FROM SUPPLY TO DEMAND:

MOVING TOWARD A NEW INTERNATIONAL BUSINESS DEVELOPMENT PARADIGM

A LOOK AT ELECTRONIC ENGINEERING TIMES/ ELECTRONICS SUPPLY & MANUFACTURING READERS AND THEIR INTERNATIONAL EXPANSION PLANS

VOLUME ONE – QUALITATIVE REPORT

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The economy is truly global in nature now. A business cannot afford to be patriotic. It must make money to survive. Either go international or die; it's that simple.

West Coast Sales Executive for Major IT Component Firm

Introduction/Overview

Over the past few decades, US firms have looked overseas primarily to reduce costs through offshore sourcing and production. Many companies in Asia and other emerging economies also moved to satisfy this need, basing corporate and even national development strategies on an ability to take advantage of low-cost and dedicated labor, a strong work ethic and a dedication to education to develop strong export-oriented capacities. Through efficient manufacturing of large quantities of products, both US and foreign firms were able to achieve success by satisfying the needs of demand-hungry US and Western European consumers.

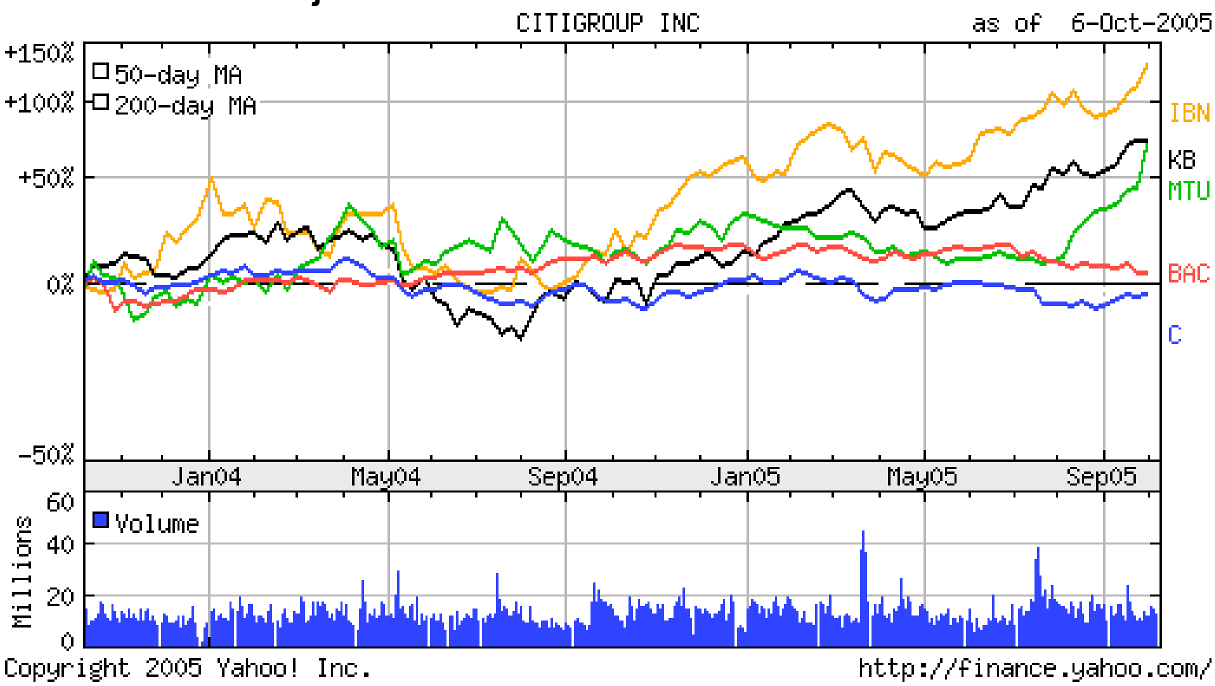
In recent years, however, there has been a growing realization that global growth in the future will increasingly be driven by Asia and other emerging markets at the expense of mature US and European economies. In addition to rising living standards and "consumerism" in these economies, US firms – unlike many in Japan and Europe – have already realized most of the benefits of corporate rationalization. Short of a major unforeseen technological innovation, there is little prospect they can achieve sufficient productivity and earnings gains from incremental cost reduction or US macroeconomic growth alone. This leaves little choice but to reach out to foreign markets in pursuit of greater global market share.

In unit terms, many physical markets are already larger in China than in the US. This includes steel, TVs, refrigerators, radios, motorcycles and cellular phones. One can then add in India, Japan, Korea, ASEAN (Association of Southeast Asian Nations), Central Asia, Africa, Latin America and the rest of the developing world. Given these fundamentals, it is hard to see how the US can maintain its market share percentage.

Only 5% of China's population, for example, is estimated to have flown on a plane, and the nation has fewer than 200 airports, compared with 10,000+ in the US. In India, credit card usage rose from 4.3 to 9M from 2000/3, and ICICI Bank alone issued about 100K cards every month in 2004. Only 53M people, less than 5% of India's population, are estimated to have mobile phones. Indonesia's mobile market has grown at a 70%+ compounded rate over the last six years yet still has one of the lowest penetration rates in the region. Wal-Mart — which has begun emphasizing international growth, given that they are approaching maximum penetration in the US — has 45 outlets in China. Even more surprising, high-priced Italian designer Ermenegildo Zegna has 50+ stores on the mainland, and some analysts forecast the luxury product market in China will be larger than in the US in five years. Even mature markets such as Japan and Korea are showing more robust consumption and demand.

To provide one anecdotal indicator, the chart below contrasts two major US consumer-oriented financial institutions, Citibank and Bank of America, over the past two years against the far stronger performance of several large domestically oriented foreign banks, including ICICI in India, Kookmin in Korea and Mitsubishi UFJ in Japan. One could select many other firms or sectors or rely on different indices and for the most part come up with similar results. The key point is that fundamentally it is a lot easier to deliver growth if one is starting from a relatively small base or can deliver dramatic gains through restructuring efforts.

Performance of Major US vs. Asian Consumer-Oriented Financial Institutions



This ongoing shift away from a traditional "supply oriented" approach toward a more "demand oriented" paradigm, however, requires a radically different orientation. In the supply case, corporate involvement could consist primarily of maintaining close relationships with one or two suppliers, making occasional buying trips and perhaps, over time, establishing a manufacturing and quality control/logistics operation. Market entry, however, is infinitely more complex. It necessitates an "outward view" and ongoing ability to represent oneself in these markets. One must rely on, monitor and manage the activities of greater numbers of offshore employees, business/venture partners and service providers who speak different languages and who operate under different laws, customs and business practices.

To discern the key issues facing US electronics and technology firms as they seek to make this transition, and to analyze their views, their problems and the services that might best assist them in this task, CMP Media LLC (**CMP**) retained KWR International, Inc. (**KWR**) to undertake the following study. It measures and analyzes the impressions of 165 Electronic Engineering Times (**EET**) and Electronics Supply & Manufacturing (**ESM**) readers concerning their international business expansion plans.

Methodology

After preparing a questionnaire containing 19 questions and numerous sub-questions designed to evaluate a respondent's perceptions on issues relating to international business expansion, CMP and KWR targeted approximately 30,000 select individuals from CMP's database of Electronic Engineering Times (**EET**) and Electronics Supply & Manufacturing (**ESM**) readers. Efforts were made to recruit only candidates working for US-based firms or serving US firms overseas. Candidates were sent questionnaires via e-mail twice during July 2005, and 165 responses were received.

Following a tabulation process, means, medians and standard deviations were calculated. After initial review and discussion, approximately 20 respondents who had indicated a willingness to speak further were contacted for follow-up interviews. This gave rise to the more complex impressions reflected in the quotations, observations and conclusions. To encourage frank discussion, respondents were assured that their identities would be kept confidential and that they would only be identified by profession, type of company and geographical location.

Composition of Respondents

Respondents were drawn from a wide range of industries, with an emphasis on electronics (31%), manufacturing (26%) and a range of technology and service industries. These included consulting (8%), telecom (5%), sales (3%), healthcare (3%), IT/software (3%), engineering (3%), automotive (2%), environmental (2%), customer services (1%), agricultural (1%), distribution (1%) and other (11%).

These individuals were stationed across the United States, in locations including the US-West (23%), US-Northeast (20%), US-Midwest (17%), US-Northwest (9%), US-Southwest (9%), US-Southeast (7%), US-Mid Atlantic (5%), US-Southcentral (5%) and US-Mountain States (3%), with some additional minimal input from Asia. This included North Asia (1%) and South Asia (1%).

Respondents were drawn from public as well as private firms including Private-Family (32%), Private-Partnership (22%), Public Company (18%), Private-Venture (12%), Corporate Division (6%), Multinational (6%) and Other (4%).

This included entities of all sizes, encompassing entities reporting revenues of Under $1 million (31%), $1-9.99 million (22%), $10-49.9 million (23%), $50-99.9 million (9%), $100-499.9 million (6%), $500-999.9 million (2%) and Over $1 billion (7%).

In terms of their interest and experience in international business expansion, respondents ranged from those who have Established Overseas Operations (25%) to those who rely on Overseas Marketing (21%), JVs, Licensing and Distribution (17%), Export Sales (10%) and Researching (6%), and on to those who characterized themselves as Not Interested (7%), Not Active but Interested (4%), Not Yet Developed Strategy (4%), Unsuccessful (1%) or Other (4%).

While there was wide divergence among respondents, with many declaring no international revenues and some claiming 90%+, in the aggregate respondents noted an average breakdown for sales including North America (68.08%), Asia ex-Japan (22.12%), EU (17.93%), Japan (11.62%) and Other (11.20%).

Finally, respondents were largely drawn from Senior Management. The 165 responses received included CEO/President or Owner (32), Senior VP or VP (26) and Director of Engineering or Manufacturing (8). Other respondents noted their positions as General Manager, COO, Global Products Group Manager, Business Unit Manager and a range of other titles indicating positions of responsibility.

Statistical Sampling/Deviation

While 165 responses is not a large number given the number of invitations disseminated, it does provide insight into a select group of US-based electronics, technology and manufacturing firms concerning their views toward international business expansion. Given the specialized selection process, detailed nature of the questionnaire and composition of the sample audience, it is important to emphasize the results generated should not be interpreted as an unbiased "snapshot" of EET/ESM readers or of US-based electronics, technology and manufacturing executives, but rather as an informed overview of this select group of individuals.

In addition, the deviations in responses given within this survey were, on average, the highest ever recorded by KWR in the dozen-plus perception studies of this kind that it has conducted over the past ten years. More specifically, while standard deviations in general have averaged approximately 2.0, in this survey they averaged nearly 2.7 and sometimes over 3.0, which is extremely high.

This was unexpected, since this audience was selected from within the electronics, technology and manufacturing industries and entities based in the US, rather than representing a more general effort to attract the broader range of “opinion leaders” across numerous sectors and geographies that KWR has typically sampled in the past.

One possible explanation for this divergence is that perceptions toward international expansion may to some extent be determined by the size of the firm. This should not be seen, however, simply as a case where larger firms are better able to expand internationally. As seen in comments within this report, larger firms sometimes find themselves less flexible and less able to act than smaller ones, given the greater complexity of their operations and decision-making process.

As a result, it should be noted some of the differences between rankings were fairly marginal. Given the potential for statistical error, the findings should be evaluated with that in mind. Therefore, in addition to the mean, median and standard deviation, the number of respondents for each question or sub-question was seen as a telling indicator.

General Conclusions & Analysis

Based on a review of the individual questions in the following sections, the accompanying data summary in volume two of this report, and KWR's own extensive experience serving corporate and public sector clients as a research, communications and international business development firm, the following conclusions are offered. They are designed to analyze the perceptions of EET/ESM readers and to offer suggestions and observations that highlight their concerns and assist in the future planning efforts of these firms and related service providers.

a) It is a lot easier to recognize the need to expand internationally than to develop the understanding, commitment and consensus needed to succeed.

