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Assessing and controlling business risks in China

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Abstract

Evaluating business risks becomes especially precarious in volatile information-poor emerging markets where issue-based isolated models of risk assessment no longer seem to apply. In particular, multinational corporations (referred to as “multinationals”) seem not to use more established models for evaluating business risks in the second largest market for foreign direct investment (FDI), China. First, this article notes how an integrated framework of business risks may pertain to multinationals’ operations in emerging markets. Next, it applies aspects of this framework to appraising business risks in China and highlights some strategies that multinationals are implementing to control risks. Finally, it offers recommendations on an effective integrated framework for business risk analysis.

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1. Introduction

Evaluating business risks constitutes a key exercise for multinational corporations (hereafter referred to as “multinationals”) that must weigh new opportunities against threats posed to operations. Evaluating risks becomes especially precarious in volatile information-poor emerging markets where issue-based isolated models of risk assessment no longer seem to apply. In particular, multinationals seem not to use more established models for evaluating business risks in the second largest market for foreign direct investment (FDI), China. Since the 1990s, multinationals have poured into China, but their corporate boards’ “grand strategies” have resulted in miscalculations, false projections, and unforeseen severe losses

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(see Studwell, 2002, for the perils of General Motors (GM), Yaohan, General Electric, Daimler-Benz, McDonnell Douglas, and Fosters, among other multinationals in China).

In 2000, Morgan Stanley's economist Andy Xie noted changes in China's foreign investors "from overseas Chinese to multinational companies, which tend to have bigger projects, longer timetables and more well thought out strategies" (Aredy, 2001). Indeed, many multinationals are reassessing China's huge potential markets against the risks of assaults on their competitive advantages and core competencies.

Haley (2001) reviewed multinationals' characteristics, including investments in intangible assets such as research and development, advertising, reputation, and managerial skills, which give them competitive advantages over local firms' knowledge of local markets and conditions. However, multinationals also require strategies that protect their sustained long-term investments in these intangible assets, secure returns on their investments, and obviate free-rider problems. Mistaken euphoria over market potentials and inappropriate risk appraisals come with steep price tags for multinationals.

The next section notes how an integrated framework of business risks may pertain to multinationals' operations in emerging markets. The ensuing section applies aspects of this framework to appraising business risks in China. Section 3 highlights some strategies that multinationals are implementing to control business risks in China. The final section offers recommendations on an effective integrated framework for business risk analysis.

2. Risk, uncertainty, and global imperatives

As they operate in a range of economic, political, and social environments, multinationals' managers view risk management as a major objective (Ghoshal, 1987). The academic literature on risk management has generally concentrated on isolated risks and failed to view risk as a comprehensive holistic function (Miller, 1992; Subramaniam et al., 1993). However, dramatically changing corporate competition and global landscapes, including the rise of new production centers and trade blocs, are forcing managers to reevaluate how they define and manage risks and uncertainties. One major change in global competitive environments includes China's rise as a force in global production and as a contributor to global deflation (Leggett and Wonacott, 2002). This article uses China as an important though often unpredictable emerging market and production center to highlight how managers must reanalyze risks and opportunities to better control for variations and unexpected outcomes in global operations.

No generally accepted definition of business risks or uncertainty exists among researchers or managers (see Miller, 1992). Risk refers sometimes to variations in corporate outcomes that managers cannot forecast. Consequently, some researchers have identified risk as downside risks or negative variations in revenues, costs, profits, and market shares (see Conklin, 2002).¹

¹ Negative variations in costs, while decreasing costs, do not necessarily translate into good circumstances for multinationals. First, negative variations in costs indicate that corporate projections have been misleading, affecting budgeting. Second, negative variations in costs could also indicate substandard components, raw materials, and training that reduce product quality.

Managers also appear to associate risk with negative outcomes (March and Shapira, 1987). For many investors, risk simply means the probability of losing money. Other definitions of business risks concentrate on the external and internal factors that impact corporate performance variations; these sources include political and competitive risks (see Howell and Xie, 2000). Following Knight (1921), this paper defines business risks as objectively predictable variances in accounting-based performance variables. Managers can quantify business risks to control for them and to aid in making better strategic decisions.

