
GLOBAL PRODUCT POLICY DECISIONS I: DEVELOPING NEW PRODUCTS FOR GLOBAL MARKETS



CHAPTER OVERVIEW

1. GLOBAL PRODUCT STRATEGIES
2. STANDARDIZATION VERSUS CUSTOMIZATION
3. MULTINATIONAL DIFFUSION
4. DEVELOPING NEW PRODUCTS FOR GLOBAL MARKETS
5. TRULY GLOBAL PRODUCT DEVELOPMENT

A cornerstone of a global marketing mix program is the set of product policy decisions that multinational companies (MNCs) constantly need to formulate. The range of product policy questions that need to be tackled is bedazzling: What new products should be developed for what markets? What products should be added to, removed from, or modified for the product line in each of the countries in which the company operates? What brand names should be used? How should the product be packaged? serviced? and so forth. Clearly, product managers in charge of the product line of a multinational company have their work cut out for them.

Improper product policy decisions are easily made as the following anecdotes illustrate:

- *Ikea in the United States.*¹ Ikea's foray in the United States was plagued with teething problems. Stores were in poor locations. Ikea stubbornly refused to size its beds and kitchen cabinets to fit American sheets and appliances. Bookshelves were too small to hold a television set. Bath towels were too small and too thin. Customers bought vases to drink from, as glasses were too small. Sofas were too hard. Dining tables were too small to fit a turkey for Thanksgiving. Ikea's system of self-service and self-assembly puzzled Americans. Prices were too high. Ikea remedied the situation by adapting the product line, choosing new and bigger store locations, improving service, slashing prices. Some of the changes that Ikea made in the U.S. have since been introduced in Europe. For instance, U.S.-style softer sofas have become a great hit in Europe.

¹www.brandchannel.com/features_effect.asp?pf_id=256 and www.businessweek.com/magazine/content/05_46/b3959001.htm.



GLOBAL PERSPECTIVE 10-1

SELLING SATURNS IN JAPAN

Saturn, a unit of General Motors Corp., has been phenomenally popular in the United States with its refreshing approach to selling cars. The car's popularity in the U.S. market is due to its unique formula of customer-friendly retailing and no-haggle pricing. In light of its success story in the U.S., GM figured that Saturn might also do well in fiercely competitive Japan. The car premiered in Japan in April 1997. Saturn's launch strategy in Japan was to take on the local competition by competing as an everyday car. It installed right-hand drive steering and added features such as folding side mirrors. Saturn also established its own dealer network—a rather unusual move for car imports. Saturn's goal was to sign up twenty exclusive dealers who would only sell Saturns. It took the firm longer than expected to achieve its target. The car was priced at \$14,000—competitive with local brands and cheaper than most other imports. Saturn also invested heavily in advertising to build brand recognition. Ads showed scenes of Saturn's headquarters in Tennessee and Japanese salespeople sporting Saturn's casual look.

Despite all the enthusiasm and GM's gung ho attitude, sales have been disappointing so far. In 1998, Saturn sold just 1,400

vehicles. Several factors seemed to be behind this setback. One was bad timing. When Saturn was introduced in Japan, the country was going through a deep economic slump. The launch date happened a few days after the government hiked the sales tax to 5 percent (from 3 percent), a move that weakened the car market overall. Sales of sedans—the only subcategory in which Saturn initially competed—were plunging around the launch time. Some analysts also felt that the Saturn strategy would not appeal to import-car buyers in Japan. The typical foreign-car buyer wants a car that makes him stand out of the crowd. Successful imports from the United States are quintessentially “American” cars like DaimlerChrysler's Jeep Cherokee and GM's Cadillac Seville. Setting up an own dealership network posed some challenges too. The economic recession meant that few potential dealers were willing to take the risk of selling a relatively unknown car model. Those who were interested had a hard time raising the money. With only twenty dealerships, potential customers may also have a hard time locating a dealer outlet.

Sales picked up a bit in 1999 with the launch of a three-door coupe model. In October 1998, Saturn announced that it plans to open eighty new stores over the coming five years. Saturn also set up an Internet showroom (www.saturn.co.jp) to better serve the needs of Internet savvy car-shoppers. However, GM finally pulled the plug after selling only 1,002 Saturn cars in 2001. Still, Saturn appears to have made some impact on the Japanese car market: Toyota adopted Saturn's no-haggle approach toward pricing at some of its dealerships in Japan.

Sources: “Saturn Signs 6 Firms to Sell Cars in Japan,” *The Asian Wall Street Journal* (July 9, 1996), p. 6; “In Japan, Saturn Finds the Going Has Been Slow,” *The Asian Wall Street Journal* (August 26, 1998), p. 1, 7; “Saturn in Japan Slows to Crawl,” *Advertising Age International* (January 1998), p. 26; “Despite Problems in Japan, GM's Saturn Not Giving Up,” *Dow Jones Business News* (April 14, 1999); “GM's Cruze Gets Lost In Japanese Market,” *The Asian Wall Street Journal* (September 16, 2002), pp. A8, A10.

- *Procter & Gamble (P&G) in Australia.* Rather than manufacturing disposable diapers locally in Australia as Kimberly-Clark did, P&G decided to import them. The size of the Australian and New Zealand markets did not warrant local manufacturing according to P&G. Unfortunately, by using packaging designed for the Asian region with non-English labeling, P&G alienated its customers in Australia.²
- *U.S. carmakers in Japan.* Historically, U.S. car sales in Japan have been pretty dismal. Analysts have blamed import barriers and the fact that most U.S.-made cars were originally sold with the steering wheel on the left-hand side. There are other factors at play, though. Sales of Chrysler's Neon car during the first year of introduction in Japan were far below target. Japanese car buyers disliked the Neon's round curves; they preferred boxier designs. The sales of Ford's Taurus in Japan were also lackluster. Part of the problem was that, initially, the Taurus did not fit in Japanese parking spaces. In order for a car to be registered in Japan, the police needs to certify that it will fit in the customer's parking lot (see also **Global Perspective 10-1** on Saturn's marketing strategy in Japan).³

²“P&G puts nappies to rest in Australia,” *Advertising Age International*, September 19, 1994, I-31.

³“Success Continues to Elude U.S. Car Makers in Japan,” *The Asian Wall Street Journal*, January 10–11, 1997, pp. 1, 7.

These anecdotes amply show that even seasoned blue-chip companies commit the occasional “blunder” when making product decisions in the global marketplace. Apart from being amusing (at least for outsiders), product blunders can sometimes teach valuable lessons. This chapter focuses on new product development strategies for global markets. The first part of this chapter looks at the product strategic issues that MNCs face. The second part gives an overview of the new product development process in a global setting. Finally, we examine what it means to be a truly global innovator.



GLOBAL PRODUCT STRATEGIES

Companies can pursue three global strategies to penetrate foreign markets.⁴ Some firms simply adopt the same product or communication policy used in their home market as an **extension** of their homegrown product/communication strategies to their foreign markets. Other companies prefer to adapt their strategy to the local marketplace. This strategy of **adaptation** enables the firm to cater to the needs and wants of its foreign customers. A third alternative is to adopt an **invention** strategy by which products are designed from scratch for the global market place. Using the extension/adaptation/invention framework for product and communications decision leads to five strategic options, as shown in **Exhibit 10-1**. Let us look at each one of these options in greater detail.

Strategic Option 1: Product and Communication Extension—Dual Extension

At one extreme, a company might choose to market a standardized product using a uniform communications strategy. Early entrants in the global arena often opt for this approach. Also, small companies with few resources typically prefer this option. For them, the potential payoffs of customized products and/or advertising campaigns usually do not justify the incremental costs of adaptation. Dual extension might also work when the company targets a “global” segment with similar needs. Blistex’s marketing efforts for its namesake product in Europe is a typical example. The product, a lip balm, offers identical needs in each of the various European markets. Except for some minor modifications (e.g., labeling), the same product is sold in each country. In 1995, Blistex ran a uniform European advertising campaign, using identical positioning (“Care-to-Cure”) and advertising themes across countries.⁵

Generally speaking, a standardized product policy coupled with a uniform communication strategy offers substantial savings coming from economies of scale. This strategy is basically product-driven rather than market-driven. The downside is that it is likely to alienate foreign customers, who might switch to a local or another foreign competing brand that is more in tune with their needs. In many industries, modern

EXHIBIT 10-1
GLOBAL EXPANSION STRATEGIES

<i>Product Strategy</i>	<i>Function or Need Satisfied</i>	<i>Conditions of Product Use</i>	<i>Ability to Buy Product</i>	<i>Recommended Product Strategy</i>	<i>Recommended Communications Strategy</i>
1	Same	Same	Yes	Extension	Extension
2	Different	Same	Yes	Extension	Adaptation
3	Same	Different	Yes	Adaptation	Extension
4	Different	Different	Yes	Adaptation	Adaptation
5	Same	—	No	Invention	Invention

Source: Warren J. Keegan, “Multinational Product Planning: Strategic Alternatives,” Reprinted from *Journal of Marketing*, (January 1969), pp. 58–62, published by the American Marketing Association.

⁴Warren J. Keegan, “Multinational Product Planning: Strategic Alternatives,” *Journal of Marketing*, 33, January 1969, 58–62.

⁵Mark Boersma, Supervisor International Operations, Blistex, Inc., Personal Communication.

production processes such as CAD/CAM⁶ manufacturing technologies obviate the need for large production batch sizes.

Due to differences in the cultural or competitive environment, the same product often is used to offer benefits or functions that dramatically differ from those in the home market. Such gaps between the foreign and home market drive companies to market the same product using customized advertising campaigns. Although it retains the scale economies on the manufacturing side, the firm sacrifices potential savings on the advertising front. Wrigley, the Chicago-based chewing gum company, is a typical practitioner of this approach. Most of the brands marketed in the United States are also sold in Wrigley's overseas markets. Wrigley strives for a uniformly superior quality product. To build up the chewing gum category, Wrigley sells its products at a stable and low price. Given that chewing gum is an impulse item,⁷ Wrigley aims for mass distribution. The company sees an opportunity to sell its product at any place where money changes hands. Despite these similarities in Wrigley's product and distribution strategies, there are wide differences in its communication strategy. The benefits that are promoted in Wrigley's advertising campaigns vary from country to country. In the United States, Wrigley has capitalized on smoking regulations by promoting chewing gum as a substitute for smoking. In several European countries, Wrigley's advertising pitches the dental benefits of chewing gum. In the Far East, Wrigley promotes the benefit of facial fitness in its advertising campaigns.⁸

Alternatively, firms might adapt their product but market it using a standardized communications strategy. Local market circumstances often favor the case of product adaptation. Another reason for product adaptation could be the company's expansion strategy. Many companies add brands to their product portfolio via acquisitions of local companies. To leverage the existing brand equity enjoyed by the acquired brand, the local brand is often retained. Although these factors lead to product adaptation, similar core values and buying behaviors among consumers using the product might present an opening for a harmonized communications strategy. Within such a context, clever marketing ideas can be transferred from one country to another country, despite the product-related differences. For instance, a Taiwan-produced commercial for P&G's Pantene shampoo was successfully transferred with a few minor changes to Latin America.

Differences in *both* the cultural and physical environment across countries call for a dual adaptation strategy. Under such circumstances, adaptation of the company's product and communication strategy is the most viable option for international expansion.

Slim-Fast⁹ adapts both product and advertising to comply with varying government regulations for weight-loss products. When Slim-Fast was first launched in Germany, its ads used a local celebrity. In Great Britain, testimonials for diet aids were not allowed to feature celebrities. Instead, the British introduction campaign centered around teachers, an opera singer, a disc jockey, and others. Also the product was adapted to the local markets. In the United Kingdom, banana became the most popular flavor but was not available in many other countries.¹⁰

Genuinely global marketers try to figure out how to create products with a global scope rather than just for a single country. Instead of simply adapting existing products or services to the local market conditions, their mindset is to zero in on global market opportunities. The product invention strategy consists of developing and launching products with a global mindset. Black & Decker is a good example of a company that

Strategic Option 2: Product Extension— Communications Adaptation

Strategic Option 3: Product Adaptation— Communications Extension

Strategic Option 4: Product and Communications Adaptation— Dual Adaptation

Strategic Option 5: Product Invention

⁶Computer-Aided-Design/Computer-Aided-Manufacturing.

⁷Impulse goods are products that are bought without any planning.

⁸Doug Barrie, former Group Vice-President International, Wm. Wrigley Jr., Personal Communication.

⁹In 2000 Unilever bought the Slim-Fast brand for \$2.3 billion.