Abundant media coverage and policy rhetoric concerning the impact of globalization as well as the increasing competitive nature of domestic competition have created a growing recognition among US firms of the importance of international markets.

While use of the Internet, e-mail and other technological advances has facilitated the ability of firms to reach out all over the world, recognition of the business opportunities, macroeconomic imperatives and general importance of international expansion is often subsumed by the day-to-day pressures of operating a business. Furthermore, the uncertainty of a payoff, difficulty making contacts and operating in a foreign environment, and large amount of time and resources required make it hard for most firms to make international expansion an immediate priority — even though many recognize it is in their long-term interest to do so. Given the many difficulties, even firms that have made the plunge are largely ambivalent about their success.

A key point is that international business development takes a lot of time, and as long as one maintains a presence, the job is never done. As one Technology VP stated, “We have 2 plants in China and 1 in Malaysia. That is 99% of our manufacturing. We've already done that. Been in China since 1995, Malaysia 1990. We now need to take it to the next level and do more development there. What makes us nervous is accounting standards. You need to watch out what you are acquiring. We looked at Korea and some smaller stuff in China, and did acquire a Chinese factory in 1999. It was a very difficult process to bring them up to US standards and took three years. In the end it was successful but a long and difficult process.”

A CEO for a small but internationally focused telecom component manufacturer further noted, “It is a lot of work. I am out on the road 80-90% of my time and also spend a lot of time on the phone, fax and e-mail. Fortunately, I have a very good VP who happens to be my daughter. She is very capable and can run things when I am not here.” An Engineering Director for a much larger firm that manufactures audio-related equipment in Palo Alto concurred, describing the need for constant contact and that “the marketing and sales people who count in his company were overseas about 50% of the time. In addition, they maintained offices in Japan and London, with sales people in Korea, China and Australia, and participated in many trade shows."

Given the time and effort needed to develop a credible international presence, an independent International Sales Representative noted, "Before I sign on a client, I put a 50 point export questionnaire in front of them so I can weed out the ones who are not ready and prepared to do this. It is better to get that done up front, as otherwise there is a lot of disappointment and wasted time on both sides."

Large and mid-sized as well as small companies find it difficult to initiate international expansion efforts. As a Product Specialist for a $10 million+ company active in the cable television industry noted, "We have not yet firmly signed on with entities who can represent us in that area. Language and training are a problem, and we need more competitor information to make a plan. Without it you are flying blind. You can throw out money for ads and see what you get, but that is not well thought out. These are just a few of the challenges. We have not been as active as might be desired, due to a lack of manpower and budget. Perhaps we did not have the right reps, or they need a greater level of support than just handing out samples and a contract. They ask us to show them how to close and how to design a system. In our case you are not just selling a widget. It is a long sales cycle, and each location is unique. Only one of our six product lines is a widget, and even that needs support, planning, design and engineering. We had one person who supported Europe as a direct sales manager, but unfortunately he resigned. So it is even more critical we get a rep in that market. I used to work for a smaller company, and we were able to introduce a new product in 60-90 days. In this company it is 9-12 months. Business does not wait. You've got to know your customers. Management here seeks lots of research and data, which is hard to find out for these markets. When you have bean counters pulling the strings, it is hard to get the resources to find out. Do they buy according to price or technical specs? Who wins — the bean counter, the engineer or somewhere in between? I think sometimes you just have to roll the dice."

Interestingly, while many corporations have been slow to move offshore, there are signs private equity and venture capital investors have been quicker to jump on the trend. As one R&D Consultant noted, "The US still remains the most open market, but unfortunately we don't seem to have as much capital here. VCs here don't want to put money into a start-up until you have a customer and a track record. In India there seems to be an abundance of capital; people are taking risks."

While this individual spoke of India, the same point could be made about China, Japan, Korea and, to a lesser extent, other emerging markets. Other conversations KWR has had in recent months have revealed a reluctance among many US-based VCs to fund businesses that have not developed an international expansion strategy. At the same time, many are reluctant to work directly with foreign entities given the difficulties in communication and governance. This may indicate some good opportunities to internationally savvy US firms with models that can be applied elsewhere.

b) Expansion within a "demand-driven" paradigm requires a more complex, active and ongoing overseas commitment than "supply-driven" initiatives, which focus primarily on optimizing supply chains.

Most US firms have traditionally looked to foreign markets as a way to lower costs through their ability to provide low-cost labor and to maximize the efficiency of supply chains. This generally entails developing close relationships with one or two suppliers and, over time, perhaps developing a manufacturing facility. Quality and success would largely be achieved through the support of a small local staff under the watchful eye of an expatriate General Manager or, in the case of sourcing operations, through occasional buying trips over the course of the year.

More recently, however, rising living standards and the emergence of a greater emphasis on "consumerism" in Asia and other emerging markets are helping to create a scenario where incremental growth and demand promise to come from these regions rather than from the more mature US economy. Deregulation, restructuring and reform — combined with a shift away from debt financing and corporate cross-shareholdings and toward a more shareholder- and equity-friendly investment environment — are also making mature markets such as Japan and Korea more attractive, opening them up to greater foreign competition than ever before. These trends are creating attractive business opportunities across a range of industries for firms that can successfully establish a presence in these markets.

Focusing on revenue expansion, an R&D Consultant noted, "I think market growth is more important in respect to international, as I am not really convinced if you have a good product the development cost will make much difference, depending on where it is made. If you are efficient, it will pay off. That's true even if you can have a 4:1 ratio. If the team does not work well together and produce, it will not work."

A Product Specialist went further, emphasizing how marketing in developing markets could extend product cycles: "The US market is fairly well developed, and opportunities are limited. Products have a life cycle and reach their peak and then tail down. Architectures and technologies change, and when you find that some of the items in your catalogue are on the down side of their life cycle you need to look at less developed markets. That's a great way to get more mileage out of them."

Problematically, managing sales in a foreign market is infinitely more complex than running a sourcing and assembly operation. In the "supply" scenario one deals with a comparatively small universe of people and has relatively little involvement with the local community. Representations can usually be made by the home office. The main concern is to ensure quality and supply, which can usually be achieved by keeping a watchful eye, undertaking occasional audits or initiating strong conditions in letters of credit or other agreements.

The "demand" scenario, however, requires fielding representatives, who are usually locally hired. They will be making promises, entering agreements and collecting money, speaking and negotiating agreements in foreign languages, and operating under the framework of different customs, laws and business practices. Even under the best of circumstances, there is ample opportunity for misunderstandings — so a high degree of ongoing care, attention and communication is required.

c) Companies tend to prefer ad-hoc or US-based solutions over the formal planning and larger investment of resources generally required to achieve significant success in international markets.

Perhaps due to the day-to-day pressures of managing domestic operations, the uncertainty of a potential payoff and a general lack of awareness about how to proceed, many firms are reluctant to allocate the resources needed to identify, evaluate and facilitate international opportunities. As a result, they prefer ad-hoc or US-based solutions — e.g., export sales, trade show appearances, marketing trips or signing on distributors who come along — as opposed to more comprehensive planning and outreach to determine how best to enter and compete in foreign markets. While this may allow an occasional opportunistic sale — or, with luck, distributor relationships — it is not likely to lead to the infrastructure and presence needed to succeed in these markets over the long term.

Even in cases where companies initiate these efforts, they often attempt to manage them internally. This results in utilizing people who, while perhaps having extensive company and industry knowledge, lack sufficient international experience and the network of relationships needed to facilitate the development process. In cases where firms do bring in outside support, due to the cost the tendency is to use this support sparingly or to enlist it on a success fee basis, often at the behest of one or two managers. As a result these efforts are rarely integrated sufficiently to allow a broader consensus to be formed. Quite often there is also a tendency to utilize what one Associate Publisher described as a "bridal magazine" approach. This refers to the practice of devoting substantial attention to the initial process but after closure moving on so long as specified financial targets are achieved. This can create distance between a foreign subsidiary or joint venture and the parent or US partner, so that when problems inevitably surface, they are harder to resolve and identify.

One Scientific Equipment Manufacturer cautioned against entry without sufficient planning, stating, "Ad-hoc is a mistake. If you don't develop a formal plan you will have problems. Be flexible but have a strategy. That means linking up with appropriate government agencies. The governments are spending a fortune to facilitate business coming in, and US firms should take advantage of this. In my own experience we had a couple of hundred people and made a major investment into a JV in Korea, and it all went away during the IMF crisis. I was overoptimistic and overextended myself and did not diversify sufficiently. Now I am more apprehensive. Can't blame the Koreans — I got careless. Learned lessons; exercise more due diligence. I could not have predicted the crisis but did not understand the political and banking linkages that existed at that time. I didn't spend nearly the time I did preparing there as in China. When forming JVs it is also important to figure out if you have to do the training and support the product. If you do, then it is not so much of a JV, as you will carry most of the load."

An Industrial Equipment Manufacturer defined his own expansion strategy, noting, "We're a six million dollar family business and never have enough money to do what I want. If I were the international guy it would be easy. We finance as we go, so sometimes the marketing things don't happen as much as we want. You can't do things in China and India without going there. This week I am focusing on finding a distributor in Mexico. Once you get distributors, you still have to go see them from time to time. I have tried to find a rep there to identify and service distributors, but that has not worked out. So with my limited time I now have to try to find distributors directly. We have started to do some manufacturing in China through a contractor and have been contacted by 3 distributors who want to sell our product there. Chinese distributors, from what I see, should be able to support themselves. Perhaps, though, it would be a good idea to see them in any case. Don't have my feet on the ground there yet, so it would be too early to start setting up a rep office. We will likely start by doing some manufacturing and forming some relationships."

d) Establishing sound fundamentals, as well as "Good Local Partner" and employee relationships, goes a long way toward resolving a wide range of pressing issues and concerns.

Many companies try to enter international markets through a US-oriented framework in which they rely on lengthy contracts and precise structures to define everything in advance. This is understandable given how business is conducted in the US, yet unfortunately this is not the way it works in many foreign markets.

As one International Sales Manager emphasized, "It is important to be there — especially with Asians. The handshake is the agreement; a contract is not sufficient." An Optical Designer commented further, noting, "One of our lenses would cost $150 to manufacture in this country. We would have to get the price down to $20 to reach a broader market. That means Asia, but we've been too busy with other projects. Patent protection is a real concern. More important is to have a reliable partner. We can hire good attorneys, but the patents are not meaningful if we do not have a good partner. They need to have good technical capabilities, be fiscally sound and honest, and produce. We have signed proprietary agreements in the past, but in my experience they don't mean squat if someone wants to take advantage. Our feeling has been if we send it over there to get it made, they can copy it, and we have to then fight. I have friends who have done that with ambiguous success."

A CEO of a metal forming company also spoke about the importance of local partners and described the relationship that required he establish himself in China, stating, "We are opening a factory in China. Not for cost, as we can make it cheaper here; however, most of our customers and end users/assemblers are there. Tax, duties and other barriers preclude us from shipping it there. It's not the worse thing, opening a factory in Central China, but there are many obstacles. We are not a labor-intensive company, and everything else is more expensive in China. There are many unexpected changes and poorer infrastructure. It is hard to ship things around the country, even though that is changing. Our customer, an American firm, is requiring us to open up this facility. They helped us out, and with their support we got it opened. Without them we could not have done it. We will staff it with a Hong Kong general manager, with key personnel rotated in on a bimonthly basis as it is considered something of a hardship post. Many of my clients were doing things here on an automated basis. But they want to be closer to their customers, so it is not a labor question. Anyone who relies that much on manual labor will be out of business. For companies operating in China, tax-wise it is also cheaper to operate there. In China you may have an 18% tax, whereas here it would be 30-40%."

