MITIGATING RISKS IN INTERNATIONALIZATION DECISIONS: THE CHOICE OF THE OPTIMAL ENTRY MODE

Massood Samii, Ph.D.
Professor and Chairman
International Business Department
Director of Doctoral Program
Southern New Hampshire University

E. Hachemi Aliouche, Ph.D.
Associate Professor of Hospitality Financial Management
Whittemore School of Business and Economics
University of New Hampshire

Roxana Wright, DBA
Assistant Professor of Management
Plymouth State University

Abstract

In this paper we propose an innovative prescriptive model for internationalization strategy based on decision analysis theory that allows for optimal decision making regarding the choice under uncertainty between alternative international entry and/or expansion modes. Based on a case study of McDonalds' expansion in a developed market and in an emerging market, we discuss the decision making implications by emphasizing the inclusion of risk and uncertainty and the importance of sensitivity analysis on the evaluation of the model results. The analysis compares the internationalization choices of franchising and foreign direct investment, as two distinct levels of foreign commitment. The findings suggest that in relatively stable environments it is relatively easier to mitigate the risks through tactics such as cost control, so that a higher level of commitment is justified under favorable macro-environment conditions. In less stable or unfamiliar countries, the risks of day-to-day operation may be too high to be mitigated, such that a lower risk alternative is always optimal, and discrete improvements of the political and economic climate are irrelevant.

Key words:

Risk, internationalization, franchising, foreign direct investment, decision analysis theory

Introduction

The entry strategy in a foreign market is a central decision that an international firm has to make (Root, 1994). Firms that consider the beginning or the expansion of internationalization have the alternatives of exporting, franchising/licensing, or establishing joint ventures and wholly-owned subsidiaries (Root, 1994). This paper discusses the choice of entry mode into a foreign location with particular attention to the selection between franchising and foreign direct investment (entry as wholly-owned subsidiary). Franchising is a non-equity contractual mode with one or more local partner firms or individuals, which, according to transaction cost economics, offers an opportunity for international expansion when companies do not possess enough resources to transfer their capabilities to other countries. Alternatively, foreign direct investment appears to be a necessary condition to surviving in a globalized industry where location economies play an essential role for success. Foreign investment (e.g. wholly-owned-subsidiary) allows the firm to control and operate directly its strategic resources, such as technology, reputation, image, and experience. In cases in which these resources cannot be transferred through market transactions due to high transaction costs, internalizing through FDI is a more efficient option.

The present study proposes a prescriptive model of internationalization strategy based on decision analysis theory that allows for an informed decision regarding the choice under uncertainty between franchising and direct investment in a foreign market. The model uses a decision tree methodology in accommodating for uncertainty and considers possible combinations of external sources of risks. The essential factors determining the franchising versus foreign direct investment decision are categorized as internal to the company (reflecting its experience and historical performance, as well as financial and management considerations,

synergies among global operations, competitive position, etc.), and external (revealing the economic and political climate of the foreign target location, investment risk, etc.). Uncertainty and risk are embedded in the model in the values of probabilities for particular states of the environment, and the conditional payoffs for each alternative. Sensitivity analysis is used to identify the impact of changes in the exogenous variables defined as probabilities of events in the decision tree. The methodology description explains the assumptions and perspective of the normative decision-making model and shows its relevance to the choice between the two international involvement modes. Based on a case study application, we conclude on the decision making implications by emphasizing the inclusion of risk and uncertainty and the importance of sensitivity analysis on the evaluation of the model results.

Current Frameworks for Internationalization

A brief review of the frameworks addressing the firms' internationalization forms identifies the Uppsala model (Johanson and Vahlne, 1977, 1992), according to which firms prefer to initiate the process with forms which require low commitment (exportation, licensing, franchising) and, subsequently, to carry out foreign direct investment and to establish branches in a progressive fashion. The internalization theory is based on transaction cost economics (Williamson, 1975), and contends that the multinational firm is created when transactions are internalized beyond national borders (Buckley and Casson, 1985). According to the Eclectic Paradigm (Dunning, 1980), the internationalization of economic activity is determined by the realization of ownership, internalization, and location advantages. The strategic approach views the internationalization process as the adoption of a range of strategies considering the resources and capacities of the firm as well as the opportunities and threats of the environment.

