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Manufacturing

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# Innovation in emerging markets

Managing product sourcing risks in emerging markets

2008 Annual Study

Audit . Tax . Consulting . Financial Advisory .

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# Foreword

Product sourcing from emerging markets is on the rise. Recent publicity over problems with product safety, product quality, and environmental standards in some emerging markets, however, has created a challenge for global manufacturers to address the increased demand for more stringent standards and greater transparency in product sourcing.

This report explores how manufacturers from developed and developing countries view and handle their exposure to risk stemming from sourcing in emerging markets—and how the most successful companies are working to manage this risk and turning it to a competitive advantage.

For global manufacturers, sourcing successfully from emerging markets is not a question of avoiding these risks, but instead of managing them effectively through enhanced vendor selection, testing, monitoring, and contract provisions. While implementing these more rigorous standards is likely to result in higher operating costs, manufacturers have the opportunity to turn this challenge into a competitive advantage—building brand equity and commanding higher prices by providing guarantees that their products meet the strictest standards.

Product safety, product quality, and environmental issues have risen in prominence and present a dynamic and evolving challenge for global manufacturers. Those companies that can move quickly and intelligently to achieve higher standards throughout their global supply chains are likely to see fewer negative impacts from these issues—and even use them to derive new benefits.



A handwritten signature in black ink, appearing to read 'Hans Roehm', written in a cursive style.

**Hans Roehm**

Global Managing Partner, Manufacturing Industries  
Deloitte Touche Tohmatsu

## Executive summary

Over the past two years, there has been a tremendous amount of publicity focusing on problems with tainted and unsafe products coming from emerging market suppliers to global firms. At the same time, in response to a rising “green” consciousness among consumers, global manufacturers are paying more attention to the potential environmental impact of their production processes.

Global manufacturers have long been focused on product safety and quality, but recent events have transformed these into high-profile issues for consumers, investors, and regulators as well. Consumers have heard one news report after another highlighting the issue, with headlines about lead in children’s toys, contaminated dog food, and tainted toothpaste. Such problems have clearly commanded the attention of manufacturers. Various companies saw the recall of 1.6 million power tool batteries due to overheating or fracture during use<sup>1</sup>; more than 45,000 fire alarms due to defects causing low battery power<sup>2</sup>; and some 767,000 vases worldwide for risk of the base breaking off unexpectedly, posing a laceration hazard—among many others. In a third-party survey conducted in mid-2007 during the height of news coverage on the subject, only 40 percent of respondents felt they could trust a major retailer to protect them from products with safety problems made in China, and 39 percent said they were more fearful of buying products from the retailer<sup>3</sup>. In the EU, surveys have shown that consumers rank food safety alongside terrorism as a key concern<sup>4</sup>.

This issue continues to grow in importance and is a top priority for global manufacturers when sourcing from emerging markets—one that commands the attention of boards of directors and senior management, as well as the end customers who purchase

the manufacturers’ products. Although problems with suppliers in China have drawn the lion’s share of media attention, recalls in recent years have involved products manufactured in emerging markets around the world including India, Bangladesh, Mexico, and others. A complex combination of factors are involved including varying levels of process maturity across markets, inconsistent standards, improved problem-detection methods, and the sheer numbers of products now being produced in emerging markets.

In its 2008 annual study of emerging markets, the Deloitte Touche Tohmatsu’s (Deloitte) Global Manufacturing Industry Group examined these issues, surveying more than 650 executives from both developed market and emerging market companies to learn how manufacturers are responding to the intense scrutiny of product safety, quality, and environmental issues.

In response to these concerns, companies are taking steps in several areas, including more rigorous vendor selection, detailed contract requirements, and frequent on-site supplier visits. In general, executives surveyed said that concerns about product safety, product quality, and environmental issues were likely to lead manufacturers to source more from emerging markets that have stricter standards; to produce more from company-owned facilities in these locations; and to provide more

information to customers. In doing so, manufacturers are likely to incur higher operating costs.

Emerging market executives were even more likely than those in developed markets to say that product safety and quality issues had become more important and to predict these issues would result in higher operating costs over time. And they were more likely to see product problems leading to significant financial and reputational costs for their companies.

This sentiment may be due to the fact that emerging market companies simply have more on the line. They are typically smaller than their manufacturing customers located in developed markets, which naturally makes them less resilient in the face of recalls and shutdowns. They have clear object lessons at hand that provide a glimpse of what can happen to suppliers when things go wrong. The widely publicized case in 2007 involving lead-tainted toys was clearly painful for Mattel, which recalled the toys. But it caused Lida Plastic Toys Co., a major Chinese toy maker and contract manufacturer of Mattel, to halt operations, suspend its export business, lay off employees, and stop construction of three factories<sup>5</sup>.

Just over one-third of the developed market executives felt that their companies had been very successful in sourcing from emerging markets, and

these companies appeared to be more attuned to the risks involved. In general, successful companies do not minimize or try to avoid these risks, but rather learned to manage them successfully. Their boards of directors and senior management are more involved in product safety and quality issues, and their companies inspect supplier facilities more often. In short, they appear to be focused on working with emerging market suppliers over the long run and willing to invest in making those relationships work.

This view reflects a fundamental truth: although there are some emerging market suppliers who will always present problems, there are also many who are intensely focused on delivering the safe, high-quality products required by a global marketplace. The key lies in knowing which suppliers are which—and then building relationships with the quality firms, and continuing to manage those relationships over time using clear, measurable goals.

Today, global manufacturers employ extended enterprises that rely on vendors

and suppliers in emerging markets around the world. Indeed, three-quarters of the developed market executives surveyed said they had expanded sourcing from emerging markets over the last three years, with half saying the increase had been significant. Success will depend on ensuring safety, quality, and environmental responsibility across these far-flung supply chains. Those manufacturers that do so will be in position to avoid the immediate financial costs and longer term revenue and market-share losses associated with product recalls and negative publicity. They will be able to protect their reputations—a critical asset in a world where brands are paramount. As Soumitra Mukherjee, Bayer Healthcare's director of business development and

licensing in Asia-Pacific, puts it: "It takes 150 years to build up brand equity—it takes one bad pill to kill it."

But manufacturers have the opportunity to go beyond simply seeing these developments as a defensive, compliance-oriented issue, and instead turning them into a competitive opportunity. With the growing prominence of product quality, safety, and environmental issues among customers around the world, companies have the opportunity to get out in front on the issue and use superior standards and practices as a differentiator. The key will be to act quickly and then continually upgrade their standards—as today's leading approaches become tomorrow's table stakes.

"It takes 150 years to build up brand equity—it takes one bad pill to kill it."

**Soumitra Mukherjee,**

Director of Business Development and Licensing, Asia-Pacific  
Bayer Healthcare

# Understanding the risks

Global manufacturers have been making use of emerging market suppliers for years, becoming an ingrained practice. Roughly three-quarters of the developed market executives surveyed said they had increased their use of emerging market suppliers over the last three years, with almost half saying they had increased it significantly. In terms of where they look for suppliers of components and parts, 66 percent cited China, while 36 percent named Mexico and Central America. Central/Eastern Europe, India, and Southeast Asia were each cited by one-quarter or less.

Working in emerging markets has always brought some inherent challenges. As Bosch's Joerg Weis, director in the corporate controlling, planning and M&A department said, "Given the promise of quality to its clients, Bosch requires strict standards from all its suppliers. But when moving to a new emerging market without an established supply-chain, parts and materials may initially have to be imported from proven sources abroad until local know-how is mature enough to supply to the requested standard."

The heightened publicity around product safety, quality, and environmental issues has had an impact. While H.J. Heinz has had a long-term commitment to maintaining the highest quality and safety standards, the recent press attention to food issues has led them to redouble their efforts—"a sense of wanting to make sure we are absolutely buttoned down on the risks that might apply," said Michael Robinson, director of manufacturing and technical services for H.J. Heinz in Asia.