A respondent from a major publicly traded component manufacturer stated, "One thing my employer did was to hire a 'stocking rep' who buys the commodity and resells while taking title. That is where most of the product goes through. Our CEO is Chinese-American and works through the old-boy network. Don't know how he gets contacts but seems like the Chinese government is involved, and whatever they do has worked. The local partner is the point of access into government and other points. In China that is a big problem. Cultural barriers are important in Singapore, Malaysia, Thailand and Taiwan, but government is not as critical. Local partners are a big part of our success."

The search for good local partners or employees to staff or manage an international operation or joint venture is not easy. One Design Consultant noted, "Recently I had a requirement from an American company who wanted to do business in Japan. They asked me to find a good person to be the General Manager (GM). When I thought seriously, I could not recommend anyone. I could find many good English speakers but none that could be a good GM. Or good engineers or GMs, but they could not speak English. Ultimately I told them they needed to hire more than one person to get the combination of attributes they were looking for."

Finding a partner or team who can communicate back to headquarters as well as operate successfully in the local market is extremely important. KWR undertook a major project several years ago to help a mid-sized US technology firm to restructure two foreign subsidiaries that had been very successful until their local CEO departed unexpectedly. They subsequently chose as a replacement an employee with excellent English communication skills, instead of their sales manager, who was not able to present effectively to US management. As a result, the sales manager left with the entire sales force. The newly installed CEO reassured management nothing was amiss and that he would be able to rebuild the company. Almost a year later, with large sums of money expended, it became obvious this was not the case, and KWR was called in to help. By that time, however, the local firm was in severe trouble, and it took many months to work through and resolve numerous legal, financial, human resource and other operational issues.

This kind of problem led one Technology Executive to emphasize the need for multiple sources of communication. He noted, "In my experience, when American companies open a plant in China they send one American or Chinese-American and establish one communication route through that source. I recommend at least two. For example, one American company opened a China subsidiary and sent over an executive who became president. He hired a good English speaker as VP. The American, however, had no ability to speak to people directly except through the VP, who actually managed the whole company. They operated for 2-3 years and never made money. The American company wondered why. They sent several people to investigate and found the problem to be the VP. He was hiring too many people and relatives, paid them too much salary, and used his relatives' companies as suppliers."

The bottom line is that it is simply not possible to decide all issues and minimize all risk before entering a foreign market. Just as many unforeseen issues arise in a US operation, there will be similar or even more serious problems overseas. Given that these markets do not place the same emphasis on contracts and legal adjudication as we do in the US, the primary emphasis needs to be placed on developing the right team and relationships. If they are in place, things tend to work more smoothly.

A Scientific Equipment Manufacturer summed up the general importance of relationships when noting that one Asian economy was "a good place to do business, so long as you are doing business with the right people."

The importance of relationships cannot be overemphasized, particularly when operating in societies that lack a US-like acceptance of legal adjudication and governance through written contracts. This is true not only in cases where corruption or something unprincipled might be a factor, but also in terms of normal day-to-day operations with a business partner. For example, KWR has undertaken several assignments where its ability to access relationships with individuals who could serve as an intermediary or reference proved indispensable to either finalizing an agreement or resolving problems that arose along the way.

e) While initial interest is generally motivated by Macro concerns, after proceeding, Micro challenges become far more important.

Companies looking to expand into international markets generally focus their initial attention on the underlying potential of an economy, as well as the fundamentals of the business opportunity. After management has shown interest, however, time and resources are then allocated to identify, evaluate and resolve Micro-oriented factors such as costs, IP rights (IPR) protection, human resources, regulations, etc.

Failure to address and balance Macro attraction with Micro risk, however, might partially explain some of the frustration and disappointment that many firms experience when entering China. This market rates extremely high in terms of market potential/revenue growth and labor/production cost, though very low in terms of IPR protection, transparency and other important factors, representing a paradox that must be addressed.

While it is true, as previously noted, that one cannot know and address every risk factor in advance, that is not to suggest one should make decisions without understanding the basic environment and dangers that may be faced in a particular economy after market entry has been made.

Recognition of these dangers, however, need not lead to one's missing out on these opportunities. It may only mean adjusting one's strategy. For example, one Telecom Component Manufacturer, describing how he addressed the problem of IPR protection in China, stated, "Some time ago, we designed something in China and found our products going out with other people's names on it. I recognize it is a great market, but given the potential for piracy it is not a place I want to manufacture. So we spent some time and found other companies who manufacture there. They incorporate our product into theirs, so we become like a piece of silicon from their perspective. That allows us entry without having to manufacture there, and we are now far less worried about someone stealing our patents."

f) Incentives and government support are generally far less important than knowledge, relationships and familiarity with the local business environment and community.

If a market does not possess the fundamentals needed to support a particular business, or if there are too many risk factors to make a product or service economically viable, it is highly unlikely any package of incentives or assistance by a national or local government will make the difference that needs to be made.

It is true incentives and government support can motivate investors to choose between similar locations and perhaps alleviate strains, and improve performance, during the market entry stage. In most cases, however, this is more of a secondary than a primary factor. For example, if one is looking to establish an R&D center, then proximity to good universities and service providers, trend-setting customers/service providers, good contacts, a skilled workforce and IPR protection are generally far more important than obtaining a tax holiday or subsidized land price.

Put another way, it is far more costly to base a business in Manhattan, Silicon Valley or other major business center than in remote rural areas, many of which offer more attractive incentives and support. Nevertheless, many firms and service providers are willing to endure far higher costs to access the benefits these major locations offer.

Investment promotion agencies should take this into account when marketing their venues. Investors are far more likely to be motivated and helped by programs that impart knowledge concerning specific opportunities, the success of companies already in these markets and, most important, activities that build relationships —

and familiarize investors — with the local business environment and community. Placing too much emphasis on incentives, real estate prices and subsidies during the initial stages of decision-making could prove to be ill timed and even distracting and counterproductive.

g) Hands-on and customized assistance are necessary to move past the due diligence stage, yet most firms find it hard to allocate the resources required.

General knowledge, contacts, relationships and a familiarity with targeted markets are key goals for any company planning an international entry strategy. At the same time, it is extremely difficult for firms of all sizes to allocate the time and resources needed to pursue international expansion unless they can relate it to a specific opportunity, rather than treat it as a speculative venture.

Unfortunately, however, specific opportunities and the right circumstances and structures are unlikely to become evident without advance networking, review and analysis. This can make the business development process very difficult, as it can take a long time with little certainty of a payoff. In Asia, especially, relationships are formed over time, and the ability to operate effectively often depends on having the experience and contacts necessary to read between the lines and to access the support and introductions needed to navigate in these environments.

One anecdotal example of the difference between US and Asian business culture can be seen in a conversation KWR had several years ago with a US-based Senior Manager for a major Japanese company. He noted it was extremely difficult to make friends and business contacts in the US and stated, “Most of the people I meet call on me once or twice, and if a business opportunity is then not immediately apparent, they move on — not realizing that we Japanese like to form a personal relationship and feel sure about a person before we do business together.” When asked why this might be the case, he answered, “Perhaps it has to do with the fact that litigation has not really been an option in Japan. In the US, you try to spell everything out and understand all the conditions. If there is a problem you can seek mediation or a legal decision. In Japan, our way is to work this out together. For that reason we need to be really sure whom we are dealing with.”

This is very different from the way business is developed in the US. As a result, many firms are left frustrated, knowing international expansion is an important objective but unclear how to approach it. For example, a Texas-based marketer of printers noted, “I have shipped a few things abroad. Prices would lend to shipping things overseas, but I am afraid, as I am competing with hotshot exporters and [dealing with] letters of credit, and I am not familiar with how that works. I always thought if I could form a relationship, it would make things easier. If I could get on some websites that deal with parts expediters and I could match up with professionals or distributors looking for product, it would help. They are probably afraid to buy, just like I am afraid to sell. I need to make relationships, but I don’t know people in foreign countries. In the past

I have seen other people go to the islands and do well, but it has never happened for me. What I am doing now is redoing my website and trying to get my name placed with the search engines. That might get me more international hits. If that doesn't work, then perhaps I can attend an international convention where you meet people and prospective customers and distributors. A few years ago I attended one for people looking for international business, but it didn't really work or lend itself to my particular business. So I have not gone back. Mainly I do not know how to go about it. Is there anything available to help find international business, or do I just hope to do it on the web? How do I become more knowledgeable? Maybe some of the countries and provinces might have some way of contacting people who are interested in matching up buyers and sellers."

An Executive Recruiter expressed similar thoughts, stating, "I have been in business almost 13 years and have a database primarily composed of US and Canadian engineers. I don't have contacts internationally and don't know how to go about it. At the same time, I see a lot of engineering work shift overseas and believe over time the only things that will stay here are sales, logistics and distribution. I have had some international jobs that had to be filled, but they were in Iraq and Afghanistan, places I would not want to send anyone. At the same time I know people all over the country, so don't think it would be hard to find candidates who would like to go overseas. From time to time I have contacted people in China, but they seem to want people who are already there. Maybe I need to read and research more, go to more conferences or send out e-mails. I don't really know but am open to anything."

This "Catch-22" creates a fundamental problem. US firms are coming to understand the need to identify viable markets and opportunities and to determine the implementation strategies that best meet their unique requirements. At the same time, they generally lack the internal expertise or resources needed to properly manage this process or the ability to justify the cost of outside support, other than when absolutely necessary or perhaps for short periods of time.

A CEO of a mid-sized industrial equipment manufacturer, whose business remains 90% focused on the US, rated international expansion with the maximum (10) ranking as a priority on his survey questionnaire, yet in further discussion revealed he was unsure how to proceed and how much he should invest in this effort. He commented, "If I could hire a search agency to find reps and distributors, that might be interesting. I had someone approach me with that in Europe, and he wanted $40,000 as a retainer. I'm not saying that is unreasonable, given the time that would be put into it. But it is not high enough a priority at the moment, so we did not do it, though we will revisit it at some point in time."

Investment promotion agencies, publications, and business and trade associations can play a key role in helping to subsidize this process. This necessitates, however, moving beyond the supply of broad Macro information or technical data toward the provision of a platform that can help introduce them to potential contacts, employees and business partners in the markets they are representing. Steps also need to be taken to familiarize them with the broader range of important issues that must be addressed to achieve effective business entry.

h) China remains a favorite target of US firms, yet few appear to adequately incorporate potential risk factors into their calculations. Japan, Korea and Taiwan also rank high yet are underrated in comparison. India is just becoming noticed, and many are not even aware of ASEAN as a region.

US firms have become extremely enthusiastic about China in recent years. While one cannot dispute China's potential, there are numerous risk factors that do not appear to be adequately addressed. This is not to suggest that firms should not base themselves in China, but rather that they move to understand why they are entering a particular market and to develop a good grasp of the underlying attractions and fundamentals, as well as the many risk factors they might face.

While some companies belong in China, others may find better options elsewhere. For example, many people point to China and India's large population, yet few are aware of possibilities in ASEAN, or the Association of Southeast Asian Nations, which has been moving to reduce trade barriers and to promote integration within a rapidly growing region of 500 million people. Many of these economies offer competitive cost structures, less competition from other foreign investors or local industries than one might find in China, and welcoming business environments.

For example, a Technology VP at a company that maintains two factories in China stated, "Recruitment and retention of talent are a real problem. China is expanding so rapidly that in two years [people] move on, and it is hard to maintain continuity. Our number one barrier is the lack of management and staff and our ability to recruit people with experience. We've tried hard not to staff with expatriates. If you look, however, the average US executive gets a 3% raise and Chinese a 10% raise over the same time period. The differences will not remain for as long as people might imagine."