Managers, however, cannot quantify uncertainty. Uncertainty refers to inadequate information about the variables that reduce the predictability of corporate performance and increase business risks. Lessard (1988) argued that uncertainty could arise from exogenous shocks, unforeseeable behavioral choices, or combinations of the two. Haley et al. (1998) showed how in emerging markets, including China and Southeast Asia, an informational “black hole” exists that impedes strategic decision making by multinationals (for an analysis of the authors’ arguments, see the Economist, 2001). Multinationals originating from Western countries cannot expect or rely on the quantity or quality of information that they obtain in more advanced industrialized countries. Local competitors and governments maintain this informational black hole as a competitive weapon and so multinationals experience heightened uncertainty when operating in China (Haley et al., 2003). Managers’ strategic choices determine multinationals’ exposures to uncertain environmental and organizational factors that impact performance. Exposure refers to the sensitivity of multinationals or specific projects’ cash flows to changes in interrelated uncertain variables.

In his groundbreaking book, *Risk, Uncertainty and Profit*, Knight (1921) distinguished between risk (or situations in which decision makers assign probabilities on the basis of “known chances”) and uncertainty (or situations in which decision makers cannot assign probabilities because they cannot calculate chances). These distinctions between risk and uncertainty have validity today for predicting business risks in emerging markets such as China (for excellent analyses of Knight’s, 1921, contributions, see Bernstein, 1996a,b; Langlois and Cosgel, 1993; Leroy and Singell, 1987; Runde, 1998).

To measure risks, Knight (1921) focused on three “probability situations”: (1) a priori probability or homogenous classifications of instances identical except for really indeterminate factors; (2) statistical probability, which rests on empirical classifications of instances; and (3) estimates where no valid basis exists for classifying instances. As decision makers can assign numerical probabilities to events based on knowledge of the relevant chances in each case, Knight (1921) called the first two probability situations “risk.” In the third situation, dissimilar relevant instances preclude classification and calculation of chances, and he labeled it “uncertainty.” Knight (1921, pp. 215–216) noted that while a priori probabilities almost never exist in business, statistical probabilities permeate business, and statistical treatments never provide accurate results. Knight (1921) also differentiated between objective and subjective probabilities: the former as measurable and publicly verifiable, the latter as not publicly verifiable and with no scientific way to measure the probabilities.

Knight’s (1921) discussion of uncertainty provides a striking anticipation of modern treatments of market failure: risk indicates situations in which insurance markets exist; and uncertainty indicates situations in which they do not. Profits provide the rewards for bearing

uncertainty. Knight (1921) excluded interest and management's wages from profits that formed the residuals between revenues and contractual or imputable costs. If profits then constitute rewards for bearing uninsurable hazards and uncertainty gives rise to profits, uncertainty must correlate with uninsurable hazards. Risks, on the other hand, constitute insurable hazards. Recently, this risk-uncertainty dichotomy has emerged in neoclassical macroeconomics literature, including that dealing with monetary policy and rational expectations (Leroy and Singell, 1987).

Kogut and Kulatilaka (1994) analyzed, in conceptual rather than analytical terms, organizational decisions to enter markets as sets of strategic investments in real options. They contended that successful managers should develop heuristic sets that view organizational capabilities as generating platforms to expand into new but uncertain markets. Although the authors never made the connection, they owe an intellectual debt to Knightian concepts of uncertainty and profits. Real options require at least subjective probability distributions, bounded below and unbounded above, so increases in variance increase the options' value. Real options help to explain investments in high-variance market such as China, where multinationals are incurring current losses. However, managers following this strategy only act rationally if they regularly assess the option values of their investments.

Platforms as options have value because of four conditions: (a) uncertainty, (b) opportunity, (c) time dependence, and (d) discretion. A platform's value directly relates to the breadth of opportunities it generates: Investments with broad potential applications have more value than investments with narrow applications. Simultaneously, some opportunities have more value because they attend more lucrative markets. Time dependence involves subtle interrelated concepts including how easily competitors can imitate a multinational's investment strategy (in which case the multinational reaps no advantage to investing early) and if competitors will act first by preempting a market (in which case the value of investing in an option can evaporate overnight.) Finally, managers need discretion to exercise the option. For example, many multinationals claim they have more technologies than they can use or that others are reaping the benefits of investment.

Although managers appear to make investment decisions based on interrelated subjective and objective probabilities, research on risk analysis has largely ignored these issues. The bulk of research on business risks emphasizes and isolates particular uncertainties, such as political (Kobrin, 1982) or foreign exchange risks (Jacque, 1981). Yet, the context of strategic decisions includes interrelated risks; when researchers assume that managers tackle different risks independently, they also erroneously assume no correlations between sources of risks.

