical capabilities to help a partnering firm develop and/ or enter a market. It should be noted that the need for partnerships is not unique to the EM, as the global economy increasingly necessitates that MNCs embrace "open innovation" in order to fill core competency gaps and enable quicker, competitive product development. However, the differentiation for EMs is regarding potential leveraging of their technology somewhat as a "bargaining chip" to gain either permission to enter the market, or to work with indigenous companies to develop and grow the market. MNCs might be required to form technology development partnerships if they desire access to the market.

Process	Technology Development		
Developed Market Characteristic	Organic internal technology development derived from scientific research and historical experience		
Emerging Market Hypothesis	Technology development and transfer through partnership		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE China obtained assistance from three highly respected development engineers from Israel, Japan and South Korea. They bring deep technical skills absent in China team.		X
Haier	Liebherr-Haushaltsgerate of West Germany injecting modern refrigerator manufacturing technology into Haier plant.		X
Nokia	Believe that global participation in R&D is a pre-requisite to disrupting current product offerings. Created design centers in emerging markets to partner with local resources to yield products that address the needs and desires of the specific market.		X
PepsiCo	Research indicates that product and manufacturing technology development is currently centered in the U.S. While PepsiCo is strong in partnerships associated with suppliers, manufacturing, and distribution, it does not appear that partnerships have been established to develop new product technology, aside from adaptation of existing products to market tastes.	X	
CAT	Customers often come to Caterpillar as a source of a better solution to a technology or performance problem. Caterpillar partnered with Chinese Maritime partners to develop technology to improve patrol vessel performance. CAT partnered with Chinese agencies to develop a remanufacturing center and shared their skills and expertise with Chinese engineers to promote sustainability		X
GM	GM purchased Daewoo for low-cost know how to manufacture cars in China, and leveraged its technological resources to established a sophisticated R&D center in China. GM signed agreements with five universities and research institutes to promote advanced automotive technology development in China.		X

Table 3.7: Summary of Research for "Technology Development" Process.

*Summary: MNCs must recognize that technology development is often optimized through partnerships, and should seek opportunities to leverage technology to either assist in overall emerging market development, or to gain access to new markets.*

## Brand Image

The indirect message that was revealed in our research is that brands must gain sacred trust from the local market. This is achieved through delivering quality products that address local needs, and improving the way of life in the society. These findings are in agreement with Heyde and Sundjaja who state that consumers will pay a brand premium because "global brands are considered safer than local

brands with limited track records" (Heyde & Sundjaja, 2008). This was clearly displayed in our research where consumers paid a premium price for Haier due to the quality, and they bought Nokia over rivals due to the confidence in the product and associated service. This last point speaks to the fifth Myth that "emerging-market consumers focus on products, not services", when in fact MNCs have missed opportunities due to a failure to offer "bundled solutions" to customers (Heyde & Sundjaja, 2008). As indicated in the section on "Motivation" (a Value), EMs will support an MNC if they are able to trust that the MNC is sincere about doing what's right for the consumers and their society. Global stature is often not enough; MNCs must recognize the necessity of focusing on local market and society needs.

Resource	Brand Image		
Developed Market Characteristic	Global brand well known for premium or differentiated products.		
Emerging Market Hypothesis	Local brand well known for addressing local market needs and contributing to improving the standard of living in the EM.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE has upper hand with global brand creating strong presence among the public, businesses, and government officials in the emerging countries in which it operates. GE is creating healthcare products that meet the Chinese government's long-term healthcare goals.		X
Haier	Haier started as China local brand. CEO Zhang has worked tirelessly to build a brand based on unrivaled quality and customer service. In addition, provide customized products to meet needs (e.g., potato washer).	X	X
Nokia	Brand conveys a sense of status. Due to quality and service after sale, consumers have a sense that Nokia can be trusted to do what's right for them. The foray into "Nokia Life Tools" supports the objective to improve society.		X
PepsiCo	PepsiCo was able to take the damaging pesticide and water situations, and use them to highlight its values around stewardship. By also moving towards healthier products, they are exceeding the market needs and enhancing consumer life.		X
CAT	CAT's products directly support the construction of infrastructure required to improve the EM. Their history of partnership with local agencies to develop their capabilities in developing heavy equipment shows the commitment to improving the country, not just growing their own business		X
GM	GM's strategy to leverage the "sophisticated" appeal of the Buick brand highlights their commitment to provide a car with advanced features at a price only slightly higher than defeatured models, thus enabling the population to enjoy the amenities of a high-end brand.		X

Table 3.7: Summary of Research for "Brand Image" Resource.

*Summary: Successful MNC brands must gain trust and support from the emerging market via delivery of quality products and services that address local needs, and by improving the way of life. They need to realize that brand image alone will likely not guarantee success.*

## Business Infrastructures & Supply Chains

The infrastructure of suppliers and transportation systems, including delivery service vendors, in emerging markets is typically not highly developed. In addition, regulations regarding raw materials, manufacturing, and sale of products are often un-established and therefore, develop in parallel with the market. Finally, the creation of a supply chain from raw materials to finished products often requires lengthy interactions with indigenous resources. As a result, an MNC cannot expect to have as highly efficient a business infrastructure in EMs as they do in DMs. Supply chains in EMs are often fragmented and need to be developed (and sometimes created) to improve product distribution capability. Successful MNCs have leveraged portions of their DM supply chains to fill existing gaps in EMs, with overall intentions of developing supply chains representative of DMs. They also recognize that pricing pressure applied to DM suppliers is not applicable in EMs where relationships are more important, but in the long term can yield greater benefits. Therefore, while an efficient business infrastructure and supply chain is crucial for success to reduce costs, adaption to fragmented supply chain and distribution methods is also typically required.

Resource	Business Infrastructures & Supply Chains		
Developed Market Characteristic	Complex, well developed Supply Chain and business infrastructure - typically based on "lowest cost wins" approach.		
Emerging Market Hypothesis	Under developed, fragmented Supply Chain and business infrastructures - often based on relationships.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE China LGT team constructed organic value chain: product development, sourcing, manufacturing, marketing, sales and service. China approval process for new product releases is less intricate, so GE shortened the product development cycle. Instead of relying on GE Healthcare's global customer support and replacement parts organizations, it built in-country teams that could provide quicker and less costly service.		X
Haier	Haier adopted a vertically integrated distribution system. The system integrates every supply chain from purchasing, raw materials delivery and product distribution. To maintain the cost of covering the large geographic distance of China, the company developed JIT (Just-In-Time) inventory management system.		X
Nokia	Superefficient supply-chain and manufacturing systems, but mixed distribution systems (developed and fragmented) and networks of retailers.	X	X
PepsiCo	Raw materials & natural resources include water and crops. Engaging local suppliers since products depend on the agricultural supply chain. Mix of supplier relationships; some very efficient, others not. Distribution issues were not mentioned.	X	X

Table 3.8: Summary of Research for "Business Infrastructure & Supply Chain" Resource (continued on next page).

Company	Example	Behavior Exhibited	
		DM	EM
CAT	CAT relies heavily on their global supply chain resources to meet the demands of the Chinese market. They leverage their world class entity, Caterpillar Logistics, headquartered in another emerging market, India, to meet global demand for parts and equipment.	X	
GM	GE has visions of creating a holistic supply chain in China; focused on leveraging local resources as suppliers. Due to their relationship with government and regulatory agencies, they were granted permission to establish their own distribution and sales networks in China.		X

Table 3.8: Summary of Research for “Business Infrastructure & Supply Chain” Resource (continued from previous page).

*Summary: Infrastructures in EMs are often underdeveloped and fragmented; therefore, MNCs must recognize the need to adapt and organically develop supply chains and distribution channels, as well as leverage current DM infrastructure where possible to achieve operational efficiency.*

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### Technical Skills in the Market

MNCs entering emerging markets are often uncertain of the level of technical skill that the indigenous citizens have. Most have found – as with PepsiCo, Nokia and GM that the local labor (often containing numerous technical graduates without experience) can be easily trained to run complex equipment and processes in order to produce their products. Furthermore, engineers and scientists exist in EMs that MNCs can leverage to take advantage of their knowledge of existing technology, experience in cost reduction, and knowledge of local needs. However, high-end engineering and research skills are more limited; therefore, gaps need to be filled in two ways: 1) obtain specialized knowledge from developed countries; and/ or, 2) create centers (R&D, partnerships) that enable interaction with DM experts to train the large pool of technical graduates that often exist in EMs, and also provide the much needed experience. This indigenous technical skill availability was also supported in literature which discussed MNCs “taking advantage of cheap research and development and low-cost manufacturing to innovate for a market that's grown large enough and sophisticated enough to make it worthwhile” (Bellman, 2009). It's an important aspect in this age of increasing the practice of “global product development”, in which “companies strive to reduce product development operating costs...to access more affordable

capabilities. There is a huge pool of engineering talent in low-cost regions such as China...[and]...India" (Eppinger & Chitkara, 2006).

Resource	Technical Skills in the Market		
Developed Market Characteristic	Highly specialized engineers with in-depth knowledge of a specific engineering/ scientific function.		
Emerging Market Hypothesis	Engineers with skills in applying existing technology, cost reduction and accustomed to local needs.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE China LGT team recruits locally. They were able to find most of the expertise they needed, including engineers with deep knowledge of existing miniaturization and lower power consumption technologies that can be applied to products, and a commercialization team well versed in health care in rural China.		X
Haier	Articles did not provide sufficient insight to comment.		
Nokia	Design centers employed highly skilled individuals, and manufacturing requires in-depth knowledge to address issues and ensure products have required quality.	X	
PepsiCo	Hired and trained locals to run manufacturing plants.		X
CAT	CAT spent considerable time working with government agencies and universities to train engineers on the latest technologies to improve China's design, engineering and manufacturing capabilities. Engineers who worked for indigenous heavy equipment companies were skilled at creating low-end products with limited technology, thus Caterpillar had to work with the industry to develop additional technical skills		X
GM	GM partnered with numerous agencies in China to help them develop key technical skills, given that China did not have significant capabilities in automotive technology		X

Table 3.9: Summary of Research for "Technical Skills" Resource.

*Summary: MNC's should understand the level of technical skill available in the market and have a plan on how to leverage local skills versus utilizing those from their home market. Experienced individuals with highly specialized technical skills (Research, Development, Manufacturing, etc) are often limited in EMs; however, training can be provided to increase technical expertise and experience of the large pool of technical graduates that often exist.*

## Labor Characteristics in the Market

As with technical skills, MNCs entering emerging markets are often uncertain of how the use of local labor should be optimized for manufacturing. The traditional view assumes a large volume of low cost laborers completing unskilled tasks. However, our research showed that while some unskilled



operations may exist, the majority of the successful MNCs utilize the local labor to perform skilled operations in highly automated, capital intensive, processes. Therefore, while there is indeed an abundance of unskilled low cost labor which might attract MNC production operations, they should also expect that highly skilled workers are available - or that they can be trained to develop the skills. This requires MNCs to evaluate which approach is the most cost effective for their specific product.

Resource	Labor Characteristics in the Market		
Developed Market Characteristic	Trend towards use of capital intensive automation or skilled labor		
Emerging Market Hypothesis	Leverage low cost labor and relatively low capital investment		
Company	Example	Behavior Exhibited	
		DM	EM
GE	Articles did not provide sufficient insight to comment.		
Haier	Articles did not provide sufficient insight to comment.		
Nokia	Efficient manufacturing of devices occurs in many EM locations using local labor to reduce costs. Uses highly skilled designers in EM R&D centers.	X	X
PepsiCo	Trains local labor to run highly automated state-of-the-art beverage production and bottling operations.	X	X
CAT	CAT leveraged the Caterpillar Production Process in its manufacturing operations in China which required skilled labor (higher cost) to operate technically advanced manufacturing processes.	X	
GM	GM leveraged their extensive experience in automation and production technologies to produce cars in China. They sent individuals from universities and institutes to observe plant start-ups in Canada to give them exposure to start-up of new car models and advanced automation based production systems.	X	

Table 3.10: Summary of Research for "Labor Characteristics" Resource

*Summary: MNCs need to evaluate the use of low cost labor for their manufacturing. While low cost labor may be attractive for production in EMs, MNCs have been very successful transferring high end automation equipment and processes to those countries.*

## Relationships

Perhaps more than any of the other traits discussed thus far, relationships appear to be a key success factor for MNCs entering emerging markets. There are several reasons. First, and probably most important, is that the culture in these countries emphasizes personal relationships in business decision

making. This applies to all relationships in the supply chain, from R&D, to manufacturing, to sale. As indicated previously, trust is an important element for citizens in emerging markets and this is developed via personal relationships. Second, government and regulatory agencies operate differently in EMs versus DMs. The conformance requirements are often unclear and can change, thereby affecting the ability of an MNC to produce and sell goods within the market. With that, MNCs must realize the importance of forming close relationships with officials to ensure they maintain insight into policy decisions, and can potentially influence the outcomes. Finally, the local population – either as individual consumers or in activist groups – can thwart MNC efforts. This was the case with Tata and the farmers who stopped construction of the first manufacturing plant and with PepsiCo whose beverage operations were shut down during the pesticide scare. More recently in India, “similar struggles are holding back nearly 200 proposed factories, railroads, highways and other projects” where “some \$98 billion in investment is in limbo” due to problems associated with land acquisition from indigenous citizens (Srivastava, 2009). More so than in developed markets, all of these relationships in emerging markets are crucial for success and required for growth, whether it be endorsement of the local population, or permission to do business and sell products by company leaders and government officials.