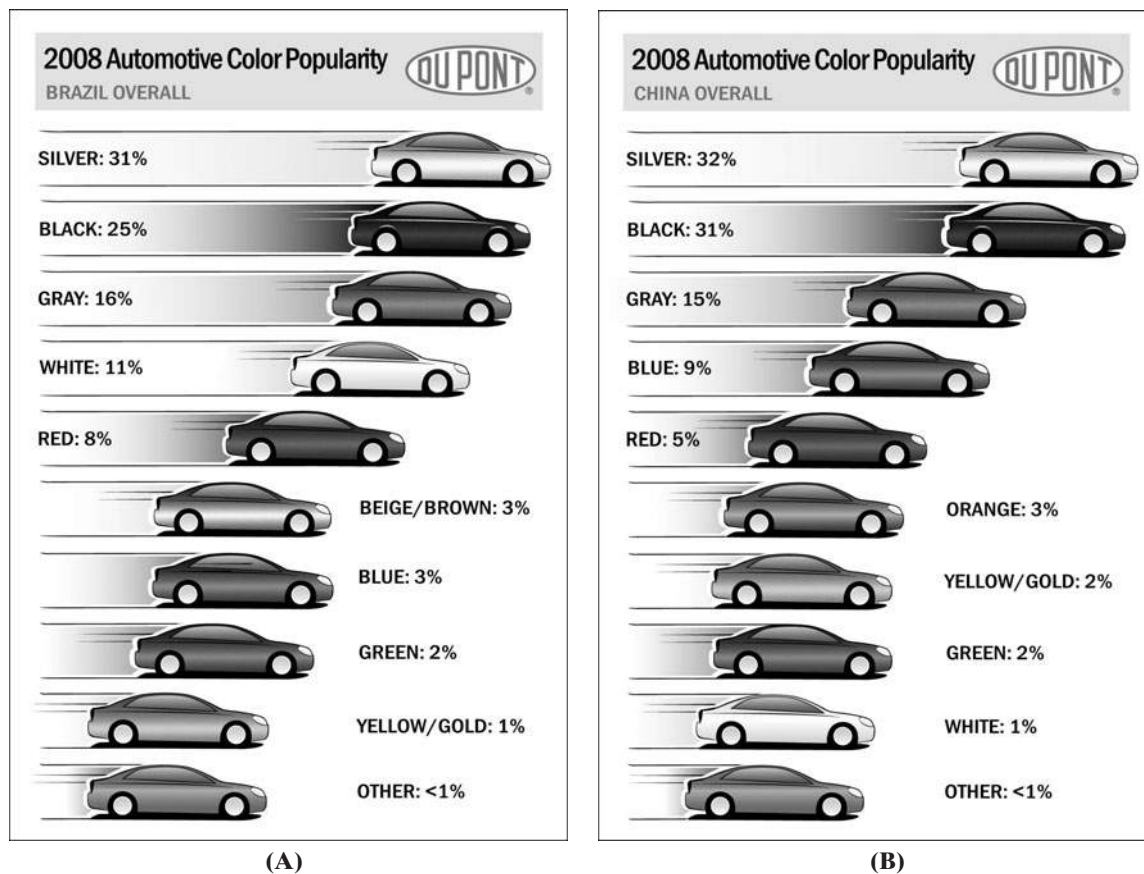
¹⁰"Slim-Fast beefs up in Europe," *Advertising Age International*, May 17, 1993, p. I-4.

local market conditions. While standardization has a product-driven orientation—lower your costs via mass-production—customization is inspired by a market-driven mindset—increase customer satisfaction by adapting your products to local needs.

Forces that favor a globalized product strategy include:

1. **Common customer needs.** For many product categories, consumer needs are very similar in different countries. The functions for which the product is used might be identical. Likewise, the usage conditions or the benefits sought might be similar. One example of a product that targets a global segment is Apple’s iPhone. Since Apple launched iPhone in early 2007, Apple has sold about 13 million by October 2008.¹⁷ Apart from offering the features and benefits that competing smart phones offer, the iPhone’s emotional benefit of “coolness” is also a major reason for its popularity worldwide, especially among young audiences. Many product categories also show a gradual but steady convergence in consumer preferences. Growing similarities in consumer preferences have also been observed in the car industry.¹⁸ The 2008 DuPont Automotive Color Popularity Report, for example, revealed that color preferences are converging around the world, but with subtle differentiation between markets (see also **Exhibit 10-2**).¹⁹ White is a popular choice globally gaining

EXHIBIT 10-2
2008 AUTOMOTIVE COLOR POPULARITY



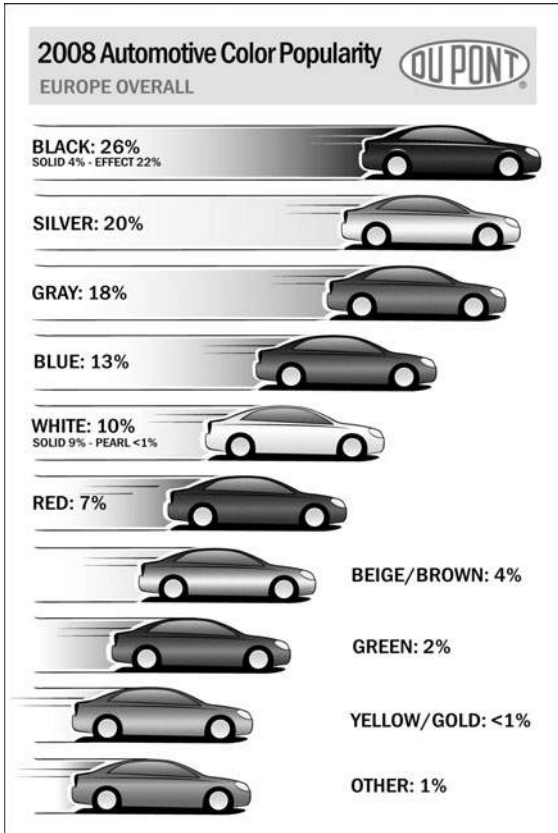
(continued)

¹⁷<http://www.apple.com/pr/library/2008/10/21results.html>.

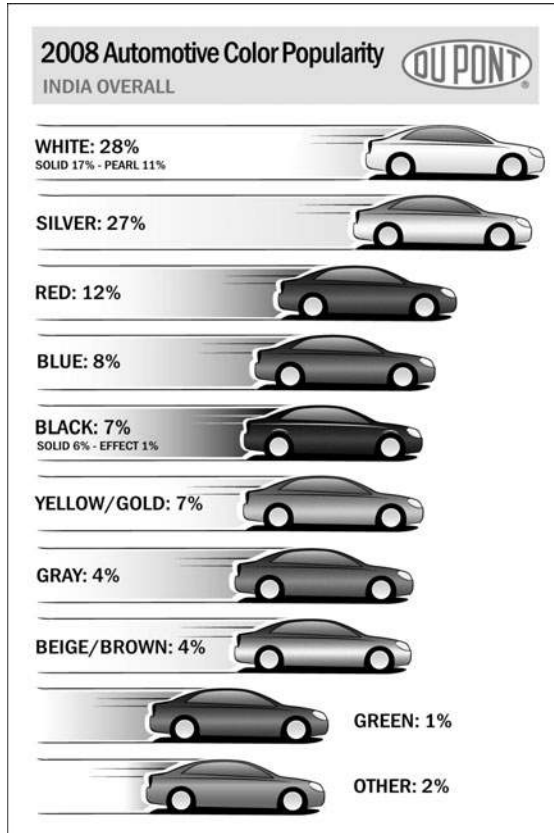
¹⁸Takashi Hisatomi, “Global Marketing by the Nissan Motor Company Limited—A simultaneous market study of users’ opinions and attitudes in Europe, USA and Japan,” *Marketing and Research Today*, February 1991, pp. 56–61.

¹⁹http://vocuspr.vocus.com/VocusPR30/Newsroom/Query.aspx?SiteName=DupontNew&Entity=PRAsset&SF_PRAsset_PRAssetID_EQ=111443&XSL=PressRelease&Cache=False.

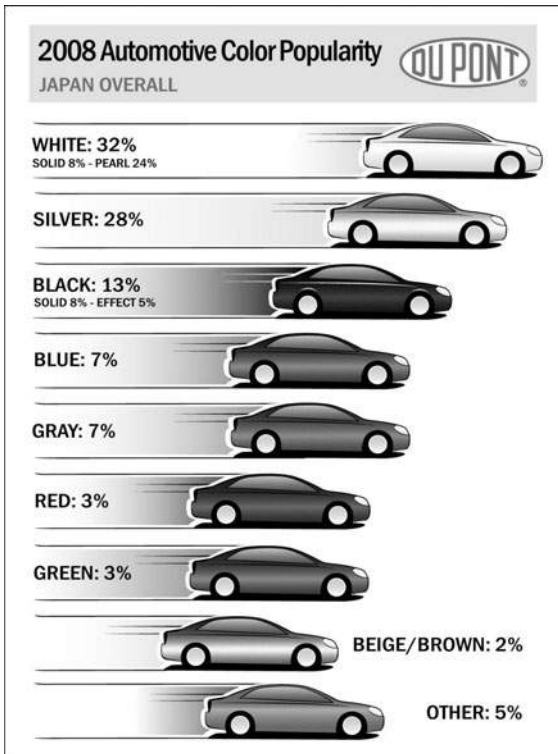
EXHIBIT 10-2
(CONTINUED)



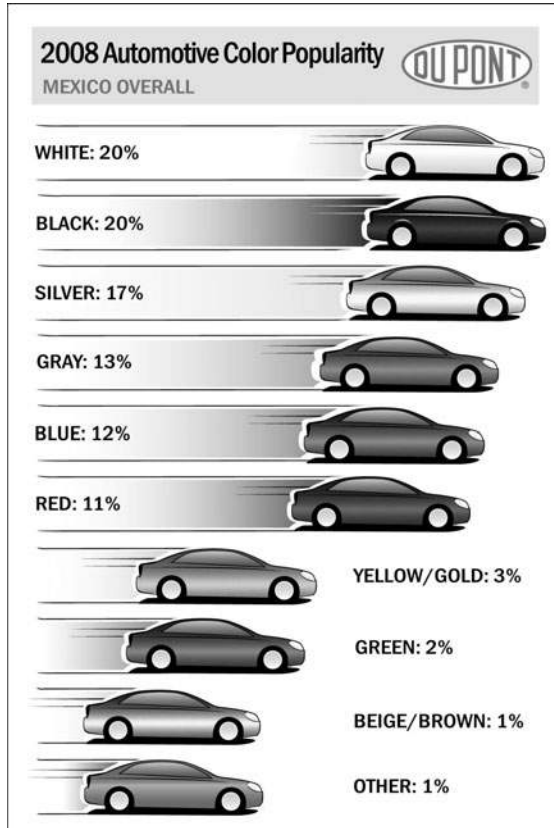
(C)



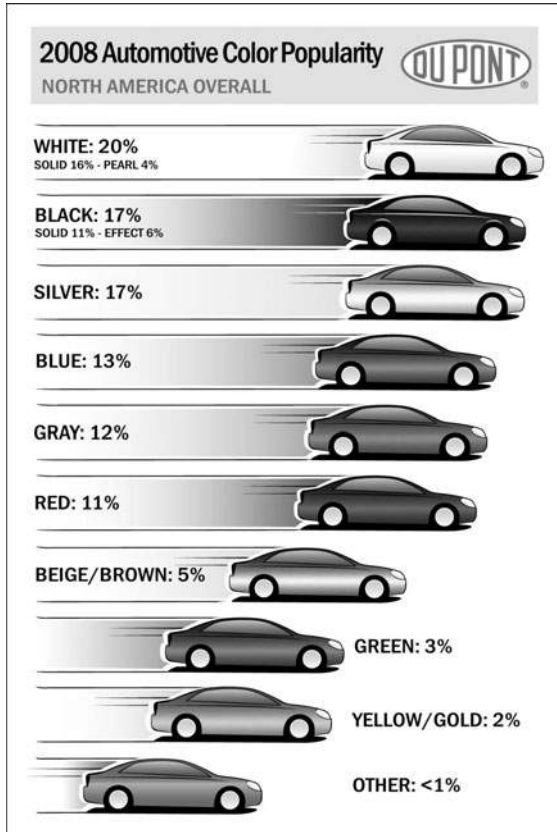
(D)