Roughly two-thirds or more of both developed market and emerging market executives said that over the last 12 months these issues had become more important when choosing emerging market suppliers. (See Exhibit 1). In addition, emerging market companies appear to feel these concerns even more

intensely. For example, 54 percent of the emerging market executives surveyed said that product safety had become a much more important factor when global manufacturers select suppliers, compared to 37 percent of developed market executives who had a similar assessment. What's more, emerging market executives are noticing these concerns closer to home, as well, with roughly half reporting that product quality and safety

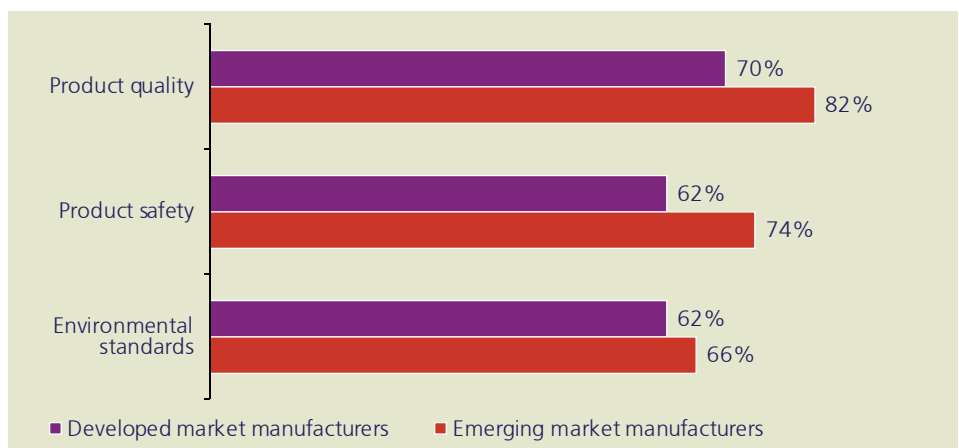
had become more important to their local customers.

Key groups both inside and outside manufacturers are driving this focus on safety and quality. For example, three-quarters of developed market executives said their boards of directors placed a significant focus on product quality, while two-thirds said the same about product safety (see Exhibit 2).

## Exhibit 1

### Change over the last 12 months in importance of issues when developed market manufacturers select emerging market suppliers

Percent of executives saying issue has become more important



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

Roughly three-quarters or more also said these issues were a top concern for their customers.

Although much of the press coverage of product safety issues has focused on China, developed market executives had roughly similar levels of concern across emerging markets. For example, while 33 percent said that product safety was a major concern in China, 38 percent had a major concern about India and 30 percent each about Mexico/Central America and Southeast Asia. This indicates that executives are looking beyond the media focus on China and perhaps drawing on real-world experiences across a variety of markets.

Despite the recent press attention to safety problems with food, toys, and other consumer products, executives from business-to-business (B2B) and business-to-consumer companies (B2C) gave these issues similar ratings. Indeed, among developed market companies, 68 percent of B2B executives said product safety was very important when choosing a supplier, somewhat higher than the 57 percent of B2C companies.

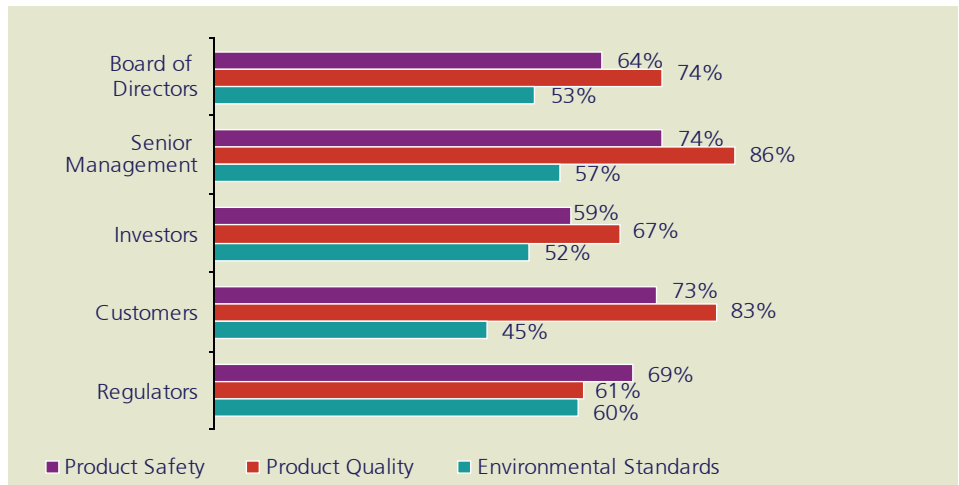
Process companies—such as chemicals, paper, and metals firms—were especially focused on these issues, with 90 percent of their executives saying product safety was very important, and 97 percent saying the same about product quality. They were also more likely to say that their boards placed a significant focus on environmental issues. This heightened awareness may be a reflection of the ingrained safety culture found in these industries. Similarly, product quality was considered a very important factor in vendor selection by 90 percent of consumer electronics executives, 87 percent of automotive executives, and 86 percent of technology executives.

By and large, developed market executives believed their sourcing relationships have worked fairly well. When asked about their emerging market sourcing strategies, 56 percent of developed market executives said they had been somewhat successful, although only 38 percent

## Exhibit 2

### Focus by stakeholders of developed market manufacturers on issues with emerging market suppliers

Percent responding “significant focus” (6 - 7 on 7-point scale)

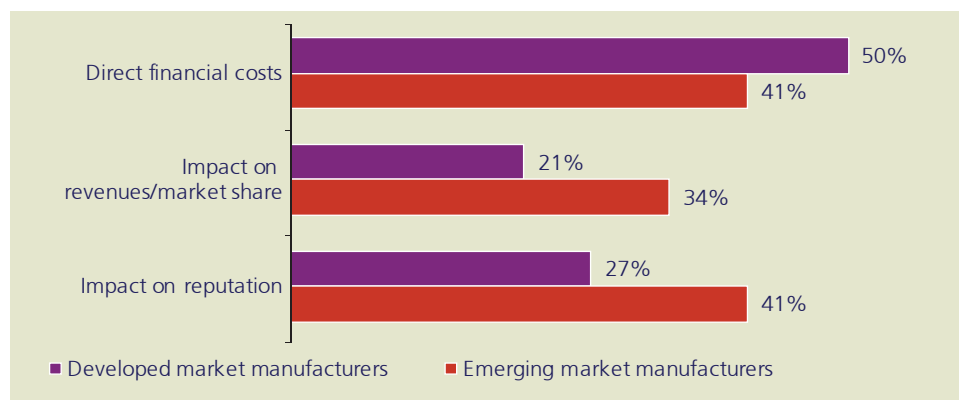


Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

## Exhibit 3

### Impact of product recall

Percent of executives responding “very significant” (6 – 7 on 7-point scale) base=executives at manufacturers who have experienced a product recall within the last five years



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

“Given the promise of quality to its clients, Bosch requires strict standards from all its suppliers. But when moving to a new emerging market without an established supply-chain, parts and materials may initially have to be imported from proven sources abroad until local know-how is mature enough to supply to the requested standard.”

**Joerg Weis,**  
Director, Corporate Controlling, Planning and M&A  
Bosch

considered their companies to be very successful in this area.

Interestingly, developed market executives who reported significant success with emerging market sourcing did not believe the risks were lower. On the contrary, among executives who felt that sourcing from emerging markets entailed significant risk, 48 percent considered themselves to be very successful, compared to 35 percent among executives who rated the risks as less significant. While successful companies were fully aware of the potential risks, they also felt they could manage them effectively. This may be due in part to the senior-level attention these issues receive in successful manufacturers: 78 percent of executives at very successful companies said their boards of directors had a significant focus on product safety, compared to 64 percent of executives from companies that have seen less success. For product quality, the percentages were 88 percent and 76 percent, respectively. This heightened awareness of risk indicates that successful companies are not avoiding the risks inherent in sourcing from emerging markets, but instead focusing on understanding and managing these risks in order to continue to reap the benefits that emerging market sourcing provides.

Having robust processes in place are essential, given the potential negative

impacts from a product recall. Roughly one-quarter of both developed market and emerging market executives said their companies had experienced a product recall over the past five years. Among developed market executives whose companies had experienced a recall, half said the event had had a very significant direct financial impact, while 41 percent of emerging market executives had the same experience (see Exhibit 3). But when it came to the impact of a product recall on revenues, market share, and reputation, emerging market executives reported suffering deeper impacts. Among emerging market executives, 34 percent reported experiencing a very significant impact from a product recall on their revenues and market share, and 41 percent had seen a similar impact on their company's reputation, compared to 21 percent and 27 percent, respectively, for developed market executives. The greater impact of product recalls on emerging market companies is likely due to the fact that these companies tend to be smaller, with a more limited product line, and more dependent on a smaller number of major manufacturing customers. But for all manufacturers, the negative impact of recalls on reputation is likely to increase going forward, due to the heightened awareness of product safety issues among consumers and investors.