The internationalization approaches based on the amount of experiential knowledge that a firm possesses and the uncertainty regarding the decision to internationalize have recently been subject to criticism regarding their theoretical foundation and generalizability (Anderson, 1993). Empirical studies have found that the incremental internationalization thesis fails to explain the nature and character of firms' international involvement (Turnbull, 1987). Categories of factors that influence the internationalization selection mode include (Sarkar and Cavusgil, 1996) product-market factors; firm/foreign venture specific factors; host-market factors and home-market factors; global industry structure; global corporate objectives; relational dimensions of inter-firm collaborations; firm's bargaining power with respect to foreign governments; and political leverage of the home country government. Some authors (Driscoll, 1995) introduce a separate category of "factors moderating mode choice" (government policies and regulations, firm's size and corporate policy) that influence the internationalization decision. In Driscoll's (1995) model, a company's choice of market entry mode may be influenced by firm factors (firm-specific advantages, experience and strategic considerations) and also by environmental factors (demand and competitive conditions, political and economic conditions and socio-cultural conditions).

While the market entry strategy has received considerable attention in international business literature, very little consideration has been given to normative determination of optimal strategy. The past research has focused on explanation of the pattern of internationalization and not on the prescription for internationalization decisions. The present paper draws on the studies of internationalization regarding the characteristics of franchising and foreign direct investment, factors affecting these entry modes, and implications of decision making under uncertainty and risk. As opposed to the explanatory and descriptive approach of the studies reviewed above, this

paper uses a normative model for the optimal choice between franchising and opening a subsidiary in a foreign country, which managers and strategists can use before any significant funds are committed. As it is shown by the McDonalds' case application below, the model is also highly adequate for analyzing internationalization decisions as well as measuring sensitivity of the decision to environmental forces and the extent to which a company would be able to moderate the risks of foreign involvement at distinct locations.

Risk versus Uncertainty in Internationalization Decisions

The prescriptive model applied in the internationalization decision framework takes into account the country risk related to the likelihood of changes in the business environment that may reduce the profitability of doing business at that location. The categories of country risk are highly interconnected, reflecting the interrelationship of the local economy with the local political system. Unsound monetary and fiscal policies by a government may pose an economic risk to the investor, in addition to a potential decline in industry or changes in the comparative advantage of a country. The political risk area cautions against potential changes in the party ruling the country (brought about by elections or even wars) that may alter government policies, social fabric and other non-economic factors. This type of risk exposes the foreign firm to the potential for internal and external conflicts, expropriation, currency inconvertibility, higher taxes and tariffs, or elimination of FDI incentives. The internationalization decision is made under uncertainty, and as such, assumes not only measurable contingencies constituting risk, but also unforeseeable eventualities. The decision analysis framework for internationalization proposes that probabilities are assigned to various states of nature reflecting external risks. The subjective evaluation of risk reflects lack of information or unsettled conditions that question the

information consistency. There is also uncertainty reflected in the subjective estimation of quantitative variables, such as expected returns based on investment and operating costs, sales volumes, etc. While the elements determining payoffs may be partially quantifiable as risks accounted for by a higher discount rate or lower revenues/higher expenses, a degree of subjectivity persists. As decision theory allows for high sensitivity to risk and subjective estimations, it therefore constitutes a valuable framework for decision making in general and internationalization decisions in particular.

The Methodology of Decision Tree Analysis for the Internationalization Decision

This paper uses decision tree analysis in deriving optimal strategic decisions. Decision trees use calculations of expected values to measure the attractiveness of alternatives and graphical models with treelike structures displaying relevant aspects of a decision. The decision tree approach logically structures risk management by identifying alternative responses in mitigating risk. When applied to internationalization decision, this approach captures accurately the multistage nature of the investment commitment under circumstances of international risk and uncertainty. Thus, decision trees provide an effective structure within which the decision-maker can lay out options and investigate possible outcomes, while forming a balanced picture of the risks and returns associated with each possible course of action.