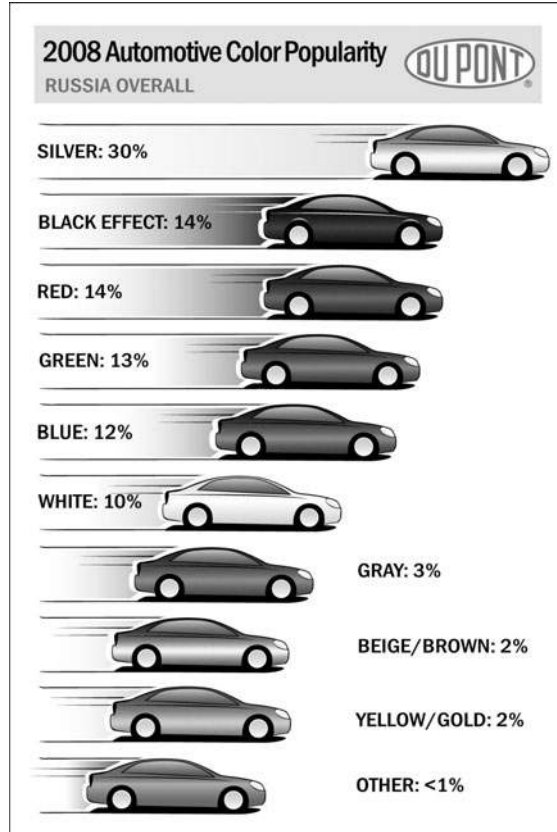
(E)



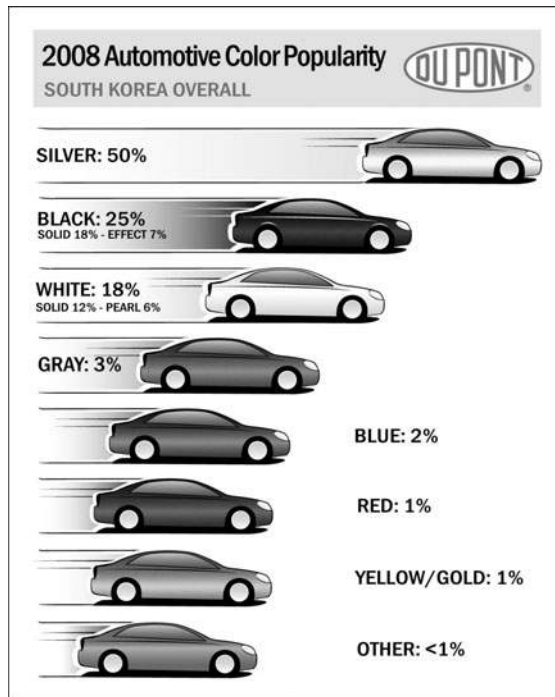
(F)



(G)



(H)



(I)

Source: DuPont Automotive Systems 2008 Global Color Popularity Report.

top spot in North America, India and Japan. Other popular choices include black (China, Mexico, and Europe) and silver (Brazil, China, Europe, India, Russia, and South Korea). One trend that the report observes is the growing popularity of blue worldwide, especially among consumers looking for more environmental themes.

2. **Global Customers.** In business-to-business marketing, the shift toward globalization means that a significant part of the business of many companies comes from MNCs that are essentially global customers. Buying and sourcing decisions are commonly centralized or at the least regionalized. As a result, such customers typically demand services or products that are harmonized worldwide.
3. **Scale Economies.** Cost savings from scale economies in the manufacturing and distribution of globalized products is in many cases the key driver behind standardization moves. Savings are also often realized because of sourcing efficiencies or lowered R&D expenditures. These savings can be passed through to the company's end-customers via lower prices. Scale economies offer global competitors a tremendous competitive advantage over local or regional competitors. In many industries though, the "economies of scale" rationale has lost some of its allure. Production procedures such as flexible manufacturing and just-in-time (JIT) production have shifted the focus from size to timeliness. CAD/CAM techniques allow companies to manufacture customized products in small batch sizes at reduced cost. Although size often leads to lower unit costs, the diseconomies of scale should not be overlooked. Bureaucratic bloat and employee dissatisfaction in large-scale operations often create hidden costs.²⁰
4. **Time-to-Market.** In scores of industries, being innovative is not enough to be competitive. Companies must also seek ways to shorten the time to bring new product projects to the market. This is especially true for categories with shortening product life cycles. By centralizing research and consolidating new product development efforts on fewer projects, companies are often able to reduce the time-to-market cycle. For example, Procter & Gamble notes that a pan-European launch of liquid laundry detergents could be done in 10 percent of the time it took in the early 1980s, when marketing efforts were still very decentralized.²¹ Likewise, the Swedish engineering group Alfa Laval has been able to speed its time-to-market by streamlining its global new product development process.²²
5. **Regional market agreements.** The formation of regional market agreements such as the Single European Market encourages companies to launch regional (e.g., pan-European) products or redesign existing products as pan-regional brands. The legislation leading to the creation of the Single European Market in January 1993 sought to remove most barriers to trade within the European Union. It also provided for the harmonization of technical standards in many industries. These moves favor pan-European product strategies. Mars, for instance, now regards Europe as one giant market. It modified the brand names for several of its products, turning them into pan-European brands. Marathon in the United Kingdom became Snickers, the name used in Continental Europe. The Raider bar in Continental Europe was renamed Twix, the name used in the United Kingdom.²³

Two Alternatives— Modular and Core Product Approach

Whether firms should strive for standardized or localized products is a bogus question. The issue should not be phrased as an either-or dilemma. Instead, product managers should look at it in terms of degree of globalization: What elements of my product policy should be tailored to the local market conditions? Which ones can I leave unchanged? At the same time, there are strategic options that allow firms to modify

²⁰"Big is back. A survey of multinationals," *The Economist*, June 24, 1995, p. 4.

²¹Procter & Gamble, *Annual Report 1993*.

²²http://www.alfalaval.com/about-us/investors/strategy-and-goals/research-and-development/Documents/Research_and_development.pdf.

²³Dale Littler and Katrin Schlieper, "The development of the Eurobrand," *International Marketing Review*, vol. 12, no. 2, 1995, pp. 22–37.

their product while keeping most of the benefits flowing from a uniform product policy. Two of these product design policies are the **modular approach** and the **core-product or common platform approach**.²⁴

Modular Approach. The first approach consists of developing a range of product parts that can be used worldwide. The parts can be assembled into numerous product configurations. Scale economies flow from the mass-production of more-or-less standard product components at a few sites. Vaillant, a French company that is Europe's biggest maker of heating boilers, exemplifies this approach. A wide variation in consumer tastes and building standards within the pan-European market means that Vaillant has to offer hundreds of different boiler models. However, lately, the firm has tried to minimize the costs of customization without narrowing customer offerings. The trick is to develop boilers that meet local requirements but with as many common features (e.g., burners, controls) as is doable.²⁵

Core-Product (Common Platform) Approach. The core-product (common platform) approach starts with the design of a mostly uniform core-product or platform. Attachments are added to the core-product to match local market needs. Savings are achieved by reduced production and purchasing costs. At the same time companies adopting this approach have the flexibility that allows them to modify the product easily. The model design procedures of the French carmaker Renault exemplify this approach. More than 90 percent of Renault's sales revenues come from the European market. The body, engines, transmissions, and chassis of a given model are the same in the different markets. Minor changes, such as stronger heaters in Nordic countries or better air-conditioning for cars sold in Southern Europe, are easily implemented.²⁶ The common platform approach has emerged as a favored means for lots of other global carmakers.²⁷ Jaguar's S-Type marque shared a platform with Lincoln LS, Ford's other luxury brand. Volkswagen's Golf platform is also used for certain variants of Audi, Seat, and Skoda—some of the other brands that belong to Volkswagen's stable. Swedish Saab, owned by General Motors, uses platforms that were originally developed for Opel, GM's other European brand. **Global Perspective 10-2** describes how Deere and Electrolux use the core product approach in designing their products.

On the surface, the standardize-versus-customize conundrum could be settled via some straightforward cost-benefit type of analysis. In this section we introduce a very basic framework that allows you to look into the economics of the standardization/customization issue. The analytical tool that we discuss here in this section is known as **incremental break-even analysis (IBEA)**. The term sounds fancy but the thinking behind it is very straightforward. We illustrate the tool with a simple hypothetical example.

Suppose a U.S.-based MNC developed a new yogurt drink. To keep matters simple, at this stage the company is planning to introduce the new beverage in two markets—its home market (say the United States) and the host market (say Brazil). The base case scenario is a uniform strategy for the two countries with just minor changes that are absolutely necessary (e.g., adding subtitles to the U.S. TV-commercial for Brazil, translating the bottle label from English into Portuguese). The other scenario is to adapt the marketing mix that was devised for the United States when launching the drink in Brazil. On the product front, adaptations proposed by the Brazilian country subsidiary include the flavors and the packaging. With regard to the communication strategy, the MNC ponders to develop an entirely new commercial for Brazil. To test

Back-of-the-envelope Calculations—Incremental Break-even Analysis (IBEA)

²⁴Peter G. P. Walters and Brian Toyne, "Product modification and standardization in international markets: strategic options and facilitating policies," *Columbia Journal of World Business*, vol. 24, Winter 1989, pp. 37–44.

²⁵"Fired up to gather new ideas," <http://www.ft.com>, accessed December 9, 2002.

²⁶"Auto marketers gas up for world car drive," *Advertising Age International*, January 16, 1995, p. 1–16.

²⁷"A Platform for Choice," *The Financial Times* (June 28, 2000), p. 23.



GLOBAL PERSPECTIVE 10-2

TWO ILLUSTRATIONS OF THE COMMON PLATFORM APPROACH WITH GLOBAL PRODUCT DESIGN

DEERE

Deere is one of the world's biggest manufacturers of farm machinery. Deere's tractors worldwide are based on six "families" or platforms on which different elements (e.g., engines, gear boxes) can be fitted to suit needs in local markets. With that system, Deere can easily swap design ideas. For instance, some tractors made in Mannheim, Deere's European tractor plant, use a new gearbox designed in the United States. Likewise, some of the tractors made in the U.S.-plant contain a new axle suspension concept developed in the European site. The platform system allows Deere to meet customers' expectations worldwide while at the same time minimizing costs.

Sources: "Difficult furrow to plough," *The Financial Times* (March 9, 1999), p. 12; "Electrolux sees future in fewer, stronger brands," *The Financial Times* (February 20, 1999), p. 23.

ELECTROLUX

Electrolux has become the world's largest household appliance maker—owning more than forty different brands such as Electrolux, Frigidaire, Kelvinator, AEG, and Zanussi. In Europe alone, the firm sells 6,500 different types of oven. In February 1999, the Stockholm-based company announced plans to streamline its brand portfolio and to rationalize its product design process. The company aspires to move its broad product portfolio of 15,000 different product variants toward common product platforms and fewer brands. This move would result in lower purchasing and manufacturing costs. Electrolux plans to have common platforms in refrigerators and ovens, with customers able to choose particular features in different markets. Whether Electrolux will succeed is to be seen. When Whirlpool, its global rival, introduced a world washing machine, consumer response was lukewarm.

the flavors, the company would need to conduct a market research study in Brazil (\$200,000). Developing a new ad campaign requires a \$2 million outlay. The MNC would have to spend \$1,500,000 for the new packaging manufacturing equipment. So the costs for making all the marketing mix adaptations for the Brazil launch are as follows:

New ad campaign:	\$2,000,000
Flavors:	\$500,000
Packaging:	\$1,500,000

Subtitling the existing U.S. commercial instead of creating an entirely new one would cost \$300,000. Therefore, the total *incremental* cost of adapting the marketing mix for Brazil as opposed to a standardized one equals:

$$\$1,700,000^{28} + \$500,000 + \$1,500,000 = \$3,700,000$$

In this example, all the adaptation costs are fixed costs. In reality though, some of the adaptation costs could also be variable ones. The variable part of the packaging (or ingredients) costs, for example, could also be higher compared to the standardized packaging (or ingredients) costs. With standardization, the MNC can order its materials in bulk and, thereby, gains leverage to negotiate lower prices with its suppliers.