Highlighting the importance of finding markets that best suit one's needs, a Sales Representative for a major component manufacturer noted, "We have customers shutting down printed circuit board assembly facilities in Singapore and Malaysia and moving them to China. This is done for cost reasons. There is a risk, however, of over-reliance on China. How much can you rely on their government? Over time they will have to join the global community — but over the short to medium term it is risky to do business in an unstable environment. I think Southeast Asian nations can compete. We have one customer with a PC board assembly plant in Thailand. I asked if he would move to China. He said no way, noting they have good government and local support, good quality and no reason to move while enjoying a good cost structure and business there."

An American manufacturing firm KWR interviewed during a recent assignment to help market a Southeast Asian Free Trade Zone expressed a similar view. When asked why they chose to base their operations in this area as opposed to China, they noted costs were similar but they found it easier to manage and retain their workforce. There was also far less potential for intellectual property infringement. Furthermore this company had organized such that they could locate management infrastructure in Singapore and manufacturing in an industrial park within the Free Trade Zone. This way, they were able to enjoy first-rate infrastructure and legal and professional services, a high quality of life for the expatriate staff and an extremely competitive labor market.

A Connecticut-based Equipment Manufacturer provided another example, noting, "We have a Japanese trade partner that has a plant in the Philippines, and one of the devices we manufacture is made there. Great quality, people are nice. I enjoy doing business and expect to import more from there. They are located in an industrial park with 500 companies in a self-contained free trade zone. Everything you could want is there. For us, IPR is a concern, though our main difficulty has been with a large US firm that sent our most popular products to China and is now marketing them here. We thought about taking action but do not want to get into a legal battle with a firm that size. We also do a lot of molding, and a customer wanted to do millions of pieces. I said, 'We should do that job for you in China,' and he said 'I don't think so,' as they want to retain control."

Much depends on the needs of the company. Which is more important: low cost, emerging growth or a transparent and affluent market? That may help to decide which is most suitable as an expansion target. This sentiment was reflected in the words of one Electronics/System Engineering Director for a mid-sized broadcasting equipment manufacturer who commented, "We have many good customers in China, but all of them together are not as big as one of the networks here. Japan and Europe have far more potential. The kind of stuff we do China is still trying to get to that level. But they will be exposed more over time. So we consider it as emerging with an asterisk — whereas India, in my opinion, is still difficult to penetrate due to government involvement. Japan is more like the US. It expands and renews."

A Design Consultant focused on Japan, stating, "Japan is attractive but not easy. It depends on the product and business. If it is high end or industrial, there are a lot of opportunities, and fortunately there has been big progress over the last 20 years in allowing market entry there. 20-30 years ago American companies would come and the Japanese would copy. Now that is not allowed."

An R&D Consultant contrasted the long-term potential of India and China, noting, "India may be a better opportunity than China as it really is a capitalist democracy. They certainly have corruption, but market forces will take hold and effect change in the long run. In China you need to know people. You could have a good financial case, but if you do not know the right people you will not be successful."

While an extensive review of different markets, their operating environments and the risk factors that may be encountered is not easy or inexpensive, it is extremely important and far less costly and complex if taken on before a problem arises, rather than after. It is also important to understand business development is an ongoing process that must be continually monitored and managed over time.

i) Western Europe and Canada are not addressed as seriously as they should be, while Emerging Markets are almost totally discounted by US firms.

The EU has substantial potential and is one of the largest, most affluent and most sophisticated markets in the world. Nevertheless, while it accounts for nearly 18% of the revenues of companies participating in this survey, respondents did not appear to perceive it to have nearly as much potential as Asia. While this may partially be explained by a lower intrinsic growth rate, political problems and troubling demographic trends, there are still very exciting opportunities to be realized. Canada also — given its proximity to the US and increasingly important resource wealth — does not appear to receive the attention it deserves. At the same time, Australia/New Zealand, Latin America, Central/Eastern Europe, Central Asia, the Middle East, Africa and other Emerging Markets were rarely even mentioned outside of a few firms that specialize in them, despite their positive fundamentals and growing consumer and industrial markets.

One Midwestern CEO for a telecom-oriented manufacturer highlighted the attractions of Western Europe, noting that some of the regulatory barriers and differences between national markets that many find troubling are precisely the factors that make this market so attractive to him. He stated, “We sell into Asia, but not a lot; it has to do with the types of manufacturing and use in Asia, which is more consumer oriented. We deal in high end and the medical field. As a result, we have been putting a lot of effort into Europe and have identified partners who are generating more customer leads than we can keep up with. That is free; we pay them through sales. Our technology is fairly unique, and in Europe there are a lot of niche markets. Their phone systems work well with our product, and we are certified to meet the regulations. By using our product they can avoid having to be certified themselves — this saves them that expense, as well as a lot of time. We are looking to set up a corporate presence in Europe, probably partnering with the company I mentioned, to share offices in both markets. We have complementary products, and as we have a larger presence in the US it fits perfectly.”

Assessing the potential of emerging markets, one CEO for an instrumentation company stated, “I hope the Middle East will become a major market for me. We are working on instrumentation for the petroleum industry as downtime costs a lot of money. We have a lot of products for these and other markets, and we are now working to determine the best way to get established.”

The key point here is that the movement toward globalization — and economic integration and higher growth — exists within Emerging Markets around the world, not only within Asia. Western Europe, Australia and other developed markets show potential as well. This is creating a wealth of new business opportunities for companies that are able to devote the time and attention necessary to understand and act on these trends. Given the relatively mature state of the US economy, as well as worldwide demographic and consumption trends, these markets are likely to account for an ever-increasing amount of global market share.

j) Even those most disturbed about outsourcing are hard pressed to suggest solutions — other than the fundamental need to boost international business expansion efforts.

At the end of the Second World War, most industrial infrastructure outside the US had been destroyed, positioning US firms for dramatic growth with little competition from foreign firms. The period of prosperity that resulted lasted through the 1960s until many US firms lost their competitive edge in the face of hungry European and Japanese competitors.

The combined forces of corporate restructuring and rationalization, as well as the emergence of new productivity-enhancing technologies, again allowed US firms to gain a dominant position. With time, however, these same technologies have contributed to increasing globalization and economic integration. This now allows companies all over the world to more easily access the resources that best meet their business needs. When one factors in the current demographic trends and the comparatively high rate of growth within emerging economies — which possess large numbers of people now embracing consumerism and entering the middle class — it is clear the relative share of economic growth enjoyed by the US as a share of total global activity is sure to decline.

One reaction to this phenomenon has been a move by US firms to continue to lower their cost structure by outsourcing production and whatever else is possible to lower-cost markets. How one reacts to this trend depends to a large extent on how one is affected.

For example, a Sales Representative for a major components manufacturer noted, “I am very disturbed by the trade deficit. That should be a concern for every American. Every day, Americans gets poorer. We are shipping more money offshore, and they are getting richer and we are getting poorer. We are no longer shipping off the airplanes and technology and movies that we used to. I’m 46, and when I lose my job because I can no longer sell chips in the US I will have to seek a new career. I may have to open a pizza parlor. I can’t move to Hong Kong or China, as I don’t speak Chinese. At the same time, I don’t really have any answers.”

A Dallas-based Semiconductor Consultant gave his view of the problem: “We could still build a lot here if we got out of Silicon Valley, Austin and Phoenix, but we can’t look past our noses. We think the biggest market in the world is in China. A lot of people would be very happy to work for $5.50-6 an hour in Arkansas or Indiana at a call center, and they would be right here and able to relate to the customer better than someone overseas. They do not have to be in Dallas. I blame that on corporate America."

A CEO of a metal forming company gave further insight from the viewpoint of a US manufacturer, commenting, "In many ways, China is like the US in the 1970s from a manufacturing perspective. There is a lot going on, products coming on stream, and it is a boom time. You can see billboards for grinders and other things relating to manufacturing that you would never see in the US. The manufacturer in the US is the most taxed person in the US today. We have to pay $500K for equipment. An insurance person gets by with a $1000 computer. If you want to keep manufacturing in the US, you have to do something to keep it here. China is set up for export. They will do a lot to get you to come there, so long as you export. We are set up for import. We will take anything they send to us. The government here has to compete with the government there. I am already selling my product cheaper here than China. The reason is I have to buy raw materials here, as their quality standards are not as high at this point in time. Some say their money is undervalued by 20%. If they raised it by that level I would kill them. The US, though, has to look at how we can attract — rather than hurt — people. How do we attract people to do business back here? One thing we could do is to create a tax credit for exports, which they had to get rid of because the WTO said it was illegal. At the same time, we know that China does these things."

On the other hand, an Engineering Director for a firm that successfully exports its products from the US to both developed and emerging markets stated, "To me, outsourcing is fad management. There are a lot of hidden costs. When you lengthen the supply chain, it is hard to build to order and to turn it around. It is also hard to communicate. I think that globalization is overblown. A lot of Silicon Valley companies have outsourced, and it does not work. The equilibrium of quality has not changed but has only shifted around a bit."

Respondents who have made the transition, while recognizing the difficulties that must be endured, also suggest there is no other way but to adjust with the times. For example, the CEO of an ASIC-oriented engineering firm commented, "US companies that are worried about outsourcing need to improve their product/service to be competitive. Whether the improvement is cost or the improvement is quality, we should always learn how to adjust to be competitive. That being said, it may hurt for a little while we get businesses on track and up to pace."

<u>Please note: Numbers included in parenthesis after cited factors refer to mean response unless otherwise indicated.</u>

Survey Results & Analysis

1) Do you believe that international expansion is critical to the success of your business over the long term? (Please answer on a scale of 1-10, 1 indicating not at all important and 10 indicating extremely important.)

Respondents strongly acknowledge the need for international expansion, but there is wide deviation, and their motivation is based both on the inevitability of this trend and on the attractions that international expansion offers.

The response to this first question was strongly positive, with a mean ranking of 6.93 and median of 8. At the same time, the deviation of 3.18 was extremely high. 42% of respondents indicated the strongest 9-10 ranking, noting the extremely high value they place on international expansion, while 22% of respondents indicated a response of 1-3. This implies they do not view it as an important concern.

The key point is that most respondents understand that international expansion is in their interest. As a President of a semiconductor design firm commented, “Manufacturing is moving overseas, mostly to Asia, and engineering services must follow the market. I would prefer to work domestically, but as Bob Dylan said, ‘The times, they are-a-changing.’ There just isn't enough available work in the US.”

Some respondents sought to fight the trend. The President of a $1-10M tool making company noted, “I believe we should try and keep the work in the USA and stop imports with higher tariffs.’ Others, however, proclaimed the inevitability of the movement. This could be seen in the words of a President of a metal forming company who noted, “I am forced to expand into China by my customers. It’s not that my product will be less expensive to manufacture there, because we are not labor intensive. The real China issues are taxes and tariffs — high taxes in the US and tariffs on products shipped from the US into China. We now produce products less expensively in the US … but must produce them in China for customers who assemble over there.”

An International Sales Manager expanded further on this theme, emphasizing, “If you deal with a factory in Malaysia, it is one thing to bring something in from the US, but one can achieve more by developing it there. That saves time and a lot of money. Many world-class companies are also setting up R&D there at the same time. That is both interesting and disturbing. China is graduating thousands of engineers a year, and [those engineers] are making dirt. Maybe they’re not 100% equal in capabilities, but you have to take the whole process into question. If the customer is there, then the local engineer will be able to respond more effectively. If you do it from here and then find out it is not right, what do you do? Otherwise you go to the beta site; they say 'It is pretty good, but we need some adjustments.' For a component, it is not as essential we do it all over there. It is very expensive, and we would need more talent and investment. For a system or end product, however, it makes a lot of sense."

