# Risk Assessment and Contingency Planning in Emerging Markets

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**Abstract.** With the growing complexity of global sourcing coupled with significant cost reduction initiatives at the firm level, supply managers now reach into emerging markets for the procurement of goods and services. The question of managing the risks inherent in sourcing from emerging markets is twofold: 1) What are the common sources of risk?, and 2) How can we manage them effectively? Risk is defined as the magnitude of exposure to financial loss or operational disruption and stems from uncertainty in the emerging markets sourcing process. All risk must be evaluated relative to potential cost exposure and the likelihood of occurrence. Several generally-accepted contingency management techniques are offered to help supply base managers mitigate these potential losses and supply disruptions.

**Introduction.** Risk is inherent in all sourcing decisions, particularly those involving global sources of supply. Uncertainty, complexity, and risk increase even more dramatically when sourcing from suppliers operating in emerging, either third-world or newly-industrialized country, markets. This paper presents various sources of risk to consider when examining and evaluating potential supply base opportunities and individual suppliers within those emerging markets, along with contingency management tools and techniques which will allow the supply base manager to deal more effectively with these risks.

**Risk Factors.** Risk inherent in emerging markets stems from a variety of sources. Five categories of risk factors can be identified: 1) political risk, 2) market risk, 3) supply base risk, 4) financial risk, and 5) company-level risk. Each of these risk factor categories consists of several components which will be presented individually.

Political risk originates from the overall macroenvironment surrounding the emerging markets sourcing decision. There are uncertainties due to where the potential supply base/supplier operates, i.e. regional and foreign country risks. Doing business in established economies such as Germany or Japan has far fewer risks associated with global location as opposed to doing business in the emerging markets of the Middle East, Micronesia, South America, or China. Note that regional risk may adversely affect the chosen country even though the supplier may be located in a relatively stable environment within the region.

A buyer must also consider the stability and extent of government control and politics within the emerging market. Scheduled elections, military coups, general strikes, etc. can all dramatically influence the rules and protocols of doing business in a given country. Associated with this risk are the legal infrastructure and property rights within the legal system. For example, English common law, the French Napoleonic code, and Muslim law all vary widely in their interpretation of transactions, ownership, redress of grievances, etc.

Obviously, the presence or threat of wars and civil disturbances provide significant sources of political risk in emerging markets. When shooting starts, it is difficult to conduct routine

business operations. Another source of political risk centers is concerned with the presence of terrorism and the related issues of security. The higher the need for increased security, the greater the need for additional inventory in the pipeline to deal with this uncertainty. Many post-9/11 issues of supply disruption and protection of assets are still being debated.

Unfavorable trade balances may initiate trade embargos, increased duties and tariffs, limited repatriation of profits, unfavorable public opinion, and other administrative rules regarding importing and exporting. In addition, buyers may have to deal with issues of official corruption which can negatively impact such things as clearance through customs, bribes, and requests for donations. If such payments are not made, then commerce may slow significantly.

Several web-based tools exist for helping supply base managers wade through the morass of political risk. One of the more detailed sources of information regarding emerging markets comes from *The World Factbook* contained on the U.S. Central Intelligence Agency website. Other sources of information, such as the PricewaterhouseCoopers global "Opacity Index," can also be utilized to determine government corruption, laws governing contracts or property rights, economic policies, accounting standards, and business regulations.

The category of market risk factors consists of issues regarding the emerging market's competitive nature. One source of market risk involves the level of competition within the buyer's industry, i.e., the more buyers in an industry, the more likely that purchase prices will be driven up and capacity constrained. Another related risk factor concerns the stability of the customer base. The more dynamic the nature of competition, the greater the threat of market instability and potential disruption. There are benefits to being a preferred, long-term buyer as opposed to being a spot buyer playing the market.