On the benefit side, adaptation may lead to higher sales volume. Also, consumers in the host market (in this case Brazil) may be willing to pay more for the customized product. In our example, a market research study shows that the drinks maker could charge \$1.20 per bottle for the customized yogurt drink compared to just \$1.00 for the standardized version. We assume that the variable cost is \$0.70 per unit and is the same under both scenarios. From an economic angle, the key question facing the firm then is whether the extra costs of adaptation will be offset by the additional profits coming from

²⁸That is, the cost of creating a new campaign (i.e., \$2,000,000) minus the cost of subtitling the U.S. campaign (i.e., \$300,000).

higher sales volume and the price premium. In other words, what will be the extra sales volume needed to justify the incremental costs of adapting the marketing mix for Brazil? To answer this question, the firm's marketing manager can do some simple back-of-the-envelope break-even type analysis. In particular, she could calculate at what sales level in Brazil the profits of both scenarios (customize versus standardize) are the same:

$$\text{Profit in Brazil under standardization} = [\text{Price} - \text{Variable Cost}] \times \text{Sales} - \text{Fixed Cost}$$

$$\begin{aligned} \text{Profit in Brazil under customization} &= [(\text{Price} + \Delta P) - (\text{Variable Cost} + \Delta VC)] \\ &\times \text{Sales} - \text{Fixed Cost} - \text{Fixed Adaptation Costs} \end{aligned}$$

where ΔP is the price premium that the firm can charge (in this example 20 cents = \$1.20 – \$1.00) for the adapted product in Brazil and ΔVC is the difference in variable costs (here assumed to be zero) between the adapted and standardized product.

Therefore, the extra sales (i.e., incremental break even volume or IBEV) can be derived as follows:

$$\text{Profit under customization} = \text{Profit under standardization}$$

or:

$$\begin{aligned} [\text{Price} - \text{Variable Cost}] \times \text{Sales} - \text{Fixed Cost} &= [(\text{Price} + \Delta P) - (\text{Variable Cost} + \Delta VC)] \\ &\times \text{Sales} - \text{Fixed Cost} - \text{Fixed Adaptation Costs} \end{aligned}$$

or simply rearranging the terms:

$$\text{Sales (= IBEV)} = \frac{\text{Fixed Adaptation Costs}}{[\text{Price} + \Delta P] - [\text{Variable Cost} + \Delta VC]}$$

Plugging in the numbers for our hypothetical example we get:

$$\begin{aligned} \text{IBEV} &= \frac{\$3,700,000}{[\$1.00 + \$0.20] - [\$0.70 + \$0.00]} \\ &= 7,400,000 \text{ units} \end{aligned}$$

To put this figure in perspective, let us assume that annual sales in the category total 400 million bottles. Then, the extra market share needed to justify the proposed adaptations would be:

$$7.4 \text{ million} / 400 \text{ million} = 1.85 \text{ percent.}$$

The tool can be used to do some simple simulations and answer what-if questions. For instance, if the firm decides only to adapt the television commercial but keep the product unchanged (i.e., same flavors; same packaging) then the required extra sales for Brazil would be:

$$\text{IBEV} = \$1,700,000 / [\$1.20 - \$0.70] = 3,400,000 \text{ units or } 0.85 \text{ percent extra market share.}$$

While these calculations can be insightful, they should not be treated as an oracle. Other less quantifiable costs should also be factored in. Imposing a uniform marketing mix strategy without much input from the local staff could create discontent and demotivate marketing managers in the overseas country subsidiary. On the other hand, marketing mix adaptations proposed by the country subsidiary could delay the rollout of the new product in the host country.

The balancing act between standardization and adaptation is very tricky. One scholar²⁹ describes **overstandardization** as one of the five pitfalls that global marketers could run into. Too much standardization stifles initiative and experimentation at the local subsidiary level. However, one should not forget that there is also a risk of **overcustomization**. Part of the appeal of imported brands is often their *foreignness*. By adapting too much to the local market conditions, an import runs the risk of losing that

²⁹Kamran Kashani, "Beware the pitfalls of global marketing," *Harvard Business Review*, September–October 1989.

Aside from these variables there are several country characteristics that can be used to predict new product penetration patterns. Communication leading to the transfer of ideas tends to be easier when it happens between individuals who have a similar cultural mindset. Therefore, the adoption rate for new products in countries with a **homogeneous population** (e.g., Japan, South Korea, Thailand) is usually faster than in countries with a highly diverse culture. When a new product is launched at different time intervals, there will be **lead countries**, where it is introduced first, and **lag countries**, that are entered later. Generally, adoption rates seem to be higher in lag countries than in the lead country. Potential adopters in lag-countries have had more time to understand and evaluate the innovation's perceived attributes than their counterparts in the lead-country. Also, over time, the product's quality tends to improve and its price usually drops due to economies of scale.³⁵

One research study that looked at the penetration patterns for consumer durables in Europe identified three more country characteristics that are relevant.³⁶ The first variable is **cosmopolitanism**. *Cosmopolitans* are people who look beyond their immediate social surroundings, while *locals* are oriented more toward their immediate social system. The more cosmopolitan the country's population, the higher its propensity for innovation. The second country trait is labeled **mobility**. Mobility is the ease with which member of a social system can move around and interact with other members. It is largely determined by the country's infrastructure. Mobility facilitates interpersonal communication, and, hence has a positive impact on the product's penetration in a given market. Finally, the **percentage of women in the labor force** impacts the spread of certain types of innovations. A higher participation rate of women in the work force means higher incomes and hence more spending power. Timesaving products (such as washing machines, dishwashers) appeal to working women. By the same token, time-consuming durables will be less valued in societies where working women form a substantial portion of the labor force.

Another study examined the diffusion of six products in 31 developing and developed countries across the world.³⁷ A key finding was that developing countries tend to experience a far slower adoption rate than developed countries. Average penetration potential for developing countries turned out to be about one-third (0.17 versus 0.52) of that for developed countries. Also, it took developing nations on average 18 percent longer (19.25 versus 16.33 years) to reach peak sales.

One useful metric to characterize the takeoff of new products is the **time-to-takeoff**, that is, the period from the launch of the new product in a particular country market to the takeoff.³⁸ Takeoff marks the turning point between the introduction and the growth stages of the product life cycle. A recent study³⁹ looked at the time-to-takeoff for sixteen new products in 31 countries. The mean time-to-takeoff (averaged across product categories) ranged from 5.4 years in Japan to 13.9 years in China and Vietnam (see **Exhibit 10-3**). Research done by Tellis and his colleagues offers the following insights:

1. Time-to-takeoff is declining over the years. For instance, time-to-takeoff for communication products dropped from 8.6 years for mobile phones to 3.4 years for broadband.
2. Country differences are strong. Newly developed countries (e.g., South Korea) in Asia show faster times-to-takeoff than established European countries (e.g., France).

³⁵Hirokazu Takada and Dipak Jain, "Cross-National Analysis of Diffusion of Consumer Durable Goods in Pacific Rim Countries," *Journal of Marketing*, vol. 55, no. 2 (April 1991), pp. 48–54.

³⁶Hubert Gatignon, Jehoshua Eliashberg, and Thomas S. Robertson, "Modeling Multinational Diffusion Patterns: An Efficient Methodology," *Marketing Science*, vol. 8, no. 3 (Summer 1989), pp. 231–47.

³⁷Debabrata Talukdar, K. Sudhir, and Andrew Ainslie, "Investigating New Product Diffusion Across Products and Countries," *Marketing Science*, 21 (Winter 2002), pp. 97–144.

³⁸Gerard J. Tellis, Stefan Stremersch, and Eden Yin, "The International Takeoff of New Products: The Role of Economics, Culture, and Country Innovativeness," *Marketing Science*, 22 (Spring 2003), pp. 188–208.

³⁹Deepa Chandrasekaran and Gerard J. Tellis, "Global Takeoff of New Products: Culture, Wealth or Vanishing Differences?" *Marketing Science*, 27 (Sept.–Oct. 2008), pp. 844–60.



GLOBAL PERSPECTIVE 10-3

VITAMIN-FORTIFIED BEVERAGES FOR THE DEVELOPING WORLD

A shortage of essential vitamins and minerals such as vitamin A, iron, and zinc is believed to affect two billion children worldwide. The impact of such deficiencies on children's learning capabilities and health is huge. As vitamin pills are costly to distribute, one solution to combat this problem in the developing world is through fortification of foods and drinks with vitamins and minerals. Companies such as Procter & Gamble and Coca-Cola have recently launched vitamin-loaded beverages aimed at middle- and lower-middle-class families who—although not destitute—can hardly afford the most nutritious diets for their children.

Developing a fortified drink that is affordable, effective, and tasty is a triple challenge. Nutridelight, an orange-flavored powdered beverage, was launched by P&G in the Philippines in 1999. However, the product never became successful as it turned out to be too pricey. Another product, NutriStar, which P&G rolled out in Venezuela a couple of years later, appeared to be more promising. The powdered drink contains eight

vitamins and five minerals. It promises “taller, stronger, and smarter kids.” Flavors include mango and passion fruit. The drink is sold in stores and local McDonald's restaurants where it has become the drink of choice for about half of the Happy Meals sold.

Coca-Cola tried to develop fortified drinks in the 1970s but did not succeed, as the technology was not advanced enough at that time. More recently, Coca-Cola set up Project Mission. A major goal of Project Mission is to extend relationships with local governments and schools. By becoming a good corporate citizen, Coca-Cola hopes to be able to advance its core brand in the long term. With the aid of pediatricians and health authorities, the soft drink maker experimented with different combinations of vitamins and minerals to come up with a fortified drink that maximizes both taste and effectiveness. Taste tests were run in countries such as South Africa and Botswana.

One result of these efforts is Kapo, which means “the best” in Spanish. The ready-to-drink fruit juice beverage is enriched with vitamins C, B1, and B6. It has been launched in Argentina, Brazil, Chile, Costa Rica, Ecuador, South Africa, Peru, and Turkey. In Peru, Kapo comes in three flavors—bubblegum, orange, and pineapple. Targeting children aged 8 to 12, Kapo is promoted as delicious, fun, and healthy.

Sources: “Coke launches Kapo range in Peru,” www.adageglobal.com, accessed December 13, 2002; “New Fortified Drinks May Quench a Need,” *The Asian Wall Street Journal* (November 28, 2001), pp. 6, 8.

and collaborators (e.g., distribution channels, suppliers)—for creative new product ideas. Obviously, many successful new products originally started at the R&D labs. Other internal sources include salespeople, employees, and market researchers. Multi-national companies often capitalize on their global know-how by transplanting new product ideas that were successful in one country to other markets. A good example of this practice is the Dockers line of casual slacks. This product was introduced in Japan by Levi Strauss Japan in 1985. The line became incredibly successful in Japan. As a result, Levi Strauss subsequently decided to launch the line also in the United States and Europe as well.⁴¹

A good source to spot new product ideas is the competition. The Global New Product Database (GNPD) set up by the Mintel International can be useful resource in this regard (<http://www.gnpd.com/sinatra/gnpd/frontpage/>). This database monitors new product introductions for 39 consumer packaged goods categories⁴² in 48 countries worldwide. The service sends out regular e-mail alerts to its clients about products launched by competitors around the world.

These days many MNCs create organizational structures to foster global (or regional) product development. Unilever set up a network of worldwide innovation centers (ICs) for personal care and food products. Each IC unit consists of marketing, advertising agency, and technical people and is headed by the company chairman of the country subsidiary where the IC is based. The centers are responsible for developing product ideas and research, technology, and marketing expertise. Black & Decker sets

⁴¹“The Jeaning of Japan,” *Business Tokyo*, February 1991, pp. 62–63.

⁴²Food, drink, health & beauty care, pet care.

up business teams to develop global products. Each team is headed by a Product General Manager and has representatives from the various geographic regions. The charter of the teams is to develop new products with “the right degree of commonality and the right amount of local market uniqueness.” Project leadership is assigned to that country or region that has a dominant category share position.⁴³

Screening

Clearly not all new product ideas are winners. Once new product ideas have been identified, they need to be screened. The goal here is to weed out ideas with little potential. This filtering process can take the form of a formal scoring model. One example of a scoring model is NewProd, which was based on almost two hundred projects from a hundred companies.⁴⁴ Each of the projects was rated by managers on about 50 screening criteria and judged in terms of its commercial success. The model has been validated in North America, Scandinavia, and the Netherlands.⁴⁵ According to the NewProd model the most important success factor is product advantage (superiority to competing products, higher quality, and unique features), followed by a good fit between the project requirements and the company’s resources/skills, and customer needs. Studies that interviewed Chinese⁴⁶ and Japanese⁴⁷ product managers reinforced the major role of product advantage in screening new product winners from losers. However, the study done in China also showed that:

1. Competitive activity was negatively correlated with new product success.
2. Being first in the market (pioneer entry) was an important success factor.
3. Product ideas derived from the market place were much more likely to be successful than ideas that came from technical work or in-house labs.