Resource	Relationships		
Developed Market Characteristic	Government and regulatory policy conformance are crucial for success.		
Emerging Market Hypothesis	Personal relationships with government, regulatory and society are crucial for success.		
Company	Example	Behavior Exhibited	
		DM	EM
GE	GE has to work with Indian healthcare officials to develop sales policies for the sale of ultrasound machine to avoid misuse (illegal use to determine sex of unborn babies)		X
Haier	Haier CEO Zhang comment, “You have to have three eyes: one on the market, one on workers, and one on the government.” Being a former government enterprise entity, Zhang has to meet the delicate needs of the corporation to make profit while fulfilling the social needs of its employees and pleasing government officials.		X
Nokia	Nokia reached deep into countries to develop relationships with resources, such as distribution channels. Research showed Nokia’s involvement in standards/ regulations which affect technology choices; however, specific activities in EMs were not mentioned. However, many solid partnerships were formed in the areas of research, development and manufacturing.		X
PepsiCo	PepsiCo has numerous successful relationships in the areas of manufacturing and distribution. The pesticide and water situations caused additional emphasis on relationships with the government, activist groups, and the general public. The activities related to water preservation and education related to farming and recycling gave favorable publicity - reinvestment of profits back into the community cements relationships.		X

Table 3.11: Summary of Research for “Relationships” Resource (continued on next page).

Company	Example	Behavior Exhibited	
		DM	EM
CAT	CAT utilized relationship based business agreements to gain entry into Chinese markets to get their high-end products into a market which was previously dominated with low-end products from indigenous companies. - Signed technology transfer agreements with officials which allowed local companies to produce Caterpillar licensed products (helped develop brand name in market). - Signed letters of intent with the National Development and Reform Commission in which both parties agreed to promote China's remanufacturing industry. - Worked with Regulatory and Safety Standards agencies to improve the processes and standards used to develop, test and specify industry regulations. This improved Chinese standards and ultimately enabled indigenous heavy equipment to sell their products globally.		X
GM	GM leveraged a "Priority based" relationship between Rudolph Schlais, GM China's President of Operations, and the senior leaders of the Chinese Government to reach an agreement that would give GM rights to manufacture and sell their cars in China, in exchange for a commitment to share technology and develop the technical capabilities of the Chinese auto industry. Additionally, through GM's relationship with government and regulatory agencies, they were granted permission to establish their own distribution and sales networks in China, a permission which had not previously been granted to any other foreign manufacturer in China.		X

Table 3.11: Summary of Research for "Relationships" Resource (continued from previous page).

*Summary: MNCs must realize that relationships are crucial for success in EMs, and must work to build these relationships to gain a firm understanding of who makes decisions in the EMs. This is due to: 1) the culture which emphasizes personal relationships in business decision making; 2) the requirement to stay abreast of changing regulations via relationships with officials; and, 3) the need to gain the support of special interest groups.*

### Additional Traits Identified

Our research of the six additional MNCs enabled us to distinguish three extra traits that were not identified in the Tata Nano research. These are outlined in the tables below with observations in the paragraphs following each table.

### Operational Efficiency

Due to pricing pressure in the lower income emerging markets, successful MNCs have embraced processes and practices which reduce costs and thereby enable profitability. Some of these were developed market methodologies such as adoption of modular architectures, and the quality practices of

Six Sigma and Zero Defects. To win over the competition, an MNC will need to focus on operational efficiency when bringing tailored products to emerging markets. This is the case with Nokia which is able to maintain its number one position and edge out Motorola, Samsung and LG on price due to its highly efficient systems. In reflecting on Tata Nano, we can see that the use of low cost manual labor to assembly car “kits” at dealerships is a form of operational efficiency. Also, as indicated in Chapter One, Nano engineers utilized many DFSS-like tools such as Poke-yoke and Design for Assembly to enable Tata to manufacture the car with a labor intensive model.

Process	Operational Efficiency
GE	Articles did not provide sufficient insight to comment.
Haier	Maintaining modular product architecture. In their distribution process, Haier took a different approach by adopting a vertically integrated distribution system. Also developed JIT (Just In Time) inventory management system.
Nokia	Noted for operational efficiency, earning the number one spot in AMR Research's 2007 survey of top supply-chain operators. Fast, flexible, and networked organization. An industry-leading operating profit margin of 25% on handset sales in the fourth quarter of 2007. Goal to be “one of the most efficient manufacturers on the planet”.
PepsiCo	Tuned its processes associated with product development, promotion, sales and distribution to emerging markets. Standardizing best practices to improve the effectiveness and efficiency of operational process capability. “The common thread is doing an extraordinary job of managing our costs to offer the absolute best price at maximum profitability” Bottling operations throughout the world have standardized on best practices, given their observation that there are more similarities than differences in process operations around the world, in order to improve the effectiveness and efficiency of operational process capability.
CAT	Six Sigma Processes in all of their operations, not just manufacturing. While they have spent considerable time (and plan to continue to invest in) developing the Caterpillar Production System (CPS)
GM	Zero defects production process. As part of this, GM planned to leverage its engrained quality values Leveraged product tracking and inventory management technology from the U.S. parent company to manage integration and operation of third party (indigenous) logistics operators who delivered cars to the distribution network in China. With this system, salesman entered sales and customer information into the system which would assure proper delivery of the car, as well as track customer trends to obtain customer insight.

Table 3.12: Additional “Process” Trait: Operational Efficiency

*Summary: To have a sustainable competitive advantage, MNCs must enhance operational efficiency to reduce costs and enable profitability when selling tailored products into emerging markets.*

## Customer Interface Practices for Promotion, Sale and Services

It can be challenging for an MNC to have an interface by which to connect with end-customers in emerging markets, due to the lack of infrastructure and communication technology (TV, computer, etc), as well as lack of “distributors” such as Walmart and dealerships. In addition, sales are often hampered by consumer financial restrictions. Successful MNCs have developed ways to promote their product visibility to consumers, enable purchasing options that are affordable, and also provide service after the sale. These companies developed creative methods to physically reach the citizens, such as Nokia with company vans that traveled the dirt roads of India to promote their hand held devices. (It’s interesting to note that Nano visibility was achieved via “buzz advertising” – no salesmen were required, nor can Tata currently keep up with the demand.) In addition, MNC’s modified financing procedures to assist customer purchases; CAT and Nokia are examples of this. Literature also supports this overall trait stating that, “instead of using traditional supply chains, many companies are distributing through rural self-help groups and microlenders that are already plugged into villages” (Bellman, 2009). Finally, both GE and Haier illustrate how service strategies were adapted for the emerging markets.

Process	Customer Interface Practices for Promotion, Sales and Services
GE	Doctors in rural China were less familiar with ultrasound than doctors in cities. In response, they developed sales and service strategies by emphasizing training, offering online guides, designing simpler keyboards and created built-in presets for certain tasks.
Haier	Haier has 42 distribution centers throughout China that were given enormous latitude to operate as independent sales companies. The structure enabled them to adapt and effectively meet customers’ needs in China diverse geographic and local conditions. In addition, Haier also set up a service center in Qingdao that used a computerized system to track tens of thousands of customers. Their responsive customer interface has created a loyal following of customers.
Nokia	Developed outstanding marketing, sales, distribution and service in emerging markets (self-financing, eRefills), even with vans that bump along the rural roads of India between stops for instruction on how to use mobile phones. Have provincial distributors but also engaged a large direct-sales force
PepsiCo	Marketing - focused on “working our way into the skin of younger people”, while Coke “failed to cue into a new generation”. Nokia connected with “splashy ads bursting with Indian celebrities”.

Table 3.13: Additional “Process” Trait: Customer Interface Practices (continued on next page).

Process	Customer Interface Practices for Promotion, Sales and Services
CAT	Private firms often lack capital to purchase their equipment outright, nor do the channels exist in these markets for these companies to obtain financing for equipment. To address this, CAT set up a division, Caterpillar Finance, to aid such companies in acquiring funding to purchase equipment. E.g., A paving company was offered a special financing deal to enable them to complete a key project with Caterpillar equipment. Caterpillar's practice of extending its financial resources to the customer through flexible and competitive financing has positively impacted both Chinese contractors as well as Caterpillar.
GM	SGM launched "Buy Power" , an online site where customers could select options packages, the most convenient dealer, obtain financing and complete the order completely online. This allowed customers to simply arrive at a dealership to just pick up their car. To promote the system, GM offered a free laptop to buyers who purchased vehicles thru the Buy Power site during the Shanghai auto show. This both helped GM obtain brand recognition, as well as promote e-commerce type sales in China, which makes it much easier to reach customers.

Table 3.13: Additional "Process" Trait: Customer Interface Practices (continued from previous page).

*Summary: Due to the lack of infrastructure, MNCs need to develop creative methods to promote their products, enable purchase by customers with limited financial resources, and provide service.*

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## Intellectual Property

Technology is a key resource for many corporations, and in emerging markets it can be leveraged to lower costs in manufacturing, as well as service after sale, which was the case with PepsiCo and Nokia. As indicated a few times thus far, lower costs are a key competitive advantage when attempting to sell products into an emerging market. In addition, technology that offers unique market value-added capabilities can enhance sales. Nokia's technology which converts voicemail to text is important to consumers who need to minimize expenses. Finally, possessing good IP worth sharing can help to forge relationships which open doors to developing new product markets in the EM. This is the "bargaining chip" mentioned previously under Technology Development. However, MNCs should proceed with caution due to lack of solid IP protection in emerging markets - don't transfer technology in China unless it's your only option to engage in the market.

Resource	Intellectual Property
GE	Articles did not provide sufficient insight to comment.
Haier	Articles did not provide sufficient insight to comment.
Nokia	Equipment: reduce the number of required towers, as well as the expense of each tower, which enabled them to cut operating costs and lower the price of service. Technology that allows conversion of voicemail to text gives a competitive advantage.
PepsiCo	Leading edge manufacturing technologies in the industry
CAT	Sophisticated technology to China to set up a recycling program & remanufacturing effort with local community. Methane gas power project helped both mining safety and energy production.
GM	GM leveraged its technological resources and established a sophisticated research and development center in China. The computers at the center were linked to other GM research centers worldwide, which created an instantaneous source of the latest designs and technologies for engineers in China.

Table 3.14: Additional "Resource" Trait: Equipment and Intellectual Property

*Summary: Intellectual Property is a great resource and MNC's must understand how they can leverage theirs to reduce costs, increase sales, or develop new product markets. However, they must be mindful of IP regulations of the EM and insure proper protection is in order. Additionally, MNC's may need to "share" their IP to help build the industry in the EM, and should thoroughly evaluate the conditions and risks associated with doing so.*

### Summary table of recommendations

The following Table 3.15 contains a consolidated list of the recommendations for each of the traits reviewed in this chapter. MNCs that plan to develop products targeted at citizens in emerging markets can increase their chances of success if they determine how to apply these recommendations to their products.

TRAIT	EM Recommendations
Financial Approach (V)	MNCs must be willing to accept longer ROI periods. In most cases, price point should be tailored to the specific target market, unless product features enable premium pricing.
Motivation (V)	In developing EM strategies, MNCs must abandon the need to meet short term Wall Street financial expectations. They should have vested interest in improving the way of life of the indigenous citizens, and have solid commitment to work with local government in meeting the country national aspirations.

Table 3.15: Summary of Recommendations for Developing Products for EMs (continued on next page).

TRAIT	EM Recommendations
Customer Insight (V)	Due to lack of solid market data and the fast paced change occurring in EMs, MNCs must recognize that they need to increase their ability to sense opportunities and rapidly tune offerings, and also be willing to make decisions based on little information and sensed data.
Risk Acceptance (V)	MNCs must be willing to accept a higher risk profile when investing in EMs. This includes addressing all of the EM unknowns, making large monetary investments with uncertain payback, and transferring technology - potentially even to competitors - to develop the broad market into which they're entering.
Product Design Requirement Drivers (P)	MNCs should design products tailored to the local market and incorporate technology and features where they are needed. For high end markets, highly featured, technologically advanced DM products can be sold in EMs.
Technology Development (P)	MNCs must recognize that technology development is often optimized through partnerships, and should seek opportunities to leverage technology to either assist in overall emerging market development, or to gain access to new markets.
Brand Image (R)	Successful MNC brands must gain trust and support from the emerging market via delivery of quality products and services that address local needs, and by improving the way of life. They need to realize that brand image alone will likely not guarantee success.
Business Infrastructures & Supply Chains (R)	Infrastructures in EMs are often underdeveloped and fragmented; therefore, MNCs must recognize the need to adapt and organically develop supply chains and distribution channels, as well as leverage current DM infrastructure where possible to achieve operational efficiency.
Technical skills in the market (R)	MNC's should understand the level of technical skill available in the market and have a plan on how to leverage local skills vs. utilizing those from their home market. Experienced individuals with highly specialized technical skills (Research, Development, Manufacturing, etc) are often limited in EMs; however, training can be provided to increase technical expertise and experience of the large pool of technical graduates that often exist.
Labor characteristics in the market (R)	MNCs need to evaluate the use of low cost labor for their manufacturing. While low cost labor may be attractive for production in EMs, MNCs have been very successful transferring high end automation equipment and processes to those countries.
Relationships (R)	MNCs must realize that relationships are crucial for success in EMs, and must work to build these relationships to gain a firm understanding of who makes decisions in the EMs. This is due to: 1) the culture which emphasizes personal relationships in business decision making; 2) the requirement to stay abreast of changing regulations via relationships with officials; and, 3) the need to gain the support of special interest groups.
Operational Efficiency (P)	To have a sustainable competitive advantage, MNCs must enhance operational efficiency to reduce costs and enable profitability when selling tailored products into emerging markets.
Customer Interface Practices (P)	Due to the lack of infrastructure, MNCs need to develop creative methods to promote their products, enable purchase by customers with limited financial resources, and provide service.
Intellectual Property (R)	Intellectual Property is a great resource and MNC's must understand how they can leverage theirs to reduce costs, increase sales, or develop new product markets. However, they must be mindful of IP regulations of the EM and insure proper protection is in order. Additionally, MNC's may need to "share" their IP to help build the industry in the EM, and should thoroughly evaluate the conditions and risks associated with doing so.

Table 3.15: Summary of Recommendations for Developing Products for EMs (continued from previous page).