## Managing the risks

A spate of high-profile product recalls involving emerging-market suppliers has made product safety and quality and the environment top issues for manufacturing companies. To help understand and manage the risk, manufacturers should ask themselves several key questions:

- What would a significant product recall cost us in terms of both money and brand image?
- Do our top management and our board of directors understand and focus on the special risks of sourcing from emerging markets?
- Are our product safety, quality, and environmental standards clear and consistent across suppliers and markets—and reflected in our contracts?
- Should we broaden our vendor selection criteria beyond the “basics” of quality, cost, and reliability to include factors such as labor practices and sustainability?
- How well do we understand the safety, quality, and environmental standards of our suppliers' subcontractors?
- Do we perform vendor site visits frequently enough? Do these visits look deeply enough? And, are they efficient and effective?
- How can we benefit from providing greater transparency to our customers on standards and production processes?
- What costs would be associated with setting and complying with higher standards?
- How can higher safety, quality, and environmental standards help us differentiate ourselves in the minds of our customers and prospective talent?

# Learning the new competitive rules

While the short-term impact of safety, quality, and environmental problems is fairly clear, the longer-term effect on manufacturers is not as certain. When the executives surveyed were asked to assess the likely long-term effects of increased concerns over these issues, many believed the long-term impacts would be fundamental.

For example, executives tended to believe that increased concern over these issues will have important implications for both global manufacturers and their emerging market suppliers—not the least of which is higher operating costs, driven by the need for to comply with higher standards, increased testing, and so on. Forty-one percent of developed market executives surveyed believed cost increases were very likely, as companies respond to the demand for more stringent standards (see Exhibit 4). But these costs need to be seen in a larger context. “Setting these standards can lead to higher costs when viewed narrowly, but it is cost-effective when you consider the potential costs of a product recall or reputational damage,” said Keith Davey, Ford Motor Company’s vice president of strategy and business development for Greater China.

Emerging market executives were even more likely to anticipate higher operating costs, with 59 percent believing these were very likely. This difference may reflect the fact that much of the burden of higher standards will fall on suppliers in emerging markets, where controls and quality processes are often not as mature as they are in developed markets and where it may be difficult to pass costs along.

Emerging market executives’ concerns about the long-term impact of these issues are not unfounded. Almost 60

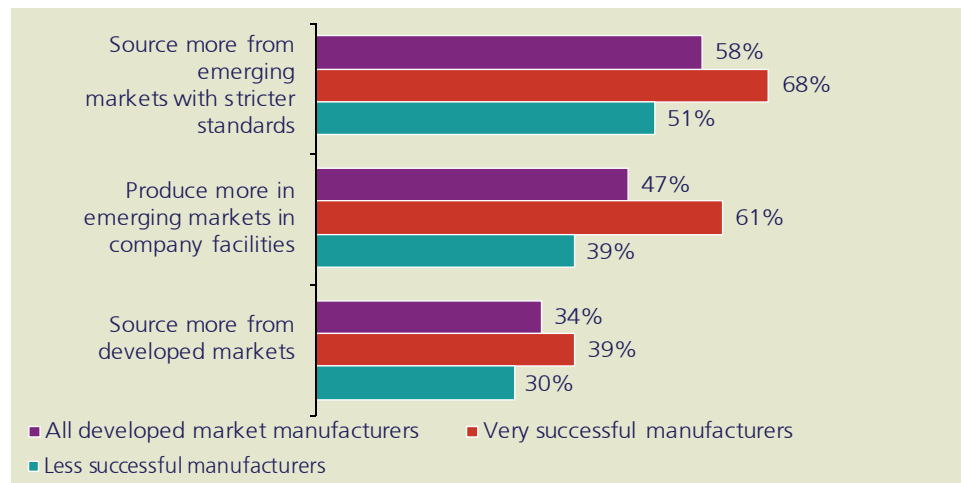
“Setting these standards can lead to higher costs when viewed narrowly, but it is cost-effective when you consider the potential costs of a product recall or reputational damage.”

**Keith Davey,**  
Vice President of Strategy and Business Development, Greater China  
Ford Motor Company

Exhibit 4

## Responses to increased concerns over product safety, quality, and environmental standards in emerging markets

Percent responding “very likely” (6 – 7 on 7-point scale)



Source: Deloitte’s Global Manufacturing Industry Group “Innovation in emerging markets. 2008 Annual Study”

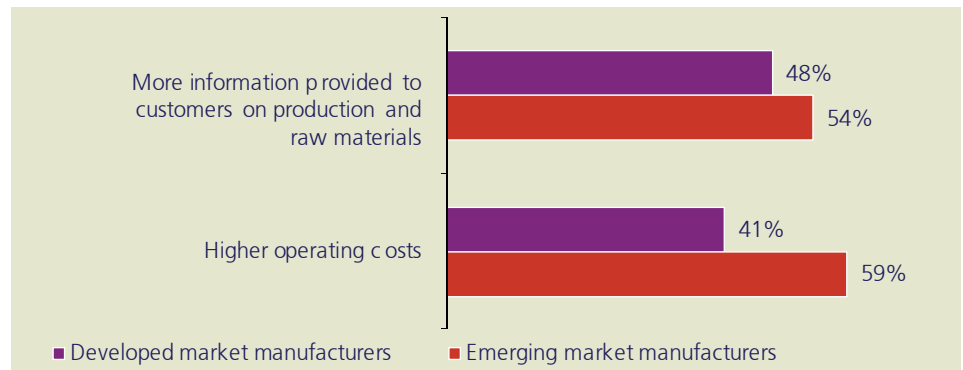
percent of developed market executives said it was very likely that their companies would respond to the recent problems by favoring sourcing from emerging markets with stricter standards. Just under half said they would be likely to increase production in company-owned facilities in these markets, rather than relying on local suppliers (see Exhibit 5). This could lead to increased M&A activity with global manufacturers acquiring emerging market suppliers, or their production facilities, to turn them into company-owned operations. Yet, most developed market executives said they had an enduring commitment to emerging markets—only about one-third believed it was very likely their companies would increase sourcing from developed markets.

Meanwhile, the new consciousness about safety and quality issues is likely to require companies to assuage customers' concerns. Roughly half of both developed market and emerging market executives thought it was very likely that companies would provide customers with more sourcing information and transparency about production, while three-quarters thought this was at least somewhat likely (see Exhibit 4). In fact, executives from developed market companies that are very successful are even more convinced that increased transparency is on the way, with 62 percent of these executives expecting

### Exhibit 5

#### Likely impact of concerns about product quality, safety, and environmental standards over the next three years

Percent responding "very likely" (6 – 7 on 7-point scale)



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

more disclosures of information on production processes and raw materials, compared to 41 percent of those at less successful firms.

Companies will find that regulators will be equally interested in such disclosures. In China, the government responded to tainted food issues last year by launching a four-month "clean-up" operation, which included plans to close down problem producers<sup>6</sup>. In India, there have been reports that the government will allow U.S. Food and Drug

Administration (FDA) inspectors in the country to help improve product safety in pharmaceutical exports<sup>7</sup>. FDA inspectors are also making plans to permanently station employees in China. "In the 1990s, governments were all about trying to maximize the volume of international trade," Moisés Naím, editor-in-chief of Foreign Policy magazine, recently told the New York Times. "I'm all for that, but I believe this decade is going to be about maximizing the quality of that trade, not quantity."<sup>8</sup>

# Upgrading standards

To address product safety, product quality, and environmental issues, companies have to put a stake in the ground—that is, determine the standards that they and their partners will adhere to in order to minimize problems and then articulate those to everyone involved.

For many developed market executives, the setting of standards appears to be a basic element in their approach to emerging market suppliers. Roughly three-quarters said their companies have a single global set of standards for quality, safety, and environmental factors. Roughly two-thirds of executives said their companies exceed local product safety standards in the markets where it sells its products. As might be expected, executives from companies that perceived more risk when sourcing from emerging markets were also more likely to say that their companies strive to significantly exceed local safety standards.

At Ford Motor Company, where the business of emerging market sourcing has gone from virtually zero to some \$3 billion annually in the last five years, high standards play a key role. The company requires suppliers to at least meet or exceed all local standards while striving to raise the bar. “The goal is to have them eventually meet global standards over time for such issues as environmental and working conditions,” said Ford’s Davey.

Whatever the level of standards, consistency in expectations is particularly important when dealing with suppliers in various markets. At H.J. Heinz, for example, the company is working to bring greater standardization to the extensive audits it conducts of its suppliers. “It’s very important to us that

we have a consistent approach, so that people can trust that audits are conducted in the same way and that everybody has a clear understanding of what risks might be highlighted and what the audit terms mean around the world, so that everybody understands the type and level of risk that might apply,” said Heinz’s Robinson.