While many decried the difficulties of competing with low cost foreign labor, others highlighted the ability of international markets to provide new revenue sources. This can be seen in the differences among a Midwest-based VP of Sales who noted, "I think the US economy is going to have a problem due to China's business expansion," a Manager of a Southeast-based consumer manufacturer who stated, "I'm not sure, without help from the US government, that we will be able to compete over the next 10 years," and a Silicon Valley-based VP of Software Development who commented, "Historically high-tech companies used to expand internationally to gain access to lower cost resources (development & manufacturing). In the next few years, I believe that markets are shifting to Asia."

Ultimately, however, as the Owner of a marketing firm acknowledged, "US-based companies are competing internationally whether they realize it or not. They need to consider that as part of their trading zone and should know what foreign companies are competing with them."

This is true for large as well as small firms. While realizing its importance, many respondents believe the move toward international expansion could endanger their own businesses and careers. As one Sales Representative for a major component manufacturer stated, "If I am running a business, I have to acknowledge the need to sell offshore, or my competitors will. That's where all the volume and money are right now. Personally I am a little concerned my job may go off to China. If I buy a DVD from China, it is 1/4 of the price of anywhere else. We have been very successful selling overseas. We have fired people in the US and quadrupled sales people in the Far East. I have been lucky enough to hold my job but need to recognize the trend."

2) How important a priority is expanding your international business operations in the near future? (Please answer on a scale of 1-10, 1 indicating not at all important and 10 indicating extremely important.)

While still clearly positive and possessing a similar level of deviation, respondents generally acknowledge it is more difficult to define and implement an international expansion plan than to accept its general value.

While still clearly positive, the response to the second question was notably lower, with a mean ranking of 6.31 and median of 7. This lower enthusiasm was also evident in the fact that only 28% of respondents provided a maximum 9-10 ranking when asked about the immediacy of international expansion as a priority, as opposed to the 42% of respondents who accorded the same ranking when asked about the general importance of international expansion in the first question. At the same time, the deviation, while slightly lower than the first question, was still extremely high, at 3.04, indicating a wide divergence of opinion.

Part of the reason behind this lower ranking might be that it is far harder to define and implement an international expansion strategy than to acknowledge its general value. A President of a small electronics company defined the issue, stating, “We have plenty of market left in the US to keep us busy for quite some time. However, making a dent globally sooner rather than later is very important to us as well.” This sentiment was reinforced by a Semiconductor Executive who noted, “… it would be nice to stick to domestic services, but that isn't a practical solution, given current market trends. I have to feed my family.” At the same time, a Product Manager for a $10M+ telecom firm described the difficulty many firms face in this area, commenting, “In my view, current company priorities and limited manpower resources typically tend to delay the level of effort and support required in this area.”

This lack of follow-through led one Design Consultant to describe it as similar to a parent talking to a child. He stated, “Parents frequently ask their children, ‘Why don’t you study more and be a good child?’ They just nod their head and say yes but don’t follow. That is the same thing here. People talk but do nothing.”

As a result, sentiments ranged from that of the Scientific Tool Manufacturer who emphasized, “It is essential to maintain an international presence to be profitable and competitive” to the Sr. VP for Software Development who concluded, “If a good opportunity arises, we will pursue it.”

An International Sales Manager active in the telecom sector, however, highlighted both the urgency and problems of doing business overseas, commenting, “International business is more difficult if you are a US firm. Logistics, cultural barriers and duties are just a few of the concerns. You can drive to NJ and come back the next day, but that is not possible overseas. In addition, you have to understand different requirements. Large domestic companies are sometimes easier to deal with than foreign entities, but these days they are international as well. I just called on three Intel locations overseas. You can deal with Motorola Japan, and the business goes back through Texas. It is not easy, though, getting our organization to understand and have the patience to deal with international. It usually is not as immediate, huge or easy an opportunity as many we see here. The internal sell is most difficult. After that, the customer is easy.”

A VP/GM for a large consumer electronic components manufacturer expressed similar thoughts but from the opposite direction. He noted, “A majority of the business we do in Asia and Europe is sourced in the US. Nokia and Motorola make their decisions in Finland and Chicago, so the sale is in Asia but the decision’s made elsewhere. International business is critical — but not expansion, as the decision is made here. Expansion is important but on the manufacturing side. It is more about being competitive. This means making it in China. We want to do more but think sometimes that we are limited, as we do all the design work in the US. We would like to do more but can't find the talent. We have successfully moved manufacturing overseas but haven't been as successful moving design there. You have this issue relative to the fact you need to be cost competitive to Asian suppliers, as they are good at copying. Ultimately we will have to be more innovative as well as cost competitive. The real innovation takes place here, but the incremental product development takes place there."

3) If you are already internationally active, are you pleased with the results you have achieved? (Please answer on a scale of 1-10, 1 indicating not at all pleased and 10 indicating extremely pleased.)

Respondents were more critical, less positive and more uniform in their impressions when asked to distinguish between the success of their existing efforts vs. the general importance of international business expansion.

Respondents accorded themselves a lower, relatively neutral 5.66 mean and 6 median ranking when asked to rate the success of their existing expansion efforts. This was notably lower than the answers given to both the first and second questions. In fact only 9% of respondents provided 9-10 rankings to Question 3, in comparison with 42% for Question 1 and 28% for Question 2. Additionally, 9% noted they were not sure, as opposed to only 5% and 4% to the first two questions, respectively. As most respondents are likely inclined to give themselves the benefit of the doubt, one might imagine this view is even a bit higher than what might be expected with a more objective examination. Additionally, as respondents who had not yet initiated international expansion plans did not answer this question, it should not be surprising that only 132 participants gave a response. More notable was the far lower deviation in responses when compared with Questions 1 and 2, at 2.34. This was lower than the 2.7 average deviation recorded in the survey and indicates a relative uniformity in responses.

Perhaps the primary explanation for the less positive response was the more tangible nature of the question. As respondents were reflecting on their actual achievements, rather than the more abstract notion of whether international business expansion is important, they had a more definitive frame of reference. Given the problems inherent in implementing any new business venture, particularly one as complex as international expansion, it should not be surprising that respondents were more discerning and less positive in their impressions.

One East Coast Consultant to electronics manufacturers highlighted the difficulties of translating objectives into action, particularly in small to mid-sized businesses, noting, "We have high targets for exporting but were not able to achieve them for several reasons." A West Coast Technology Executive further commented, "It is difficult to manage business long distance. Travel, cultures and languages are always major barriers." Another Executive noted, "It works better when we have the time and resources to travel to the distributor's country," and a Software Developer stated, "One project that was outsourced was not successful."

These issues, however, are not unique to smaller firms. For example, a Group Manager for a multi-billion dollar design automation and services firm commented, "Licensing issues in China are, and will continue to be, a problem. Lack of enforced copyright protections makes profitable expansion a challenge." As a result, firms of all sizes are reluctant to act, with one Midwest-based Semiconductor Engineering Executive stating, "It is a stretch to say we have concerted efforts to increase international sales. Most of the business we receive is because of our market niche. It isn't necessarily due to active marketing/sales." This sentiment was partially explained by a Texas-based Systems Developer, who noted, "It takes a large investment effort to get foreign business, and the capture probability is hard to determine due to all of the variables, including politics."

Logistics and travel are also a major problem, as is the need to absorb and understand new business practices. As one International Sales Manager stated, "How often can you make that trip? I just spent two weeks in Asia, and I am dead. I go seven times a year, and that is not enough. We need to supplement that with videoconferences and lots of communications."

Interestingly, even executives who proclaimed themselves satisfied with their efforts expressed less than totally positive sentiments. A New England-based Scientific Equipment Manufacturer, for example, stated, "Overall the outsource program is working. However, it takes a long time to get established and requires a lot of patience." Another manufacturer respondent expressed a similar view, commenting, "Our company suffered losses from the South Korean economy collapse and the Tiananmen tragedy in 1989. On the whole, it is essential to take a longer view of developing technology in other nations."

4) Please rate the following objectives according to their importance in motivating an expansion of your international business presence. (Please answer on a scale of 1-10, 1 indicating not at all important and 10 indicating extremely important.)

In perhaps the most notable finding of this survey, respondents highlighted new markets/revenue growth – i.e., demand – as their primary motivation, rather than the traditional "supply oriented" paradigm, which emphasizes cost reduction.

While deviation remained high and above average within the context of this survey, the two highest rated factors to this question were "New Markets/Revenue Growth" (7.19) and "Distribution Point" (6.08). These were far above "Reducing Costs" (5.49), "Manufacturing Platform" (5.36) and "Product Sourcing" (5.08), with "R&D/Monitoring" (4.47), "Engineering Talent" (4.46), "Hardware Design" (4.13), "Software Development" (4.09) and "Raising Capital" (3.4) rated lower still.

This shift in thinking was reflected in the comments of a West Coast Technology Sales Rep who stated, “With the weakened US dollar, it is a great way to create supplemental revenue streams.” This was not, however, seen only as a matter of choice. As a Midwest-based Industrial Equipment Engineer described, “We have lost over 65% of our client base of manufacturing operations since the early '90s. International work is the only way to reclaim those opportunities.”

A similar sentiment was expressed by a Sales Rep for a major IT component manufacturer, who commented, “As a manufacturer, you have to go to where the customer is going to buy. Since China is becoming the 'factory of the world,' manufacturers of components need to build and sell there. If you are a manufacturer and seller, you might want to make things cheaper but also to sell into this growing market. Japan is a good example. It used to be mainly an exporter but now is an end market. The same thing is happening in Korea and Taiwan and, over time, in China and India. I was in Shanghai in January for the first time. You wouldn’t believe all the GM autos. It looks like the US in the 1960s. They are making big bucks, and I am told this has become the most profitable division of the company. It is a fascinating story, how they found a market while originally going there to reduce costs. On the other hand, if I am a movie producer or game manufacturer, I have no interest, as [the product] will be pirated. You will only sell one copy. It depends on the industry. With hardware it is not as important.”

Finally, while it was slightly surprising that R&D, Design and Development rated lower than other options, this might be explained by the size distribution of respondent companies, in that these needs are usually more reflective of larger firms.

5) Please rate your potential interest in expanding overseas through the following expansion options. (Please answer on a scale of 1-10, 1 indicating not at all interested and 10 indicating extremely interested.)

Respondents appeared far more interested in US-based Solutions or Rep Offices than in more resource-intensive commitments. This makes it difficult to see how they will be able to effectively access growing foreign demand and to develop an expanded international presence.

Deviation remained above average for most of the factors included in this question. While this indicates a wide divergence of opinion, 19% accorded “Export Sales” (6.73) the highest (10) ranking. The second highest rated factor was “Marketing Trips” (6.06). This was followed by “Representative Office” (5.85), “Licensing/Distribution Agreement” (5.65) and “Joint Venture/Partnership” (5.32). “Prefer Initial Research” (3.97) and the most resource intensive options — “M&A/Strategic Investment” (3.93), “Greenfield Investment” (3.20) and “Portfolio Investment” (3.17) — received the lowest rankings.

It should come as no surprise that most respondents preferred US-based solutions to more complex and resource-intensive ones, given that the simpler steps are usually the precursors to greater foreign involvement. The result also reflects the bias inherent in a sampling that includes firms of all sizes. At the same time there seemed to be a notable lack of realization that a "demand-driven" effort to generate revenue growth from foreign markets requires a far different orientation than one that relies on international sourcing as a means to reduce costs and raise margins on sales within the US.