This paper proposes an integrated framework to analyze business risks in strategic decision situations. It assumes that business risk constitutes a multidimensional concept and incorporates interrelated macroenvironmental, industrial, and corporate level variables. Multinationals' managers form the focus of perceptions and actions in this framework and their business decisions to manage risks and uncertainties have organization and corporate-wide effects.

Macroenvironmental sources affect business risks across industries and include political variables (such as war, revolution, and governmental changes), regulatory variables (such as fiscal and monetary reforms, price controls, and governmental regulation), macroeconomic

Table 1
Sources of business risks for multinational corporations

Macroenvironment	Industry	Corporation
Political	Supply side	Production
Regulatory	Demand side	Technology
Macroeconomic	Competition	Finance
Social		Management
Natural		

variables (such as inflation, foreign exchange rates, and terms of trade), social variables (such as social unrest, changing demographics, and corruption), and natural variables (such as natural disasters, variations in rainfall, and climatic conditions) (Table 1).²

Industrial sources of business risks include supply side variables (such as quality and market supply), demand side variables (such as consumer tastes, market sizes, and availability of substitutes), and competition-related variables (such as product and process innovations and rivalry).

To control business risks, multinationals' managers must assess their impacts on specific production functions (such as raw material shortages, labor unrest, and spare part restrictions), technology functions (such as patent infringement and adaptability of R&D), finance functions (such as collectibles and debts), and management functions (such as motivating employees and satisfying stakeholders) as well as on multinationals' core competencies.

3. Some sources of business risks in China

China follows only the USA in FDI inflows. Contracted FDI hits a record of US\$52.7 billion in 2002 (MOFTEC). However, the multinationals that now serve as the primary vehicles of FDI into China appear to have reservations about their investments and expected returns. Initial statistics show that by historical standards, actual FDI into China did not increase at the same rate as it had for several years prior suggesting that WTO membership may not have assuaged multinationals' uncertainties. One U.S. attorney, whose clients included some of the largest multinationals in China, noted that after China's WTO entry, his law firm had restructured existing arrangements more than fashioned green-field entries (Haley et al., 2003). For example, many multinationals in joint ventures had moved to buy out local partners, usually penurious state-owned companies.

According to Wang Zhile, a professor at the Chinese Academy of International Trade and Economic Cooperation, about one third of the 354,000 multinationals operating in China in 2001 turned a profit (Haley, 2002). Yet, a 1999 survey by the American Chamber of Commerce in China showed that while 58% of its member multinationals had lower profit margins there than in other global operations, 88% had plans to expand. In 2003, about

² For a detailed checklist of the macroenvironmental, industrial, and corporate variables that affect multinationals' business risks, please see Walter (1982).

424,196 multinational companies, big and small, operated in China (MOFTEC). Michael Furst, executive director of the American Chamber of Commerce, Beijing, informed us that about two thirds of member multinationals were making some profits but not up to anticipated levels while about one third were making losses (Haley et al., 2003).

The lure of enormous markets and profits in China comes entangled with various sources of risks and uncertainties, including inability to ascertain markets' true sizes, infant distribution channels, copyright violations that strike at the core of the multinationals' competitive advantages, high-regulatory risks, and corrupt business environments.³ This section highlights some representative risks at macroenvironmental, industrial, and corporate levels that affect multinationals' performance in China.

3.1. Macroenvironmental levels: sources of regulatory risks

Regulatory risk or lack of knowledge about which factions and interest groups will make what governmental policies tomorrow remains China's big downside risk.⁴ China's telecommunications market captures some of the regulatory risks facing multinationals. China's telecommunications market has seen amazing growth: A decade ago, China's phone system had one fixed line for every 100 people and no mobile phones; today, China has five times as many fixed lines as India and 25 times as many mobile subscribers. In 2000, 70 million Chinese subscribed to mobile phone services, and by 2005 the number of subscribers could reach 240 million, making China the largest mobile phone market in the world (Economist, 2000; Haley, 2002).

China's telecommunications market affects issues such as the battle among technology standards for next generation mobile phones. Within the United Nations' standard-setting body, the International Telecommunication Union, China chairs a key committee and by anointing one standard or another in its vast home market might sway the global contest between European and U.S. standards. However, initially, China's liberalization of its telecommunications industry occurred against the wishes of Wu Jichuan, China's telecommunications minister, officially Minister of Information Industry (Economist, 2000). Wu headed China Telecom, the country's fixed-line telephone monopoly, as an arm of his ministry. In 1994, when other ministries formed rival (China Unicom) to create competition, Wu deprived Unicom of a fixed-line license. Wu has openly opposed foreign multinationals in this sector. In 1997, Wu told the U.S. commerce secretary that China would not open its telecommunications market for at least 20 years. To a foreign journalist, he once intimated that he never wanted foreign multinationals participating in China's Internet sector (Economist, 2000). Zhu Rongji, China's prime minister, opposed Wu's protectionist ambitions. Indeed, Beijing's telecommunications policy through 2002 appears as the product of a power

³ For a more complete discussion of some of the business risks that attend multinationals' operations, see Haley 2002.