Increased consistency in standards is especially important to emerging market suppliers. An individual firm may have several global customers, each with its own set of standards. Configuring manufacturing facilities to meet these varying requirements can be difficult. Hence, there is a growing interest among suppliers and global customers in broad global quality standards, such as SA 8000 and ISO 14000.

Translating standards into action requires companies to spell out their conditions and expectations in their contracts with emerging market suppliers and keep the focus on safety and quality. Developed market executives indicated a wide range

of specifications that are typically covered in their contracts with emerging market suppliers, with product specifications and inspection of pre-production samples being the most common (see Exhibit 6). Seven out of ten said they also include the requirement that suppliers will assume responsibility for covering the costs of product safety or product quality problems. Just over half said their contracts typically included requirements to comply with environmental standards, while roughly 30 percent said they had requirements regarding working conditions and labor practices. Developed market executives reporting greater success with emerging market strategies were more likely to include visits to facilities and approval of subcontractors in their contracts.

Larger companies tended to include more specific requirements in their contracts than did smaller companies (see Exhibit 6). For example, 65 percent of executives from companies with US\$1 billion or more in revenues said contracts typically include a requirement that the

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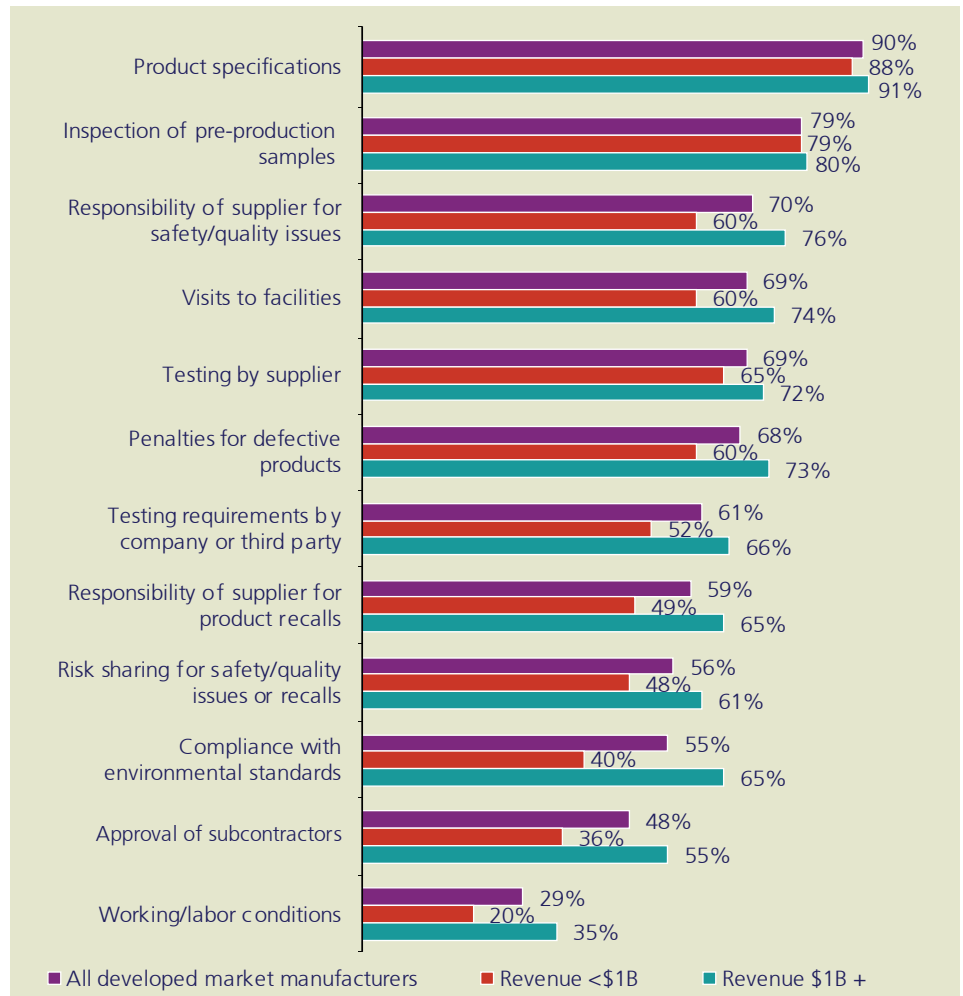
**Michael Robinson,**  
Director of Manufacturing and Technical Services, Asia  
H.J. Heinz

supplier meet environmental standards and the same percentage said suppliers are held responsible for product recalls, compared to 40 percent and 48 percent, respectively, among smaller manufacturers. This may represent a vulnerable point for smaller companies since they may not have the scale and scope to weather the financial impact of negative publicity over environmental issues or a product-safety problem. Executives at smaller manufacturing companies might be able to reduce their risk significantly by including such requirements.

**Exhibit 6**

**Issues typically specified in contracts between developed market manufacturers and emerging market suppliers**

Percent of developed market manufacturers



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

# Picking the right supplier

For global manufacturers, it is increasingly important to work with suppliers that are both willing and able to comply with rigorous standards. That makes the vendor-selection process critical. It is not always easy to conduct assessments of local suppliers. However, emerging market governments and other organizations are working to provide certifications and guidance to simplify the process.

Although brokers can often help navigate the local landscape, their quality varies widely, meaning companies need to vet them carefully. In addition, some countries have embraced the fostering of industry clusters, in which a collection of companies creates a kind of critical mass of expertise and talent. For example, in India, there are well over 100 established clusters in various industries, and the Confederation of Indian Industry (CII) is helping clusters of small and medium-size businesses to adopt benchmarking and quality programs—often, with significant results<sup>9</sup>. For example, the CII reports clusters having reduced customer complaints by more than 85 percent and customer returns by more than 75 percent. Such efforts can help global companies identify potential suppliers with more-mature processes. However, in the end, companies have to make their own choices about which individual suppliers to work with, based on their specific requirements.

The developed market executives surveyed identified certain “basics” they rely on when it comes to choosing suppliers in emerging markets: quality, cost, and reliability. These were deemed to be extremely important by more than eight out of ten executives (see Exhibit 7). Product safety ranked slightly behind those basics, with seven out of ten executives rating it as extremely

important. Yet, the fact that almost one-third of developed market manufacturers didn’t consider product safety to be an extremely important consideration when selecting an emerging market supplier can be seen as a troubling sign.

Rated less highly were a supplier’s environmental record, working conditions and practices, corporate citizenship and product development capabilities. While these are not directly related to product safety and quality, they could nevertheless be considered indicators of a supplier’s ability to adhere to the higher overall standards expected in developed markets.

The importance of such issues may increase in the future, judging from the views of executives from companies that have been very successful with emerging market suppliers. Among developed market executives from successful manufacturers, 44 percent said that working conditions and labor practices were an extremely important factor in vendor selection, compared to just one-quarter at less successful companies. Similarly, 35 percent of the executives at more successful companies rated corporate citizenship as an extremely important factor, while only 18 percent of those at less successful manufacturers agreed. In addition, among developed market executives from

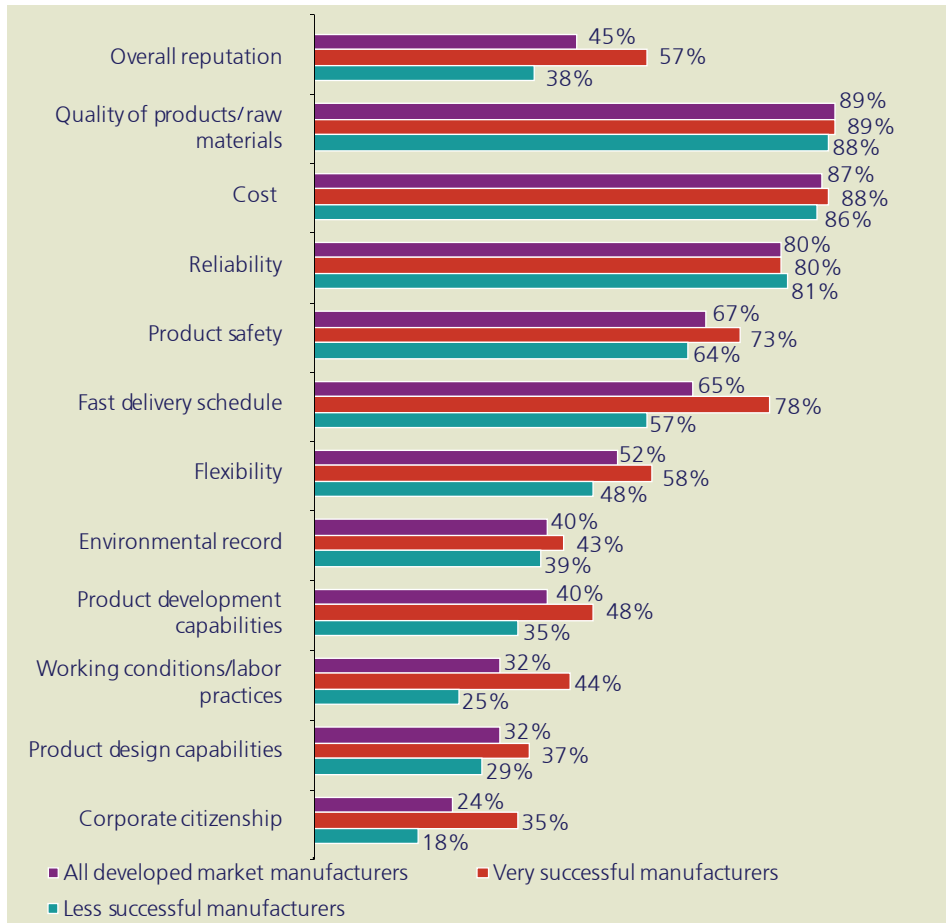
successful manufacturers, 48 percent said that product development capabilities were an extremely important factor in vendor selection, compared to 35 percent at less successful companies.