A large-scale research study conducted by researchers at the University of North-Carolina looked at the key drivers of first-year consumer acceptance of new packaged. The researchers analyzed a database that covered 301 new products launched in Germany, the U.K., France, and Spain. Some of the main findings include:

- Consumer acceptance is greater when the product is introduced by a brand with more market power (e.g., market support, distribution coverage, shelf space amount and quality) and when marketed as a brand extension.
- There is a U-shaped relation between newness and consumer acceptance. Products with incremental or major newness are more successful than products of medium newness.
- New product acceptance is also highly influenced by the competitive environment: it is higher in less concentrated, less heavily promoted, and less advertised categories and in categories with more intense innovation rivalry. Competitive conduct (e.g., price competition), however, is more important than competitive structure (e.g., market concentration). Further, the firm’s brand reputation and product newness can buffer against negative competitive effects.
- Consumer characteristics also matter: acceptance is higher among consumers who are more predisposed to buy new products, younger consumers, and larger households.⁴⁸

⁴³Don R. Graber, “How to Manage a Global Product Development Process,” *Industrial Marketing Management*, 25, 1996, pp. 483–89.

⁴⁴Robert G. Cooper, “Selecting New Product Projects: Using the NewProd System,” *Journal of Product Innovation Management*, vol. 2, no. 1, March 1985, pp. 34–44.

⁴⁵Robert G. Cooper, “The NewProd system: the industry experience,” *Journal of Product Innovation Management*, vol. 9, no. 2, June 1992, pp. 113–27.

⁴⁶Mark E. Parry and X. Michael Song, “Identifying New Product Successes in China,” *Journal of Product Innovation Management*, 11 (1994), pp. 15–30.

⁴⁷X. Michael Song and Mark E. Parry, “What Separates Japanese New Product Winners from Losers,” *Journal of Product Innovation Management*, 13 (1996), pp. 422–39.

⁴⁸Katrijn Gielens and Jan-Benedict E.M. Steenkamp, “Drivers of Consumer Acceptance of New Packaged Goods: An Investigation Across Products and Countries,” *International Journal of Research in Marketing*, 24, 2007, pp. 97–111.

Concept Testing

Once the merits of a new product idea have been established in the previous stage, it must be translated into a **product concept**. A product concept is a fairly detailed description, verbally or sometimes visually, of the new product or service. To assess the appeal of the product concept, companies often rely on focus group discussions. Focus groups are a small group of prospective customers, typically with one moderator. The focus group members discuss the likes and dislikes of the proposed product and the current competing offerings. They also state their willingness to buy the new product if it were to be launched in the market (see Chapter 6 for a more detailed discussion of focus group research). Other more sophisticated tools exist to test out and further refine new product concepts. One such tool that has gained wide popularity in the last few decades is **conjoint analysis** (sometimes also referred to as *tradeoff analysis*).⁴⁹ The appendix in this chapter illustrates the use of conjoint analysis in global new product development with a hypothetical example.

Clearly, the results of product concept testing should be treated with the same amount of caution as the predictions of a fortune teller (if not even much more). Prior to launching Red Bull, Dietrich Mateschitz, the beverage brand's founder, tested out the concept: "People didn't believe the taste, the logo, the brand name . . . a disaster."⁵⁰

In many Western countries, test marketing of new products before the full-fledged rollout is the norm for most consumer goods industries. Test marketing is essentially a field experiment where the new product is marketed in a select set of cities to assess its sales potential and scores of other performance measures. In a sense, a test market is the dress rehearsal prior to the product launch (assuming the test market results support a "GO" decision). There are several reasons why companies would like to run a test market before the rollout. It allows them to make fairly accurate projections of the market share, sales volume, and penetration of the new product. In countries where household scanning panels are available, firms can also get insights into likely trial, repeat purchase, and usage rates for the product. Another boon of test marketing is that companies can contrast competing marketing mix strategies to decide which one is most promising in achieving the firm's objectives.

Test Marketing

Despite these merits, test markets also have several shortcomings. They are typically very time-consuming and costly. Apart from the direct costs of running the test markets, there is also the opportunity cost of lost sales that the company would have achieved during the test market period in case of a successful global rollout. Moreover, test market results can be misleading. It may be difficult to replicate test market conditions with the final rollout. For instance, certain communication options that were available in the test market cities are not always accessible in all of the final target markets. Finally, there is also a strategic concern: test markets might alert your competitors and thereby allow them to pre-empt you.

In light of these drawbacks, MNCs often prefer to skip the test market stage. Instead they use a market simulation or immediately launch the new product (one survey done in the 1990s indicated that pan-European financial institutions conducted test markets less than 20 percent of the time⁵¹). One alternative to test marketing is the laboratory test market. Prospective customers are contacted and shown commercials for the new item and existing competing brands. After the viewing, they are given a small amount of money and are invited to make a purchase in the product category in a simulated store setting ("lab"). Hopefully, some of the prospects will pick your new product. Those who purchase the new product take it home and consume it. Those who choose a competing brand are given a sample of the new product. After a couple of weeks the subjects are contacted again via the phone. They are asked to state their attitude toward the new item in terms of likes and dislikes, satisfaction, and whether they would be willing to buy the product again.

Such procedures, although relatively cheap, still give valuable insights about the likely trial and repeat buying rates, usage, and customer satisfaction for the new product,

⁴⁹For a detailed discussion of conjoint analysis, see Chapter 22 in David A. Aaker, V. Kumar, and George S. Day, *Marketing Research* (New York: John Wiley & Sons, 2006).

⁵⁰"Why Marketing Clashes with Management," *Advertising Age*, February 2, 2009, p. 19.

⁵¹Aliah Mohammed-Salleh and Chris Easingwood, "Why European financial institutions do not test-market new consumer products," *International Journal of Bank Marketing*, vol. 11, no. 3, 1993, pp. 23–27.

price sensitivities, and the effectiveness of sampling. The collected data are often used as inputs for a marketing computer simulation model to answer “what if” questions.

Another route that is often taken is to rely on the sales performance of the product in one country, the **lead market**, to project sales figures in other countries that are considered for a launching decision. In a sense, an entire country is used as one big test market. One practitioner of this approach is Colgate-Palmolive. For example, it used Thailand as a bellwether for the worldwide introduction of Nouriché, a treatment shampoo.⁵² Thailand was chosen as a springboard because of the size and growth potential of its hair-care market. BMW used Australia as a global test market for a chain of BMW Lifestyle concept stores selling accessories (e.g., wallets, garments) under the BMW brand name. The concept is a way of keeping in touch with BMW customers to build a long-term relationship.⁵³ McCafé, McDonald’s chain of upmarket coffee shops, is another good example. The first McCafé was launched in Australia in 1993. Restaurants with a McCafé generated 15 percent more revenue than regular ones. By 2003 McCafé had become the largest coffee shop brand in Australia and New Zealand. In light of the concept’s success, the company introduced it in other countries around the world including the United States (2001) and Japan (2007). By 2008 there were 1,300 McCafé outlets worldwide.⁵⁴ Other recent instances of the use of an entire country as a test market are summarized in **Exhibit 10-4**.

Using a country as a test market for other markets raises several issues. How many countries should be selected? What countries should be used? To what degree can sales experience gleaned from one country be projected to other countries? Generally speaking, cross-cultural and other environmental differences (e.g., the competitive climate) turn cross-country projections into a risky venture. The practice is only recommendable when the new product targets cross-border segments.

Timing of Entry: Waterfall versus Sprinkler Strategies

A key element of a global or regional product launch strategy is the entry timing decision: When should you launch the new product in the target markets? Roughly speaking, there are two broad strategic options: the *waterfall* and the *sprinkler model* (see **Exhibit 10-5**).⁵⁵

EXHIBIT 10-4
EXAMPLES OF TEST MARKET COUNTRIES

<i>Company</i>	<i>Product</i>	<i>Test Market Used</i>	<i>Geographic Coverage</i>
Colgate-Palmolive	Nouriché (Shampoo)	Thailand	World
Unilever	Organics (Shampoo)	Thailand	World
Toyota	Toyota Soluna	Thailand	Asia
Coca-Cola	Coca-Cola Blak (Coffee-flavored cola)	France	World
Honda	Honda City	Thailand	Asia
Miller	Red Dog (Beer)	Canada	North-America
BMW	Concept Stores	Australia	World
Unilever	Dove Cream Shampoo	Taiwan	Asia
Procter & Gamble	Nutristar (Vitamin-packed Children Drinks)	Venezuela	Developing world
McDonald’s	Golden Arch Hotel	Switzerland	Europe
KFC	Breakfast Menu	Singapore	World
Fiat	Palio	Brazil	World
Philip Morris Intl.	Marlboro Gold Edge	Poland	Central & Eastern Europe
Philip Morris Intl.	Marlboro Intense	Turkey	Europe
Microsoft	Search based advertising engine	France, Singapore	World

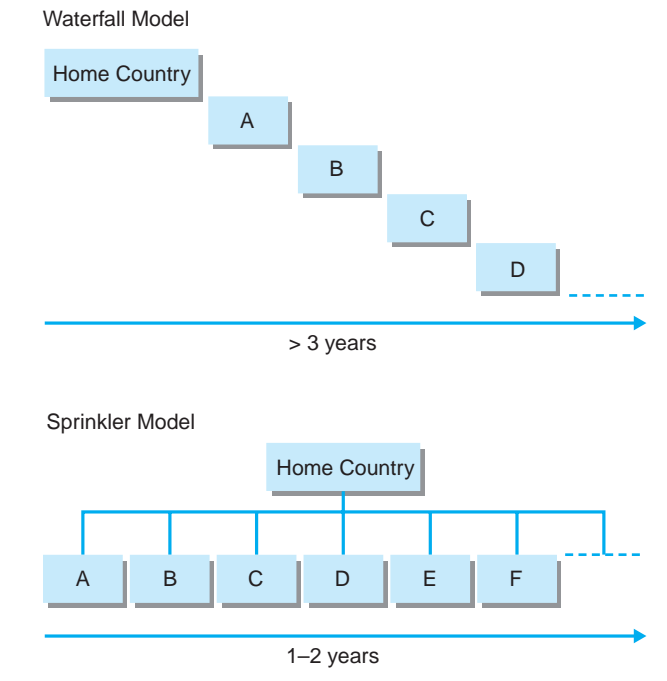
⁵²“Colgate tries Thai for global entry,” *Advertising Age International*, May 16, 1994, p. I-22.

⁵³“In Australia, BMW to Test New Concept in Dealerships: Branded Fashion Sales,” *Advertising Age International* (March 8, 1999), p. 2.

⁵⁴<http://en.wikipedia.org/wiki/Mccafe>, accessed on February 10, 2009.

⁵⁵Riesenbeck, Hajo and Anthony Freeling, “How global are global brands?” *The McKinsey Quarterly*, No. 4, 1991, pp. 3-18.

EXHIBIT 10-5 WATERFALL VERSUS SPRINKLER MODELS



Source: Reprinted by special permission from *The McKinsey Quarterly* (1991). Copyright © 1991 McKinsey & Company. All rights reserved.

The first option is the **global phased rollout** or **waterfall model**, where the company releases the new product stage-wise in its different country markets.⁵⁶ The typical pattern is to introduce the new product first in the company's home market. Next, the innovation is launched in other advanced markets. In the final phase, the multinational firm markets the product in less advanced countries. This whole process of geographic expansion may last several decades. The time span between the U.S. launch and the foreign launch was 22 years for McDonald's, 29 years for Wal-Mart, 25 years for Starbucks (outside North America), 20 years for Coca-Cola, and 35 years for Marlboro.⁵⁷ For other products, especially high-tech goods with short a product life cycle, the sequence happens over a much shorter time span. **Exhibits 10-6a and b** shows the rollout for two recently launched competing innovations in the game console industry, namely Microsoft's Xbox 360 and Sony's PlayStation 3.

The prime motive for the waterfall model is that adaptations of the marketing strategy for the host market can be very time-consuming. A phased rollout is also less demanding on the company resources. Other constraints such as the absence of good local partners may block a global rollout. Apple, for example, needed to negotiate partnership deals with local mobile phone service companies for the launch of its iPhone. These negotiations were not always successful. In China, for instance, Apple's negotiations with China Mobile, China's largest mobile service provider, broke down, leading to a significant delay of the iPhone launch in that market.⁵⁸ On the other hand, staggered rollouts are not always acceptable. In many industries—especially business-to-business markets—consumers worldwide do not want to be left behind. They all want to have access to the latest generation. A good example is what happened with the iPhone. Long before its official launch outside the United States, many Asian and European customers eager to get Apple's smart phone would buy an unauthorized

⁵⁶Ohmae, Kenichi, "The triad world view," *Journal of Business Strategy*, 7, Spring 1985, 8–19.

⁵⁷Numbers quoted in Riesenbeck and Freeling, "How global are global brands?."