⁴ Regulatory risks in China pertain more to which faction or interest group will affect policies within a current regime than to regime changes. As only a finite number of factions exist within any regime, multinationals can generate probabilities on policy changes and theoretically insure against these risks.

tussle among Wu, Zhu, and Li Peng, China's second-in-command, and another strong protectionist who opposed FDI and economic liberalization.

Regulatory risks of operating in China have affected Qualcomm, a U.S. company that champions CDMA standards for mobile phones.⁵ The multinational lobbied arduously for China Unicom to use its technology alongside China Telecom's European GSM standard. Wu often frustrated these efforts (Economist, 2000; Haley, 2002). In February 2000, Qualcomm's Chairman, Irwin Jacobs, won a deal under which state-run China Unicom would build a CDMA network with 10 million users by the end of that year. That deal crumbled in June when China Unicom announced it would wait for the next generation of CDMA. Qualcomm's shares plunged on the news. China Unicom reversed course again in October after Jacobs made a trip to Beijing and met with Zhu Rongji and other leading Chinese officials. Currently, Qualcomm's emphasis clearly veers on the "cautious." Jacobs has acknowledged disappointment with China Unicom's flip-flops and delays, which he has attributed mainly to Chinese politics. Jacobs explained, "I think it became complicated because a number of manufacturers within China were all competing to be among those selected to be licensed and were asking the people they knew in government to perhaps help them, and that slowed things down" (Biers and Wilhelm, 2000).

Multinationals in telecommunications such as Qualcomm have experienced that local politicians mold and shape China's promising market. Power shifts fast in Beijing, and ascertaining which group holds power does not constitute an easy task in China (Haley et al., 2003). Indeed, China emerged as the laggard in a PriceWaterhouseCoopers' survey measuring the transparency of 35 countries, which the authors said directly correlated to borrowing costs (Haley, 2002).

3.2. Industrial levels: sources of demand side risks

The American Chamber of Commerce's survey in 1999 showed that 87% of its member multinationals came for the Chinese market's size and potential (Holland, 2000). Indeed, multinationals invested heavily in China's auto industry over the past 15 years; yet, most have struggled, selling expensive sedans and family wagons that few Chinese can afford. Consequently, most multinationals in this industry operate at a fraction of capacity, selling primarily to companies and government agencies. To access China's potentially huge pool of individual buyers, GM planned to produce a compact family car in China (Haley, 2002). GM hoped that China's burgeoning middle class would find the new car affordable, priced at about US\$12,000 (Leggett, 2000). Ford Motor is currently finalizing a deal with Chongqing Changan Auto to make a compact car, also expected to sell for about US\$12,000. Similarly, in the northern city of Tianjin, Japan's Toyota Motor and Tianjin Automotive (Industrial) Group plan to manufacture a compact car. Meanwhile, Volkswagen and Shanghai Automo-

⁵ See Bolande and Drucker (2002) for an analysis of how competition for the setting of telecommunications standards in China differs from that in other markets.

tive Industry Group (Shanghai Automotive), allied since 1984, plan to launch a model based on the original people's car that Volkswagen made in Germany.

The Chinese central government is facilitating buyers' efforts to finance car purchases with bank loans. Some analysts, however, have contended that even priced at around US\$12,000, the new economy cars may not garner enough buyers. With average income among Chinese still under US\$1000 a year, many individuals are saving to buy homes and to pay for rising education and medical costs. Most Chinese still view cars as luxury items. Additionally, deeply ingrained protectionist policies set by local governments in China, such as exorbitant sales and license taxes, could force the compact cars' prices even higher, driving down demand (Haley, 2002).

Multinationals' aggressive expansion in China may prove an erroneous strategy in view of its relatively small but highly protected market. According to Graeme Maxton, the Economist Group's global economist, China would never fully open up its market to multinationals after its WTO entry; and because of cultural barriers, local competitors would gradually control it (Sito, 2000). Multinationals currently account for the majority of the country's car sales. Yet, China's biggest automobile manufacturer, Volkswagen of Germany, with joint venture factories in Shanghai and Jilin, produced only 230,836 vehicles in 1999. Similarly, despite the launch of its family car, GM expected that only half of its production capacity of 100,000 would be used in 2002.