Based on a decision analysis perspective, this paper considers the choices of franchising and foreign direct investment of a firm's internationalization decision and creates a methodology for selecting alternative options. The framework considers risk to be included in the decision analysis model from two perspectives. The firm's historical experience and performance, as well as its financial and organizational structure, are partially the determinant of variance within the

returns (payoffs, calculated as net present values) for each of the alternatives (franchising versus foreign direct investment). Other areas of risk, such as low or no familiarity with the overseas business environment, cultural and psychic distance are also included in the payoffs. Other areas of external risk are explicitly included in the decision tree model as probabilities. These probabilities are determined by the foreign location's economic and political climate, reflecting environmental factors characterizing at the limits high political risks and an unstable economy or low political risk and stable economic conditions. Probabilities on the state of the economy and political climate would generally be difficult to predict and assign with exactness. Decision tree analysis model allows for sensitivity analysis performed on the probabilities of positive political and economic environment.

The firm's choices are open towards the decision to retire the investment or terminate the franchise with predictable cost implications (the option to withdraw) or the decision to maintain its involvement given political and economic circumstances (the option to stay). The latter will result in payoffs determined by the anticipated economic climate (positive or negative) under each condition of politically stable or unstable environment. Both the political and economic environment conditions impact the company's decision at the two levels (FDI/ franchising, and withdraw/stay) and reveal external risk exposure.

The decision tree model requires the following probabilities: PS is the probability that the country remains politically stable, and PE is the probability of positive economic climate. Each of the above probabilities has a corresponding complementary probability, for example, 1- PS is the probability that the country becomes politically unstable. The payoffs are calculated as net present values matching each of the combinations: political stability given a favorable economy and unfavorable economy, respectively, political instability given a favorable economy and

unfavorable economy, correspondingly. Also, payoffs are assigned to the choices of withdrawing under conditions of political stability and withdrawing under conditions of political instability. These possible states of nature are replicated for the franchising decision as well as the foreign direct investment decision. Based on the firm's payoffs as net present values forecasted for each alternative, and probabilities for political and economic climates, the best alternative is revealed by the decision analysis model as the choice with the highest expected value.

This study's objective is to render the decision maker with a tool for reaching the most viable decision in choosing between two forms of market entry characterized by distinct costs and payoffs. Although a probability could be assigned to each state of nature based on a forecast of the country's political and business climate, sensitivity analysis is valuable in exposing the decision's sensitivity to these areas of external risk. For this purpose, the probabilities can be defined as variables ("PS" and "PE") taking values on specific intervals. The threshold points at which optimal decisions change as well as the potential effect on the expected value of each alternative become apparent. Performed at the franchising versus FDI decision node, the sensitivity analysis considers changes of the probability values for PS and PE within defined intervals, and shows the most favorable decision at each combination. Thus, the sensitivity analysis contends with the uncertainty inherent in estimating various model parameters. It shows the percentage of cumulative risk that is represented by the most important variables whilst other variable(s) may not affect the decision in a significant way.

The case study of McDonalds illustrates the company's internationalization decision as choices of entering a developed market (such as the United Kingdom or France) with an own store or franchise and the choices of entering an emerging market (such as India or China) with the same alternatives. We first introduce the decisions of franchising versus FDI in the emerging

market, as a location characterized by high risk. We draw conclusions on optimal entry decision according to the decision tree analysis. The case of McDonalds' entry into the developed market is comparatively discussed. The results of the analysis show clearly the adjustment in optimal decision across countries with different levels of risk and uncertainty, depending on payoffs and probabilities of political and economic climate.

McDonald's International Expansion

McDonald's story began in earnest in 1954 when Ray Kroc, a 52-year-old mixer salesman, convinced the brothers Dick and Mac McDonald to let him open a hamburger store like the one they ran in San Bernardino, California. In April 1955, he opened his first restaurant in Des Plains, Illinois. In 1961, he bought out the McDonald brothers for $2.7 millions. In 1965, McDonald's went public, and in 1985 it was added to the Dow Jones Industrial Average. McDonald's is now the world's largest restaurant company, with over 31,500 restaurants and over $19.0 billions in revenues as of the end of 2004. McDonald's started its international expansion in 1967 when it opened its first store in Canada. It has since aggressively expanded internationally, reaching over 16,000 overseas units by 2004. It is now a truly international company with a majority of its restaurants located overseas in close to 120 countries, and generating the majority of its revenues and operating profits from overseas (Table 1).