## Conclusion

The research and analysis confirmed our hypothesis which maintains that the RPV stock of MNCs must be adapted to the unique needs and operating environment of EMs. Figure 3.1 below provides a summary of the “scores” of the EM behaviors exhibited that were assigned in the proceeding tables for each RPV trait studied. One trait where our original assumption was not confirmed by our analysis is labor characteristics. MNCs are not required to leverage low cost, unskilled labor in order to be successful in emerging markets, due to the existence of skilled resources which enable the option of deploying highly technical and automated processes. Three of the traits were practiced by only four of the six MNCs. This implies a mixed practice relative to those specific hypothesized EM traits: Financial Approach, Product Design Drivers, and Technical Skills. We believe this is due to the variety of markets targeted by the MNCs studied - premium versus tailored products. The most important successful MNC behaviors are considered to be when five or more of the companies displayed the trait.

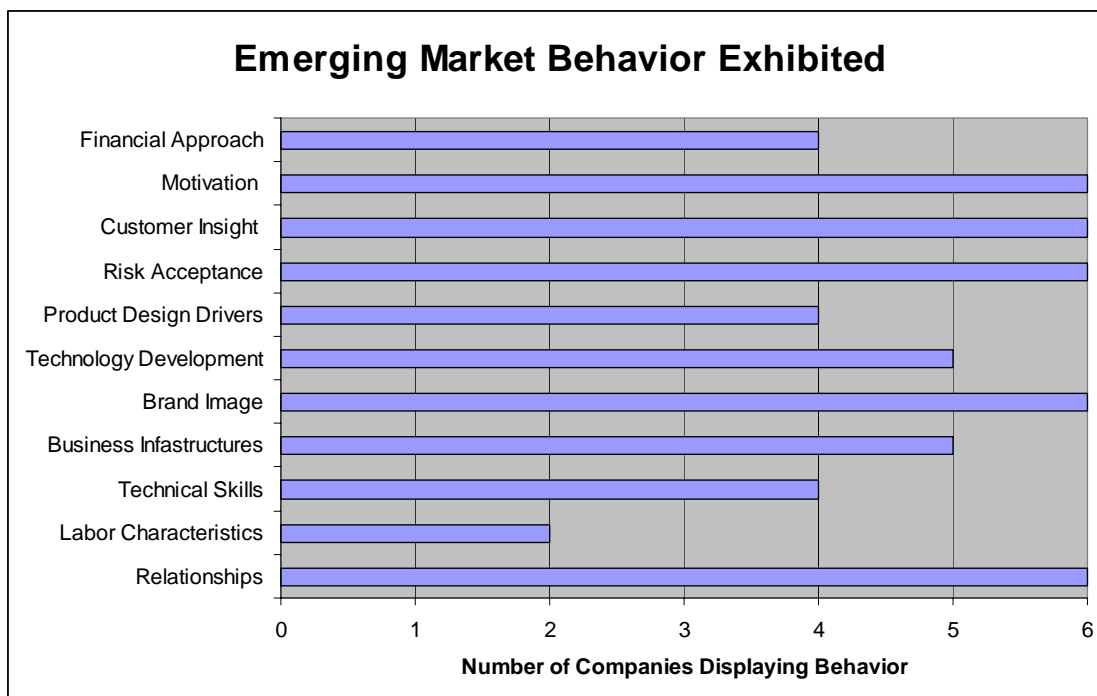


Figure 3.1: Tally of Behaviors Exhibited by Successful MNCs in Emerging Markets

Discussions on each of the specific traits are contained in the initial portion of this chapter; however, it is necessary to highlight that perhaps the most essential trait associated with success is “Relationships”. Not only are relationships fundamentally important in EMs, but they are also have broader implications and links to several other traits such as building brand equity and access to local technology. As noted

previously in this chapter, relationships are crucial for success to provide trust and endorsement, as well as official permission to do business in the country. But in addition, they enable the partnerships that were recommended for “Technology Development”, as well as the ability to leverage the “Technical Skills” in the market. Furthermore, from a Values perspective, the “Motivation” for market entrance requires a balance between monetary and social objectives, and the latter are accomplished via relationships which also promote “Brand” trust. Additionally, “Customer Insight” can be gained more readily and accurately with good relationships. Finally, sound relationships can help mitigate “Risk” levels associated with the EM unknowns.

The distinction of the role of relationships in EMs versus DMs is very critical for several reasons. While relationships in DMs can be fleeting and based on lowest cost, fastest service, the EM has a different model. MNCs must place a high value on relationships and recognize that they take a lot of effort in EMs, as well as a long time to develop. Now recall that “Relationships” are considered to be a “Resource” which were defined in Chapter One as being more easily replaced than Values and Processes in regard to organizational capability. Whereas Christensen and Donovan state that, “the capabilities of the organization ...reside in its processes and values” (Christensen & Donovan, 1999), we assert – based on our research – that in an emerging market, the organizational capability is also a strong function of its relationships, which are resources.

# Chapter Four

## Introduction to Research Method

For this section of the paper, five companies in upstate New York were interviewed to gain an understanding of their approaches to product development for emerging markets. Our goal was to compare their activities and practices to the recommended set of EM RPV to determine how well their approaches resemble our recommendations. For the sake of confidentiality, each companies name will not be revealed and companies will be referred to by number.

## Characteristics of Companies Interviewed

The bullets below describe the characteristics of the five companies who were interviewed as part of our primary research.

- Revenues ranging from USD\$500M-6B
- Companies represent a variety of industries including: medical, consumer goods, equipment, and materials
- All companies are well established in their home markets and have a been in business for at least 30 years
- All companies are among the top competitors in their respective industries
- All companies are engaged in emerging markets and have a significant level of involvement in at least one BRIC country

## List of Questions Asked

Below is the list of questions utilized to analyze the approaches of companies that were interviewed. These questions were devised under consideration of the representative EM RPVs established through our secondary research. Our goal was to utilize these questions to prompt conversation to gain insight into their actual practices.

**Resource Related Questions:**

- Where do you expect R&D for products for EMs to occur?
- What considerations go into an EM supply chain (versus DM)?
- Have you found major differences between DM and EM requirements? If so, how do you accommodate consumer needs that differ dramatically from DM's due to the socio-economic differences?
- How do you leverage resources in EMs? (labor, skills, distribution channels)
- What are your challenges in marketing, distributing and retailing products in EMs?
- How is brand used in approaching EMs? Can you leverage it?

**Process Related Questions:**

- How do you gather and understand customer needs in EMs?
- How do you prioritize and translate those into design?
- For EMs, is the technology for the product developed internally or acquired externally (open innovation, supplier innovation, partnerships, licenses, etc)?
- Can you characterize your NPD process for EMs? (Do you have any unique strategies or approaches that you have proven successful?)
- What are your thoughts on market entrance and the importance of relationships in EMs?
- How important is the relationship with the government/ regulatory agencies when establishing a new product in an EM?

**Values Related Questions:**

- What are your key motivating factors when deciding to enter a new market? (stockholder, future, altruism)
- How do you gauge the attractiveness of an EM?
- How do you get market information for EM?
- What level of sales are required for you to enter a market?
- Do you tailor pricing strategy for the emerging market?

## Company Evaluation Criteria

Upon completion of the interviews, companies' responses were used to assess their current approach to emerging market product development versus our recommended set of RPV characteristics. Each question asked was mapped to one of our recommended EM RPV characteristics (as seen in Table 3.15), and the response was evaluated to determine how well their approach matched our recommendations. Companies' responses were evaluated from two perspectives; Awareness and Practice, which have been defined below:

**Awareness:** The level by which companies demonstrated understanding of emerging market factors according to our suggested list of EM RPV characteristics as developed in Chapter Three (see table 3.15).

**Practice:** The level by which companies are actually demonstrating execution of our recommended set of EM RPV.

To quantify the level of which their traits matched our recommended set of RPV characteristics, our team rated their current awareness and practice for each RPV by assigning them a score between 1 and 5, with 1 representing poor performance and 5 representing excellent performance. Once these values were established, two graphs were created. To enable us to compare companies, we first averaged each firm's scores for all EM RPV characteristics and plotted their overall average awareness and practice ratings (refer to Figure 4.1 immediately below). Second, we calculated an average score for each RPV characteristic based on all companies scores in each respective category, and created a plot (Refer to Figure 4.2) to display the average score for each RPV characteristic.

The figure below is a representation of the overall rating of each company. You will see that the companies interviewed exhibited varying levels of awareness and practice of our recommended set of EM RPV.

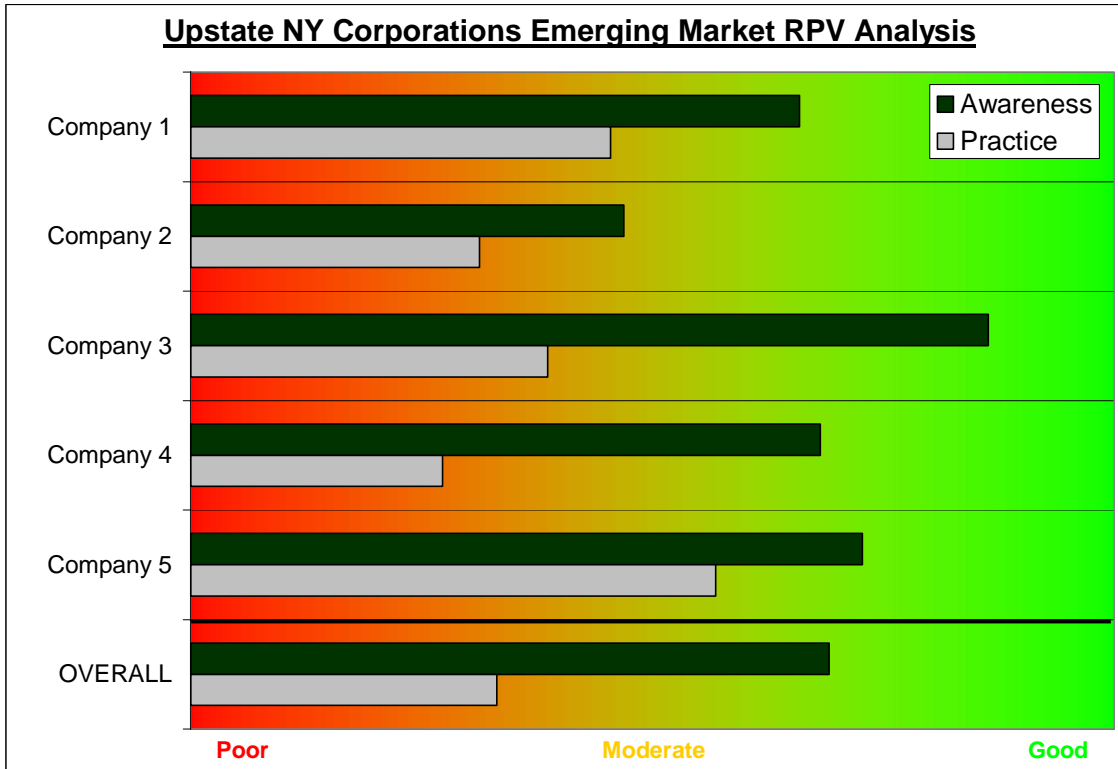


Figure 4.1: Upstate NY Corporations Averaged EM RPV per Company

Through our research, and depicted in the figure above, a gap was identified between companies' perceived understanding and awareness of emerging markets and the actual practices they employ to develop products for them. It can be seen that most companies demonstrated a relatively high awareness of the opportunity in emerging markets and the best practices needed to succeed in those markets. However, although these companies claimed to be aware of these best practices, their approach and strategies do not necessarily exhibit these characteristics. This was the case especially in Company 1, Company 3, and Company 4. Company 5 however, exhibited a fairly strong awareness of our recommended RPV characteristics, and were the most advanced from an implementation perspective. Conversely, Company 2 exhibited the lowest level of awareness and practice of our EM RPV. Interestingly, Company 5 is involved in an industry that has eroded significantly in developed markets, forcing them to focus efforts on emerging markets. As a result, they have dedicated a significant percentage of their resources to immerse themselves in emerging markets to gain an understanding of what they need to be doing there to assure long-term growth opportunities.

The challenges already faced by Company 5 relating to the erosion of their industry in Developed markets, are exactly what we believe will happen to numerous other industries within the next 30 years,

thus supporting the importance of obtaining a strong understanding of EM best practices. Given this, we are concerned about Company 2 and their current strategy as we feel they may not currently be committed enough to emerging markets. For Company's 3 and 4, you can see that they demonstrate a fairly high awareness of EMs and how they should be executing; however, they are struggling significantly from a practice perspective. This is where we believe the issue lies with MNCs attempting to enter EMs. Most MNCs are working to understand what they need to do to be successful in EMs, however when it comes to execution they struggle. The question is why? Why is there such a gap? This is where the RPV model comes in. The gap is likely due to the fact that even though firms know what they should be doing, their core values and processes don't align with the values and processes that need to be practiced, a thus firms struggle to execute in EMs. To further understand these gaps, let us next evaluate the results on an individual RPV basis.

## EM RPV Gap Analysis

The figure below is a breakdown of the awareness and practice ratings for each EM RPV factor.