Shorter product life cycles (PLCs) require suppliers to recover investments more quickly before they become obsolete. Likewise, competing product and process technologies may postpone investments by suppliers who may be waiting for the next generation of new products and processes, especially in information technology. Two factors exist here. The first is the actual change in technology, i.e., analog versus digital technology. A second has to do with the rate of change. One can consider the personal computer industry to see how quickly technology changes and becomes obsolete overnight. Research and development capabilities (R&D) in emerging markets can also be a source of risk. Higher levels of R&D drive more rapid product changeovers and shorter PLCs.

Lastly, the ability to maintain the confidentiality of proprietary trade secrets can be a significant market risk factor. For example, some emerging market governments welcome the influx of new technology into their countries initially. However, after local firms learn and master that technology, generally very quickly, the technology pioneer may no longer be welcomed and actually be asked to leave. The loss of this proprietary information can cause a buyer to lose competitive advantage or create a new competitor.

Considering supply base risk factors, there is potential for significant supply base disruption from a variety of reasons. For example, there is positive correlation between longer delivery pipelines and the exposure to supply base disruptions because of the extended time factor involved. Risk is also influenced by the level of competition within the supplier's industry. Strong industry competition may force less-capable suppliers out of business or subject them

to possible merger or acquisition risk. Weak supply base industry competition opens the buyer up to the possibility of being held hostage for key items if it is expensive, time-consuming, and/or difficult to locate alternative sources of supply.

The increased length of the inventory pipeline increases the level of uncertainty. The longer distances traveled and time to transport will require greater levels of inventory, increasing the risk of product obsolescence, reduced flexibility to react to changing markets, longer order cycles, and potential damage from excessive or sloppy handling. Since the supplier is located in an emerging market, communication difficulties and time differences increase the level of necessary coordination required to conduct normal business operations. The buyer also may encounter adverse effects from different cultural interpretations and definitions. These issues affect modes of transportation, choice of ports and carriers, intermodal coordination, errors and delays in documentation, and clearance through customs.

The supply base's and supplier's capacity utilization rate can influence supply base risk. The higher the capacity utilization, the more likely product may be delayed from a given supplier. In other words, there is greater competition for the existing capacity. The infrastructure and availability of transportation in emerging markets may be less capable than that found in established economies. Archaic or poorly maintained road and rail systems may restrict rapid flow of goods, and limited port facilities may complicate loading of ocean-going vessels.

Oftentimes, emerging market suppliers may supply not only the buyer; they may also supply several of the buyer's competitors. A shared supplier may treat competing customers differently, such as restricting access to new technology, capacity, routine shipments, product allocations, etc. When using a shared supplier abroad, once proprietary information is shared, the buyer is more likely to lose control of it, perhaps even to the point of having a distant supplier misappropriate it and compete against the buyer's own products either domestically or overseas.

In terms of financial risk, inventory carrying costs and obsolescence can be very large risks due to the longer inventory pipeline mentioned above. Depending on the firm's cost of capital, it is not unusual for carrying costs to equal 35% or more of average inventory costs annually. Inventory carrying costs include such factors as: inventory investment, storage and warehouse expenses, labor, loss and damage, taxes, obsolete products, lost opportunity costs, etc. However, inventory levels can be reduced through process improvement, shorter cycle times, and more accurate forecasting.

A second financial risk factor deals with currency exchange rates or the rate of exchange between the currencies involved in the transaction. Many emerging market nations experience fluctuating currency exchange rates between its currency and other free market currencies such as the U.S. dollar, Japanese yen, Euro, and British pound sterling. The challenge here is to try and predict potential market exchange rates in advance. The higher the level of currency exchange fluctuation, the greater the financial risk to the buyer. Purchase contracts and letters of credit will need to be more flexible and reviewed more frequently.

Hard currencies are those which participate in established international currency exchange markets, i.e., convertible currencies, while soft currencies are those which do not, i.e., inconvertible currencies. More often than not, international transactions require valuation in

and exchange of a hard currency. At the extreme, a soft currency may only be valuable in the country of origin, contributing to uncertain valuation. A related issue is that the choice of the currency through which to value the exchange may substantially affect the profitability of the transaction.