The Chinese central government has agreed to cut import tariffs of 80–100% on cars to 25% within 6 years of entering the WTO. Yet, The Economist Group's Maxton said multinationals' analysis of the automobile market's growth potential might prove inaccurate (Haley, 2002; Sito, 2000). Some multinationals believe that a customer base of only 10% of China's 1.3 billion people would provide a big market. But China's passenger car market, excluding trucks, appears relatively small when compared with other countries. The market, with car sales of 675,000 in 2000, was smaller than the sum of the Netherlands and Belgium—Europe's two small car markets. By 2010, Maxton predicted that car sales in China would increase about threefold to two million units, yet “the market would still be smaller than France's” (Sito, 2000).

The experiences of Cerestar, a subsidiary of the Paris-based Eridania Beghin-Say agroindustrial group and one of the largest multinationals in China with a US\$200 million investment, show some difficulties of estimating market size in China (Haley, 2002). After its initial joint venture partner became insolvent, Cerestar obtained a new partner, Jilin-based grain trader, Jiliang Group. The plant opened in the second half of 2002 to produce high-grade starch, as well as the corn sweeteners dextrose, glucose syrup and dried glucose, and a bulking agent, maltodextrin, all aimed at the Chinese market. Tintin Delphin, who arrived in 1999 as vice president of the joint venture's commercial department, discovered that product demand did not synchronize with expectations: the Chinese used native starch differently from Westerners (Haley, 2002; Lawrence, 2000a). In the West, starch serves as a thickener in food and pharmaceuticals; while in China, 40% of starch produces the flavor-enhancer monosodium glutamate. Consequently, in China, the price of starch assumes more importance than its quality. Cerestar had to revise downwards its financial projections based on the joint venture's

charging a premium for its starch because of its high quality. Delphin also learned that China's dextrose market differed from the West's, as Chinese manufacturers use dextrose in pharmaceuticals but not in food. Indeed, Delphin found the market for dried glucose very small (Haley, 2002).

To estimate market size, Cerestar initially relied on its joint venture partner's estimates as the Jiliang Group had two of the largest plants in China for starch products. Yet, the Jiliang Group's estimates proved grossly erroneous and misinformed. Also, publicly available market information that Delphin could obtain was generally at least 2 years out of date. Delphin eventually obtained the market information she needed through exhaustive hands-on research, begun late in the joint venture's life. She and her staff compiled a list of thousands of possible starch users, then began cold calling, eliminating trading firms, distributors, and representative offices, none of whom use starchy products directly. The information gathering evolved into an extremely frustrating and costly experience and fewer than 10% emerged as genuine potential customers (Haley, 2002).

3.3. Corporate levels: sources of technology risks (patents & copyrights)

For intellectual property violations, Peter Humphrey, chief representative in China for Kroll Associates (Asia), the global business risk-consulting firm, placed China in a league of its own (Haley, 2002; Lawrence, 2000b). According to Humphrey, perpetrators of copyright violations (for both product and process technologies) include unscrupulous business people abetted by the multinationals' present or former employees and organized crime gangs from Hong Kong, Macau, and Taiwan who now run extensive counterfeiting syndicates in China (Lawrence, 2000b).

In China, shadow markets exist for almost anything with a trademark or a margin, from soaps to cigarettes and motor parts to rice, including prescription drugs and blood products. Some Western pharmaceutical manufacturers put the counterfeit rate in China for some branded drugs at 10% or more (South China Morning Post, 2000). The counterfeiters employ increasingly sophisticated techniques to manufacture, package, and market their goods. For example, some counterfeit soap merchants have separated their manufacturing and packaging operations to limit their liabilities when governmental authorities close illicit factories. Similarly, pharmaceutical counterfeiters are establishing risk funds to cover legal expenses and lost revenues accruing from members' arrests.

As losses mount, multinationals, including Proctor & Gamble (P&G), are rethinking business risks in China. P&G established its first joint venture in China in 1988 and has invested US\$300 million. Conservatively, managers estimate that 15–20% of all P&G-labeled products sold in China are fakes and that the multinational incurs losses in sales of US\$150 million annually. P&G also spends US\$2–3 million a year on raids and other anticounterfeiting actions, conducting 450 raids in the first 8 months of 2000 alone (Saywell, 2000). In November 2000, P&G cancelled contracts with its two biggest suppliers, Dalian Dafu Plastic and Colour Printing and Zhongshan Dafu Plastic Packaging, because counterfeit shampoos and detergents were using Dafu-manufactured packaging (Haley, 2002; South China Morning Post, 2000).