⁵⁸China Unicom, a smaller competitor of China Mobile, launched the iPhone in September 2009.

EXHIBIT 10-6A
 ROLLOUT OF XBOX 360

<i>Launch Date Xbox 360</i>	<i>Location</i>
November 22, 2005	Canada
	United States
December 2, 2005	Eurozone
	Finland
	Ireland
	Latvia
	Norway
	Portugal
	Sweden
	United Kingdom
December 10, 2005	Japan
February 2, 2006	Colombia
	Mexico
February 24, 2006	South Korea
March 16, 2006	Hong Kong
	Singapore
	Taiwan
March 23, 2006	Australia
	New Zealand
July 7, 2006	Chile
September 25, 2006	India
September 29, 2006	South Africa
November 3, 2006	Czech Republic
	Poland
December 1, 2006	Brazil
February 10, 2007	Russia
February 26, 2008	Peru

Source: http://en.wikipedia.org/wiki/Xbox_360_launch.

EXHIBIT 10-6B
 ROLLOUT OF SONY PLAYSTATION 3

<i>Launch Date</i>	<i>Location</i>
November 11, 2006	Japan
November 17, 2006	Canada
	Hong Kong
	Taiwan
	United States
	Singapore
March 7, 2007	Saudi Arabia
March 22, 2007	United Arab Emirates
March 23, 2007	Australia
	Croatia
	Denmark
	Estonia
	Eurozone
	Iceland
	Latvia
	New Zealand
	Norway
	Pakistan
	Serbia
	South Africa
	Sweden
	Switzerland
	Russia
April 20, 2007	India
April 27, 2007	Mexico
August 20, 2008	Argentina
August 2008	

Source: http://en.wikipedia.org/wiki/PlayStation_3_launch.

iPhone that was “unlocked” by a third party for a fee. Further, a phased rollout gives competitors time to catch up. For instance, the delay of the iPhone launch in the Asia-Pacific market allowed other smart phone makers such as Taiwan-based HTC to gain ample headway in pitching their smart phone models in the region as an acceptable alternative to iPhone.

The second timing decision option is the **sprinkler strategy** of simultaneous worldwide entry. Under this scenario, the global rollout takes place within a very narrow time-window. The growing prominence of universal segments and concerns about competitive pre-emption in the foreign markets are the two major factors behind this expansion approach.

The waterfall strategy of sequential entry is preferable over the sprinkler model when:⁵⁹

1. The lifecycle of the product is relatively long.
2. Unfavorable conditions govern the foreign market, such as:
 - Small market size (compared to the home market).
 - Slow growth.
 - High fixed costs of entry.
3. The host country market has a weak competitive climate because of such things as:
 - Very weak local competitors.
 - Competitors willing to cooperate.
 - No competitors.

⁵⁹Shlomo Kalish, Vijay Mahajan and Eitan Muller, “Waterfall and sprinkler new-product strategies in competitive global markets,” *International Journal of Research in Marketing*, 12, July 1995, pp. 105–19.

If a waterfall strategy is chosen, one important question is the sequence of countries to be entered: in which markets should the firm launch the product first and which ones later? Chandrasekaran and Tellis suggest the following two options:

- If a company wishes to launch the product in an innovative and large market, the best countries would be Japan or the United States.
- However, if a company wishes to test market the product in a small, highly innovative country, the best choices would be one of the Scandinavian countries, Switzerland or the Netherlands in Europe and South Korea in Asia.⁶⁰

A research team at Erasmus University explored this issue by developing a model that captures the effect of global spillovers with new product introductions: consumers in one country could be influenced by consumers in other countries in their new product adoption decisions. The ideal country to enter first should have a fast time-to-takeoff, large market size, and strong influence on other countries. In Europe, good candidates that are highly influential include Germany and France. However, these two have a somewhat slower takeoff time compared to other European countries. The United Kingdom, on the other hand, shows a fast time-to-takeoff but has a modest spillover influence on other countries. Candidates with a slow takeoff and limited influence on other countries, but susceptible for foreign influences, are ideal for later entry. In Asia, countries such as Singapore, India, Pakistan, and China meet this profile.⁶¹

TRULY GLOBAL PRODUCT DEVELOPMENT



Scores of companies have research centers that are spread across the world. Unilever, for example, has a network of centers of excellence. However, these centers often concentrate on knowledge and technical expertise that is available in the countries or regions where they are located. Far fewer are those companies that have managed to set up a truly **global product development process** (GPD) that transcends local clusters. Such companies use a network of cross-functional product development teams spread across the globe. The benefits of GPD include greater engineering efficiency (through utilization of lower-cost resources), access to technical expertise that is distributed internationally, design of products for more global markets, and more flexible product development resource allocation (through use of outsourced staff).⁶² Doz and his colleagues labeled such companies as **metanational innovators**.⁶³ Nokia is one example of a company that excelled as a metanational innovator. Nokia developed its first digital mobile phone from its R&D lab in the United Kingdom, not Finland. After observing consumer trends in Asia, Nokia tapped into design skills in Italy and California to turn the mobile phone into a fashion accessory. Nokia gained experience from Japan in miniaturization and improved user interface. Realizing the potential of mobile telephony to substitute fixed line communication in China and India, Nokia looked at Asia for skills to lower manufacturing costs.

The development of the ProLiant ML150 server by Hewlett-Packard provides another illustration of truly global innovation.⁶⁴ This server helps companies to manage customer databases and run e-mail systems. The initial idea was born in Singapore. After concept approval in Houston, concept design for the new server was done in

⁶⁰Deepa Chandrasekaran and Gerard J. Tellis, "Global Takeoff of New Products: Culture, Wealth or Vanishing Differences?" *Marketing Science*, 27 (September–October 2008), pp. 844–60.

⁶¹Yvonne van Everdingen, Dennis Fok, and Stefan Stremersch, "Meeting Global Spillover in New Product Takeoff," Report No. 08-121, 2008, Marketing Science Institute.

⁶²Steven D. Eppinger and Anil R. Chitkara, "The New Practice of Global Product Development," *MIT Sloan Management Review*, 47 (Summer 2006), pp. 22–30.

⁶³Yves Doz, Jose Santos, and Peter Williamson, *From Global to Metanational: How Companies Win in the Knowledge Economy* (Boston: Harvard Business School Press, 2001) and www.metanational.net.

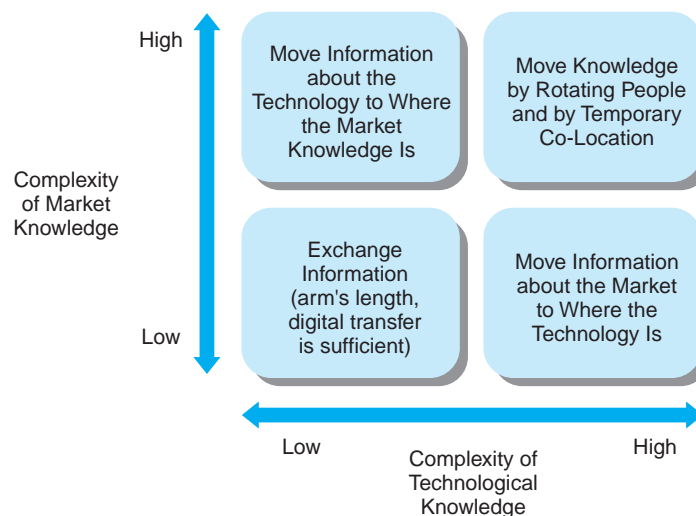
⁶⁴"H-P Looks Beyond China," *Asian Wall Street Journal* (February 23, 2004), pp. A1, A7.

Singapore. Then HP picked a contractor in Taiwan to come up with the engineering design. Final assembly was made in four countries: Singapore, Australia, China, and India. In the past, design for high-end servers was done in the United States. However, by designing the ML150 in Asia, H-P could cut costs and make the new product more relevant to its Asian customers, the target market for this particular server.

To harvest the benefits of metanational innovation, a company must pursue three things:⁶⁵

1. *Prospecting.* Find valuable new pockets of knowledge from around the world. For this to be effective, companies should keep an open mind on where knowledge can be found. For instance, while many view California as the hotbed for micro-electronics innovations, Israel and Singapore are also at the forefront in this area. Geographic proximity of the company's knowledge center to other firms or research institutions in the same industry should *not* be the key driver. Much more advantage can be derived from developing and nurturing relationships with potential pockets of knowledge, regardless of their location.⁶⁶
2. *Assessing.* Decide on the optimal footprint, that is, the number and dispersion of knowledge sources. In terms of the number of knowledge sources, companies face a tradeoff between improved chances of developing a novel product and increased costs of integration. Often, the footprint evolves as the new product development process unfolds, especially for radical innovations.
3. *Mobilizing.* To harness the benefits of global innovation, companies must find ways to mobilize pockets of knowledge (e.g., technical blueprints, patents, equipment, market knowledge). The optimal strategy for mobilizing knowledge depends on the type (simple versus complex) and nature (technical versus market) of the knowledge involved. This leads to four possible scenarios as shown in **Exhibit 10-7**.

EXHIBIT 10-7 MOBILIZING KNOWLEDGE



The optimum strategy for transferring knowledge depends on the complexity of both market knowledge (low versus high) and technological knowledge (low versus high).

⁶⁵Jose Santos, Yves Doz, and Peter Williamson, "Is Your Innovation Process Global?" *MIT Sloan Management Review* 45 (Summer 2004): 31–37.

⁶⁶See also Shankar Ganesan, Alan J. Malter, and Aric Rindfleisch, "Does Distance Still Matter? Geographic Proximity and New Product Development," *Journal of Marketing* 69 (October 2005): 44–60.

SUMMARY

Global product policy decisions are tremendously important for the success of an MNC's global marketing strategies. In this chapter, the focus was on managing the new product development process in a global context. We first gave an overview of the different product strategy options that companies might pursue. Roughly speaking, a multinational company has three options: extension of the domestic strategy, adaptation of home-grown strategies, and invention by designing products that cater to the common needs of global customers. One of the major issues firms wrestle with is the standardization-versus-customization issue. By now, you should realize that this issue should not be stated in "either-or" terms. Instead, it is a matter of "degree": To what extent should we adapt (or if you want: standardize) our product strategy? We described the major forces that favor a globalized (or regionalized) product strategy. At the same time, there will always be forces that push your product strategy in the direction of customization.

Ideally, companies strike a neat balance between product standardization and adaptation. We described two product design approaches that enable a firm to capture the benefits of either option: the **modular** and the **core-product** approach. By adopting these approaches or their variants, firms minimize the risk of over-standardizing their product offerings while still grabbing the scale economies benefits that flow from a uniform product policy. We also demonstrated how you can use one market research tool—conjoint analysis—to make global product design decisions in practice.

The last part of this chapter highlighted the different stages in the new product development process. By and large, the

pattern is similar to the steps followed in developing new products for the home market. However, there are a number of complicating factors that need to be handled: How do we coordinate global NPD efforts across different cultures? What mechanisms and communication channels can we use to stimulate idea exchanges? What alternatives do we have when certain steps of the NPD sequence are not do-able (e.g., test marketing)? Companies such as Nokia have configured innovation processes that are truly global. In the final section of this chapter, we looked at the characteristics of these so-called metanational innovators.

It is fitting to conclude this chapter with the insights of a seasoned practitioner. Don Graber, president of Worldwide Household Products at Black & Decker, offers the following set of guidelines on global product development:⁶⁷

- Start with the consumer. Understand the commonalities and differences in regional needs.
- Do not try to make a product more global than it really is. A good, well-executed regional product is better than a "poorly executed" global product.
- Global business teams that are multifunctional and multigeographic are very helpful in supporting a global product program.
- Top managerial commitment and support is absolutely essential.

⁶⁷Don R. Graber, "How to Manage a Global Product Development Process," *Industrial Marketing Management*, 25, 1996, pp. 483–89.

KEY TERMS

Adaptation	Invention	Sprinkler strategy	Waterfall strategy
Core-product approach	Global new product database (GNPD)	Overcustomization (Overstandardization)	
Customization	Lead (lag) country	Sprinkler strategy	
Extension	Metanational innovators	Standardization	
Incremental break-even analysis (IBEA)	Modular approach	Time-to-takeoff	

REVIEW QUESTIONS

1. Under what conditions is a dual extension strategy advisable? When is product invention more appropriate?
2. Explain the difference between the modular and core-product approaches.
3. Discuss the forces that favor a globalized product design strategy.
4. What could be the hidden costs of when adapting a product to be launched in a foreign market?
5. In what sense is the "standardize-versus-customize" question in global product design a bogus issue?
6. MNCs tend to move more and more towards a sprinkler strategy in terms of their global launch timing decisions. What forces lie behind this trend?
7. What are the major dangers in using an entire country as a "test market" for new products that are to be launched globally (or regionally)?