Table 1: McDonald's International Operations

2004	Total	International	International as % of Total
# Restaurants	31,561	16,823	53.3%
Revenues ($M)	$19,065	$11,364	59.6%
Operating Profits ($M)	$3,541	$1,829	51.7%

Source: McDonald's 2004 Form 10K.

A factor that played a critical role in McDonald's fast growth is franchising. Business format franchising consists of a continuing commercial relationship between a firm with a proven business system (the franchisor) and a third party (the franchisee), whereby the franchisor grants rights to the franchisee for a given period of time to operate their business system using a common brand and common format for promoting, managing, and administering this business.

The majority of McDonald's restaurants are franchises owned by independent entrepreneurs (the franchisees) under (generally) a 20-year franchise agreement with McDonald's (the franchisor). Franchisees pay to McDonald's fees that include rent, service fees, and franchise royalties that are based on a percent of sales. These fees account for a significant share of McDonald's revenues and operating margins (Table 2).

Table 2: Franchise Operations

	Franchised Restaurants	Company-owned Restaurants	TOTAL
# of Restaurants	18,248	9,212	31,561 (1)
(% of Total)	(57.8%)	(29.2%)	
Revenues ($M)	4,841 (2)	14,224	19,065
(% of Total)	(25.4%)	(74.6%)	
Operating Margins ($M)	3,832	2,003	5,835
(% of Sales)	(79.3%)	(15.3%)	

Source: McDonald's 2004 Form 10K.
(1) Total includes 4,101 affiliated restaurants
(2) McDonalds does not recognize the franchisees revenues in its financial results. Only the rent, service fees and franchise royalties paid by the franchisees to McDonald's are included in the "Franchised Restaurants" revenues.

Franchising has played a major role in McDonald's and other firms' international expansions. US franchisors developed foreign units at a rate of 17 percent per year from 1971 to 1985 (Justis and Judd, 2003). By 2005, 52 percent of US franchisors operated outlets overseas,

and 79 percent of them indicated they were planning to open units outside the US (Schlentrich and Aliouche, 2006). One of the reasons for the popularity of international franchising is its perceived lower risk compared to other modes of international expansions (Aydin and Kader, 1990; Altinay and Miles, 2006).

When expanding internationally, McDonald's can choose to own and operate its own stores or it can franchise the stores to independent entrepreneurs. International expansion through its own means entails different risks and returns from international expansion through franchising. In this section, we detail the methodology used to compute the returns (net present value – NPV) of a new company-owned unit and that of a new franchised unit. We consider expansions to two regions with different economic and political environments: a developed market (such as the UK or France) and an emerging market (such as India or China). For each of these two markets, the net present values of a new company-owned restaurant and a new franchised restaurant are estimated over the life of the typical franchise agreement (20 years). The net present value of each store project is computed as follows:

$$NPV = \Sigma \left[\left(OCF_t + \tau * \Delta INT_t - (\Delta INT_t + \Delta PRIN_t) \right) / (1 + k_e)^t \right] - EQ_0 ,$$

where:

$$OCF_t = (\Delta R_t - \Delta E_t) * (1 - \tau) + \tau * DEPR_t \; ; \quad \text{and}$$

OCF_t = after-tax operating cash flow
INT_t = interest expenses
$PRIN_t$ = principal payments
R_t = revenues
E_t = expenses
τ = corporate tax rate
$DEPR_t$ = depreciation
k_e = required rate of return
EQ_0 = total equity used to finance the project

The assumptions used for the NPV computations are displayed in Exhibit A. The NPV results are summarized in Table 3. These values are then incorporated as payoffs in a decision tree designed according to the considerations discussed previously.

Table 3: Net Present Value ($Million)

Scenarios*	Developed Market			Emerging Market		
	FDI[1]		Franchise	FDI		Franchise
	Baseline	Cost Control		Baseline	Cost Control	
PS/FE	0.40	1.30	0.76	(0.24)	0.50	0.68
PS/UFE	(0.21)	0.22	0.28	(0.66)	(0.37)	0.17
PUS/FE	(0.37)	(0.05)	0.14	(0.68)	(0.43)	0.12
PUS/UFE	(0.57)	(0.38)	(0.02)	(0.82)	(0.69)	(0.06)
W if PS	(0.94)	(0.94)	(0.33)	(0.97)	(0.97)	(0.36)
W if PUS	(1.00)	(1.00)	(0.39)	(1.00)	(1.00)	(0.39)