In fact, it appears that manufacturers that are more successful at sourcing from emerging markets place more weight on softer assessments of prospective suppliers. More than half of these executives said that consideration of a supplier’s overall reputation was extremely important in their decision-making process, compared to roughly one-third of those at less successful companies.

Exhibit 7

**Importance of factors when developed market manufacturers select an emerging market supplier**

Percent of developed market executives responding “extremely important” (6 - 7 on 7-point scale)



Source: Deloitte’s Global Manufacturing Industry Group “Innovation in emerging markets. 2008 Annual Study”

# The monitoring challenge

Setting standards is one thing, but ensuring compliance to those standards over time is another. With global manufacturers today operating “extended enterprises” that rely on far-flung, complex webs of suppliers and strategic partners, effectively implementing stringent standards along their supply chains is challenging. Global manufacturers need to establish processes for monitoring suppliers’ attention to quality, safety, and the environment over the long run, and continue to ensure their supplier network remains in close alignment on these issues. Although executives recognize the importance of effective monitoring, they also acknowledge there is significant room for improvement.

The recent spate of product recalls has clearly prompted a sharper focus on the monitoring of emerging market suppliers. For example, after Sesame Workshop, the non-profit company behind Sesame Street, experienced a large recall of licensed products last year, it announced that it would send auditors to Chinese factories, ports, and stores to check for lead and other problems in toys that are licensed to use its characters. Similarly, Walt Disney began testing toys featuring Disney characters that are made under license by other companies—sometimes conducting random testing of products already in stores<sup>10</sup>. And Yushan Press, which produces stickers, catalogs, posters and shopping bags, relocated to Shanghai from British Columbia in order to better monitor suppliers and the quality of their goods.<sup>11</sup>

The developed market executives surveyed said the most commonly used monitoring techniques were total quality management and statistical quality control (see Exhibit 8). Executives from larger companies reported using a wider array of techniques designed to go beyond simply checking on supplier performance to instead working to build their capabilities.

For example, more of the executives from larger manufacturers said they provided worker training and shared expertise with suppliers on production processes.

But much of the challenge lies in achieving visibility and raising standards down the supply chain with the subcontractors used by their direct suppliers. Most developed market executives said they do at least some monitoring of their suppliers’ subcontractors, but only one-third said that such monitoring was extensive (see Exhibit 9). Extended monitoring can be difficult, with suppliers in emerging markets often relying on a large and changing network of small subcontractors. As a result, some global manufacturers rely largely on their primary suppliers to enforce quality, safety, and environmental standards among their second- and third-tier subcontractors. With so much at stake, however, this may not be sufficient since manufacturers remain responsible for the safety and quality of their products, even when produced in part by diverse subcontractors. Global companies need to find ways to gain greater visibility throughout their supply chains, because in an era of heightened awareness of safety,

quality, and environmental problems, they run the risk of suffering substantial financial and reputational damage due to missteps by those smaller suppliers.

The testing of products naturally plays an important role in ensuring quality and safety. However, only about one-third of developed market executives thought their testing programs were very effective. Most said that their companies may increase their level of testing, but surprisingly less than one-third thought that was very likely. Here again, companies may be looking to have their suppliers take on more responsibility, with more than three-fourths of developed market executives saying that they required their emerging market suppliers to have testing programs. That fits with the views of emerging market executives: nine out of 10 said that they expect their testing for both global and local customers to increase over the next two years. “In the past, customers bringing in small orders usually had no requirements on testing, now they want testing for every piece,” Chen Zebin, an executive at the Foshan Nanhai Yanbu Yuexing Toy and Garment Factory, told *The Wall Street Journal*. The paper reported that some toy companies in the area are raising prices

by up to 20 percent to cover the cost of tests.<sup>12</sup>

But global manufacturers also need their own robust testing programs—testing products at various steps throughout the process, from the test run through to the final run. Many manufacturers supplement their own efforts with testing by using an independent third-party testing company. Regardless of who conducts testing, documenting the process is important to ensure that it remains current and to identify and address any recurring problems.

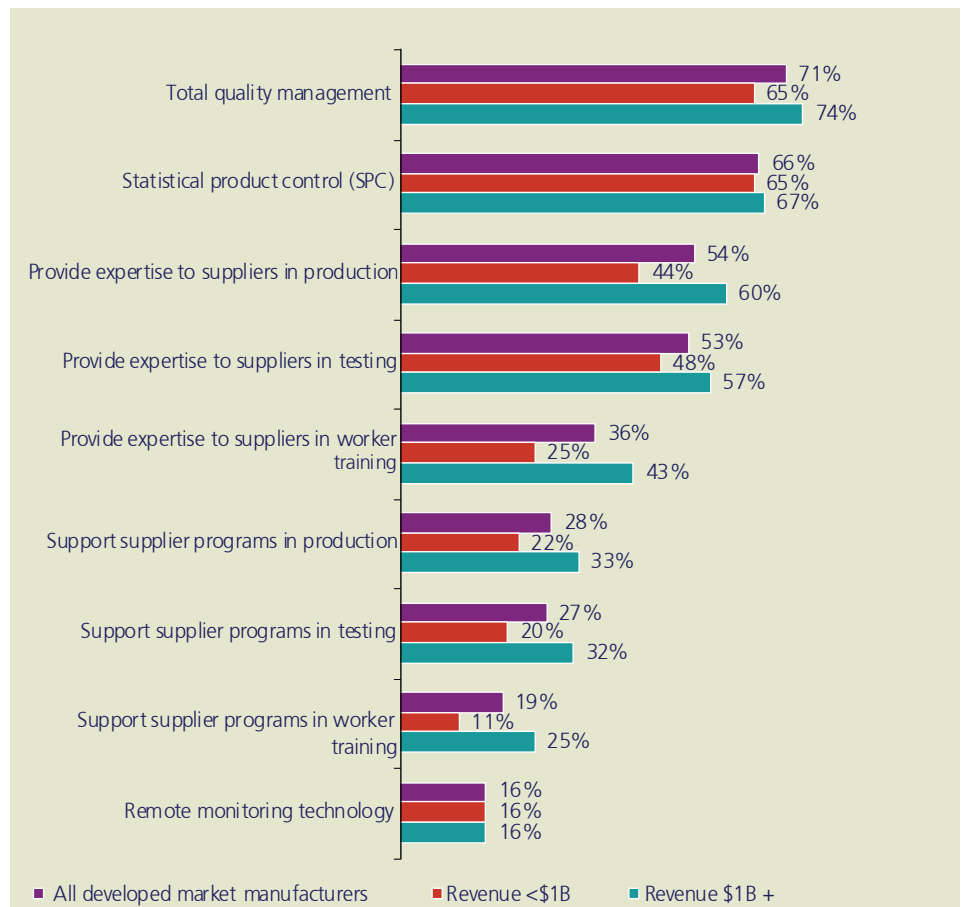
On-site inspections of supplier facilities are an especially vital part of a monitoring effort. Roughly 90 percent of developed market executives said they visit supplier facilities in emerging markets, with half saying these visits occur more than once a year. Nearly all said that these inspections looked at quality control processes, followed by facilities/equipment, raw materials, and the skills of quality control personnel (see Exhibit 10). Companies that are more successful with emerging market sourcing were more likely than others to assess the skills of managerial employees and working conditions in their inspections, as well.