Respondents, however, appeared to be reluctant to make this step, perhaps due to the difficulties noted in previous questions. One Consultant stressed the ongoing problems in managing an overseas enterprise, commenting, "Communication is still a big barrier for overseas business, even though people speak good English; they cannot understand each other very well." A respondent from an industrial equipment manufacturer noted that even if one were able to establish oneself, this would not necessarily translate into long-term success: "One of our former customers, a manufacturer of printed circuit boards, has shifted almost all of their production to a Chinese supplier. In the short term, they may see an increase in profits due to weak environmental standards in China and poverty level wages. Soon, the Chinese supplier will discover the names and contacts of the American end users. Then what function will our former customer perform? None. They will be out of business. So much for short-term profits!" Finally, with a touch of irony, a Chief Engineer highlighted the difficulties that US managers have in managing far-off operations when he noted, "Might use 'marketing trips' as a cover for museum crawling!"

On the other hand, those that know these markets best stressed the need for attention and commitment. One Scientific Equipment Manufacturer stated, "In China I am OK as I speak the language, but a lot of companies have problems. One of the important things to know if you do business in the PRC is how to access the law to protect your business or you may run into IPR issues. It is very tricky to do business offshore unless you know the area, language and have relationships. It is also good to work with governments, especially in South Korea. I also speak Japanese, and that helps as well. I think a lot of American businessmen would do well to learn the language before they start doing business over there."

6) Please rate your interest in opening the following types of facility/facilities in overseas markets. (Please answer on a scale of 1-10, 1 indicating not at all interested and 10 indicating extremely interested.)

Again, with extremely high deviation, the emphasis on US-oriented solutions and minimal overseas commitments was further reflected in opinions regarding the types of facilities respondents were most interested in opening in overseas markets.

In another clear demonstration of the difficulties respondents had in making the commitments necessary to establish a credible overseas presence, "Sales Office" (6.09) was the only option that received a positive ranking. While not especially high, this was notably above the neutral rating for "Distribution Point" (5.17), with all other options — “Manufacturing” (4.77), “Design Center” (3.48), “R&D Laboratory” (3.16) and “Headquarters” (2.88) — receiving negative rankings. Further accentuating this reluctance was the fact that respondents accorded a minimum “1 — not at all interested” as their most common ranking for virtually all the options cited, including “Headquarters” (60%), “R&D Laboratory” (46%), “Design Center” (44%), “Manufacturing” (26%) and “Distribution Point” (24%). “Sales Office” was the sole exception; the result here was reversed, with 21% of respondents ranking it “10 — “extremely interested” — and 45% according it an 8-10 ranking.

One Design Consultant summed up the view of many respondents, declaring, “We should not make a big investment from the beginning,” while a Sales Rep for a major component manufacturer noted, “It is critical to have a "stocking manufacturer's sales representative’ in the buyer's country to do business with large OEMs.” Noting the difficulties companies face in deciding where to base operations and still focusing through a view that emphasizes cost reduction over revenue growth, one Technology Executive stated, “I will look carefully at these opportunities to enable my organization to participate in the Southeast Asia and China markets. Over time the cost will rise everywhere, and we will be looking for new opportunities. Japan, Korea, Taiwan and others have gone through such transitions, and their costs have risen. The same will happen to other countries once the cost of living and taxation rise — and they will.” Finally, one appliance manufacturer respondent noted the concerns that kept the firm from developing intellectual property offshore, commenting “We prefer to keep all R&D and manufacturing here. Our designs are optimized for manufacturing, and we've found we are able to keep pricing very competitive with overseas while keeping the flexibility of having the line nearby.”

7) Please rate the following factors according to their importance in helping to achieve success in foreign markets. (Please answer on a scale of 1-10, 1 indicating not at all important and 10 indicating extremely important.)

The focus on Local Market Accessibility and Good Local Partner, followed by Political Stability and Protection of Intellectual Property, again underscores the emphasis on top line growth. Incentives, Government Support and “One Stop” Service, while slightly positive, were accorded the lowest importance.

Respondents rated “Local Market Accessibility” (7.56) highest, again underscoring a desire to see international expansion as a means to achieve top line growth. This was followed closely by “Good Local Partner” (7.42), “Political Stability” (7.38), “Protection of Intellectual Property” (7.35) and “Financial Structure” (7.14). “Physical Infrastructure” (6.55) was also a concern, as were “Corporate Governance” (6.49), “Regulatory Issues” (6.38), “Affluence of Market” (6.10), “Advisory/Professional Support” (5.97) and “Human Resources” (5.74). While still positive, “Incentives” (5.66), “Government Support” (5.56) and “ ‘One Stop’ Service” (5.14) were rated as the lowest in importance. The deviation, while notably lower than for the previous two questions, was still relatively high both in general and within the higher overall deviation in this survey, reflecting a continuing divergence of opinion, size and, more than likely, experience among the respondents as to realizing their international expansion needs.

This continuing emphasis on factors that relate more strongly to initiating sales, rather than sourcing activities, is again reflective of a desire to view international expansion as a means to expand global market share and revenue. As a result, it should not be surprising that respondents emphasized factors such as "Local Market Accessibility," "Good Local Partner," "Political Stability," "IPR Protection" and even "Financial Structure" — all of which are essential to realize both revenue growth and a larger commitment of resources. "Incentives," "Government Support" and " 'One Stop' Service" provide more benefit to those looking to minimize costs and add little value to sales/marketing if underlying fundamentals do not exist.

The protection of intellectual property was a continual theme in the comments and follow-up discussions. Much was made of the dangers of operating in an environment where the cost of legal services and lack of a tradition of IPR enforcement to the same extent enjoyed in the US create a real and formidable barrier. Respondents, while acknowledging the problem, expressed views such as this one: "Patent protection overseas is very difficult. You need to pick something they don't want to make. Fortunately that describes what we do."

A similar point was raised by a West Coast Technology Sales Rep, who stated, "While we're fighting over patents, the other guys are eating our lunch. I saw one deal where two companies partnered. One got the US & Europe, the other got Asia. In the US they were embargoed due to patent infringements. In Asia they sold freely and did very well. I know another CEO who was looking for a US company to supply a product. It was so difficult to work through the IPR contract they went to Taiwan and did it for a fraction of the price, and had no concerns about IPR, as time to market and price point were far more important. That is why I rated IPR as not important. While we are bickering over copyright, CD/DVDs and other products are sold all over China for $1."

A Design Consultant offered a different view and emphasized the need for US firms to focus on branding and innovation. He noted, "American companies need to be smarter. It is not only through patents. Branding is also important, and one must negotiate with competitors directly and form relationships. Companies also need to understand Asian economies and customs. Apple introduced the MP3 in Japan, and immediately there were many competitors. But the Apple iPod is still successful because Apple is analyzing the market closely and introducing new innovations and products. But most American companies just release a product and try to protect it through patents and brand name, rather than continual upgrades and enhancements."

The question of infrastructure and human resources was examined by one Consultant who has been helping to establish R&D facilities in Asia. He noted, "A lot of time in China and India, they just make things or design things already planned out. They are not as good at R&D. Overseas they have a lot of talent but no ability to be a systems house, and there is a lot of IP in the States that we can leverage there. So we help them be a software consulting firm. Logistics remains very hard there. It is so hard to get things done. Overseas, there is less of a comfort level. Even components are hard to get in India when we are talking about R&D prototypes. Over there, they are more into volume."

When examining the importance of regulatory issues, the Chief Electrical Engineer for a medical equipment company noted, "We do the R&D in-house here in New Jersey, and everything else is done outside, manufacturing in Taiwan and final assembly in Ireland. We are forced to be international in sales as we manufacture medical devices and do not yet have approval to market in the US. We intend to get that over time. For the moment we will sell in Asia, Europe and AUZ where we have patent protection. You need to have $8-10 million and five years to make a clinical study in the US. Ultimately we will do that. In Australia, Japan, we can do it right away. The US is the only country that restricts this. You can unofficially sell it here but not make any claims."

8) Please select the option that best describes your international business expansion planning.

While respondents consistently show a desire to utilize foreign markets as a source of revenue growth, less than half have a formal expansion plan in place, making it hard to see how they will realize the potential of these markets.

Only 27.3% of respondents noted they have a "Formal Expansion Plan to Multiple Markets," and 5.1% stated they have a "Formal Expansion Plan to a Single Market." A further 13.1% described themselves as having a "Comprehensive Planning and Approval Process." At the same time, 33% — in the most common response — characterized themselves as initiating "Ad-hoc Activity based on Client Inquiries," 12.1% "Ad-hoc Activity based on Management Interest" and 6.1% "Ad-hoc Activity based on Inquiries from Potential Overseas Partners."

This pattern is perhaps reflective of the inability of many companies either to initiate or to justify the resources necessary to achieve the success they are looking for in overseas markets, even when they understand the potential of these markets. This is not symptomatic of smaller companies only; many larger companies face the same problems. As one Director of Electronics and Engineering for a mid-sized broadcast equipment company noted, "We have been active in foreign markets since our founding. This is nothing new. Much of this is pure hoopla, and many of the adventures will yield extreme disappointment or many reorganizations to cover up the tracks of the people with the 'big ideas.' "

9) Do the following factors positively or negatively impact your desire to expand into international markets? (Please answer on a scale of 1-10, 1 indicating strong negative impact [discourage)], 10 indicating strong positive impact [encourage].)

Macro motivations were tempered by a realization of Micro challenges and the difficulty of actualizing symbiotic relationships with overseas business partners.

Respondents rated Macro factors such as “Condition of Chinese Economy” (6.21) and “Condition of US Economy (6.05) as the most important factors impacting their desire to expand into international markets. These were followed by “Global or Regional Trade Initiatives” (5.65), “Corporate Governance (overseas)” (5.49), “Security Concerns/Terrorism” (5.02), “Volatility of Energy/Commodity Prices” (4.90) and “Anti Corporate/Brand/American Sentiment” (4.89).

While positive, this Macro attraction was not especially strong and was again tempered by concerns about the Micro realities that must be dealt with. One equipment manufacturer respondent who has established international operations in several developed markets noted, “Many countries, including China and India, have failed to adequately protect copyright and patent rights. These are not suitable partners for our technology.”

A Design Consultant expressed the dilemma a little differently, emphasizing the difficulties of actualizing a symbiotic relationship between US firm and a foreign business partner: “Many Asian companies have tried to get our technologies without paying the cost. They are not successful, because most of our value is know-how. But we could not be successful either after a lot of work.”

10) Please rate the following factors according to their importance as obstacles to expanding your international business presence. (Please answer on a scale of 1-10, 1 indicating not at all important and 10 indicating extremely important.)

While Macro factors seem to attract respondents initially, both external and internal Micro concerns appear far more important as they move into the strategy development and implementation stage.

Respondents ranked external factors such as “Legal/Regulatory Issues” (6.15) and “Lack of IPR Protection” (6.06) as the most important obstacles to expanding their international business presence. These were followed by “”Lack of Time” (5.77), Communication/Distance” (5.61), “Lack of Financing” (5.61), “ Lack of Knowledge/ Expertise” (5.57), “Language/Cultural Barriers” (5.56) and “Lack of Local Management” (5.54). Interestingly, unlike Question 9, where Macro concerns received the highest ranking, in this case “Political/Macroeconomic Risk” (5.41) was accorded the lowest importance. The diversity of opinion reflected in the deviation, while generally high, was about average within the context of this survey, although “Lack of IPR Protection” and “Lack of Financing” were high even in that regard.

What appears interesting here is that the differences between answers in Questions 9 and 10 may be due to the gradual process by which foreign investment and international expansion decisions are made. This may indicate that the primary initial motivation is one of promise and potential, in which companies are attracted by the possibility of being able to take advantage of Macro trends. After that initial decision, however, Micro concerns become far more important and indeed critical if one is to realize a successful market entry.