The choice of payment terms (INCOTERMS) will determine who pays for local freight, insurance, duties and tariffs, ocean or air shipment freight, letters of credit, 3rd party fees, etc. Contrary to domestic transactions, which are essentially either F.O.B. origin or F.O.B. destination, there are a number of options available to the buyer in an international transaction, each of which may dramatically affect the total cost of a given shipment.

Because an emerging nation may not operate in an established economy, different forms of countertrade may be necessary. With soft currency economies where hard currency is scarce, the firm is often challenged to accept other goods or services in lieu of payment in hard currency. The firm must then value the goods and find alternative buyers for them, adding both risk and cost to the transaction. Most countertrade transactions are a structured exchange of goods and currency.

Because of the high level of risk in emerging markets, a buyer's return on investment should be achieved as soon as possible. In addition, emerging markets often have significant inflation rates which serve to reduce the worth of the goods exchanged and devalue the currency used to pay for them. In some cases, an emerging market may experience an extreme form of inflation, also known as hyperinflation, in which the value of a currency decreases dramatically in a relatively short time.

Whenever possible, buyers prefer to transact business with well-known, stable overseas suppliers who are likely to be in business over the long term. In any global supply base, especially those in emerging markets, it is expensive and time consuming to locate, evaluate, and transact business with new suppliers. Therefore, it is generally not in the firm's best interests to conduct short-term procurements in emerging markets. The process of discovery and due diligence requires that a buyer invest the necessary time, money, and energy to understand the supply market and learn about the suppliers in it.

Additionally, buyers want to conduct business with suppliers that are similar in management style, vision, philosophy, etc. A prudent global supplier selection process should dictate that suppliers, especially those in third-world, newly-industrialized countries, be carefully and thoroughly evaluated as to their capabilities, the need for any performance improvement or supplier development efforts, the ability to remain current in new technologies, and the ability to react effectively to changing market conditions.

A successful buyer will want to evaluate emerging market suppliers as to their workforce knowledge, skills, and abilities (KSAs) in both management and the hourly employees, as well as their ability to manage the buyer's engineering change order process. The buyer will want suppliers who can offer future value through the development of new products and services.

Merger and acquisition activities can dramatically change the nature of the existing buyer-supplier relationship, and a buyer firm could actually find it doing business with a known or potential competitor if that competitor buys out an existing key supplier.

**Contingency Management Tools.** Fortunately for the global buyer dealing in emerging markets, there are contingency management tools and techniques that serve to help mitigate the kinds of risk previously outlined. These consist of: multiple sourcing, inventory, third party intermediaries, organizational forms, scenario analysis, and hedging.

Multiple sourcing, as in domestic markets, can be an effective tool in dealing with the risks inherent when sourcing from suppliers in emerging markets. When a buyer single sources a material from such a supplier, he/she is placing the buying firm in a potentially precarious position. Any disruption in supply flow, stemming from a wide variety of sources, cannot be easily replaced by another supplier without significant cost and effort. Having multiple suppliers for the same item often results in a competitive marketplace and gives the buyer alternative sources of supply in the event that the original supplier is unable to fulfill its contractual obligations.

Additionally, the presence of multiple sources allows the buyer to dramatically increase its demand for a given item in response to changes in the marketplace. Multiple sources create a necessary tension on existing suppliers to maintain or improve their performance or face losing the business. Multiple suppliers can also provide the buying firm with access to alternative technologies until the marketplace can develop new industry standards. When determining whether or not to use multiple sources of supply, the buyer must use a total cost of ownership (TCO) analysis to determine the "real" cost of this decision.

Maintaining large stock of inventory is the traditional method of dealing with supply base uncertainty in emerging markets because it acts as a buffer against unforeseen disruptions in supply. However, as described earlier, it is expensive and creates a whole new set of risks due to added carrying costs, obsolescence, loss and damage, and deterioration. It also has a very short-term focus. However, it can be used effectively when starting up a new emerging market supplier until most of the initial startup difficulties are satisfactorily resolved.