On-site visits can yield insights that are otherwise difficult to gain. For example, H.J. Heinz has a comprehensive on-site process in which the company's quality auditors go through supplier facilities, complete extensive questionnaires, examine documentation, and assess the state of the operations. "The detailed questions we ask, being able to see the building condition, the equipment condition, how the operators look—all give us a good indication of whether there's any potential risk with a particular supplier," said Robinson. "Our auditors work with our suppliers in establishing the required quality of the products and manufacturing methods, making sure

**Exhibit 8**

**Importance of factors when developed market manufacturers select an emerging market supplier**

Percent of developed market companies



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

things like the sourcing of materials and the supplier's testing processes are sufficiently understood so that we can have confidence that we won't have problems."

While most companies are taking these inspections seriously, manufacturers that are more successful with emerging market sourcing tend to be more proactive and thorough. Nearly two-thirds of more successful companies conduct on-site visits more frequently than once a year,

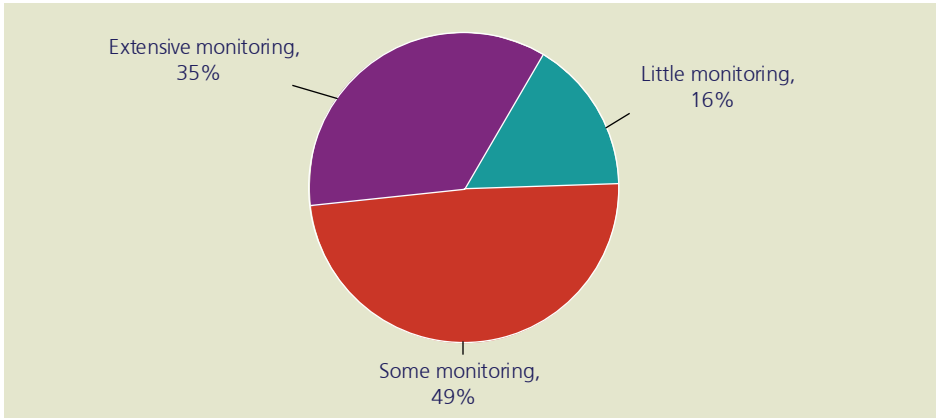
while less than half of the less successful companies do so. Furthermore, 52 percent of executives at more successful manufacturers considered their testing programs to be very effective, compared to just 26 percent of executives at less successful firms.

On-site inspections and monitoring in general do not need to be adversarial or focused on penalties; instead, these activities can be opportunities to collaborate and improve. After all, smaller

Exhibit 9

**Monitoring of subcontractors to emerging market suppliers**

Percent of developed market manufacturers



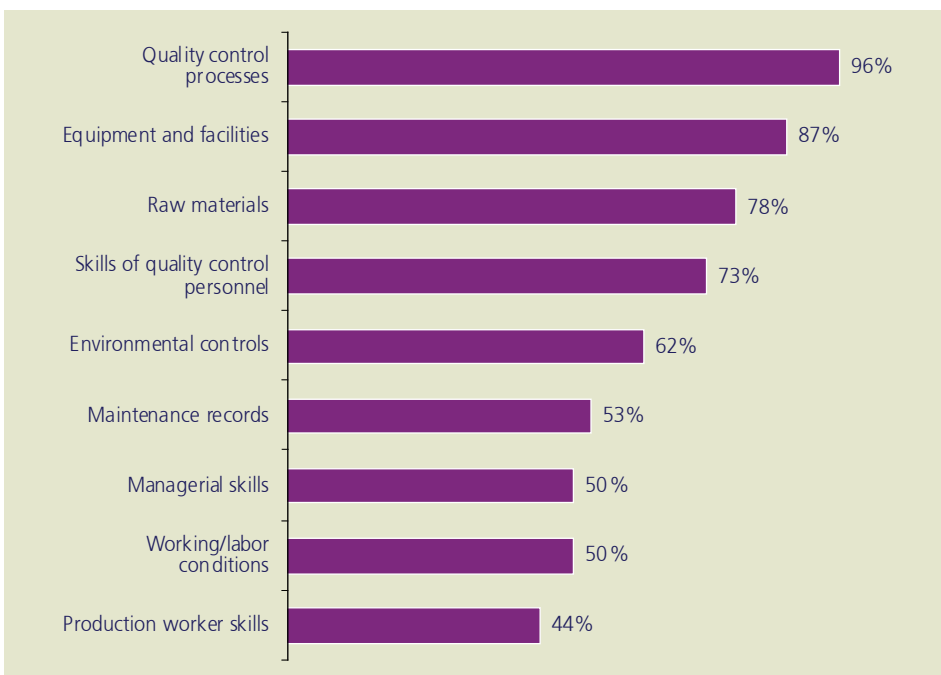
Source: Deloitte’s Global Manufacturing Industry Group “Innovation in emerging markets. 2008 Annual Study”

suppliers are anxious to meet the needs of their global customers—problems are often the result of process immaturity, not recalcitrance, and thus can be addressed through education and knowledge-sharing. Often, global companies are becoming more closely involved with their suppliers. Where they once simply delivered orders and specifications, they may now be found helping suppliers reengineer processes, attain certifications, and configure production. In the survey, many developed market executives noted that they provide suppliers with expertise in areas such as production, testing, and training. When engineers from Ford Motor Company visit a facility and find issues with quality, “we might place a dedicated team there to coach them and help them upgrade,” said Ford’s Davey.

Exhibit 10

**Issues typically inspected during visits to emerging market suppliers**

Percent of developed market manufacturers



Source: Deloitte’s Global Manufacturing Industry Group “Innovation in emerging markets. 2008 Annual Study”

# Building a sustainable supply chain

As important as they are, product safety and quality cannot be the only focus of today's global manufacturers. They also have to consider carbon-trading plans, the environmental footprint of the supply chain, and growing consumer interest in green products. As a result, sustainability is now far more than a corporate responsibility initiative—it is a central business issue.

Yet, the adoption of sustainable practices is still far from universal among manufacturers. For example, only about half of the developed market executives said that their boards of directors and senior management placed a significant focus on environmental issues (see Exhibit 2). Similarly, only 40 percent of the developed market manufacturers surveyed said that their environmental record was an extremely important factor when selecting an emerging market supplier (see Exhibit 7).

But the focus on sustainability is growing. Roughly two-thirds of the developed market executives surveyed said environmental issues had become more important to their company in sourcing over the last 12 months (see Exhibit 1). Global manufacturers also appear to be playing an important role in spreading sustainable practices to emerging markets. That fact was underscored in early 2008, when the office supply company Staples severed contracts with its Singapore-based supplier over concerns about the supplier's environmental practices. "We decided engagement was not possible anymore," Mark Buckley, vice president for environmental issues at Staples, told *The Wall Street Journal*. Staying with the supplier, said Buckley, would have been "at great peril to our brand."<sup>14</sup> Such views are not lost on suppliers. Among

emerging market executives, 42 percent said that they believed environmental standards were extremely important to their global customers, while 32 percent said the same was also true of their local customers.

This increased interest in sustainability is reflected at Ford Motor Company, one of a growing number of global manufacturers that have made sustainability a key issue in their operations. The company has created a top position—Senior Vice President of Sustainability, Environment, and Safety Engineering—that provides a focal point for integrating sustainability across the company. Ford takes a broad view of sustainability. Its "Code of Basic Working Conditions," set up several years ago to address labor and human rights issues, has since been expanded to include elements such as community engagement, corruption, and the environment; and the company's manufacturing operations have sustainability goals incorporated into their scorecards.

Emerging market suppliers naturally want to get in step with their customers' requirements by boosting their own environmental standards, and global manufacturers are often helping them do so. Nokia, for example, has published corporate responsibility guidelines

## Green supply chain management (GSCM)<sup>17</sup>

Leading companies recognize that green supply chains are fundamentally efficient. While big ticket investments in innovative technologies, hybrid fleets, and eco-friendly facility designs make headlines, the attributes of green supply chains should sound familiar to supply chain professionals. After all, maximizing transportation efficiency, reducing fuel and energy consumption, minimizing inventory and waste, and purchasing based on Total Cost of Ownership were considered leading supply chain practices, long before green considerations like carbon emissions and sustainability entered the equation. Yet the value of these and similar supply chain efficiency and cost reduction techniques are key drivers of green supply chain performance.