Despite the time and energy it spends on counterfeiters, P&G has had few successes. Under current regulations, victims of counterfeiting can press criminal charges only if administrative officers have caught and fined a counterfeiter thrice. The low fines typically encourage counterfeiters to resume business shortly after their arrests. Counterfeiting cases rarely get court dates, and government officials, law-enforcement agencies, and even local courts often protect counterfeiters. Some local government departments control wholesale markets that trade in counterfeit goods. P&G has won just two criminal cases that have gone to court, and the counterfeiters received paltry jail terms of 2 and 3 years apiece (Haley, 2002).

Counterfeiting could become a deciding factor in P&G's future Chinese investments. "If the problem continues to escalate, I can guarantee it will become the determining factor on whether we invest or not," said William Dobson, P&G's Guangzhou-based vice president of external relations. "We might decide to put a plant in another place where we would have more control over the whole supply chain: raw materials, production and packaging," thereby controlling all facets of the process technologies (Haley, 2002). Counterfeiting has also deterred P&G from raising the prices of its products, ranging from shampoos and soaps to Pampers brand diapers: Counterfeiters can undercut on price by as much as 50–90% (Saywell, 2000).

Because of counterfeiting, multinationals may also lose export markets. P&G has found China-made counterfeit copies of its goods in Thailand, Philippines, and India. Similarly, Yamaha has found counterfeit mainland-exported Yamaha motorcycles in U.S. showrooms and Indonesia. The Japanese multinational attributed a 25% market loss in Indonesia to competition from Chinese competitors, who sold unauthorized near replicas of Yamaha motorcycles at a 40% discount (Zaun and Wonacott, 2001). Chinese companies affiliated with state-owned corporations export many of the counterfeited products.

Crackdown efforts prove futile because local governments often protect counterfeiters to keep jobs and tax revenues in their jurisdictions. In the automobile industry, lack of severe punishment and local government protection of some bogus parts makers has resulted in resounding losses for multinationals. Shanghai Volkswagen, maker of the popular Santana model in China, reported it spends 1.4 billion yuan to repair parts annually for the Santanas (Haley, 2002). However, Volkswagen sells only a third of the replacement parts for the 1.5 million Santanas driven in China, and makers of bogus unauthorized parts claim the other two thirds. A fake Santana headlight sells for 90% less than a legitimate one, also hindering Volkswagen from raising prices (Han, 2000). Similarly, copycats have taken at least 20% of Bosch Trading's (Shanghai) potential 40 million yuan market. Bosch, a German multinational, has found a fake version for almost every one of its components on the Chinese market (Haley, 2002). The next section outlines how multinationals predict and control for variations in performance arising from their Chinese operations.

4. Some strategies for controlling business risks in China

Many multinationals locate the analysis of business risks in their planning departments (Kennedy, 1985; Subramaniam et al., 1993). Over 80% of the multinationals' managers use

qualitative personal judgments to assess business risks, while less than 20% use statistical techniques (Rice and Mahmoud, 1990; Subramaniam et al., 1993). Managers appear to attribute more weight to internal sources of information, principally from the headquarters and regional staff, than information from popular and specialized media and consultants (Kennedy, 1985; Subramaniam et al., 1993).

In his review of the literature, Miller (1992) classified five generic strategies that multinationals' managers use to control for business risks: avoidance (such as postponing market entry or avoiding conflicts with major stakeholders), control (spanning various unilateral strategies to make external factors more predictable, including political participation and advertising), cooperation (involving various multilateral strategies to make external factors more predictable, such as contracts with buyers and suppliers as well as joint ventures), imitation (including follow-the-leader strategies in oligopolistic markets), and flexibility (incorporating various strategies to increase the range of internal corporate responses, including product and market diversification). This section covers some multinationals' strategies to deal with business risks and uncertainties in China.

4.1. Avoidance

Multinationals facing overcapacity and losses may attempt to restructure and to downsize; yet, these efforts have increasingly sparked workplace violence in China. When a U.S. multinational decided to liquidate a state-owned bottling plant it had acquired, workers severely beat up the four accountants doing the preliquidation audit, detained them for a day, and then threatened to attack the accounting firm's premises (Haley, 2002). The multinational had to place the accountants and their families in safe houses. The workers withdrew their threats 2 weeks later, after the multinational implied that it had fired the accounting firm. However, the multinational should have conducted a security threat assessment before sending its people to perform the audit.