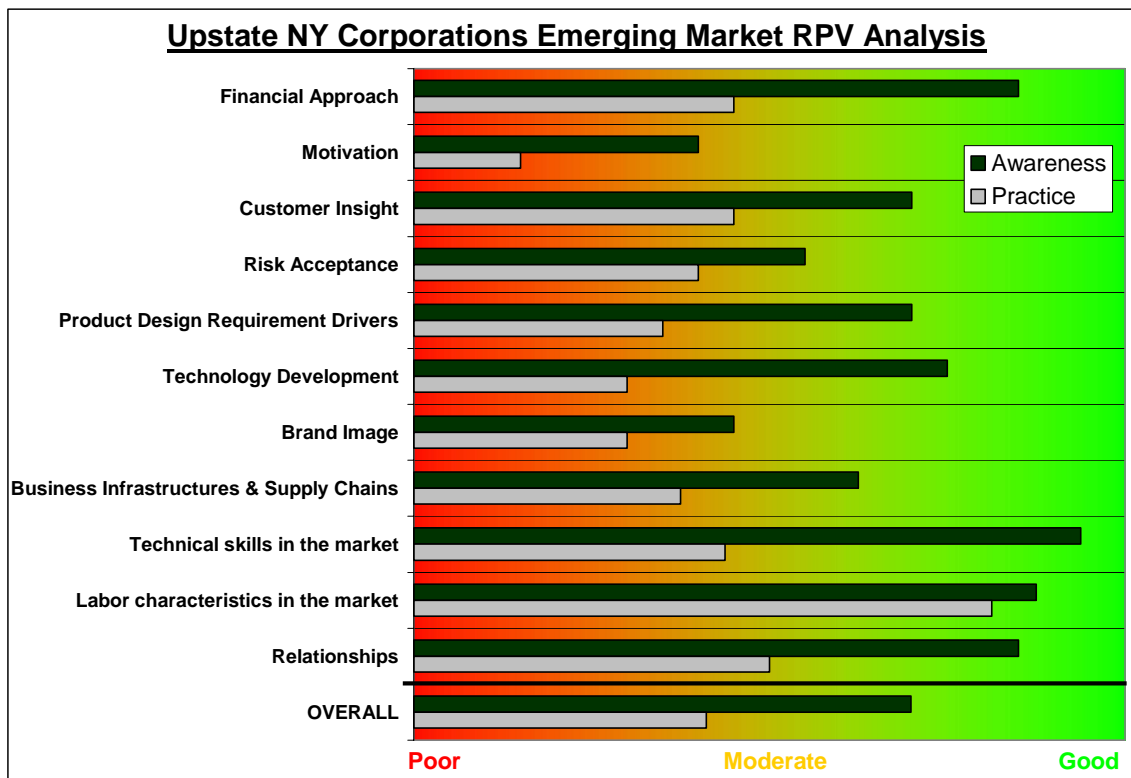
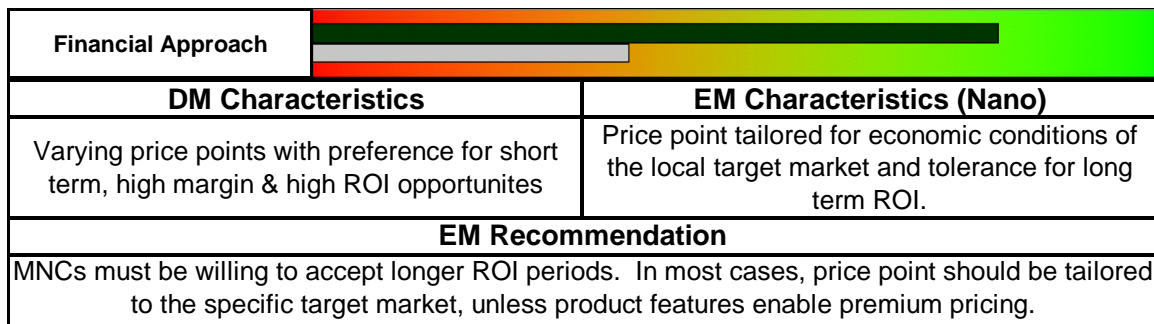


Figure 4.2: Upstate NY Corporations Emerging RPV Trait Averages for Five Companies

From the figure above, it is evident that the companies interviewed exhibited much larger gaps between awareness and practice in some categories than others. The analysis below will be used to discuss these individual categories. To aid in the analysis, a table has been created for each individual RPV characteristic containing the ranking from Figure 4.2 above for Awareness (top bar) and Practice (bottom bar), the developed market versus the emerging market characteristics as defined in Chapter Two, and our EM RPV recommendation from Chapter Three.

### Financial Approach



<b>Financial Approach</b>	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Varying price points with preference for short term, high margin & high ROI opportunities	Price point tailored for economic conditions of the local target market and tolerance for long term ROI.
<b>EM Recommendation</b>	
MNCs must be willing to accept longer ROI periods. In most cases, price point should be tailored to the specific target market, unless product features enable premium pricing.	

Figure 4.3: Upstate NY Corporation – Value of Financial Approach

Most firms studied exhibited a high level of awareness relating to the need to accept longer ROI periods in EMs and tailor their prices to the market. However, a major gap exists between their awareness and practice. Although most stated that they understand that investments in EMs need to be made for the long-term, many commented that their organizations struggle to accept the projected lengthy investment return periods. We found that firms are not as willing to accept ROI duration outside of the typical five year window, thus many of the firms studied have maintained the usual DM expectations, which are likely not achievable in an EM. Although they are aware of the fact that paybacks on investments may take longer, most firms studied are not willing to invest with an unknown payback timeframes.

From a pricing perspective, the findings are similar. Firms' engrained values guide them back to a scenario where they attempt to fit current products into those markets at price points that insure that typical margin expectations will be achieved. Ultimately, it is these values that keep them focused more on fitting their traditional pricing structures to the EM, rather than tailoring specifically to the respective market.



Firms' struggles to adopt pricing and ROI expectations to the emerging market represent a significant area where they will have to put forth serious effort to align their values to those resembling of successful EM companies. Most firms will have to learn to accept longer investment return periods and be willing to price their products according to economic conditions of the market, unless their product offerings are in high demand in the EM and an established market exists.

#### Motivation

<div> <div>Motivation</div> </div>	
DM Characteristics	EM Characteristics (Nano)
Driven to meet Wall Street expectations.	Monetary motivation balanced with altruistic national aspirations and social needs.
EM Recommendation	
In developing EM strategies, MNCs must abandon the need to meet short term Wall Street financial expectations. They should have vested interest in improving the way of life of the indigenous citizens, and have solid commitment to work with local government in meeting the country national aspirations.	

Figure 4.4: Upstate NY Corporations – Value of Motivation

From a motivation perspective, firms interviewed displayed both a low level of awareness and practice of EM characteristics. The companies seem to have a poor understanding of the notion that motivation needs to be balanced between financial gain and altruistic intent. Most firms' sole motivation is financially driven, and many don't understand the long term benefit of adopting an altruistic focus. Their values keep them extremely focused on analyzing the immediate return potential of the market, with less emphasis on seeking opportunities to help improve the well being of indigenous citizens.

Given that most firms exhibited poor awareness and practice, there is not a significant gap between their understanding and their actions. The major issue is that they struggle to realize the potential opportunity in working with the EM to help improve their way of life, while putting immediate short term financial gains on the back burner. Many believe that their products alone are enough to enable them to make money in an EM and completely overlook the potential benefit of being viewed as a company who is interested in improving the way of life in the country. Our recommendation should be considered by firms who demonstrate a low awareness of the key motivating factors for entering an EM. They should seek out opportunities to be a partner in developing the way of life in the EM and find ways to suppress the short-term financial growth expectations often placed on them by Wall Street.

## Customer Insight


Customer Insight	
	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Methodical market research and analysis of the opportunity is completed (and is possible) due to existence of data.	Market needs sensed through means such as customer immersion and/ or observation; data does not pre-exist to validate opportunity.
<b>EM Recommendation</b>	
Due to lack of solid market data and the fast paced change occurring in EMs, MNCs must recognize that they need to increase their ability to sense opportunities and rapidly tune offerings, and also be willing to make decisions based on little information and sensed data.	

Figure 4.5: Upstate NY Corporations – Value of Customer Insight

Firms interviewed demonstrated a good awareness that customer insight in EMs is often best obtained through direct involvement and interactions with customers in those markets. Many stated that they often struggle to gain access to key customers given the broad and divergent requirements of the local market that often exist in EMs, and are working to improve their level of customer immersion. While most of the companies interviewed were aware of the need to sense EM market needs given the limited availability of sound market research data, some believed that they can simply “force feed” their current product offerings into EMs.

Although firms demonstrated an awareness of the best manners to obtain customer insight in EMs, they have been relatively poor in their execution. A gap exists with their claim to be aware of the fact that they need to become more immersed with their EM customers, yet their practices are to simply sell current products designed around the needs of DM customers in EMs. Firms are still attempting to understand market potential for fitting current products based on opportunity given the large emerging population, rather than truly understanding and sensing the needs of those markets and developing products to suit them.

## Risk Acceptance


<div> <div>Risk Acceptance</div>  </div>	
DM Characteristics	EM Characteristics (Nano)
Prefer to pursue risk adverse opportunities	Higher tolerance for risk given large opportunity
EM Recommendation	
MNCs must be willing to accept a higher risk profile when investing in EMs. This includes addressing all of the EM unknowns, making large monetary investments with uncertain payback, and transferring technology - potentially even to competitors - to develop the broad market into which they're entering.	

Figure 4.6: Upstate NY Corporations – Value of Risk Acceptance

Risk acceptance is an area where firms are struggling both from an awareness and practice perspectives. Although most realize the potential opportunity of EMs, many are not willing to assume the extremely high level of risk associated with a 100% commitment to participating in EMs. They are trapped by values which cause them to continually focus on more risk adverse investments. Most of the companies studied approach EMs with the most comfortable approach possible, which usually entails simply targeting the top tier markets where they can sell current products in a similar manner to the way they do in DMs.

From a technology perspective, many firms studied are reluctant to share technologies to gain market entry given the risk of exposing their technology to their competition. They fail to see the potential benefit in sharing technologies to gain access to these new markets and are afraid of the risk involved.

Overall, the companies interviewed are not exhibiting behaviors which demonstrate a level of risk has been accepted that matches the opportunity of the market. They are generally taking the least risky approach, and thus not acting in a fully committed manner. This could be detrimental to the firm as our research shows that companies who accept high levels of risk and seek opportunities to help grow technologies in EMs (Caterpillar and GM) are often the ones that establish the largest footholds in those markets. Given the extreme level of unknowns, and the high level of commitment required to act in a manner representative of top performing MNCs in emerging markets, aligning your firm's values to support the kind of risk acceptance required may be one of the most challenging RPV characteristics to adapt.

## Product Design Requirement Drivers


<b>Product Design Requirement Drivers</b> 	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Product design driven by optional features and cutting edge technology.	Product design fulfilling local market needs and "Good enough" specifications.
<b>EM Recommendation</b>	
MNCs should design products tailored to the local market and incorporate technology and features where they are needed. For high end markets, highly featured, technologically advanced DM products can be sold in EMs.	

Figure 4.7: Upstate NY Corporations – Process of Product Design Requirement Drivers

The companies interviewed exhibited a mixed level of awareness of product design requirement drivers for EMs. Some firms realized the need to scale back products to provide only the level of feature desired by the market, while others simply believe that they can push their high-end products into high-end or tier one type sectors in EMs. We found that companies offering high-end brands often attempt to maintain their high-end status and are sometimes afraid of devaluing their high-end brand-name by providing "good enough" products. This is one of the reasons that a large gap exists between awareness and practice for this trait. While many firms interviewed were aware of the idea of providing "good enough" products, they tend to revert to their typical approach of designing products which are likely above and beyond the level of feature or functionality desired in EMs. It will be a challenge for them to change their processes relating to product design given their methods used in developed markets have been primarily focused on adding the latest and greatest features to their products to differentiate them from the competition. In emerging markets, especially in second and third tiers of these markets, consumers will typically be more driven by cost than feature, and thus MNCs may need to adapt their internal processes to support this.

Overall, the behaviors of the companies interviewed were resemblant of the companies studied in the secondary research portion of this paper (Chapters Two and Three). Some firms have been successful in providing high-end, highly featured products to the top tier markets in the EM countries, while others have been successful with the "good enough" approach. The fact that the primary research supports the secondary research demonstrates that a company can be successful in either providing high-end or good enough products - the important element is to be cognizant of what the market is willing to pay for the features and function being provided. Often, companies miss opportunities to reduce costs as they provide the customer with features they don't value and for which they are not willing to pay a premium.

## Technology Development


	
<b>Technology Development</b>	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Organic internal technology development derived from scientific research and historical experience	Technology development and transfer through partnership
<b>EM Recommendation</b>	
MNCs must recognize that technology development is often optimized through partnerships, and should seek opportunities to leverage technology to either assist in overall emerging market development, or to gain access to new markets.	

Figure 4.8: Upstate NY Corporations – Process of Technology Development

Companies interviewed are highly aware of the opportunities and the trends towards technology development through partnership in EMs. Although aware, most are not actively engaged in technology development partnership efforts in EMs (this is due in part to the risk averse preference discussed earlier). Thus many of the firms studied are attempting EM technology development organically out of their DM locations.

Technology development is another area where a large gap exists between awareness and practice. Firms are reluctant to form partnerships with indigenous companies and agencies due IP protection concerns and are likely missing opportunities to gain access to new markets. They should aim to increase their level of technology partnerships in EMs to improve their position and recognition in those markets. Our secondary research suggests that emerging market government and regulatory bodies often times give preference to corporations who commit to partnering with the EM to develop the level of technology available in their respective industry. This was the case with GM and Caterpillar. Given this, companies should seek opportunities to develop these partnerships as they have proven to be vital stepping stones to long term growth in emerging markets.

## Brand Image


<b>Brand Image</b> 	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Global brand well known for premium or differentiated products.	Local brand well known for addressing local market needs and contributing to improving the standard of living in the EM.
<b>EM Recommendation</b>	
Successful MNC brands must gain trust and support from the emerging market via delivery of quality products and services that address local needs, and by improving the way of life. They need to realize that brand image alone will likely not guarantee success.	

Figure 4.9: Upstate NY Corporations – Resource of Brand Image

Brand image is an area where the companies interviewed exhibited a low awareness and low level of practice. Many believe that their global brand is enough to insure success in EMs, which is often not the case. Awareness of the need to build brand equity through developing trust in the EM is often underestimated. Few realize the potential benefit of becoming a locally trusted brand that is seen as a partner in developing the nation and improving the standard of living in the EM. Many companies aim to protect the status of their brand and thus are concerned with de-valuing their global brand by targeting low-end EMs. Our recommendation to firms interviewed is to reconsider the benefit of establishing local brand trust and seek opportunities to utilize their global stature to improve the way of life in EMs. They should attempt to leverage their brand as a resource to aid in the development of the EM nation, rather than simply as a resource to market global product offerings in an EM. They truly need to adapt and embrace the “Act Local” side of “Think Global, Act Local” mentality pushed by many MNC executives.