Using third-party intermediaries can be another effective strategy in managing the risks of sourcing in an emerging market. Global logistics intermediaries are often used to supplement importing and exporting skills that the buyer may lack or compensate for global inexperience, relatively small size, or insufficient resources.

The freight forwarder is the most common form of intermediary after the purchase transaction has been initiated. For a fee, the freight forwarder can handle nearly all of the logistical aspects of the transaction. A NVOCC (non-vehicle operating common carrier) is similar to a freight forwarder. Essentially, the NVOCC leases containers and space on a carrier's vessel and then sells that reserved space to less-than-container load shippers.

An export management company is often used to market one's products overseas under short-term exclusive representation agreements. They are the professional exporters, but they do not take title to the goods. Export packers prepare international shipments for the rigors of overseas movement, as well as providing for any special packaging requirements. Goods surveyors can be retained by either the buyer or the supplier to independently inspect the quality of the goods, measure the weight of the shipment, or determine the extent of damage for a shipment in transit. The export trading company (ETC) actually takes title of the goods

and then sells those goods on its own behalf in the international export market. An exporter can minimize its financial risk by using an ETC, but then it also loses control over the goods once title passes.

In addition to the third party intermediary, several organizational forms can be utilized to facilitate sourcing from emerging market suppliers. One such option is to retain a buying agent or representative to procure materials and services in the emerging market for the original equipment manufacturer. However, since there is only a contractual arrangement, the agent may not develop sufficiently strong loyalty to the buyer. A second option is to establish an international purchasing office (IPO) in the emerging market to facilitate the identification and evaluation of potential suppliers. Because it is owned by the buyer and actually located in or near the emerging market, the IPO can physically and personally evaluate suppliers, negotiate price and delivery terms, and monitor quality and job progress through direct site visits.

A joint venture established between two or more firms may take on the responsibility of the procurement and marketing functions of importing and exporting. However, control of these functions is usually shared by the ratio of ownership between the parents. The wholly owned subsidiary is a separate and substantial business unit that performs the importing and exporting functions in the emerging market. However, this tends to be the most expensive organizational structure, but it also allows the greatest control.

Scenario analysis is an effective form of strategic planning that can be readily extended to the sourcing decision in an emerging market. It began at Royal Dutch/Shell prior to the oil supply disruptions experienced in the early 70s. This contingency management technique allows a firm to react very quickly as the market changes by trying to anticipate what might happen in the future and predetermining what actions it might undertake in reaction to those changes. It is sometimes referred to as “what if” planning or “rehearsing the future.”

Although it is not technically considered forecasting, scenario analysis attempts to explore and prepare for possible future scenarios that could have significant impact on the firm’s costs and operations before the event occurs. Once a scenario is evaluated, contingency plans are then developed. It is a forward-looking technique that forces managers to consider likely future events and create reasonable working responses without the tight time pressures and high emotions that would otherwise be present. However, these plans should not remain static and need to be reviewed periodically because the original underlying assumptions and conditions may have changed significantly.

Currency hedging is also known as managing transaction exposure. It protects the dollar value of a future foreign currency cash flow. The reason to hedge is to protect against major swings in the value of a purchase transaction. The initial choice involves determining in which currency the transaction will be valued, the buyer’s or the supplier’s. If the buyer’s currency is selected, the supplier may build in additional costs to cover the currency risk. If the seller’s currency is used, then the buyer accepts the entire currency fluctuation risk.

A forward (or futures) contract involves selling forward a future receivable in a foreign currency or purchasing forward the currency necessary to cover a foreign payable. By doing so, the buyer knows for certain what its future costs will be, i.e., the currency becomes a fixed cost. This should not be used to generate income, only to mitigate future currency exchange losses.