Prominent features of leading green supply chains include an emphasis on life cycle costing, asset efficiency and waste reduction and recycling. Executed effectively, GSCM stimulates product and service innovation, improves asset utilization, and deepens customer relationships and

because “in recent years, our suppliers have asked us for clearer specifications on the standards we expect,” notes a company report, adding that “we do not see [these guidelines] merely as a set of rules. In many cases they become tools for increased cooperation that make good business sense and help build mutual trust.”<sup>15</sup> As suppliers raise their standards, it often has a ripple effect, with governments using those improvements as a lever to prompt other local companies to follow suit and step up their efforts to comply with local standards, if not global ones.

Sustainability initiatives can be important to developed and emerging market manufacturers alike. But companies should pursue them thoughtfully, and tailor their approaches to their individual businesses, including the needs and interests of their customers. That is, sustainability efforts should make sense economically, not just burnish the company’s image. When designed carefully, they can go hand-in-hand with efficiency and cost control. For example, in its 2006/2007 sustainability report, Ford noted that it had cut global energy use by 27 percent and water use by more than 25 percent since 2000.<sup>16</sup>

“Companies that take a leading position on producing products using sustainable production processes and quality working conditions have the opportunity to create an appealing brand that can drive consumer purchases,” said Ford Motor Company’s Keith Davey. “But the foundation is to get the basics right—producing profitable, quality products that consumers can trust.”

When developing sustainability initiatives, manufacturers should take a closer look at the following strategic questions:

- How is environmental or social regulation affecting our business in emerging markets?
- Do we have effective processes in place to monitor and report on our compliance to these regulations?
- What challenges do we face in aligning our sustainability (triple bottom line) reporting with Sarbanes-Oxley, GAAP, and other local/global reporting requirements such as the Global Reporting Initiative (GRI)?
- Does our company have global standards on environment and health and safety (EH&S) requirements? If so, to what extent are they applied to our emerging market operations and extended to the suppliers we deal with?
- How are we tackling issues such as energy and greenhouse gas management, sustainable development, and the “greening” of products and the supply chain in the emerging markets that we operate in?
- To what extent are we adopting leading practices in green supply chain management in emerging markets?
- How well do we integrate our supply chain sustainability efforts with our customers and suppliers in emerging markets and within other parts of our global operations?
- Have we established relevant measures (e.g. our carbon footprint, avoided landfill, regulatory violations and packaging reductions) of our green supply chain management performance in emerging markets?

service levels through a shared focus on reducing waste and cost. Defining green supply chains primarily in terms of efficiency and innovation recasts green supply chain from an upstream, compliance focused, cost avoidance effort to a process emphasizing value creation throughout the product life cycle. Stressing the payback of green supply chain represents an essential paradigm shift because it frames GSCM in terms that are in sync with existing supply chain goals.

So what distinguishes a green supply chain from any world class supply chain? Most importantly, the decision to go green requires an organizational commitment to improving environmental sustainability, backed by meaningful measures of green performance. Far from maintaining the status quo with a few green performance metrics added for good measure, however, the decision to adopt a green supply chain will require many organizations to fundamentally change how they operate.

In addition to achieving supply chain efficiencies and cost savings, the benefits of green supply chain also positively impact corporate image both through internal branding as well as external recognition from customers and the media.

## Seizing the competitive opportunity

Although more rigorous product safety, quality, and environmental standards will be complex to implement and are likely to lead to higher operating costs, some companies view this as an opportunity, not just an obligation. By taking the lead on these issues, and even providing certifications and guarantees that their products meet the strictest standards, companies may be able to differentiate themselves in the eyes of consumers—and build brand equity.

Roughly one-quarter of the developed market executives surveyed thought it was very likely that companies providing guarantees of meeting strict standards would be able to command higher prices, and this figure rose to 41 percent among those at successful manufacturers (see Exhibit 11). Executives at emerging market companies were even more optimistic, with 46 percent believing that companies meeting strict standards could gain a competitive advantage.

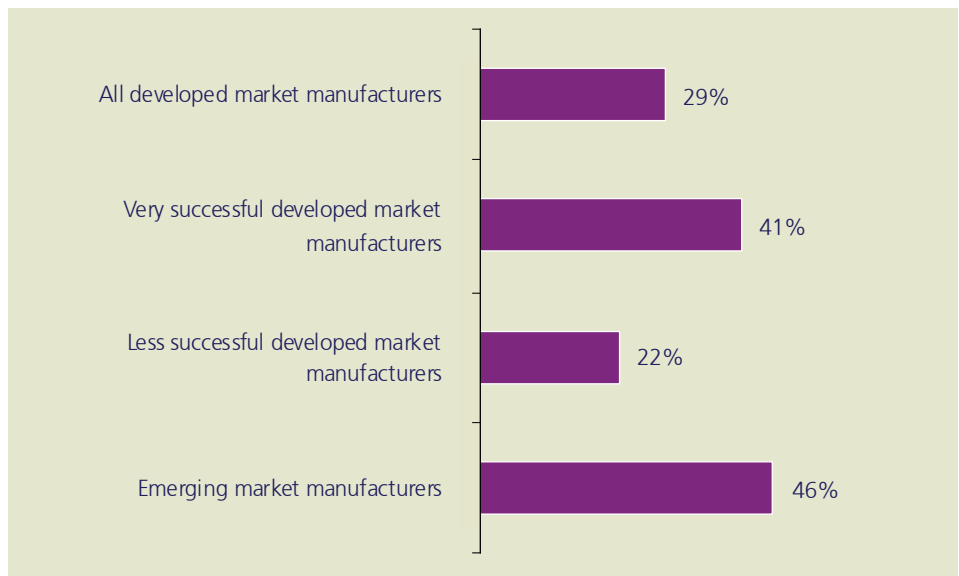
Developed market companies meeting higher standards may have the ability to charge higher prices, but whether this will also be the case for emerging market manufacturers remains an open question. It is worth noting that in China recently, the price of raw materials has risen, many tax incentives have disappeared, and the cost of labor has increased by one-third. However, manufacturing suppliers have not raised prices—for the most part, they have simply accepted smaller margins. Emerging market manufacturers are involved in intense price competition, both with other companies in their country and with those in other parts of the world, which may tend to make significant price increases difficult.

But the benefits of higher standards can go far beyond price to include increased market share and the building of brand

Exhibit 11

### Ability of companies to charge higher prices by providing guarantees of meeting strict safety, quality, and environmental standards

Percent responding “very likely” (6 – 7 on 7-point scale)



Source: Deloitte’s Global Manufacturing Industry Group “Innovation in emerging markets. 2008 Annual Study”

equity. For suppliers in emerging markets, adhering to higher standard may make it easier to attract and keep global customers, especially when those standards are contrasted with problems afflicting competitors. For example, some observers have suggested that Korean

manufacturers could benefit from a decline in confidence in Chinese suppliers following the recent bad press, or that Indian companies could pick up business in the wake of China’s curb on spice exports over concerns about pesticide contamination.

When problems with the drug heparin arose with one Chinese supplier in 2007, another heparin supplier, Shenzhen Hepalink Pharmaceutical Co., carried on without a hitch, thanks largely to its strict standards. The company undergoes numerous inspections by Chinese, German, and U.S. officials as well as by its manufacturing customers, works with government-certified processes, and documents each step of its production back through the supply chain to the initial extraction of root compounds from pig intestines. The goal is to “ensure traceability of each lot of product in the entire process to guarantee quality and safety,” said Li Li, the company’s chairman.<sup>13</sup>

In any case, competitive advantages that come from higher standards may not last long. Companies that raise their standards are likely to find that their competitors quickly follow suit, making once leading standards the industry norm—and an expected “given” in the eyes of consumers. Thus, manufacturers that

want to exploit this advantage will need to move quickly in the short term to institute higher standards, and communicate them to the marketplace. And for the long term, these manufacturers will need to keep moving forward to implement ever more rigorous standards. They also need to apply the same spirit of continuous improvement that has enabled them to drive inefficiencies out of production and shorten cycle times over the years.

Overall, one thing is clear: product safety, product quality, and environmental issues are now on the radar of the public, governments, and manufacturers’ competitors. Like so many aspects of the manufacturing industry, these issues do not stand still, but present a dynamic and evolving challenge. Those companies that can move quickly and intelligently to propagate higher standards throughout their supply chains are likely to see fewer negative impacts from these issues—and even use them to derive new benefits.

### Considering the big picture

For manufacturers working with emerging market suppliers, product safety issues are increasingly important. But they need to be considered in the context of a company’s overall sourcing strategy. Companies should address such questions as the following:

- What organization structures, business processes, and technologies are required to capture the benefits and mitigate the risks of emerging market sourcing?
- What parts or components should be sourced from emerging markets?
- Should we work with suppliers to help them “grow” into producing more complex and sophisticated products over time?
- Will sourcing from a country open the door to the eventual sale of our product in that market?
- Which low-cost country is most suitable for each part or component, based on factors such as local natural resources and labor, the lead times and quality required, and the product lifecycle?
- Should we set up our own local production facility, based on our growth strategies and the strengths of the emerging market?
- What is our true cost of sourcing in each emerging market, including transportation, inventory, taxes, and the risk of supply chain disruptions—as well as the soft costs of supplier identification, assessment, development, launch, and certification?