## Business Infrastructure & Supply Chain


<b>Business Infrastructures &amp; Supply Chains</b> 	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Complex, well developed Supply Chain and business infrastructure - typically based on "lowest cost wins" approach.	Under developed, fragmented Supply Chain and business infrastructures - often based on relationships.
<b>EM Recommendation</b>	
Infrastructures in EMs are often underdeveloped and fragmented; therefore, MNCs must recognize the need to adapt and organically develop supply chains and distribution channels, as well as leverage current DM infrastructure where possible to achieve operational efficiency.	

Figure 4.10: Upstate NY Corporations – Resource of Business Infrastructure & Supply Chain

Most firms are aware of the challenges associated with under developed and fragmented infrastructure in EMs and realize the need to improve supply chains in these markets. Many interviewed are attempting to leverage their DM resources to improve business infrastructure in EMs. One observation made is that corporations are often forced to concentrate their EM efforts in larger developed areas due to infrastructure limitations.

From a practice perspective, many companies are attempting to organically grow supply chains in EMs, or are seeking opportunities to partner with suppliers, distributors and other business groups who already have established supply chains in EMs. The challenge observed to date has been that firms typically underestimate the true difficulty, and level of adaptation required to establish efficient and effective supply chains in EMs.

From our secondary research, this represents an area where MNCs may be able to successfully leverage current supply chain resources. Companies like Pepsi, GM, Nokia and Caterpillar, have utilized aspects of their global supply chain where possible to improve efficiencies in EMs. Firms should consider identify the opportunities they have to leverage their current supply chain resources, and then evaluate what combination of organic development and partnerships will most efficiently fill the voids in their EM supply chain.

#### Technical Skills in the Market


	
DM Characteristics	EM Characteristics (Nano)
Highly specialized engineers with in-depth knowledge of a specific engineering/ scientific function.	Engineers with skills in applying existing technology, cost reduction and accustomed to local needs.
EM Recommendation	
MNC's should understand the level of technical skill available in the market and have a plan on how to leverage local skills vs. utilizing those from their home market. Experienced individuals with highly specialized technical skills (Research, Development, Manufacturing, etc) are often limited in EMs; however, training can be provided to increase technical expertise and experience of the large pool of technical graduates that often exist.	

Figure 4.11: Upstate NY Corporations – Resource of Technical Skills in the Market

All companies interviewed are very aware of the increasing level of technical skills in EMs due to their deep commitment to educating their growing populations. Additionally, many of the firms were aware of

the capabilities of these technically skilled and educated resources, and are cognizant of the benefit of leveraging them as resources to bring a “local voice” to their development teams.

Although all are aware of the skill level in EMs, few have established plans to leverage their abilities, especially related to cost reduction and understanding of local needs, thus a relatively large gap exists between awareness and practice for this trait. Many firms still utilize engineers and scientists from their home countries who are not accustomed to the conditions in EMs. As a result, they are often not fully leveraging the type of skills available in EMs. Another challenge is that key hiring managers, R&D centers and corporate Head Quarters are typically located in their developed home markets. Thus, a continuation of the use of home resources practiced by companies escalates the underutilization of technical resources available in EMs.

Based on our EM recommendation seen above, firms should evaluate the technical skills available in the EM and the trade-offs associated with utilizing EM technical resources versus home market resources. This assures they are leveraging technical skills as a resource to the best of their abilities.

#### Labor Characteristics in the Market


<div> <div>Labor Characteristics in Market</div>  </div>	
DM Characteristics	EM Characteristics (Nano)
Trend towards use of capital intensive automation or skilled labor	Leverage low cost labor and relatively low capital investment
EM Recommendation	
MNCs need to evaluate the use of low cost labor for their manufacturing. While low cost labor may be attractive for production in EMs, MNCs have been very successful transferring high end automation equipment & processes to those countries.	

Figure 4.12: Upstate NY Corporations – Resource of Labor Characteristics in the Market

Companies interviewed are highly aware of labor characteristics in EMs and exhibit an understanding of when it makes sense to leverage them and when not to. In our interviews, many commented that cheap labor alone is not enough incentive to move operations to EMs. Rather they typically evaluate whether it makes more sense to leverage automation or the low cost labor pool available in an EM in their operations.



From a practice perspective, companies have been fairly successful in understanding when to utilize low cost labor and when to rely on skilled labor or automation. The gap that exists between awareness and practice in this example is due to the fact that firms interviewed have not fully committed to manufacturing and assembly operations in EMs. They often use their facilities in developed markets to supply EMs due to the level of investment they already have in capital intensive platforms in developed markets. Companies interviewed seem to have a good handle on evaluating the best option for their specific business case. Our only recommendation is for them to remain cognizant of potential incentives and regulations related to the manufacture of goods indigenously in the emerging markets.

### Relationships

Relationships	
<b>DM Characteristics</b>	<b>EM Characteristics (Nano)</b>
Government and regulatory policy conformance are crucial for success.	Personal relationships with government, regulatory and society are crucial for success.
<b>EM Recommendation</b>	
MNCs must realize that relationships are crucial for success in EMs, and must work to build these relationships to gain a firm understanding of who makes decisions in the EMs. This is due to: 1) the culture which emphasizes personal relationships in business decision making; 2) the requirement to stay abreast of changing regulations via relationships with officials; and, 3) the need to gain the support of special interest groups.	

Figure 4.13: Upstate NY Corporations – Resource of Relationships

All companies interviewed demonstrated strong awareness of the importance of relationships in EMs. Many have leveraged relationships with key customers to improve market-share. Some firms have worked to establish partnerships in EMs to improve relationships with relevant influential parties. Additionally, many commented on their experiences regarding relationships with government and regulatory officials. They emphasized the immense importance of these relationships as critical to keeping up with the pace of change in these countries.

Although firms demonstrated awareness of the importance of relationships, they have not leveraged them in practice to the highest degree possible. Few seem to look for new and non-obvious opportunities to leverage relationships to their advantage. While they commented on the importance of relationships to keep up with the pace of change, they still seem to have some difficulty keeping up with this pace in EMs, especially as it relates to government and regulatory agency policy changes. Also,

many of the companies studied seem to lack an understanding of the importance of relationships with social and activist type groups, which from the Tata and Pepsi examples, can be a critical when entering EMs.

### **Primary Research Conclusions**

One of the key takeaways from the analysis in this section is that a large gap exists between the level of awareness of EM RPV characteristics and the level at which firms use them in practice. We believe that this is an issue for the companies interviewed. If they are truly committed to becoming a player in EMs, then they need to place a strong emphasis on aligning their strategies to the EM RPV characteristics recommended.

In addition to the gap issue discussed above, we are concerned about their level of awareness relating to three of the key RPV identified in our secondary research. If you consider Figure 3.1 at the end of Chapter Three, you will see that of the fourteen RPV characteristics identified, five were strongly supported by all of the corporations studied during our secondary research. These categories include; Motivation, Customer Insight, Risk Acceptance, Brand Image and Relationships. The source of our concern is that the companies studied as part of our primary research (as discussed in this chapter) exhibited low awareness of EM best practice in three of those categories; Motivation, Risk Acceptance and Brand Image. The issue is that while all of companies interviewed exhibited a good level of overall awareness of EM RPV characteristics, those characteristics where they demonstrated the least level of awareness were the most critical to developing a strong EM strategy.

These two issues have the potential to be detrimental to the firm's long-term viability in EMs. The question for these MNCs is, what is the source of these struggles?

Our answers to these questions lie in RPV. As discussed earlier in this paper, a firm's Resources, Processes and Values define the organization's capabilities. While most firms interviewed demonstrated some level of awareness relating to RPV characteristics for EM product development, they are not translating this knowledge into execution. This is likely due to the fact that RPV, especially Values and Processes, are extremely hard to change in a well developed firm because they are highly tuned to preserve the currently successful business model.. Although individuals in the company may

be aware of the best EM RPV characteristics, getting their entire organization to practice them is a difficult but necessary challenge. In the areas of motivation, risk, and brand image where companies are both unaware and exhibiting poor practice, an even deeper challenge exists. In these cases, the firm's values have caused them to overlook how an EM should be approached. Their traditional set of RPV have become blinders, causing them to believe that their approach to developed markets can simply be applied to emerging markets. Our research suggests that this is not the case. Firms need to understand that to be successful in EMs, their motivation and utilization of their brand need to be focused on improving the way of life for indigenous citizens, and that they must accept the increased level of risk that accompanies investments in EMs.

The first step to assuring success in EMs, is for the firms studied to recognize that significant differences exist between their RPV and the EM RPV outlined in this paper. However, simply recognizing the difference is not enough. Given the challenges associated with changing and adapting RPV in an established corporation, most will struggle to cross the chasm into successful EM product development unless they are completely committed to changing their organizations capabilities. In an effort to aid firms in developing strategies for emerging markets, a model is presented in the next chapter of this paper which is built upon understanding the true capabilities of your company as defined by RPV. The model is meant to be a guide to walk companies through a competency based approach to EM strategy development.

# Chapter 5

## Introduction

In this final chapter we will present overall recommendations and conclusions. But let us first begin with a brief re-cap of the material covered thus far. We started the paper by describing the enormous opportunity that the Emerging Markets represent, citing the Goldman Sachs paper which estimated a middle class of 800 million people by the year 2013 (Pelle, 2007). It was then noted that MNCs are unfortunately strategically disadvantaged in developing new products for the emerging markets due to geographical, economic, social, culture, infrastructure and governmental differences. A lack of solid market data forces MNCs to extrapolate inferences from macro economic data such as GDP, levels of consumer wealth, and people's propensity to consume. These approaches can result in inaccuracies and are symptoms of a larger root cause – MNCs find comfort in relying on predictable business models that have been built on years of experience in developed markets. To become a market leader, MNCs must be cognizant that they may need to adapt their traditional strategies to fit emerging markets.

The paper then presented the "RPV Model" by Christenson and Donovan which suggests that an organization's capabilities are made of resources, processes and values. Resources were explained as the collection of "people, equipment, technology, product designs, brand reputations, information, cash and relationships with suppliers and customers" (Christensen & Donovan, 1999). They are used to create value and considered to be more easily changed than processes or values. Processes are the means by which employees transform inputs into things of greater value. Finally, values reflect the company culture and business model, and are the criteria by which decisions are made (Christensen & Donovan, 1999). Our paper demonstrated with Kodak and Toyota how the firm's RPV become tailored to specific product markets, and are difficult to change when the market shifts. A key take-away was that the RPVs which enable success in a developed market might not be relevant to emerging markets, and could actually be barriers to change, impeding a company from adopting approaches required for success.

To identify the potential differing RPVs for the EM versus DM, we compared the strategy used by Tata Nano to develop, design and manufacture an automobile versus the general strategy employed by the

global automobile industry. A list of differences did develop and supported our idea that the comparison of Tata to global automakers represented empirical evidence of the larger differences between developed and emerging markets. This led to our hypothesis which asserts that developed market MNC approaches - as defined by their RPVs - will need to be adapted to enable success in emerging markets. Our hypothesis assumes this divergence represents a different set of rules for emerging markets and is best represented by using a RPV model.

Next, in order to test our hypothesis, research was completed on six additional MNCs that had demonstrated success in emerging markets. We studied the strategic approaches exhibited in those successful efforts to identify traits in the form of RPV that distinguishes their approach in the emerging market. Many correlations were found with RPV used by Tata to develop the Nano. The data was compiled into tables grouped by RPV, and analysis of that information enabled us to develop a framework of recommendations for MNCs considering development of products for sale in the emerging markets (refer to Table 3.15 in Chapter Three). One of the larger benefits of our work for this paper was the consolidation and organization of a considerable amount of scattered information into an RPV framework which corporations can use to develop strategy and actions for entrance into emerging markets.

This work validated our hypothesis which asserted that developed market MNC approaches (as defined by their RPVs) will need to be adapted to enable success in emerging markets. Relationships were shown to be the most crucial criteria due to the emerging market culture which emphasizes personal relationships in business decision making, the requirement to stay abreast of changing regulations via relationships with officials, and the need to stay tuned into special interest groups. In addition, many of the other traits required for success also had linkages to relationships. Finally, relationships in EMs were noted as being different than the typical "Resource" as defined by Christensen and Donovan, in that they're actually hard to replace, and also strongly define organizational capability.

The recommendations were then used to evaluate five New York State MNCs to identify potential gaps and generate ideas on recommendations for MNCs who seek to enter emerging markets. Interviews were conducted using a set of questions designed to assess the RPV which were determined to be pertinent to success in emerging markets. We found that while the MNCs had a good awareness of what's required for success in emerging markets, the level of actual practice was fairly low for most

categories. The reason for this gap is two-fold. First, there is a disconnection between existing versus required values, and a corresponding lack of strong motivation to change. This is primarily because they don't see the value proposition which would necessitate the need to upset embedded business processes to the extent required for the EM. This finding was confirmed in literature which stated that MNCs are reluctant "to tailor their strategies to every developing market in which they operate. They find it costly and cumbersome to modify their products, services, and communications to suit local tastes..." (Khanna & Palepu, 2006). Some of the lack of deep market understanding that could motivate action is due the deficiency of the press in the U.S. regarding other areas of the world which causes "Americans hold onto a worldview that excludes a large portion of the Earth's population" (Khanna, 2007). Second, these firms do not know the extent of the change required, or specifically "what" to change. Again, this confirmed our hypothesis, and literature also backs it up with statements such as, "My most stunning finding was the extent to which these established companies needed to adapt their business models to function effectively in a foreign locale" (Khanna, 2007, p. 160).

### **How to Implement the Recommendations**

Chapter four confirmed our notion that DM MNCs are struggling with what to do about the emerging market. This leads to the final – and perhaps most valuable - aspect of our paper. Now that we have provided recommendations on "what" developed market MNCs must do to increase their chances of success in emerging markets, the next challenge is for MNCs to determine "how" to apply the recommendations.