*PS/FE = Politically Stable / Favorable Economy
PS/UFE = Politically Stable / UnFavorable Economy
PUS/FE = Politically UnStable / Favorable Economy
PUS/UFE = Politically UnStable / UnFavorable Economy
W= decision to withdraw

McDonalds' Internationalization Decisions

The decision tree analysis applied in the case of McDonalds' choice of franchising versus FDI is performed under each of two scenarios: an initial analysis using FDI payoffs justified through the data and assumptions based on 2004 market and company financial information, and analysis of a second scenario considering the improvement of FDI payoffs through cost control. It would appear that in the case of baseline FDI versus franchising in the emerging market, the franchising alternative is always optimal. As FDI payoffs are relatively low in this market, this result is predictable, as the company would most likely not be willing to accept the additional risk of FDI if the expected results (payoffs) are not high enough to justify it. The tree analysis shows that the decision is not sensitive to the state of the economy or the political environment- i.e. two-way sensitivity analysis on the probability of favorable economy and probability of

political stability shows no change in optimal entry mode- franchising. An alternative scenario is considered which assumes that the company is able to improve its own store's operating margin by 1% per year through cost controls. The FDI payoffs are increased, as shown in Table 3. The results of decision tree analysis are the same as in the baseline FDI payoffs above- franchising is the optimal decision and is not sensitive to changes in the political and economic states.

We subsequently perform the analysis of the decision between franchising and FDI in a more stable and relatively closer market in terms of cultural, geographic, and psychic distance[2]. The analysis of baseline FDI versus franchising in the developed market shows that the franchising alternative is optimal. It would appear that, again, given the relatively low values of FDI payoffs, the decision is not sensitive to the macro-environment. Interestingly, however, in the alternative scenario, cost control FDI versus franchising in the developed market (cost controls are put in place to increase the operating margins) the decision analysis is sensitive to changes in the probability of favorable economy and probability of stable political environment. Two-way sensitivity analysis on these probabilities shows that for combinations of probabilities above approximately 30%, the optimal alternative changes from franchising to FDI.

Decision tree analysis allows us to choose optimal alternatives of entry (franchising or FDI) and also provides for a motivating explanation of choices in different markets. In the case of the emerging market, we find that franchising is an optimal alternative, due to high levels of internal and external risks reflected in the local operation's expected payoffs. Given the high risk of doing business in the emerging market, the decision is less sensitive to political and economic risks. Costs controls make no difference in the best alternative in this market. When we compare the same decision between the choices of franchising and FDI in the developed market, we expect that a different strategy would be best, as the country has a more favorable business

climate, a relatively stable environment and lower distance. The analysis shows that, in the developed market, it is relatively easier to mitigate the risks incorporated in the payoffs by increasing foreign direct investment's payoffs (the cost control scenario). If the company is able to increase the expected payoffs, the decision becomes sensitive to the political and economic environment. It would thus appear that the risks of day-to-day operation in the developing market are too high to be mitigated, such that the franchising (as the lower risk alternative) is always optimal, whereas the risks for operation in the developed market can be alleviated and the optimal entry mode changes in relation to probabilities of a stable political setting and favorable economy.

Concluding Remarks

This study presents McDonalds' internationalization decisions and draws valuable insights on optimal levels of foreign commitment. Risk mitigation is investigated by using decision tree and sensitivity analysis as a normative tool for the strategy selection. Further research can be expanded to the possibility of randomly sampling elements of returns by Monte Carlo simulation, allowing thus the decision maker to reevaluate the optimal path for each trial and investigate how often each decision is chosen in the simulation. Decision tree analysis also provides for establishing the risk preference of the decision maker in generating the risk preference function upon which a particular choice is to be made. Such a procedure would introduce further flexibility to the model and a more subjective approach to the decision making process. We find that at familiar and stable locations it is easier for companies to mitigate risks internally such as through cost control, and a higher level of foreign commitment may be optimal given that the political and economic outlook is positive. In less stable or unfamiliar countries,

the risks of a wholly-owned affiliate are too high to be mitigated, such that the lower risk choice of franchising is optimal. In this case, the optimal decision is not affected by discrete improvements of the local climate. This would suggest that companies considering international expansion should understand the importance of the local environments and their ability to cope with inherent foreign location risks. We conclude that the optimal decision of foreign market entry mode depends on the nature of the local environment for business but also the capacity of each firm to absorb a specific level of risk.