DISCUSSION QUESTIONS

1. Do you agree/disagree with the following statement recently made by John Dooner, chairman-CEO of McCann-Erickson Worldwide, a global advertising agency (*Advertising Age International*, September 1996, p. I-21):

“The old global view was that a centrally developed brand idea could be made relevant in just about any market, depending on how it was adapted. The reality of the new globalism is that a brand viewpoint that starts out being relevant in one market can become relevant in others, because of the nature of converging consumers. Creative ideas literally can come from anywhere, as long as there is a coordinated system for recognizing and disseminating these ideas. Countries that were once thought of as only being on the receiving end of global ideas can now also be the creators and exporters of these ideas.”

2. Seagram Co. is well known for its high-end alcohol brands such as Martell and Chivas Regal. In May 2001, Seagram introduced a locally made whiskey, branded “30% High” in China. The brand name refers to the brand’s 30 percent alcohol content and the alcohol high that comes with whiskey consumption. The target age group is 20–39 who cannot afford Seagram’s more expensive brands such as Chivas. Priced at \$4.75 per bottle it is more expensive than baijiu, the spirit made by local manufacturers. More than 100 million cases of baijiu are sold in China’s biggest cities each year, compared to only 650,000 cases of imported spirits. At the launch, Seagram believed that “30% High” would work as it claimed that there was a market for a spirit with a sophisticated but affordable image. What obstacles do you see that Seagram might change with “30% High”? Presuming that “30% High” proves to be successful, can you think of other potential markets where there might be an opportunity for this new brand?

3. At a press conference in March 2008, Martin Wiederkorn, Volkswagen’s chief executive, stated that: “In the coming years, we will make the VW group the world’s most international carmaker. The days of the ‘world car’ are dead and buried. Our customers in China or India expect us, as a global player, to offer entirely different solutions than we do in the United States or Western Europe.” (“VW Chief Kills ‘World Car’ Dream,” *Financial Times*, March 14, 2008, p. 21). Do you agree or disagree? Why?

4. In the late 1990s McDonald’s headquarters in Chicago decided to launch a “diversification” strategy to foster new ideas and concepts worldwide. One of the initiatives came from McDonald’s Swiss branch. Urs Hammer, the then head of McDonald’s Switzerland, proposed extending the brand into the hotel business by leveraging McDonald’s image of cleanliness and fast, friendly service. With McDonald’s strong global brand recognition, Hammer was convinced the project would be a success. In 2001 McDonald’s opened two hotels, one in Zürich and one in Lully, under the name “Golden Arch Hotel” with room rates slightly about \$100 a night. The hotels were positioned as four-star accommodations with cutting-edge in-room technology and unique, modern interior design. The hotels offered high-speed Internet access and an online booking system with special Internet rates. Beds featured distinctive arch-shaped headboards. The target markets encompassed business travelers during weekdays and young adults on weekends. What is your view about the selection of Switzerland as the first market for the Golden Arch Hotel concept? Do you see potential to extend the concept to other countries and if so which ones? (See also <http://www.youtube.com/watch?v=Fcd-Fn-LzU0>.)

5. The Tata Nano car has been labeled the Model T for the 21st century. Selling for \$2,500 it claims to be the world’s cheapest car and could democratize car ownership in Indian and other emerging markets by fulfilling the dream of a lot of people in those countries who would like to own a car. Do you see potential for the Nano beyond India? Why or why not? If yes, what criteria would you use to select markets? Could Tata even launch the car in developed markets such as Hong Kong or Japan? Why or why not? For a visual impression of the Nano you could look at YouTube clips (see, for example, <http://www.youtube.com/watch?v=wzuy3Aw0iDo>).

6. What particular challenges do you see for companies introducing product categories that are truly new—recent examples include frozen yogurt (TCBY) and breakfast cereals (Kellogg’s) in China; iced tea (Snapple) in Europe—into the foreign market? How might the marketing mix strategies used by the companies involved differ from the strategies used in the more developed markets?

SHORT CASES

ASE 10-1

CASE 10-1: LEXUS IN EUROPE: A BUMPY RIDE

Lexus is the luxury car division of Japanese automaker Toyota. The foundations for the Lexus brand were laid in 1983 at a secret meeting of Toyota executives. At the meeting, Toyota's then chairman Eiji Toyoda posed the question: "Can we create a luxury vehicle to challenge the world's best?" Following the meeting, Toyota started a top-secret project, codenamed F1, which eventually led to the development of the Lexus LS 400. The LS 400 was revealed to the public in January 1989 at the Detroit Auto Show and debuted in the United States in September 1989. The LS 400 was widely praised in the automotive press for its silence, build quality, engine performance, high quality, and fuel economy. Lexus soon introduced other models including the RX 400h, the world's first hybrid luxury SUV. By 2007, Lexus's annual sales in the United States had risen to 329,177 units. For seven years in a row, Lexus has been the number one selling luxury brand in the world's largest automotive market.

In Europe, however, Lexus is struggling. Vehicle sales in 2007 were only 54,000 units in the region, less than one fifth of Lexus's U.S. sales volume. While Lexus fared well in the United Kingdom, sales in Germany, the home turf of BMW and Mercedes, have been dismal. One reason for the marque's poor reception in Europe could have been the design. According to Karl Schlicht, the brand's vice-president for Europe: "To Europeans, it looked very American—boxy and not enough

Sources: "Lexus Reveals Latest Model to Tempt Fussy European Drivers," *Financial Times*, March 6, 2007, p. 20 and <http://en.wikipedia.org/wiki/Lexus>.

style, not enough design, not enough features." Lexus also offered only one diesel model, in spite of Europeans' liking for diesel cars. In 2007, Lexus changed the look of its cars in the hope of spurring sales. To differentiate from other luxury carmakers, Lexus decided to offer hybrid alternatives of several of its cars. It also announced plans to revamp its dealership network. Lexus is targeting 65,000 sales in Europe by 2010, still far below U.S. sales.

However, a new competitor is on the horizon: Infiniti. Infiniti, Nissan's luxury brand, prepared a Europe-wide launch for 2008. The launch pad is Russia—a "comparatively easy market"—where its cars were already available through grey-market imports. Nissan aims to sign up about fifteen business partners for dealerships and will replicate its U.S. retail environment, which it likens to a modern design hotel. Initially, it will only launch models with petrol engines. A diesel option will be added by 2010. An Infiniti spokesman noted, "The European market is the toughest in the world. We're going for a different angle: performance and fun to drive."

DISCUSSION QUESTIONS

1. Why did Lexus fail miserably in Europe?
2. Is there still hope for Lexus to recover in Europe? Are the changes announced for 2007 enough or is more drastic action needed?
3. Will Nissan's Infiniti luxury brand be more successful? Why or why not?

ASE 10-2

CASE 10-2: PHILIP MORRIS INTERNATIONAL—THRIVING IN A HOSTILE WORLD

In March 2008, the Altria board approved the spin-off of Philip Morris International (PMI). This newly created entity is a leading international tobacco company with products sold in around 160 countries. It is also the world's third most profitable consumer goods company after Procter & Gamble and Nestlé. The change was supposed to free the tobacco giant's global business of legal and public-relations headaches in the United States.

The breakup should also make it easier for PMI to market a slate of new smoking concepts each targeted to different foreign markets. Ahead of the reorganization, Philip Morris streamlined the international new product decision-making process: local managers now have the "power to decide" which

new ideas may have legs in a particular region. PMI also overhauled its manufacturing: it halted imports from the U.S. sister company and, instead, now gets its entire supply from 42 manufacturing centers around the world.

While smoking rates in developed countries have steadily declined, they are still rising in many emerging markets such as Pakistan (up 42% since 2001), Ukraine (up 36%), and Argentina (up 18%). China, with 350 million smokers (50 million more than the U.S.), is a tremendous opportunity for PMI. One of the company's goals is to gain a foothold in China. For the time being, though, foreign tobacco companies such as PMI are limited to importing cigarettes for sale in China. Imports are subject to high import duties and stringent quotas. After

lengthy years of negotiating, PMI reached a joint venture deal with CNTC (China National Tobacco Corporation). PMI hopes to develop CNTC as a key strategic partner. As part of the deal, Marlboro is manufactured and sold under license by CNTC in China. PMI also plans to market Chinese brands internationally, primarily in Central and Eastern Europe, and Latin America. PMI will adapt these Chinese brands to make them more appealing to non-Chinese smokers. Chinese smokers prefer full-tar brands while most Europeans and Latin Americans favor lower-tar brands. Chinese brands' packaging also tends to be too flashy for non-Chinese.

PMI also launched a slate of new products in markets around the world. For instance, to appeal to Southeast Asian consumers PMI launched Marlboro Mix 9, a sweet-smelling cigarette with twice the nicotine and tar of a conventional U.S. cigarette. Mix 9 debuted in Indonesia and was later introduced in other countries in the region. Other recent new Marlboro launches include *Marlboro Filter Plus* and *Marlboro Intense*. *Marlboro Filter Plus* (sold as *Marlboro Flavor Plus* in some countries) is PMI's most significant innovation in years. It has a unique multi-chamber filter and is sold in an original sliding pack. The brand is available at three tar levels (1 mg, 3 mg, and 6 mg) and generally retails at a premium.

Market Share Levels (Sept. 2008) *Marlboro Filter Plus*

Kuwait	2.1%
Romania	2.0%
Kazakhstan	1.4%
Belarus	0.6%
Moscow	1.0%
Lithuania	1.0%

Source: www.philipmorrisinternational.com.

Another major global product launch for PMI in 2008 was the *Marlboro Intense* brand. This new product explores the concept of a rich, flavorful smoke in a shorter cigarette. It was first launched in Turkey and has since then been expanded to a wide range of EU markets (e.g., Belgium, Italy, Germany, Portugal). It achieved a 0.6 percent market share in September 2008.

To cope with smoking bans in mature markets PMI is developing the Heatbar, an odd-looking electronic device that resembles an electric toothbrush. This new device releases 90 percent less smoke than a normal cigarette. Smokers would

Sources: "Philip Morris Readies Aggressive Global Push," http://online.wsj.com/article/SB120156034185223519.html?mod=hpp_us_-pageone and www.philipmorrisinternational.com, accessed February 9, 2009.

be able to rent or buy the gadget. PMI has shown prototypes of the Heatbar to regulators in Australia, New Zealand, and the U.K., all countries with stringent anti-smoking regulations. Another recent new product is TBS ("Tobacco Block System"), which was first introduced in Germany. The tool targets smokers who prefer roll-your-own tobacco that is taxed significantly less than normal cigarettes. The TBS kit enables smokers to quickly roll their own cigarettes.



REUTERS/Dadang Tri/Landov LLC

To compete with low-priced smokes, PMI plans to launch new products with fancier packaging. One example is the *Marlboro Filter Plus* mentioned earlier. In 2008, PMI also test marketed a new more modern pack of *Marlboro Gold* in Austria, France, and Italy. Another critical market for PMI is Japan where continuous innovation is crucial. In the summer 2008, the firm launched *Marlboro Black Menthol* in Japan where smokers have a strong preference for menthol smokes.

In February 2009 PMI entered into a joint venture agreement with Swedish Match AB to commercialize Swedish Snus and other smoke-free tobacco products. Snus is a moist powdered tobacco product that is consumed by placing it beneath the upper lip for an extended time. Despite the fact that it does not affect the lungs as cigarettes do, the product is banned in most EU countries.

DISCUSSION QUESTIONS

1. Some anti-tobacco critics sounded alarm bells about the PMI spin-off fearing that the cigarette maker now has more freedom to pursue sales growth in emerging markets by shielding the company from U.S. legal and regulatory issues. Do you agree with that concern?
2. The case discusses PMI's recent new product launches around the world. What is the major thrust of these innovations? Is PMI on the right track? Why or why not?
3. What else would you recommend PMI to do in the area of new product development?

FURTHER READING

Bose, Amit and Khushi Khanna, "The Little Emperor. A case study of a new brand launch," *Marketing and Research Today*, November 1996, pp. 216–21.

Chandrasekaran, Deepa, and Gerard J. Tellis. "Global Takeoff of New Products: Culture, Wealth, or Vanishing Differences?" *Marketing Science*, 27(5), September–October 2008, pp. 844–60.