Figure 5.1 below provides a flowchart to illustrate the competency based approach we're recommending for developing new products for emerging markets. Given the variety of emerging markets, and the differences in MNCs and their products, it is impossible to provide a prescriptive model for strategy formulation. However, we believe this process flow, which applies a scenario based evaluation, will aid MNC's in developing specific strategies for their unique situations related to emerging market product development.

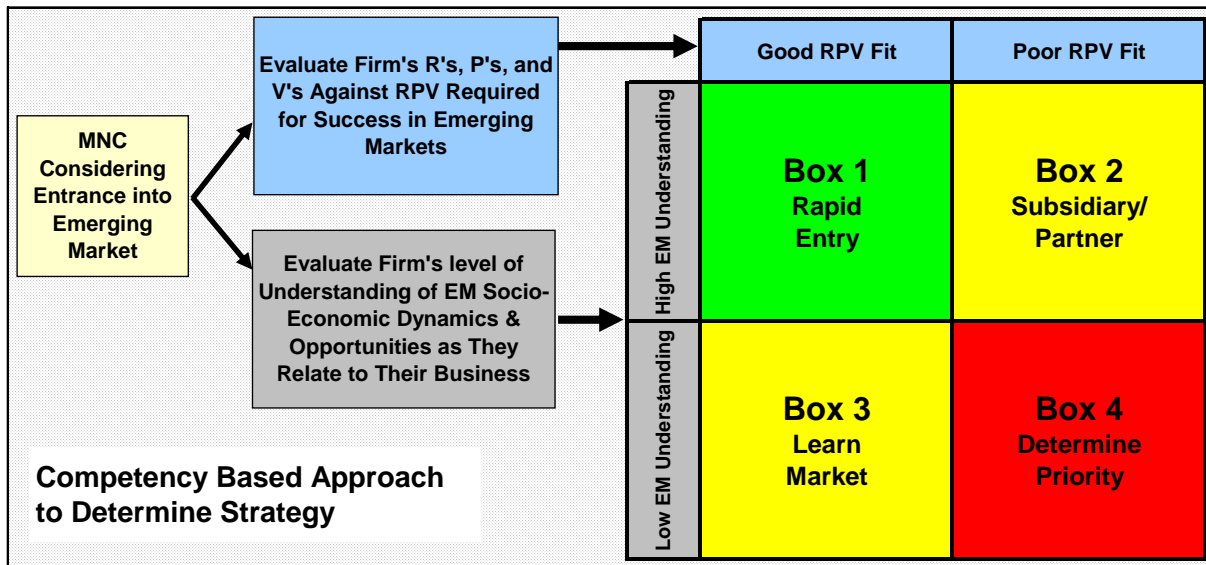


Figure 5.1: Process for Determining Strategy to Develop Products for Emerging Markets

The process starts with a decision to seriously consider entrance into emerging markets. This assumes that the firm agrees with the predictions of the enormous opportunity in emerging markets. Two initial activities need to be completed as part of this process. The first step requires assessment of the firm's RPVs to determine whether or not the traits that are associated with success in emerging markets currently exist in the organization. Our paper has already provided a set of RPV traits which have proven to be successful in emerging markets that firms can use to complete this step. Table 3.15 in Chapter Three provides the framework of recommendations for MNCs that can be used to assess a firm's degree of "fit" to emerging market requirements. Furthermore, one can refer to the summary Table 3.1 which provides the RPV framework, including a DM versus EM breakdown, from which we tested our hypothesis. Finally, individual detailed tables in that chapter can be referenced for additional clarification of the developed market versus emerging market characteristics for each trait (refer to Tables 3.2 through 3.11).

The second step of the process is to quantify the level of your understanding of the emerging market. This paper has provided socio-economic information from a macro perspective pertaining to emerging market economics and behaviors; however, specific micro information related to each unique culture is not provided. It is essential for the MNCs to ensure that a detailed analysis of market dynamics and opportunities is completed accurately for each country, as well as potentially for the different regions within a country. Chances of success decrease if firms move forward based on an assumed level of understanding of the cultural, political, and economic situation of a given region. Do not underestimate

the barriers associated with all of the unknowns of a new market, and how they pertain to your specific business. This includes: culture, language, worker skill, education, markets, social preferences/ needs, economy, population income projections, government and infrastructure.

The first and second steps of the process enable a firm to determine into which “Box” they primarily reside (reference Figure 5.1 above). It is understood that there are “shades of gray” between the boxes; the intent is to identify the position which best describes the majority of the firm’s current situation. Figure 5.2 below provides summarized recommendations for each box, and it is followed by paragraphs which discuss details for each of the four potential scenarios. This figure highlights that there are both external and internal factors to consider when developing a strategy, with the latter supported by an ancient Chinese quote “Know yourself and you will win all battles” (Hanzhang & Shibing, 2007).

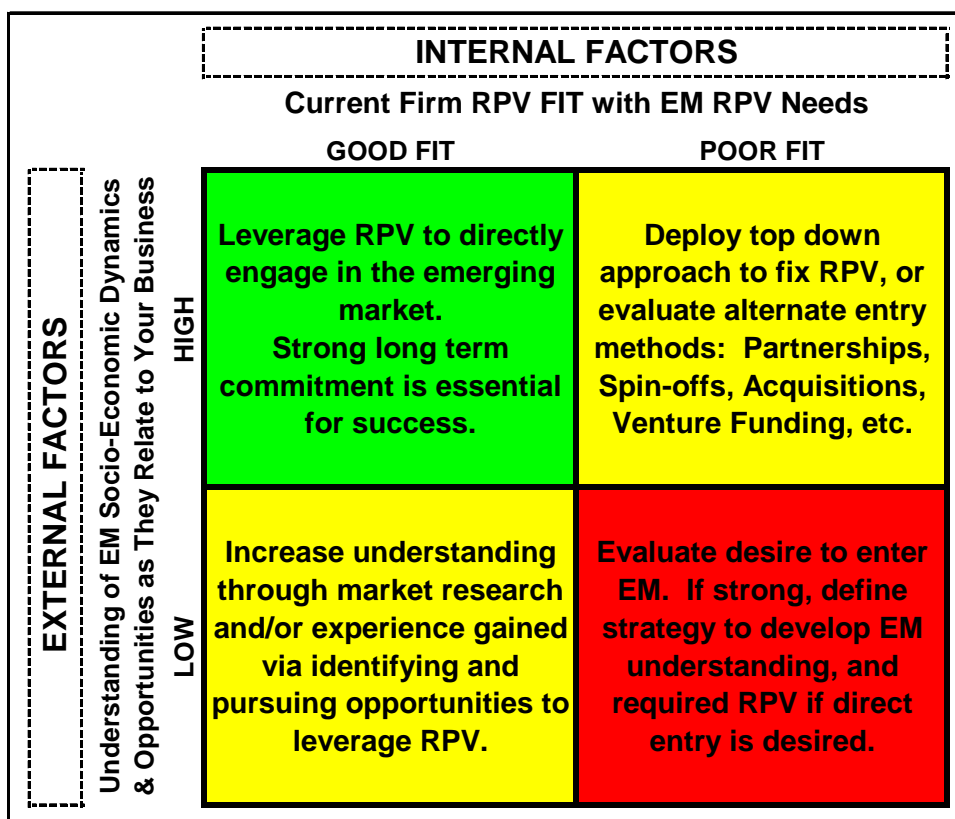


Figure 5.2: Strategy Development Recommendation Summaries

Box 1 (Green – upper left): With both a good RPV fit and high level of understanding of the specific target market, the firm should be capable of leveraging its RPV to directly engage in the emerging market. Tata is the best example of a company that fits this category with its altruistic philosophy and



deep cultural understanding which enabled it to sense the local Indian market need for a low cost car. However, even this indigenous company was required to make a “leap of faith” and have a strong dedication to a long term investment when they assumed the high risk associated with the promised USD\$2500 price for which payback would require many years. General Electric was able to move into this box over time. It saw the enormous market potential in the 1990s and made a commitment by establishing an indigenous entity with its own P&L - GE Healthcare China.

Box 2 (Yellow – upper right): A majority of MNCs are expected to fall into this category – as was the case with the local companies that we interviewed as part of our research. RPV are extremely difficult to change - as we illustrated in Chapter One with the example of Kodak – and it is further complicated by the various unknowns of the emerging market. Corporations have strong faith in their existing business models and are reluctant to change them. They will follow established patterns of behavior even though they're no longer highly successful and evidence indicates that things should be changed – a condition known as “active inertia” (Sull, 1999). This is why numerous large companies allow “spin off” organizations to exist - because they allow the practice of RPV which support a new market opportunity without interference from well intentioned colleagues who don't recognize how their values and processes impede progress. The emerging market represents a similar situation. Thus, it is critical that MNCs to be cognizant of active inertia regarding the developed market, and stay tuned into the external environment with its emerging market nuances.

The above discussion provides the insight to explain the recommended “top down” approach to enable corporate cultural change and embrace the long term perspective required to develop RPV. The evaluation of a firm's RPVs should provide awareness into the extent of internal change required. An assessment can then be made to decide whether the change required is possible through completely internal measures, or if it will be necessary to pursue alternate entry methods. If the RPV are such that they can be somewhat readily adapted, then a specific plan for each trait requiring change should be formulated and executed with clear management support and commitment. If the extent of the transition required is very large, then it is probably best if the firm pursues market entrance via partnerships, acquisitions, venture funding etc. This will enable them to develop relationships, gain market insight, and organically adapt their RPV – as was the case with General Motors with its partnership with Shanghai Motors and acquisition of Daewoo. The caution is that the MNC needs to evaluate the new organization to ensure that it fills the existing RPV gaps. One of the companies from our primary

research recognizes the need to supplement their RPV and is currently establishing a new R&D center, hiring indigenous employees, and partnering with Chinese local universities. As a final note, referring to the “Technology Development” section of Chapter 3, MNCs should also identify where technology can be used as a “bargaining chip” to enter the market.

Box 3 (Yellow – lower left): This position would represent an easier place from which to pursue market entrance than Box 2, but it is unlikely for an MNC to have RPV aligned to emerging markets and only lack market understanding. However, entrepreneurs and small companies may fall into this category and not realize that many of their existing RPV traits are already aligned with the EMs, and that they only need to gain knowledge of the market to enable serious consideration of entrance. However, these small companies may have an impediment due to their size which causes them to lack the necessary Resources to develop the relationships to enable them to compete effectively. Development of market knowledge and identification of opportunities may best be accomplished by working with experts who are familiar with the EMs, and know how to gain customer insight in the face of missing traditional marketing data. In addition, our research identified countless books and articles on these markets which are readily available and which provide tremendous insight, but were outside of the scope for inclusion in this report.

Box 4 (Red – lower right): For firm’s wishing to pursue the emerging markets, this is clearly the worst position to be in. Given the importance of EMs, companies in this category should make a careful analysis of their long-term viability and evaluate this opportunity against other potential investments to determine where best to invest their funds. Can they survive solely on current developed markets? Can they wait to enter the emerging market in 10-20 years? If they’re considering waiting, they should be cognizant of the predicted opportunity associated with the EM overtaking the G6 which could be lost if they delay until the time where product “S-curves” are leveling off. If the desire to enter the EM is determined to be strong, then the firm must be committed to an arduous and lengthy endeavor.

There are a couple paths that a corporation in this position can take. First, let’s recognize that moving to Box 3 alone should not occur. It does not make sense to transition RPV for a market unless you intend to also increase your understanding of that market. The most reasonable route for market entrance from the Box 4 position is to first move up towards Box 2 by gaining awareness and understanding of EM socio-economic dynamics and opportunities. This will enable pursuit of alternate

entry methods (venture funding, partnerships, acquisitions, etc) that provide the means by which to develop RPV tuned to the market. The more difficult – if not impossible – option for market entrance is to move diagonally into Box 1 by simultaneously adapting RPV and gaining emerging market understanding. In either situation, firms must recognize that changing RPVs take considerable time, and competitors are also investing and growing. Furthermore, these firms should recall that investments which improve the way of life of the country are typically required to develop relationships and trust within the local society.

Strategy Development: Once a firm has determined which “Box” it is in, they need to develop specific strategy and action plans per the general recommendations outlined in each box. The strategy may be best divided into Internal and External factors. For the external factors, each market should be studied to gain insight into potential opportunities. It is important to understand the emerging market political structures, economy, population income projections, market sizes, culture, and infrastructure. Some of the recommendations in Table 3.15 should also be taken into account here, such as: how to gain customer insight; what social needs might the firm consider investing in; what partnerships or acquisitions might be possible; what infrastructure issues might require firm adaptation; and, what is the level of the indigenous technical skills. The firm should brainstorm to generate ideas regarding opportunities which can be developed into strategy; however, they also need to be aligned with the internal situation.

For the internal factors, each trait from Table 3.15 should be evaluated to identify the most serious gaps. For these gaps, the firm should again brainstorm to generate ideas on how to transition the R’s, P’s and V’s into those required for success in the emerging market. We recognize that the recommendations we offered are not absolutely ideal for every situation – that is impossible due to the wide variety of factors associated with each situation. However, with diligent research and analysis, skilled managers should be capable of developing customized strategies which take the important issues into account.

In Chapter One, we introduced Nissan CEO, Carlos Ghosn who gave up on creating a cheap car by de-costing the DM car development model. Instead, he partnered with Bajaj Auto, a low cost Indian three-wheeler manufacturer. Now that we have completed our research and analysis we can assess whether or not that was a good strategic approach, and conclude that it was. It appears that Carlos Ghosn came to the belief that Nissan RPV was not a good fit with the Indian market. Recognizing this, he decided

that it was better to go into partnership with a local company. This approach maps well with our Box 2 strategy recommendations and also aligns with the RPV table of recommendations for MNCs to follow for entry into emerging markets. It is clear that he is optimizing technology development through this partnership which also gives him access to the market, and to the Bajaj supply chain, promotion, and distribution infrastructure. Furthermore, it is immediately apparent that he assumed a high level of risk in making a large investment in the partnership with Bajaj. Additionally, it enables Nissan to tap into the technical skills and labor in the market, and to develop very important relationships. Finally, this relationship with Bajaj provides an avenue for customer insight which drives product design decisions. By making conscious decisions about the company fit to emerging markets and assessment of the understanding of the external factors, Carlos Ghosn avoided making costly mistakes that other MNCs have made in the past.