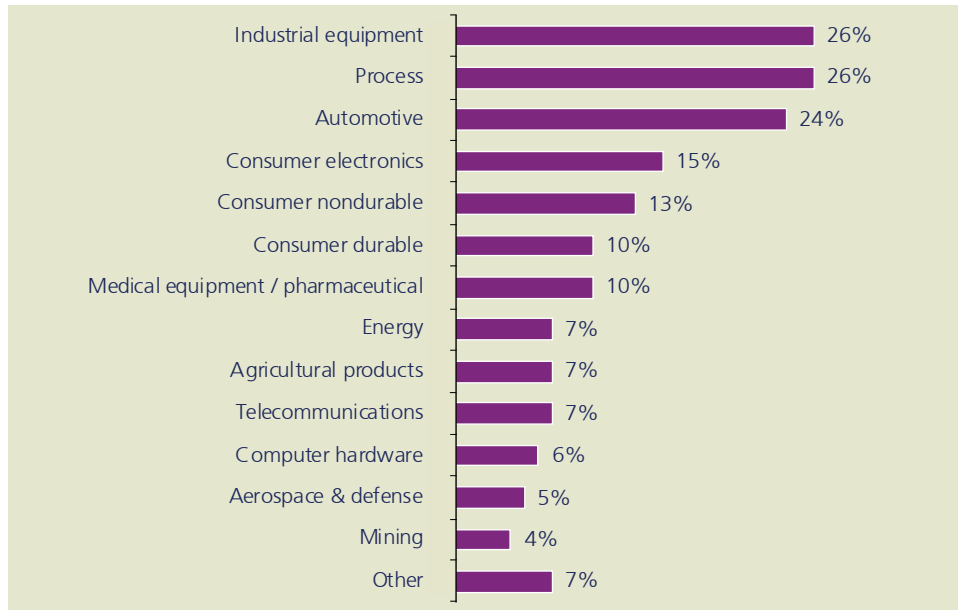
# About the survey

The Deloitte Global Manufacturing Industry Group's "Innovation in emerging markets. 2008 Annual Study" surveyed 651 executives on product safety, product quality, and environmental standards in emerging markets: 237 executives from manufacturing companies headquartered in developed markets and 414 executives from manufacturing companies headquartered in emerging markets. The executives represented a range of industries and countries (see exhibits 12 and 13). The 2008 study follows a 2006 study that examined the steps global manufacturers are taking to successfully design and sell their products in emerging markets and a 2007 study on operational issues such as talent management, risk management, and operating structure. Additional information was gathered from in-depth interviews with senior executives at leading manufacturers, as well as from the experience of Deloitte member firms in assisting manufacturing companies in emerging markets around the world.

## Exhibit 12

### Industry

Percent of survey respondents

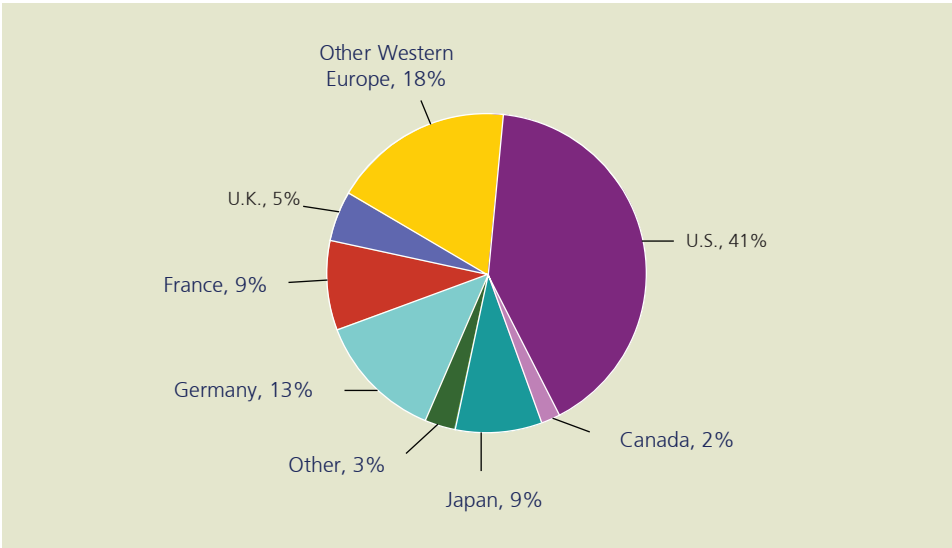


Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study". Executives may have selected more than one industry sector to represent their company's business activities. Therefore the totals do not add up to 100 percent.

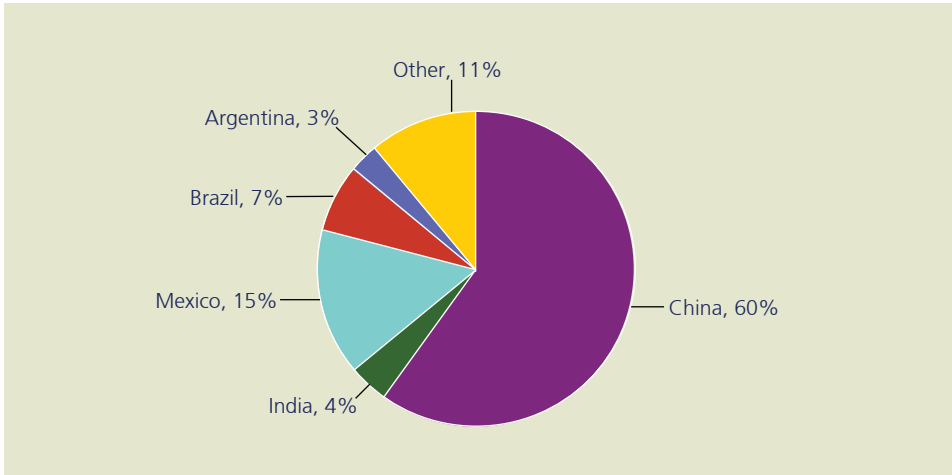
Exhibit 13

Headquarters location

Developed market manufacturers



Emerging market manufacturers



Source: Deloitte's Global Manufacturing Industry Group "Innovation in emerging markets. 2008 Annual Study"

## End Notes

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- <sup>6</sup> "China official sees tide turning in product safety," Reuters News, 6 October 2007; "China: 'Special war' launched to raise quality," Thai News Service, 24 September 2007.
- <sup>7</sup> "Leavitt says placing FDA inspectors in India is a 'high priority' for U.S.," Inside U.S. Trade, 21 March 2008.
- <sup>8</sup> Walt Bogdanich, "The Drug Scare That Exposed a World of Hurt," New York Times, March 30, 2008.
- <sup>9</sup> Manjeet Kripalani, "How India clusters growth," BusinessWeek.com, 26 November 2007.
- <sup>10</sup> "China's ripple effect - Import woes help some area companies, but harm others," The Star-Ledger, 23 September 2007.
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- <sup>12</sup> Gordon Fairclough, "After the Recalls, Two Toy Stories -- For Chinese Manufacturers, Product-Safety Concerns Bring Struggle or Shutdowns," The Wall Street Journal, December 21, 2007.
- <sup>13</sup> Gordon Fairclough, "In China, a Contrast in Drug Supply—Heparin Maker Banks on Strict Controls to Sidestep Industry Woes," The Wall Street Journal Asia, 10 March 2008.
- <sup>14</sup> Tom Wright, "Staples Cuts Off Paper Supplier," The Wall Street Journal, February 8, 2008.
- <sup>15</sup> "Corporate Responsibility and Nokia's Supply Chain," Nokia Corporation.
- <sup>16</sup> "For a More Sustainable Future—Connecting with Society," Ford Motor Company Sustainability Report 2006/2007.
- <sup>17</sup> "Green Supply Chain Management: Opportunity today, imperative tomorrow". Deloitte & Touche LLP (Canada), 2008.

# Global Manufacturing Industry Group

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## A selection of thought leadership

- Innovation in emerging markets. 2007 Annual Study. Deloitte Touche Tohmatsu.
- Innovation in emerging markets. 2006 Annual Study. Strategies for achieving commercial success. Deloitte Touche Tohmatsu.
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