Avoidance offers an appropriate strategy in very high uncertainty. Avoidance can buy some time for multinationals, allowing managers to undertake additional research and situational analysis. Even when the research does not substantially reduce uncertainty, it can provide greater understanding of potential relationships between market and industry variables, thereby contributing to more complex subjective probabilities.

4.2. Control

Multinationals should undertake extensive hands-on market research, which includes customers' tastes, buying habits, and competitor's operations to estimate true market potential and viable profit targets in China. Because of double-digit annual sales growth in many of China's industrial markets, multinationals cannot use published archival data; additionally, governmental statistics provide notoriously misleading information (Haley et al., 2003). As Cerestar did, many successful multinationals have created their own estimates based on approaching potential customers; as Cerestar discovered, many multinationals discover that

generating market data consumes time and costs and can seriously deflate previous market estimates.

On copyrights and trademark protection, simple steps for control include registering trademarks in China and ensuring that patents have received approval before bringing the technology to China. Multinationals should also do due diligence on their partners and write into contracts their rights to do spot checks on licensed quotas. Where counterfeiting appears serious, multinationals should get local authorities to investigate and to conduct raids. However, as local authorities often ignore fraud in privately owned companies, multinationals have to implement strong systems of internal checks and balances and carefully screen new hires (Haley, 2002).

For multinationals, control as a strategy provides means to refine estimates and to transform subjective into objective probabilities. This strategy appears particularly appropriate when multinationals can identify, measure, and influence risks through their strategies. In uncertain situations, multinationals must couple control with sound understandings of markets and relationships to take timely actions on estimates.

4.3. *Cooperation*

In the 1980s and early 1990s, many multinationals relied on joint ventures with local partners to provide knowledge of local conditions to complement the multinationals' core competencies in intangible assets. However, like Cerestar and P&G, most multinationals experienced setbacks with joint venture partners in China ranging from cultural misunderstandings to copyright violations: Maintaining these local partnerships proved more costly for most multinationals than their benefits. Consequently, in the last 5 years, joint ventures with local partners no longer provide the premier mode of entry for multinationals into China and most have entered as wholly owned foreign enterprises (Haley et al., 2003). Yet, successful international joint ventures, such as Volkswagen's with the local Shanghai Automotive, have demonstrated that local partners can help multinationals to open product markets and distributional channels to ease relations with governmental institutions, as well as to garner some legitimacy in China. Multinationals have to expend considerable effort and enjoy some luck through due diligence, building trust, and adroit negotiations to identify and to cultivate appropriate partners.

For multinationals, cooperation as a strategy provides avenues to refine subjective and objective probabilities in emerging markets. Yet, choices of partners and the scope of partnerships must stem from varied complex sources of information to provide reasonably sound bases for generating probabilities and estimates in uncertain environments.

4.4. *Imitation*

Successful strategies, such as the one outlined above between Volkswagen and Shanghai Auto, generated several imitators. Most failed but a few, such as GM and the same partner, Shanghai Auto, succeeded. Many analysts predicted disaster, yet GM reached profitability in its

second year. For GM, imitation provided a shortcut to generating probabilities and estimates from scratch.

Imitation provides a viable strategy in highly uncertain markets when quick actions reap benefits. Yet, to reduce effectively risks and uncertainties, imitation must stem from at least some objective probabilities, including those of key characteristics of the benchmarked companies. Imitation also cannot substitute for other strategies of control, such as market research and continued due diligence.

4.5. Flexibility

When Philips Electronics entered China in the early 1980s, the Dutch multinational adopted what seemed an obvious strategy: sell products to a billion Chinese. “Our initial vision was to sell in China,” said Johan van Splunter, the head of Philips’ Asian operations. “Things turned out a bit differently” (Haley et al., 2003). Instead of becoming a market of extraordinary demand for Philip’s irons and televisions, China became a manufacturing center for exports. In 2002, Philips operated 23 factories and produced about US\$5 billion worth of goods annually in China but exported nearly two thirds. General Electric, Samsung Electronics, and Toshiba have also redeployed resources to control performance variations in China using the country as an export base rather than selling goods within it. These changed plans require operational and strategic flexibility from multinationals.