## Conclusions

The Emerging Market represents an enormous opportunity for which the majority of developed market MNCs are strategically disadvantaged in developing new products. Classic management methods to develop strategy often do not apply well because standard information does not always exist in emerging markets. One example is "Porter's Five Competitive Forces" (Porter, 2008) which is used to assess the competitive intensity at the industry level and, as a result, the attractiveness of the market opportunity. Figure 5.3 below illustrates the forces for which Porter states that "understanding the forces that shape industry competition is the starting point for developing strategy" (Porter, 2008). We simply wish to assert that in emerging markets, the information related to the forces is extremely limited and therefore, it is very difficult to complete this recommended analysis, as well as other standard methods employed in developed markets.



Figure 5.3: Porter's Five Competitive Forces (Porter, 2008)

This Capstone report has emphasized numerous times that the emerging market is extremely complex and uncertain, and therefore requires those entering to assume a high level of risk. In an effort to understand what's required for an MNC to successfully develop and deliver products to emerging markets, we focused on internal factors in the form of RPV because – even more than understanding the market - it is vital to understand the corporation's characteristics versus those traits required for success. As stated previously, one of the larger benefits of our work was the consolidation and organization of a considerable amount of scattered information into an RPV framework which corporations can use to develop strategy and actions for entrance into emerging markets. Our research showed that many MNCs recognize the need to pursue emerging markets, but are “stuck” when it comes to implementing the actual practice. We hope that our work enables MNCs to implement a strategic planning process that is based on scenarios, discovery, and rapid strategy development over one that relies on a traditional platform planning process (McGrath & MacMillan, 1995). It is also essential that corporations put systems in place to monitor the external environment in order to remain tuned into trends and issues in the rapidly developing emerging market.

One of the key reasons why an MNC must complete a sincere evaluation of its existing RPV is because they can potentially lead to their downfall. “In fact, the processes and incentives that companies use to

keep focused on their main customers work so well that they blind those companies to important new technologies in emerging markets" (Bower & Christensen, 1995). Deeply embedded RPV are "tuned" for success in a well understood market – as was the case with Kodak and its film and paper "razor blade" model which worked well for almost a century. "The processes that successful, well-managed companies have developed to allocate resources among proposed investments are incapable of funneling resources into programs that current customers explicitly don't want and whose profit margins seem unattractive" (Bower & Christensen, 1995). This is the foundation for Clayton Christensen's theories of "The Innovator's Dilemma", and "Disruptive Innovation". These theories support the premise in our report that embedded values and beliefs about currently successful processes and resources cause MNCs to be risk averse to directing funds to emerging markets. Even if the MNCs decide to make significant capital investments, they typically continue to use the familiar RPV that are common in the DM and impose them on the EM because they simply lack the correct Resources, Processes and Values that facilitate success in emerging markets. This of course, is the heart of our hypothesis:

*The traditional stock of resources, processes, and values that allowed MNCs to successfully develop products for developed markets do not assure that the same firms will have success in emerging markets. The required set of RPV for emerging markets is vastly different than those in developed markets.*

At the end of the day, once the decision has been made to pursue an emerging market, the commitment must be very strong. For the companies that we researched, one of the key ingredients for success was the commitment from leadership (e.g., Tata, Immelt, Nooyi). This high level of dedication typically requires freeing up senior managers to work in those EM regions, but this is an issue as "emerging markets accounted for 35% of the established MNCs' anticipated growth over the next five years but for only 15% of their employees and 7.5% of their top 200 managers" (Ghemawat & Hout, 2008). This is certainly not a recipe for success, and one can see with just this example alone that embedded values need to be changed – from both the top down and from the bottom up with resources executing the strategy. Success will come by first internalizing the need to change and then developing a strategy to get there. For firms to be successful, they need to be fully committed to aligning RPV with the EM they're trying to engage. "Successful companies are willing to break away from business as usual. ... They adapt Western marketing and business management practices to local customs. And they develop the resourcefulness to overcome inevitable barriers" (Shankar, Ormiston, Bloch, Schaus, &

Vishwanath, 2008). But as stated many times, this type of cultural and behavioral change is not easy, and detailed assessments are required to understand both the elements for success and the corporate RPV adaptations required. We expect that the competency based approach we've outlined to develop strategy will help MNCs confront the reality of what's specifically required relative to their resources, processes and values. MNCs must recognize that indigenous companies have global ambitions and are already building the necessary RPV framework to become successful in their market. If MNCs are not committed to adopting the RPV that enable EM success, they face losing both long term market presence and leadership in the emerging market.

## Works Cited

- About CAT. (2009). Retrieved September 10, 2009, from <http://www.cat.com/about-cat>.
- About GM. (2009). Retrieved September 20, 2009, from <http://www.gm.com/corporate/about>.
- About Haier. (2009). Retrieved on September 27, 2009 from <http://www.haier.com/abouthaier/CorporateProfile/index.asp>.
- Alastair Curtis, Head of Design, Nokia. (2008, February). *CREATIVITY*, Retrieved August 11, 2009, from Business Source Elite database.
- Auf der Heyde, R., & Sundjaja, K. (2008). Five Myths About Emerging Markets. *Harvard Management Update*, 13(8), 3-5. <http://search.ebscohost.com.ezproxy.rit.edu>.
- Balfour, F. (2006, December 21). China Mobile Is Growing Rural. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Bartlett, C. (2006, November 3). GE's Growth Strategy: The Immelt Initiative. *Harvard Business Case Study*, 9-306-087.
- Bartlett, C., & McLean, A. (2003, November 6). GE's Talent Machine: The Making of CEO. *Harvard Business Case Study*, 9-304-049.
- Bauerlein, V. (2009, July 7). Pepsi, Bottler Put \$1 Billion Into Russia As U.S. Sags. *Wall Street Journal - Eastern Edition*, 254(5), B1-B2. Retrieved September 11, 2009, from Business Source Elite database.
- Bellman, Eric. (2009, October 21). Indian Firms Shift Focus to the Poor. *Wall Street Journal Online*, [http://online.wsj.com/article\\_email/SB125598988906795035-IMyQjAxMDI5NTI1MzkyODM5Wj.html](http://online.wsj.com/article_email/SB125598988906795035-IMyQjAxMDI5NTI1MzkyODM5Wj.html).
- Bickerstaffe, S., & Honeywill, T. (2008, March). The people's car. (cover story). *Automotive Engineer*, 33(3), 17-18. Retrieved May 9, 2009, from Business Source Complete database.
- Boehner, R. (2006) Why Successful Companies Fail. *Marketing Concepts: General Marketing Management Perspective Course Pack*. Rochester Institute of Technology. Fall 2008.
- Bogomolny, L. (2004, August 30). Thirst for change. *Canadian Business*, 77(17), 13-13. Retrieved September 11, 2009, from Business Source Elite database.
- Bower, J. & Christensen, C. (1995, Jan-Feb). Disruptive Technologies; Catching the Wave. *Harvard Business Review*, Reprint 95103.
- Brady, D. (2007, June 11). KEEPING COOL IN HOT WATER. *BusinessWeek*, Retrieved September 11, 2009, from Business Source Elite database.
- Brady, D. (2007, June 11). PEPSI: REPAIRING A POISONED REPUTATION IN INDIA. *BusinessWeek*, Retrieved September 11, 2009, from Business Source Elite database.
- Bremner, B., & Lakshman, N. (2006, August 24). Behind the Coke-Pepsi Pesticide Scare. *BusinessWeek Online*, Retrieved September 11, 2009, from Business Source Elite database.
- Brugmann, R. (2007). *Caterpillar Marine Asia Pacific Going Strong - Shanghai Office Moves to Caterpillar Marine Center*. Retrieved September 10, 2009, from <http://www.cat.com/cda/components/fullarticle?m=37586&x=7&id=449999>.



- Brugmann, R. (2007). *Caterpillar Marine Power Systems Secures Chinese Waterways*. Retrieved September 12, 2009, from <http://www.cat.com/cda/components/fullarticle?m=214790&x=7&id=701684>.
- BusinessWeek. (2009, September 28). 100 Best Global Brands. *Business Week*.
- Capell, K. (2007, May 24). Vodafone's Low-Cost Cell Phone Gambit. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Caterpillar - China Product & Application, Paving Products, Success Stories. (2009). Retrieved September 10, 2009, from <http://www.china.cat.com/cda/components/fullArticle?m=113504&x=7&id=576521>.
- Caterpillar News & Events. (2009). Retrieved September 10, 2009, from <http://www.cat.com/news-and-events>.
- Center for Knowledge Societies. (2008). Emerging Economy Report. Retrieved July 12, 2009, from: <http://www.emergingeconomyreport.com>.
- Christensen, C., & Donovan, T. (1999, March). Putting Your Finger on Capability. *Harvard Business School Cases*, Retrieved May 9, 2009, from Business Source Complete database.
- CNBC (2009, July 25). GE Healthcare chalks out \$6bn India plan. Retrieved September 23, 2009 from [http://www.moneycontrol.com/news/cnbc-tv18-comments/ge-healthcare-chalks-out-366bn-india-plan\\_407990.html](http://www.moneycontrol.com/news/cnbc-tv18-comments/ge-healthcare-chalks-out-366bn-india-plan_407990.html).
- Creswell, J., & Schlosser, J. (2003, November 10). Has Coke lost its fizz?. *Fortune*, 148(10), 215-215. Retrieved September 11, 2009, from Business Source Elite database.
- Economist. (2008, September). Acronyms BRIC out all over. *Economist*, Retrieved July 13, 2009, from [http://www.economist.com/specialreports/displaystory.cfm?story\\_id=~12080703](http://www.economist.com/specialreports/displaystory.cfm?story_id=~12080703).
- Einhorn, B., & Byrnes, N. (2009, July 13). Coke vs. Pepsi: The Slugfest in China. *BusinessWeek*, Retrieved September 18, 2009, from Business Source Elite database.
- Eppinger, Steven D., & Chitkara, Anil R. (2006, Summer 2006). The New Practice of Global Product Development. *MIT Sloan Management Review*, 47(4), 22-30. SMR210, Reprint 47408.
- Ewing, J. (2007, July 20). Why Nokia Is Leaving Moto in the Dust. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Ewing, J. (2007, May 4). First Mover in Mobile. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Ewing, J. (2008, November 5). Nokia Brings the Web to Emerging Markets. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Ewing, J., Ihlwan, M., & Lakshman, N. (2008, February 18). MAD DASH FOR THE LOW END. *BusinessWeek*, Retrieved August 11, 2009, from Business Source Elite database.
- Farris, P. & Lemley, A. (2009, April 28). *The Tata Nano: The People's Car*. Darden Case No. UVA-M-0768. Available at SSRN:<http://ssrn.com/~abstract=1420597>.

- Fitzsimmons, E. (2008, October 16). Tata Nano Heralds New Era for Asian Car Brands. *Media: Asia's Media & Marketing Newspaper*, Retrieved May 5, 2009, from Business Source Complete database.
- Fogerty, J. (2009, March 24). *Tata Motors' Nano: It's real...so how did they do it?*. Retrieved June 27, 2009, from <http://www.supplyexcellence.com/blog/2009/03/24/tata-motors-nano-its-realso-how-did-they-do-it/>
- Forbes. (2009). The World's Biggest Companies. Retrieved September 22, 2009 from <http://www.forbes.com/2009/04/08/worlds-largest-companies-business-global-09-global-intro.html>.
- Fortune. (2009). 50 Most Admired Companies in the World. Retrieved September 22, 2009 from <http://money.cnn.com/magazines/fortune/mostadmired/2009/index.html>.
- Gadiesh, O., Leung, P., Vestring, T. (2007, November). The Battle for China's Good-Enough Market. *Harvard Business Review*. Reprint R0709E.
- Gavetti, G., Henderson, R., & Giorgi, S. (2005). Kodak and the Digital Revolution (A). *Harvard Business School*, 9-705-448. Rev: November 2, 2005.
- GE. (2008). General Electric 2008 Annual Report. Fairfield, CT.
- Gehner, G. (2007). *Models For Success: U.S. - China Cooperation on Standards, Conformity Assessment and Technical Regulations (SCATR)*. Retrieved September 13, 2009, from <http://publicaa.ansi.org/sites/apdl/Documents/Standards%20Activities/~International%20Standardization/Regional/Standards%20Portal/Case%20Studies~/Case-Study-CAT.pdf>.
- Ghemawat, P. (2001, September). Distance Still Matters. *Harvard Business Review*, 79(8), 137-147.
- Ghemawat, P., Hout, T. (2008, November). Tomorrow's Global Giants Not the Usual Suspects. *Harvard Business Review*, 86(11), 80-88.
- GM Announces 2008 Global Sales of 8.35 Million Vehicles. (2009). Retrieved September 22, 2009, from [http://gm.com/investor\\_information/docs/sales\\_prod/09\\_01/q4\\_~pressrelease\\_0901.pdf](http://gm.com/investor_information/docs/sales_prod/09_01/q4_~pressrelease_0901.pdf).
- Goldenberg, S. (2007, April 7). *Wolfowitz under fire after partner receives promotion and pay rise*. Retrieved July 11, 2009, from <http://www.guardian.co.uk/business/2007/~apr/07/usnews.imf>.
- Goryunov, F. (2003, June 1). Critical Success Factors: Caterpillar Inc. Expands In The USSR. *Diplomat Magazine*. Retrieved September 16, 2009, from <http://www.usrccne.org/news2.phtml?m=140>.
- Hanzhang, T., & Shibing, Y. (2007, May) Sun Tzu's Art of War: The Modern Chinese Interpretation. *Sterling Innovation*.
- Ho, Patricia. (2009, July 8). *GM China: 2009 Sales Volume To Grow More Than 20%*. Wall Street Journal, Retrieved July 13, 2009, from <http://online.wsj.com/article/BT-CO-20090708-706412.html>.
- Honeywill, T. (2008, March). Profit and loss. *Automotive Engineer*, pp. 3,3. Retrieved May 9, 2009, from Business Source Complete database.
- IBN Live. (2008, January 10). *First Look: Ratan Tata unveils Nano*. Retrieved May 4, 2009, from <http://ibnlive.in.com/news/first-look-ratan-tata-unveils-nano/56038-7.html>.