These varying concerns can be seen in the comments of respondents. One Design Consultant emphasized how Macro forces were helping to drive interest in international expansion, noting, “We have been losing money through the unstable US dollar against other major currencies such as the euro and Japanese yen.“ At the same time, a Technology Executive addressed the Micro limitations faced as one moves into the implementation stage. He commented, “European markets are blocked by artificial barriers under the pretense of ‘safety regulations’ and emission standards that are different just to block imports. This is combined with the resistance of regulatory agencies to US companies — for example I had to walk into a French office to get what I had requested by mail.”

In addition, a Midwest-based Industrial Equipment Engineer spoke of the need to balance domestic and foreign considerations, stating, “Goal one is to provide for our remaining industrial customers and help them remain as competitive as possible — the ‘Arsenal of Democracy.’ Goal two is to keep our eyes and ears open to an expanding world of opportunities.”

Finally, one Midwest-based Engineer summed up the difficulties of many respondents — and the often happenstance nature of dealing internationally, both in terms of time and resources — by noting, “When the market is far away, there are relatively large costs that get in the way of operating at that distance.” This sentiment was expanded on by an Optical Manufacturer, who stated, “Lack of time is very important, and we could certainly use more opportunities. To tell the truth, we do not really seek opportunities. We’re not big and do not want to get swamped. Through associations with companies we work with, we often receive referrals. I rely on that a lot, and so far it has worked well.”

11) What considerations are most important as you seek to identify new markets for international expansion?

Respondents listed both Macro and Micro factors when asked about the considerations that were most important as they sought to identify new markets for potential expansion.

Unlike most of the questions, which asked respondents for a quantitative response, questions 11 and 12 sought qualitative answers. 93 respondents answered this question, suggesting a wide range of answers, many of which touched on several considerations they found relevant.

To provide an analytical framework allowing a review of these answers, it was decided to tabulate responses into three categories, consisting of Macro (i.e., market potential, exchange rates, political stability, etc.), Micro-Internal (i.e., sales presence, financing of JV, local talent, etc.) and Micro-External (i.e., IPR protection, regulatory interference, ease of entry into market, etc.). In some cases, however, it was not easy to judge this differentiation exactly, so these responses were counted in multiple categories. For example “Need for my product” was counted in both Macro and Micro-External, and “To be able to import to the states” in both Micro-Internal and Micro-External. For that reason, and because some respondents listed multiple factors, there were more than 93 factors registered, and these should not be considered precise differentiations.

While this type of analysis does give some insight into the types of factors cited most often, it should be noted it does not provide a weighting, therefore one must be careful not to read too much into it. For example, one might mention numerous Macro factors and only one Micro factor, even though that one might be the most important to the individual and outweigh all the others.

In any case, using the methodology described above, there were 52 Macro, 34 Micro-Internal and 30 Micro-External responses registered. While this finding provides some further evidence to support the conclusion to the previous question — i.e., that Macro considerations are most prevalent during the initial stages, when a company is evaluating the potential for international expansion — it should be noted there were a considerable number of Micro concerns as well, especially if one combines the internal (those focusing on how the firm organizes itself) with the external (those focusing on how the local market impacts the firm). This underscores that international market entry requires a careful balance between Macro and Micro concerns, both of an internal and external nature.

12) What considerations are most important as you seek to optimize your existing international operations?

When evaluating the considerations most important to optimizing their existing international operations, respondents were clearly more focused on Micro over Macro concerns.

Using the same methodology as the previous question, respondents listed 26 Macro (i.e., long term economic conditions, worldwide economy, finding markets for firm’s products, etc.), 55 Micro-Internal (i.e., cost reduction, good trustworthy local people, access to legal support, etc.) and 6 Micro-External (i.e., red tape, ease of currency transfer, regulatory interference, etc.) considerations. This provides clearer evidence that once a firm has identified and entered an international market, their primary focus revolves around the need to optimize the effectiveness of their operations both within these business environments and with regard to their overall corporate structure. This concern can be further seen in some of the comments received. For example, one respondent emphasized “local presence, local autonomy, communications with headquarters” and another “autonomous operations against goal-based objectives, clear separation of roles and deliverables, and ease of integration of the output product.”

13) Which of the following services would be most useful in helping you to expand or optimize your international operations? (Please answer on a scale of 1-10, 1 indicating not at all helpful and 10 indicating extremely helpful.)

Respondents prefer hands-on and customized assistance over research and conferences, yet given other answers it is unlikely they are willing to allocate the resources necessary to gain this support, at least during initial stages.

When asked to rate the services that would best help them to expand or optimize their international operations, respondents listed, with relatively average deviation, “Site Visits” (6.42), “Local Government Support” (6.14), “Business Planning” (6.11), “Marketing Support” (6.03), “Transactional Support/Facilitation” (5.81), “Advisory Support/Facilitation” (5.73), “Research Support/Briefings” (5.65) and “Conferences/Seminars” (5.08).

To some extent these preferences may be a matter of the size of the firm. As one Business Consultant stated, “We see two different trends. Smaller companies try to partner with local companies, while larger companies try to acquire local companies.”

What is also interesting is that respondents stressed the need for hands-on contact, emphasizing factors such as “Site Visits,” “Local Government,” “Marketing Support” and “Business Planning” as most important, followed by a range of professional services, with “Research” and “Conferences/Seminars” considered least important.

Respondents expressed similar concerns in their comments. An Engineer for a Midwest-based industrial equipment manufacturer stated, “Our organization's expertise resides in our technical abilities. We need to improve our marketing focus and business contacts.” In another example, the VP for a West Coast technology firm emphasized, “We know exactly which companies we need to talk to. Our biggest challenge is to get an audience/introduction to the decision makers. There is already good marketing data/press coverage on semiconductor companies, and most also have annual reports with useful data. Most of the countries of our prospects have good infrastructure, reasonable political/government climate, etc.”

The problem with these views, however, is while these firms are seeking more customized assistance, as demonstrated in Questions 5, 6 and 8, many of them are unable or unwilling to devote the resources necessary to gain this level of personalized support. On the other hand, they do not believe they are able to gain sufficient knowledge and direction from research and conferences/seminars alone.

The two top choices, however — “Site Visits” and “Local Government Support” — appear to identify opportunities for investment promotion agencies, publications, and industry and trade associations to position themselves as platforms for site visits and for helping to familiarize interested firms with these markets and the support they require, in a way that extends beyond occasional conferences and reports, which do not delve into sufficient detail.

14) Please rate the following economies in Asia according to their potential ability to enhance your business. (Please answer on a scale of 1-10, 1 indicating no perceived potential and 10 indicating a great deal of perceived potential.)

With a large amount of deviation, respondents rated China as the economy with the most potential in Asia. Japan, Korea and Taiwan also rated high, India appeared underrated, and many did not know where ASEAN was located.

When asked to rate various Asian economies according to their ability to enhance their business, respondents rated “China” (6.74) higher than all other options. In fact, 26% of respondents who answered this question accorded China a 10, the maximum response. Perhaps because of this enthusiasm, however, the deviation of responses concerning China, at 3.19, was notably higher than all others — with “India,” at 2.84, having the next highest diversity of responses. Following China, the next highest rated economy was “Japan” (6.28), followed by “Korea” (6.20), “Taiwan” (6.14), “Hong Kong” (5.67), “India” (5.54) and “ASEAN” (5.33).

Based on this data as well as follow-up discussion, it would appear the high positive sentiment accorded China due to its ability to deliver high growth potential does not adequately incorporate recognition of potential risk factors. For example, one Sales Representative for a major component manufacturer commented on only one of many possibilities, stating, “When I see the trends of the products my company is selling, North America is a tiny percent of the purchase orders. Japan has stopped growing, and Korea is now a larger market than Japan, the US or Europe. And growth in China is like a hockey stick. Many customers are also shutting down assembly plants in Singapore and Malaysia and moving to China. This is all for cost reasons. There is a risk, however, of over-reliance on China. How much can you rely on their government? Over time they will have to join global community, but in the short to mid-term, it is particularly risky to do business in an unstable environment with an overzealous government.”

Japan, Korea and Taiwan were also highly rated. India, however, appeared underrated, though one CEO for an instrumentation company who had just begun to look at the country stated, “India is phenomenal. I am talking to people there right now. They are growing rapidly, and it is the new frontier. In what we do, higher level math is important, and the people who do the development work need to know that. In China you can find the knowledge, but they generally do not have the experience to apply it to tangible development. In India, however, they … have a talent to apply the abstract to concrete production."

Additionally, despite the fact that ASEAN encompasses 500+ million people, a significant number of respondents were not familiar with the designation ASEAN. This can be seen in the fact while all the other economies specified attracted approximately 150 responses, only 134 rated ASEAN. The President of a semiconductor design firm asked, "Where the heck is 'ASEAN'? Do you mean 'Asian'?"

A Technology Sales Manager explained the reasoning behind his ratings by noting, "Our technology is very advanced; therefore tends to hit Japan and Korea first, then Taiwan and lastly China. Some design, but not decision making, resides in India."

A Medical Equipment Manufacturer also noted the importance of differentiating among markets, stating, "Advanced intellectual countries will probably become customers faster for us. They will adopt this technology faster. Taking a pill is not related to the degree of progress. But this technology is unconventional, and the culture needs to be ready to make believers in it. For that reason Japan and Europe will probably be a better market than China for us."

15) Please rate the following additional countries/regions according to their potential ability to enhance your business. (Please answer on a scale of 1-10, 1 indicating no perceived potential and 10 indicating a great deal of perceived potential.)

Western Europe and Canada were rated lower than China and other Northern Asian markets. This is surprising given the importance of these markets to the businesses of many respondents. Other markets such as Australia/NZ, Latin America and CEE/NIS were rated lower than South and Southeast Asia.

"Western Europe" (5.96) and "Canada" (5.76) were rated highest, followed by "Central/Eastern Europe" (5.11), "Australia/NZ" (4.89), "Latin America" (4.76) and "Russia/Central Asia" (4.7). Notably, however, all these economies were rated lower than China and the Northern Asian locations that were rated in the previous question, while Australia/New Zealand and the other identified markets were rated lowest overall.

One Engineer, however, highlighted the problems with ranking in this manner, stating "Potential is potential, and no more."

16) Please rate the competitiveness of the following economies according to the following attributes. (Please answer on a scale of 1-10, 1 indicating not at all competitive and 10 indicating highly competitive.)

To provide further depth to the previous two questions and to analyze the strengths and weaknesses of specific markets on a range of factors, respondents were asked to rate China, India, Japan, the US and the EU in the categories “Market Potential/Revenue Growth,” “Production/Cost Reduction,” “Access to Export Markets,” “Workforce,” “Intellectual Property Protection,” “Transparency,” “Cultural Barriers,” “Regulatory/Tax Regime,” Political/Economic Stability,” “Quality of Life,” “Economic Reform,” “Infrastructure” and Government Incentives.” Interestingly, the deviation in responses to this question was, on average, among the lower ones recorded in this survey. This implies that with a few exceptions, respondents were more inclined to agree with each other in their perceptions.

When evaluating “Market Potential/Revenue Growth,” respondents rated China (7.63) higher than all others, with the next highest being the US (6.93). Japan (5.87) was seen as marginally stronger than India (5.84) by a small amount that is probably not statistically significant. The EU (4.18) was seen as having far less promise than all other markets. This was a bit surprising, as respondents had noted on average approximately 18% of their business came from the EU, as opposed to 22% from Asia-ex-Japan (which includes China).

When evaluating “Production/Cost Reduction,” respondents again rated China (7.58) higher than all others, followed more than a full point lower by India (6.03). Over an additional point lower still came the US (4.63). Japan (3.91) came next, and again in last place was the EU (3.62). While this differentiation is not really surprising, what is notable here is the wide range of differences among the economies rated. In many questions within this survey the differences were not large, and given the high deviations noted it was hard to determine whether they were truly significant or at least partially due to statistical error. That was clearly not the case in this question, given that here was more than a 2:1 range between the rating for China and the EU and that the deviations were lower, on average, than those for other questions.