Chinese operations may also dictate the allocation of resources elsewhere in global operations to control business risks. Between 1998 and 2001, total U.S. imports of household appliances from China more than doubled to US\$640 million. As a result, National Presto Industries, a manufacturer of kitchen appliances, dropped the price of its griddles from US\$49.99 to 29.99 in 3 years. To keep costs low, Presto’s President, Mary Jo Cohen, decided in 2002 to close plants in Mississippi and New Mexico and to expand operations in China.

As China gets more tightly integrated into multinationals’ logistics and production, some managers may deliberate cultivating other logistical hubs in unrelated economies, such as Mexico, to avoid extreme dependence and disruption of supplies.

For multinationals, flexibility provides a strategy to maintain the viability of their investments in China as real options. Flexibility allows managers to analyze realistically the option value of their investments and to make desired changes in highly uncertain markets. As Kogut and Kulatilaka (1994) observed, investments with broad potential applications have more value than investments with narrow applications.

In conclusion, following Knight (1921), the very high uncertainty in the Chinese markets may contribute to the exaggerated estimates of profits emanating from multinationals operating in the country. While researchers have analyzed unrealistic isolated issue-based risks, managers have tended to view risks as also leading to opportunities, indeed as real options. Yet, multinationals in China often fail to benefit from these strategies, as managers appear not to assess regularly or systematically the option values of their investments to generate at least reasonably complex subjective probabilities. The next section provides some recommendations to reconcile these two viewpoints and to enhance risk management.

5. Recommendations

This paper has argued that multinationals often make suboptimal decisions on investments when operating in high-risk, high-uncertainty markets such as China. As [Kogut and Kulatilaka \(1994\)](#) observed, managers could reduce risks in operating and investment decisions by using explicit heuristics (techniques to identify and to analyze problems) to evaluate opportunities. No strategy appears best for all industries at all times, but heuristics can prove robust.

When choosing heuristics to analyze risk, managers often compromise between ease of use and accuracy ([Kogut and Kulatilaka, 1994](#)). Also, they cannot measure and analyze every important consideration, increasing uncertainty. Nevertheless, as [Knight \(1921\)](#) indicated, uncertainty and uninsurable markets for risks do contribute to increased profits. Consequently, managers must incorporate and structure uncertainty in their analyses of risks and opportunities. Considerable evidence indicates that managerial heuristics on risk and uncertainty bias towards the short-term and tend towards myopic due to the evolution of institutions, organizing methodologies, and standard operating procedures including financial institutions, budgeting rules, strategic planning, and strategic business units ([Haley and Goldberg, 1995](#); [Haley and Stumpf, 1989](#); [Kogut and Kulatilaka, 1994](#)). Thereby, managers often ignore what [Kogut and Kulatilaka \(1994\)](#) called platform investments or investments in building capabilities to absorb risk and uncertainty as well as to yield profits.

For emerging markets, such as China with high uncertainty and high potential for profits, scenarios could provide avenues to analyze interrelated, macroenvironmental, industrial, and corporate level sources of business risk. In China, managers have to assign subjective probabilities to several key variables in risk analysis, and as Royal Dutch/Shell Group's [Pierre Wack \(1985a, p. 73\)](#) emphasized, "the better approach . . . is to try to accept uncertainty, try to understand it, and make it part of our reasoning." Scenarios do not comprise quasi-forecasts, one of which must be right. Decision scenarios describe different worlds, not just outcomes in that world. [Wack \(1985b\)](#) recommended no more than four scenarios, with the ideal number being one plus two: the first providing the "surprise-free view" based on known risks (showing explicitly why and where China for example may have fragility); and the other two providing different ways of seeing China that focus on critical uncertainties. Shell used interviews with top managers to identify uncertainties and judgments that risk analysts then incorporated into their alternate world scenarios. Shell's highly effective scenarios included macroenvironmental variables as well as narrower corporate-level concepts focusing on single markets or issues: They used a wide angle to get the big pictures and then zoomed in on the details.

Scenarios can help managers to structure uncertainty and compel them to reorganize their mental models of reality while not sacrificing the interrelated nature of risks. Scenarios can organize a variety of seemingly unrelated economic, technological, competitive, political, and social information and translate these into frameworks for judgment and action as no model can. Scenarios also incorporate risks (objective probabilities) as well as uncertainties (subjective probabilities and managerial judgments). By acknowledging, structuring, and understanding uncertainty, decision scenarios need not

just crisscross variables across the three levels to produce hundreds of outcomes; instead, they can create a few alternative and internally consistent pathways into the future. As with other strategic planning tools, scenarios for emerging markets, such as China, should work best in combination with strategic vision and option planning to provide effective risk analysis.

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