- Duarte, Deborah and Nancy Snyder. "Facilitating Global Organizational Learning in New Product Development at Whirlpool Corporation," *Journal of Product Innovation Management*, 14(1997): 48–55.
- Eppinger, Steven D., and Anil R. Chitkara. "The New Practice of Global Product Development." *MIT Sloan Management Review*, 47(Summer 2006), pp. 22–30.
- Garber, Don, "How to Manage a Global Product Development Process," *Industrial Marketing Management*, 25, 1996, pp. 483–89.
- Gielens, Katrijn, and Jan-Benedict E.M. Steenkamp. "Drivers of Consumer Acceptance of New Packaged Goods: An Investigation Across Products and Countries." *International Journal of Research in Marketing*, 24(2007), pp. 97–111.
- Herbig, Paul A. and Fred Palumbo, "A Brief Examination of the Japanese Innovative Process: Part 2," *Marketing Intelligence & Planning*, 12(2), 1994, pp. 38–42.
- Kalish, Shlomo, Vijay Mahajan, and Eitan Muller, "Waterfall and sprinkler new-product strategies in competitive global markets," *International Journal of Research in Marketing*, 12, July 1995, pp. 105–19.
- Kleinschmidt, E. J., "A Comparative Analysis of New Product Programmes," *European Journal of Marketing*, 28(7), 1994, pp. 5–29.
- Lynn, Michael and Betsy D. Gelb, "Identifying innovative national markets for technical consumer goods," *International Marketing Review*, 13(6), 1996, pp. 43–57.
- Nakata, Cheryl and K. Sivakumar, "National Culture and New Product Development: An Integrative Review," *Journal of Marketing*, 60, January 1996, pp. 61–72.
- Song, X. Michael and Mark E. Parry. "The Dimensions of Industrial New Product Success and Failure in State Enterprises in the People's Republic of China." *Journal of Product Innovation Management*, 11(2), 1994: 105–18.
- Song, X. Michael and Mark E. Parry. "The Determinants of Japanese New Product Successes." *Journal of Marketing Research*, 34 (February 1997): 64–76.
- Song, X. Michael and Mark E. Parry. "A Cross-National Comparative Study of New Product Development Processes: Japan and the United States." *Journal of Marketing*, 61 (April 1997): 1–18.
- Song, X. Michael, C. Anthony Di Benedetto, and Yuzhen Lisa Zhao, "Pioneering Advantages in Manufacturing and Service Industries: Empirical Evidence From Nine Countries." *Strategic Management Journal*, 20(1999): 811–36.
- Takada, Hirokazu and Dipak Jain, "Cross-National Analysis of Diffusion of Consumer Durable Goods in Pacific Rim Countries," *Journal of Marketing*, 55, April 1991, pp. 48–54.
- Talukdar, Debabrata, K. Sudhir, and Andrew Ainslie. "Investigating New Product Diffusion Across Products and Countries." *Marketing Science*, 21(Winter 2002): 97–114.
- Tellis, Gerard J., Stefan Stremersch, and Eden Yin. "The International Takeoff of New Products: The Role of Economics, Culture, and Country Innovativeness." *Marketing Science* 22(Spring 2003): 188–208.

APPENDIX: USING CONJOINT ANALYSIS FOR CONCEPT TESTING IN GLOBAL NEW PRODUCT DEVELOPMENT

In this appendix we discuss how international marketers can use conjoint analysis to test new product concepts. Most products and services can be considered as a bundle of product attributes. The starting premise of conjoint analysis is that people make trade-offs between the different product attributes when they evaluate alternatives (e.g., brands) from which they have to pick a choice. The purpose, then, of conjoint is to gain an understanding of the trade-offs that consumers make. The outcome of the exercise will be a set of "utilities" for each level of each attribute, derived at the individual household or consumer segment level. By summing these utilities for any a specific product concept, we can see how attractive that concept is to a particular consumer. The higher this utility score, the more attractive is the concept. This information allows the company to answer questions such as how much their customers are willing to pay extra for additional product features or superior performance. The tool can also be used to examine to what degree a firm should customize the products it plans to launch in the various target markets.

To illustrate the use of the conjoint for the design of products in an international setting, let us look at a hypothetical example. In what follows, we focus on the use of conjoint

analysis in the context of global new product development.⁶⁸ Imagine that company XYZ considers selling satellite TV-dishes in two Southeast Asian countries, Thailand and Malaysia.

The first step is to determine the salient attributes for the product (or service). Exploratory market research (e.g., a focus group discussion) or managerial judgment can be used to figure out the most critical attributes. At the same time, we also need to consider the possible levels ("values") that each of the attributes can take. In our example (see **Exhibit 10-8**) four attributes are considered to be important: (1) the number of channels, (2) the purchase price,⁶⁹ (3) the installation cost, and (4) the size of the dish (in terms of inches). Each of the attributes has three possible levels. For instance, the diameter of the dish could be 18, 25, or 30 inches.

The next step is to construct product profiles by combining the various attribute levels. Each profile would represent a description of a hypothetical product. In most applications it is unrealistic to consider every possible combination since the

⁶⁸Those of you who are interested in the technical background should consult Paul E. Green and Yoram Wind, "New ways to measure consumers' judgments," *Harvard Business Review*, vol. 53, 1975, pp. 107–17.

⁶⁹In the example we assume that no middlemen will be used, so the retail price is the same as the ex-factory price.

EXHIBIT 10-8
SALIENT ATTRIBUTES AND
ATTRIBUTE LEVELS FOR SATELLITE
DISHES

Product Attributes	Attribute Levels
Number of channels	(1) 30
	(2) 50
	(3) 100
Selling price	(1) \$500
	(2) \$600
	(3) \$700
Installation fee	(1) Free
	(2) \$100
	(3) \$200
Size of dish	(1) 18"
	(2) 25"
	(3) 30"

number of possibilities rapidly explodes. Instead, one uses an experimental design to come up with a small but manageable number of product profiles; this number varies from study to study. Obviously, the number of profiles will depend on the number of attributes and attribute levels, but also on other factors like the amount of information you want to collect. In most studies, the number of profiles ranges between 18 and 32. An example of such a profile is given in **Exhibit 10-9**.

After the profiles have been finalized, the company can go into the field and ask subjects to evaluate each concept. In each country several prospective target customers will be contacted. For instance, you might ask the respondent to rank the product profiles from most to least preferred. In addition, other data (e.g., demographics, lifestyle) are collected that often prove useful for benefit segmentation purposes.

Once you have collected the preference data, you need to analyze them using a statistical software package (e.g., SAS). The computer program will assign utilities to each attribute level based on the product evaluation judgment data that were gathered. Hypothetical results for our example are shown in **Exhibit 10-10**. Each country has two segments: a price-sensitive and quality-sensitive segment. The entries in the columns represent the utilities for the respective attribute levels. For instance, the utility of 100 channels in Thailand would be 5.6 for Segment II compared to 2.5 for Malaysia's performance Segment II. The results can be used to see which attributes matter most to each of the segments in the different target markets. The relative range of the utilities indicates the attribute importance weights. In this example, price is most

EXHIBIT 10-9
EXAMPLE OF A PRODUCT
PROFILE

Product Profile 18

- (1) Number of channels: 30
- (2) Price: \$500
- (3) Installation fee: \$100
- (4) Size of dish: 25"

EXHIBIT 10-10
RESULTS OF CONJOINT ANALYSIS FOR SATELLITE
DISHES

Attributes	Thailand	Thailand	Malaysia	Malaysia
	Segment I	Segment II	Segment I	Segment II
Number of Channels:				
30	0.0	0.0	0.0	0.0
50	1.5	3.4	1.4	1.8
100	3.2	5.6	3.0	2.5
Purchase Price:				
\$500	0.0	0.0	0.0	0.0
\$600	-3.2	-1.5	-2.8	-2.5
\$700	-4.6	-2.0	-4.8	-3.0
Installation:				
Free	0.0	0.0	0.0	0.0
\$100	-1.5	-0.2	-1.4	-1.0
\$200	-1.8	-0.4	-2.1	-1.7
Size of Dish (Diameter):				
18"	0.0	0.0	0.0	0.0
25"	-0.5	-1.0	-0.4	-2.0
30"	-0.8	-1.5	-1.0	-5.0
Size of Segment	12,000	28,000	15,000	16,000

critical for Thai Segment I (utility range: 0 to -4.6), whereas the number of channels (utility range: 0 to 5.6) matters most for Thai Segment II. The technical nitty-gritty is less important here, but we would like you to get a flavor of how conjoint analysis can be used to settle product design issues in a global setting. Let us consider the standardization versus customization issue.

For the sake of simplicity, suppose that currently there is one incumbent competitor, ABC, in the satellite dish industry in Thailand and Malaysia. The ABC brand has the following features:

Number of channels:	30
Selling price:	\$500
Installation fee:	Free
Size of dish:	30"

XYZ is looking at two possibilities: (1) sell a standardized product (model XYZST) or (2) launch a customized product for each of the two markets (models XYZTH and XYZMA). The standardized product (XYZST) has the following profile:

Number of channels:	50
Price:	\$600
Installation:	\$100
Size of dish:	25"

The customized products would have the following characteristics:

Attribute	Product XYZTH (Thailand)	Product XYZMA (Malaysia)
No. of Channels	100	30
Price	\$700	\$700
Installation	\$200	Free
Size of Dish	25"	18"

EXHIBIT 10-11
UTILITIES FOR RESPECTIVE ALTERNATIVES
DERIVED VIA CONJOINT STUDY

Alternative	Thailand		Malaysia	
	Segment I	Segment II	Segment I	Segment II
ABC (Competitor)	-0.8	-1.5	-1.0	-5.0
XYZST (Standardized)	-3.7 ⁷⁰	0.7	-3.2	-3.7
XYZTH (Customized Thailand)	-4.0	2.2	Not Offered	Not Offered
XYZMA (Customized Malaysia)	Not Offered	Not Offered	-4.8	-3.0

In this example, the selling price for the uniform product is less than the price for the standardized product because of scale economies. By computing the overall utility for each of the alternatives we are able to estimate the market share that each product would grab in the two countries. This overall score is simply the sum of the utilities for the attribute levels. The respective utilities for the various product configurations are shown in **Exhibit 10-11**.

Assuming that each customer will pick the alternative that gives the highest overall utility, we can derive market share estimates in the two countries for the two product alternatives. For instance, we find that customers in Segment II would prefer the standardized dish to the competing model (as $0.7 > -1.5$). On the other hand, Segment I in Thailand would pick ABC (since $-3.7 < -0.8$). Hence, the market share for the standardized model (XYZST) in the Thai market would equal 70 percent: the number of households in the quality segment, 28,000 (see bottom row of Exhibit 10-11) divided by the entire market size for satellite dishes in Thailand, 40,000. In the same manner, we can compute XYZ's market share for the standardized model in Malaysia and for the customized models in the two countries:

⁷⁰ $1.5 + (-3.2) + (-1.5) + (-0.5) = -3.7$.

Market Share Standardized Product XYZST in Malaysia = 51.6% (16,000/31,000)

Market Share Customized Product XYZTH in Thailand = 70% (28,000/40,000)

Market Share Customized Product XYZMA in Malaysia = 51.6% (16,000/31,000)

In our example, the market share estimates for the two alternatives (standardized versus customized) end up being equal. Once we have cost estimates for the manufacturing and marketing of the different alternatives, we can estimate their expected profits. For instance, let us assume that the variable costs are equal (say, \$400 per unit) but the fixed costs (combined across the two markets) differ: \$5 million for the standardized product option as opposed to \$10 million for the customized product option. Plugging in our market share estimates and these cost estimates, we can assess the profit potential of the various options:

Profits for standardized product approach (combined across the two countries):

$$\begin{aligned} & (\text{Unit Sales Thailand} + \text{Unit Sales Malaysia}) \\ & (\text{Unit Contribution}) - \text{Fixed Costs} \end{aligned}$$

or

$$\begin{aligned} & (28,000 + 16,000) \times (\$600 + \$100 - \$400) \\ & - \$5,000,000 = \$8.2 \text{ million}^{71} \end{aligned}$$

Profits for the customized product strategy:

$$\begin{aligned} & (28,000) \times (\$700 + \$200 - \$400) + (16,000) \\ & \times (\$700 + \$0 - \$400) - \$10,000,000 = \$8.8 \text{ million.} \end{aligned}$$

Given the higher profit potential for the second alternative, launching two customized models (model XYZTH targeted toward Thailand and model XYZMA toward Malaysia) is clearly the winning option here. Obviously, in addition to the economics, other factors need to be considered before making a final decision.

⁷¹The unit contribution in this example is: selling price + installation fee - variable cost.