On the “Access to Export Markets” evaluation, the US (6.71) was rated much higher than all other markets. This was followed by China (5.92), Japan (5.90) and the EU (5.90), all of which received similar ratings, indicating that perhaps — depending on the particular company, product and sector — each has its advantages, depending on where one is marketing and exporting to. India (5.05) was rated notably lower and possessed the largest number of minimum (1) and lowest number of maximum (10) rankings, perhaps because it is seen more a service than a manufacturing platform.

When evaluating “Workforce/Management,” respondents again ranked the US (7.30) much higher than all other markets. It registered almost 1.5 points above the next option. Further, 27% of respondents answering this question gave the US the highest possible (10) ranking, as opposed to only 5-6% for the other economies rated. Given the concern noted in follow-up discussions regarding the deterioration of engineering education in the US compared with Asian and other overseas markets, it is hard to determine whether this difference simply reflected the pride and nationalist sentiment of respondents or the difficulties they have in accessing foreign talent, or whether the response was an accurate reflection of their concerns. The US was followed by Japan (5.97), the EU (5.80) and India (5.20). China (5.04) was rated lowest of all, which is interesting, given the strong enthusiasm respondents showed when evaluating China's potential as a market and as a means to lower production costs.

On "Intellectual Property Protection," the US (8.13) received not only the highest rating but also one of the three 8+ means recorded in this survey. The EU (7.40) also received a strong ranking, followed by Japan (6.87). India (3.90) came in far lower. China (2.93) received the lowest ranking; 49% of respondents who answered this question gave China the minimum (1) ranking. In contrast, only 24% of respondents gave India — and 4-5% the three other rated economies — the same minimum (1) ranking. This low ranking for China again indicates a large inconsistency among the views of respondents, given their strong enthusiasm for China's potential against the high level of importance they accord IPR protection as a major concern. This makes one wonder whether respondents have adequately "priced in" such risks when deriving their relative rankings for these economies.

On "Transparency," the US (6.90) again received the highest ranking. This is the system that US firms have the most exposure to and experience with, and therefore respondents were naturally inclined to feel the most comfortable with it. The EU (6.14) again received the second highest ranking, followed by Japan (5.20). India (3.90) came in far lower, with China (2.93) receiving the lowest ranking. This low ranking for China again indicates a large inconsistency among respondents' views, for similar reasons to those indicated above.

For the "Cultural Barriers" evaluation, it should come as no surprise the US (7.18) received the highest ranking. In addition to the heterogeneous, multicultural nature of US society, the US system is again is the system US firms have the most exposure to and experience with. Naturally they feel the most comfortable operating within it. The EU (6.10) once more received the second highest ranking — also not surprising, given the likelihood that most of the executives surveyed were of European ancestry. Interestingly, Japan (5.20), which is often considered to have high cultural barriers, received a relatively neutral rating, followed by India (4.68), with China (4.36) receiving the lowest ranking.

When evaluating "Regulatory/Tax Regime," respondents yet again gave the US (6.18) the highest ranking. That said, given the margins by which the US exceeded other rated economies in the other factors measured, it was a little surprising that it exceeded Japan (5.31) by less than one point, with the EU (5.2) close behind and with slightly negative rankings posted for China (4.81) and India (4.80). Furthermore, while the maximum (10) ranking was the most common one given to the US by respondents for nine of the 13 characteristics surveyed in this question, in this case 20% accorded the US a neutral 5 on regulatory/tax issues. The EU also received a 5 as the most common ranking. Japan received an 8 (though lower mean when one considers all responses), India a 3 and China a 2. This might cast some doubt as to whether respondents believe the common perception that the US truly has the most competitive regulatory environment, or it may indicate that respondents believe other economies are improving and the gap with the US is narrowing.

On "Political/Economic Stability," the US (7.53) received the highest ranking, though Japan (7.13) and the EU (7.03), also received strong ratings. Far lower, by more than two points, were the ratings for India (4.77) and China (4.49). While one should not read too much into this, it is interesting the US (2.80) received the highest deviation of responses among all economies rated, and India (2.29) the least — somewhat above and below average, respectively, by the standards of this survey. Furthermore, given the "home court" bias, where US-based executives and citizens would be inclined to give their own country higher ratings, it is interesting that there was not more of a ratings difference between the US and the two other developed economies (Japan and EU).

For the "Quality of Life" factor, the US (8.13) received an extremely high ranking as well as one of three 8+ means in the survey. The EU (7.38) also received a strong ranking, though in several follow-up discussions respondents expressed a belief that perhaps the EU, while not as competitive economically, has a higher quality of life than the US. This perhaps reveals another case of "home court" advantage toward the US. Japan (6.44) received the third highest though still strongly positive ranking, while China (3.25) and India (3.15) were perceived as far weaker. Interestingly, all of the responses revealed significantly lower deviations than average for this survey.

When evaluating "Economic Reform," respondents gave the US (6.20) the highest ranking. Japan (5.64) came next, followed closely by the EU (5.60), with China (4.53) and India (4.46) trailing. These responses are somewhat similar to — and even closer to each other than — the responses given to the Regulatory/Tax Regime" factor, and similar conclusions can be made.

For the "Infrastructure" factor, the US (8.01) again received a high, 8+ mean ranking. This was followed by similarly strong ratings for the EU (7.55) and Japan (7.52). China (4.23) followed with a significant drop, and India (3.83) registered even lower, perhaps in recognition of the difficulties of operating in both economies and the need for India to upgrade its infrastructure in comparison with China and other markets.

Interestingly, when evaluating "Government Incentives," China (5.19), while relatively neutral, received the highest and only positive ranking of all the economies surveyed. It was followed by the EU (4.93), Japan (4.88), India (4.71) and, in last place, the US (4.66). With the exception of China, however, these differences were not especially large, given the deviations that were recorded. Whether the lack of enthusiasm is a sign that none of these economies is doing a good job or that respondents believe government incentives are not an especially important factor in motivating their international expansion decisions is unclear, though later discussion suggested it is a combination of these points.

This is an important point for investment promotion agencies and other parties seeking to attract internationally oriented firms, since, for whatever reason, government incentives appear far less important than many of the other factors upon which FDI decisions are made.

One might surmise the following when analyzing the regions overall on a market basis:

- China: The most paradoxical of all the markets rated, with respondent views bifurcated by a strong belief in its potential and ability to lower costs and an almost equal concern over weaknesses — i.e., lack of IPR protection, transparency, etc. — that respondents believe factor into achieving success in international markets. While not questioning China's potential as a source of new revenues, its increasing importance as a nation or the necessity of planning a China entry strategy, respondents may not have thought this market through and adequately "priced in" the many risk factors that are part of establishing oneself, and operating within, the China market.

- India: Perhaps the least well known and most underrated of all the major markets surveyed. Respondents tended to be neutral in their responses concerning India, though it was perceived to have more potential than the EU. Those respondents who were active there or who had given it closer examination, however, were far more positive in their views and perceptions.

- Japan: Given the emphasis respondents placed on IPR protection, political/ economic stability and sophistication of the market in their responses and follow-up discussion, Japan also appeared to be underrated. Despite respondents' indication that approximately 11.62% of their revenues, on average, come from Japan, they do not truly recognize its potential and are only starting to appreciate the recovery now taking hold. Many also still view it as expensive and difficult to penetrate.

- United States: The US was generally seen as the most competitive market in all factors — other than those that are perhaps ultimately most important. Those include Market Potential/Revenue Growth, where it rated almost 3/4 of a point behind China, and Production/Cost Reduction, where it rated almost 3 points behind China and 1.5 behind India. It was also rated last in Government Incentives.

  Given the underlying theme of this survey, which highlights the shift from a supply to a demand paradigm, in which the focus of US companies is moving from an approach that emphasizes sourcing and cost reduction to one that emphasizes revenue growth and foreign market penetration, this trend is potentially troubling. This is because the continuing growth of demand and global market share absorbed by overseas markets is only likely to increase over time.

- European Union: Similar to the US, the EU rated strongly on many of the factors that respondents believe are truly critical to managing an international business, such as IPR Protection, Transparency, Political Stability, Cultural Barriers, etc., but the lowest of all markets when it came to Market Potential/Revenue Growth and Production/Cost Reduction.

  Given the EU represented on average nearly 18% of revenues of the companies surveyed, this view is also somewhat surprising. However, in some ways one might imagine that because of the many opportunities for restructuring and reform that lie ahead for Western Europe and even Japan in comparison with the US, where the gains of corporate rationalization have already largely been realized, these weaker ratings may present less of a problem and perhaps even an opportunity to raise perceptions to match the underlying potential of these markets.

17) Are you troubled by current trend toward outsourcing of production and services to entities outside of the US? (Please answer on a scale of 1-10, 1 indicating extremely troubled and 10 indicating not at all troubled.)

Views on outsourcing seem to depend largely on where one fits within the food chain and whether one's company has made the necessary transition. For the most part, however, most recognize the inevitability of this trend, and even those that have remained competitive acknowledge the difficulty of the transition that needs to be made.

While the mean response (5.59) reflected a relatively neutral view in aggregate, the "V" shaped distribution led to a high deviation in responses, with 22% of participating respondents indicating they found outsourcing extremely troubling (1) and 20% not at all troubling (10). This indicates an extreme divergence in opinion.

Concern over outsourcing could be seen in the comment of one troubled California-based VP of Manufacturing, who noted, "We are busy giving away everything that made this country great. We are becoming Wal-Mart Inc. — just a retail operation, at the bottom end. Our aggregate quality of life will decline as the high paying technical-based jobs are replaced by low paying retail/service sector jobs. Maybe we should outsource the government and Wall Street to save money." A similar view was expressed by an Ohio-based Electronics Manufacturer who stated, "It's very concerning to see so much US infrastructure being outsourced to other countries. I am especially concerned about the unfair trade practices of some countries that discourage imports and/or keep they're currency artificially low." As a result, one Automotive Executive noted, "I think that is why this recovery is not a recovery at all."

A West Coast Sales Executive for a major IT component company also highlighted the potentially negative consequences of this trend, commenting, "The US has lost its manufacturing base; the fall of our great country is written on the wall. Our current

Administration in the White House is assuring the fall of this country." At the same time, this same executive added the comment that appears at the beginning of this report: "The economy is truly global in nature now. A business cannot afford to be patriotic. It must make money to survive. Either go international or die; it's that simple."

A Chief Engineer for an embedded systems company commented on some of the reasons behind this paradox between personal concern and business imperative, noting, "You're dammed if you do and dammed if you don't. The US cost structures are not competitive, and engineering in particular does not pay well enough in the US to attract the top domestic talent. As the engineering resource pool is globalized, the effective domestic wages will continue to trend down. The US is destined to become a bit player in technology and will find itself outside the primary focus on mass-produced consumer products. Like the UK before us, we will continue to play a minor role in technology based on educational institutions, advanced research and the concentration of capital."

On the other hand, many respondents indicated they were not concerned. For example, one International Sales Manager for a mid-sized East Coast component and technology solution company stated, "We make all our product here in the US and sell it all over the world." Similarly, an Aerospace Engineer commented, "We are in the commercial aerospace business, and growth in this market relies on a growing middle class in foreign markets. The outsourcing of jobs frees Americans to pursue greater innovations in technology and allows foreign places to take care of the low-end manufacturing and design work. This increases our standard of living while at the same time it increases theirs. History has proven that this leads to growth and greater prosperity for all." Additionally, the CEO for a firm that helps companies to manufacture structured ASICs noted, "Wages are rising quickly in India and China as they are falling here. The supply/demand curve will even everything out."

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