- Ihlwan, M. (2009, February 18). Samsung and LG Take Aim at Nokia. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Immelt, J., Govindarajan, V., & Trimble, C. (2009, October). How GE is disrupting itself. *Harvard Business Review*. 87 (10), 56-65.
- Jain, M., & Harris, J. (2008, October 14). GE Healthcare in India: An Ultrasound Strategy? *Darden Business Publishing*.
- Jones, M. (2003, September). It's no popularity contest when it comes to fizzy cola. *Brand Strategy*, Retrieved September 11, 2009, from Business Source Elite database.
- Jordan, M. (1999, July 21). Debut of Rival Diet Colas in India Leaves a Bitter Taste. *Wall Street Journal - Eastern Edition*, 234(14), B1. Retrieved September 11, 2009, from Business Source Elite database.
- Khanna, R. (2008, August 23). *Tata threatens to pull out of Singur project*. Retrieved: July 21, 2009, from <http://www.financialexpress.com/~news/tata-threatens-to-pull-out-of-singur-project/352374/0>.
- Khanna, T., & Palepu, K. (2006, October). Emerging Giants. (cover story). *Harvard Business Review*, 84(10), 60-69. Retrieved May 10, 2009, from Business Source Complete database.
- Khanna, T., & Palepu, K. (2006, October). Emerging Giants. (cover story). *Harvard Business Review*, 84(10), 60-69. Retrieved May 10, 2009, from Business Source Complete database.
- Khanna, T., Palepu, K., & Sinha, J. (2005, June). Strategies That Fit Emerging Markets. *Harvard Business Review*, 83(6), 63-76. Retrieved May 10, 2009, from Business Source Complete database.
- Khanna, Tarun. (2007). *Billions of Entrepreneurs: How China and India are Reshaping Their Futures - and Yours*. Boston: Harvard Business School Press.
- Kim, W., & Mauborgne, R. (2005, Spring2005). Blue Ocean Strategy: From Theory to Practice. *California Management Review*, 47(3), 105-121. Retrieved July 23, 2009, from Business Source Elite database.
- Kumar, N., Mohapatra, P. & Chandrasekhar, S. (2009). *India's Global Powerhouses: How They are Taking on the World*. Boston: Harvard Business Press.
- Lakshman, N. (2006, December 20). Native CEO Takes on Pepsi's India Crisis. *BusinessWeek Online*, Retrieved September 11, 2009, from Business Source Elite database.
- Loeb, M., & Martin, T. (1995, February 20). *China: A Time for Caution McDonald, Boeing and Playboy Have Plunged Into This Most Populous Market and Opportunities Abound. But there's a new Chill*. CNN Money, Retrieved July 19, 2009, from [http://money.cnn.com/magazines/fortune/fortune\\_archive/1995/02/20/201861/~index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/1995/02/20/201861/~index.htm).
- London, T., & Hart, S. (2004, September). Reinventing strategies for emerging markets: beyond the transnational model. *Journal of International Business Studies*, 35(5), 350-370. Retrieved July 23, 2009, doi:10.1057/palgrave.jibs.8400099.
- Madden, N., & Chawla, I. (2000, October). Pepsi, Coke duke it out in India, China. *Ad Age Global*, 1(2), 6. Retrieved September 11, 2009, from Business Source Elite database.

- Masalin, L. (2003, March). Nokia Leads Change Through Continuous Learning. *Academy of Management Learning & Education*, 2(1), 68-72. Retrieved August 11, 2009, from Business Source Elite database.
- McGrath, R., & MacMillan, I. (1995, July). Discovery-Driven Planning. *Harvard Business Review*, 73(4), 44-54. Retrieved May 9, 2009, from Business Source Complete database.
- Monbiot, G. (2008, April 22). *Anticipatory Compliance*. Retrieved July 25, 2009, from <http://www.monbiot.com/archives/2008/04/22/anticipatory-compliance/>.
- Morgan, J. & Liker, K. (2006). *The Toyota Product Development System— Integrating People, Process and Technology*; Productivity Press, New York, NY.
- MSN Money. (2008, January 10). *Tata unveils Nano, its \$2,500 car*. Retrieved July 11, 2009, from <http://articles.moneycentral.msn.com/Investing/Extra/WorldsCheapestCar~ArrivesTomorrow.aspx>.
- Murphy, John. (2008, January 28). *Ghosn Maps Path Through Slump: Nissan, Renault CEO Bets on Tie-Ups, Cheap Cars and Electric Vehicles*. Wall Street Journal, Retrieved May 4, 2009, from <http://online.wsj.com/article/SB120148183603521043~html>.
- Newsweek. (2005, May 9). Business: A Jack Welch of Communists. Retrieved on September 27, 2009 from <http://www.newsweek.com/id/51965>.
- Norton, K. (2007, March 23). Nokia Rings in Gains on Motorola News. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Pacek, N., & Thorniley, D. (2004). *Emerging markets: Lessons for business success and the outlook for different markets*. London: Economist.
- Paine, L. (2001, July 27). The Haier Group (A). *Harvard Business Case Study*, 9-398-101.
- Palepu, K., Khanna, T., & Vargas, I. (2006, August 25). Haier: Taking a Chinese Company Global. *Harvard Business Case Study*, 9-706-401.
- Pelle, S. (2007). *Understanding emerging markets: Building business BRIC by brick*. New Delhi: Response Books.
- PepsiCo to concentrate on India?. (2008, February). *Dairy Industries International*, Retrieved September 11, 2009, from Business Source Elite database.
- PepsiCo to invest \$1 billion in China. (2008, December). *Beverage Industry*, Retrieved September 11, 2009, from Business Source Elite database.
- Pepsi-Cola's international focus looks sharp. (1998, May). *Beverage Industry*, Retrieved September 11, 2009, from Business Source Elite database.
- Pooley, E. (2005, March 28). RON MCEACHERN. *Canadian Business*, 78(7), 62-62. Retrieved September 11, 2009, from Business Source Elite database.
- Porter, Michael E. (2008, January). The Five Competitive Forces That Shape Strategy. *Harvard Business Review*, Reprint R0801E.
- Prahalad, C., Hamel, G. (1990, May-June). The Core Competence of the Corporation. *Harvard Business Review*, 68 (3), 79-91.
- Prahalad, C. (2006). *The fortune at the bottom of the pyramid: eradicating poverty through profits*. New Jersey: Wharton School Publishing.

- Press Trust of India. (2009, July 19). *Mamta threatens bloodshed over Tata land*. Retrieved July 7, 2009, Website: [http://www.financialexpress.com/old/latest\\_full\\_story.php?content\\_id=134551](http://www.financialexpress.com/old/latest_full_story.php?content_id=134551).
- Pullin, J. (2006, December). Global ambitions. *Automotive Engineer*, 31(11), 14- 15. Retrieved May 9, 2009, from Business Source Complete database.
- Quelch, J., & Knoop, C. (October, 2006). *Lenovo: Building a Global Brand*. Harvard Business Case Study, 9-507-014.
- Reinhardt, A. (2004, September 7). Nokia's Goal: Cell-Phone Planet. *BusinessWeek Online*, Retrieved August 11, 2009, from Business Source Elite database.
- Reinhardt, A., & Johnson, E. (2005, November 14). CELL PHONES FOR THE PEOPLE. *BusinessWeek*, Retrieved August 11, 2009, from Business Source Elite database.
- Reuters. (2007, February 8). GE sees emerging-markets sales at \$35 bln by 2008. Retrieved on September 27, 2009 from <http://www.reuters.com/article/company~NewsAndPR/idUSN0823881420070208>.
- Reuters. (2009, January 10). Haier Strengthens Its Position as a Global Brand. Retrieved September 28, 2009 from <http://www.reuters.com/article/pressRelease/idUS33974+10-Jan-2009+PRN20090110>.
- Reuters. (2009, June 10). *Tata Motors affirms Thai eco-car project*. Retrieved July 11, 2009, Website: <http://www.reuters.com/article/rbssConsumerGoodsAndRetailNews~idUSBKK>.
- Robinson, S. (2008, January 10). *The World's Cheapest Car*. Retrieved July 11, 2009, From <http://www.time.com/time/magazine/~article/0,9171,1702264,00.html>.
- Roy, S. (2009, May 4). GE Healthcare Innovates in India for Bottom of the Pyramid. Retrieved September 26, 2009 from <http://www.business-standard.com/india/news/ge-healthcare-innovates-in-india-for-bottomthe-pyramid/356947/>.
- Saporito, B. (2007, May 14). Indra Nooyi. (cover story). *Time*, 169(20), 156-156. Retrieved September 11, 2009, from Business Source Elite database.
- Scanlon, J. (2009, March 19). What Can Tata's Nano Teach Detroit?. *Business Week Online*, Retrieved May 5, 2009, from Business Source Complete database.
- Shankar, S., Ormiston, C., Bloch, N., Schaus, R., & Vishwanath, V. (2008, Spring 2008). How to Win in Emerging Markets. *MIT Sloan Management Review*, 49(3), 19-23. Retrieved May 10, 2009, from Business Source Complete database.
- Shankar, S., Ormiston, C., Bloch, N., Schaus, R., & Vishwanath, V. (2008, Spring2008). How to Win in Emerging Markets. *MIT Sloan Management Review*, 49(3), 19-23. Retrieved May 10, 2009, from Business Source Complete database.
- Shennon, P. (1993, August 23). *The Media Business: Star TV Extends Murdoch's Reach*, *New York Times*, Retrieved July 18, 2009, from <http://www.nytimes.com/1993/08/23/~business/the-media-business-star-tv-extends-murdoch-s-reach.html?pagewanted=all>.
- Shirouzu, N. (2009, May 8). Toyota Falters in Booming China. *Wall Street Journal - Eastern Edition*, 253(107), B2. Retrieved August 30, 2009, from Business Source Elite database.
- Shirouzu, N., & Power, S. (2006, October 4). *Inexpensive Logan Boosts Renault in Emerging Markets*. *Wall Street Journal*.

- Smart USA. (2009). *Smart for two – pure coupe*. Retrieved July 25, 2009, Website: [http://www.smartusa.com/smart-fortwo-pure.aspx?model=pure\\_coupe](http://www.smartusa.com/smart-fortwo-pure.aspx?model=pure_coupe).
- Solving The Supply Chain Puzzle In China (2004). *Vision Magazine*, 1(1).
- Spear, S., & Bowen, H. (1999, September). Decoding the DNA of the Toyota Production System. *Harvard Business Review*, 77(5), 96-106. Retrieved August 9, 2009, from Business Source Elite database.
- Srivastava, M. (2009, October 19). What's Holding India Back. *BusinessWeek*.
- Stewart, T. (2006, June). GE Growth as a Process. *Harvard Business Review*. 84 (6), 60-70.
- Tan, J. (2007, November 12). BATTLE TO THE TOP. *Forbes*, 180(10), 52-52. Retrieved August 11, 2009, from Business Source Elite database.
- Tao, Z. (2005, April 27). Shanghai General Motors: The Rise of a Late-comer. *Asia Case Research Centre, The University of Hong Kong*.
- Tata Group. (2009). *Tata Profile*. Retrieved July 19, 2009, from [http://www.tata.com/aboutus/sub\\_index.aspx?sectid=8hOk5Qq3EfQ](http://www.tata.com/aboutus/sub_index.aspx?sectid=8hOk5Qq3EfQ).
- Thottam, J. (2009, March 23). *The World's Cheapest Car Debuts in India*. Retrieved July 6, 2009, Website: <http://www.time.com/time/world/~article/0,8599,1887070-1,00.html>.
- Times of India. (2008, March 23). *Nano, the Rs 1-lakh car, hits the road*. Retrieved May 4, 2009, from <http://timesofindia.indiatimes.com/Nano-the-Rs-1-lakh-car-hits-the-road/~articleshow/4305642.cms>.
- Toloken, S. (2005, March 14). Indian firm sells recycled PET to Pepsi. *Plastics News*, 17(2), 18-18. Retrieved September 11, 2009, from Business Source Elite database.
- Upbin, B. (2007, November 12). The NEXT BILLION. *Forbes*, 180(10), 48-56. Retrieved August 11, 2009, from Business Source Elite database.
- Wakabayashi, D., & Murphy, J. (2009, July 9). Panasonic Reaches Wide--and Low--With Appliances for Emerging Market. *Wall Street Journal - Eastern Edition*, 254(7), B1-B2. Retrieved July 23, 2009, from Business Source Elite database.
- Ward, A., & Liker, J. (1995, Spring 95). The Second Toyota Paradox: How Delaying Decisions Can Make Better Cars Faster. *Sloan Management Review*, 36(3), 43-61. Retrieved August 9, 2009, from Business Source Elite database.
- Wilson, D., & Purushothaman, R. (2003, October 1). *Dreaming With BRICs: The Path to 2050*. Global Economics No. 99.
- Wordpress. (2009) What Makes the Tata Nano So Cheap? Retrieved August 11, 2009, Website: <http://garamut.wordpress.com/2009/03/30/the-tata-nano-a-car-for-the-png-masses/tata-nano-map/>.
- Wright, A. (2009, June). DIVE INTO CLEAN WATER. *HRMagazine*, 54(6), 76-80. Retrieved September 11, 2009, from Business Source Elite database.
- Yeung, I., & Tung, R. (1996). *Achieving Business Success in Confucian Societies: The Importance of Guanxi (Connections)*. Organizational Dynamics, 54-65.
- Zhihong, W. (2007, December 21). Caterpillar Speeds Up Its Crawl Into China. *China Daily*, 15. Retrieved September 15, 2009, from <http://www.chinadaily.com>.

Zhihong, W. (2008, August 25). Digging In. *China Daily*, 7. Retrieved September 14, 2009, from <http://www.chinadaily.com>.