References

Altinay Levent and Samantha. Miles (2006). *International decision-Making: An Application of Stakeholder Theory.* The Service Industries Journal, 26, 4 (June), pp.421-436.

Anderson, Otto (1993). *On the Internationalization Process of Firms: A Critical Analysis.* Journal of International Business Studies, V24, N2, pp. 209-31.

Aydin N. and M. Kader (1990). *International Outlook of US-Based Franchisors*, International Marketing Review, 7, 2, pp.43-53.

Buckley, Peter, Casson, Michael (1985) *The Economic Analysis of the Multinational Enterprise*, Selected Papers, London: Macmillan, London.

Dunning, John (1995). *Toward an Eclectic Theory of International Production: Some Empirical Tests.* Journal of International Business Studies, V11, N1, pp.9-31.

Driscoll, Angie (1995). *Foreign Market Entry Methods*. In Paliwoda, Stanley, Ryans, James Jr, International Marketing Reader, London: Routledge.

Hennart, Jean-Francois (1982). *A Theory of Multinational Enterprise.* Ann Arbor: University of Michigan Press.

Johanson, Jan and Vahlne, Jan-Erik (1992). *Management of Foreign Market Entry*. Scandinavian. International Business Review, V1, N3, pp. 9-27.

Johanson, Jan and Vahlne, Jan-Erik (1977). *The Internationalization Process of The Firm: A Model of Knowledge Development and Increasing Foreign Markets Commitments*. Journal of International Business, V8, N1, pp.23-32.

Justis Robert and Richard J. Judd (2003). *Franchising, Third Edition*, Thomson Custom Publishing, Mason, OH.

Root, Franklin (1994). *Entry Strategies for International Markets.* Washington, DC: Lexington Books.

Sarkar, Mitrabarun and Cavusgil, Tamer (1996). *Trends in International Business Thought and Literature: A Review of International Market Entry Mode Research: Integration and Synthesis.* The International Executive, V2, pp. 825-47.

Schlentrich , Udo and E. Hachemi Aliouche (2006). Rosenberg Center Study Confirms Global Franchise Growth. *Franchising World*, August, pp. 63-65.

Turnbull, Peter (1987). *A Challenge to the Stages of the Internationalization Process.* In Rosson, Philip, Reid, Stan, Managing Export Entry and Expansion, New York: Praeger.

Williamson, Oliver (1975). *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.

Notes

[1] Baseline FDI is based on initial NPV values calculations. Cost control FDI values reflect a scenario in which the company is able to improve its own store's operating margin by 1% thru cost controls.

[2] Psychic distance is defined as cultural, structural, language as well as industry structure and competitive environment differences between two countries.

EXHIBIT A

Case Study Assumptions

- Developed market: less risk
- Emerging market: more risk
- Payout computations based on Net Present Value approach
- Franchise term: 20 years
- Financial data for McDonald's based on 2004 10K statement
- The PS/FE (Politically Stable/Favorable Economy) scenario is assumed to be the base case
- 2004 metrics (revenue growth rates, operating margins, tax rates, …) are used for the base case.
- Cost of one store: $1.0 million
- Required rate of return k is estimated using the capital asset pricing model, with a risk-free rate R_f= 4.27%, beta= 0.98 and expected market return $E(R_m)$=10.2%.
- For the developed market, , k in the base case is 10.07%
- For the emerging market, , k is assumed to be 15.07% in the base case

- For the developed market, the following assumptions are used:

Scenario	Revenue Growth	Required Rate of Return k
PS/FE	2.4%	10.1%
PS/UFE	0.0%	15%
PUS/FE	1.2%	20%
PUS/UFE	-1.2%	25%

- For the emerging market, the following assumptions are used:

Scenario	Revenue Growth	Required Rate of Return k
PS/FE	5.6%	15.1%
PS/UFE	0.0%	20%
PUS/FE	2.8%	25%
PUS/UFE	-2.8%	30%