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Host Market Uncertainty, Subsidiary Characteristics, and Growth Option Exercise

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This study employs the real options perspective to examine how changes in market demand uncertainty in host countries affect multinational corporations' exercise of their growth options. Specifically, we seek to determine whether multinational corporations (MNCs) increase their investment in foreign subsidiaries under the influence of reduced market demand uncertainty in their host countries. We also examine which foreign subsidiaries are more subject to the investment increase. We find that a foreign investor is more likely to enlarge its foreign subsidiary when its host market demand uncertainty is reduced. We also find that this increase is more salient when a subsidiary has a higher ratio of local sales, localized product, or intermediate goods. Our findings imply that foreign investors respond to changing host market conditions by making flexible investment adjustment based upon subsidiary characteristics.

Introduction

Real options logic has been actively employed in international business in recent decades—understandably, as multinational corporations (MNCs) are exposed to diverse uncertainties in their host countries, their flexible responses to unpredictable changes in macro-economic factors such as institutional factors, demand, and exchange rates determine their performance and longevity (Chung, Beamish, Lee, and Isobe, 2010; Cuypers and Martin, 2010; Kogut and Kulatilaka, 1994; Lee and Song, 2012; Tong and Reuer, 2007). Real option logic provides convincing rationales for the value of flexibility associated with future decision-making rights embedded in real assets such as foreign direct investments (FDIs; Adner and Levinthal, 2004a,b; Bowman and Hurry, 1993; Cuypers and Martin, 2010; Dixit and Pindyck, 1994; McGrath and Nerkar, 2004). Future decision-making rights allow a firm to preserve upside potentials while curbing downside risks (Chi and McGuire, 1996; Dixit and Pindyck, 1994; Folta, 1998; Kogut, 1991; Kumar, 2005; Reuer and Leiblein, 2000; Tong and Reuer, 2007).

Given that MNCs usually attempt to become familiarized with their local environment, find new business opportunities, and generate new profits in their host countries, growth options embedded in their investments within host countries are important vehicles for preferential access to future growth opportunities (Kogut, 1991; Kogut and Kulatilaka, 1994; Kogut and Chang, 1996; Tong et al., 2008). The future decision-making rights associated with growth option investments in other countries enable foreign investors to monitor the business situations in their host markets, adjust their investments incrementally, and exploit new business opportunities associated with external uncertainties (Chi and McGuire, 1996; Fisch, 2008; Kogut, 1991; Kumar, 2005; Reuer and Leiblein, 2000; Tong and Reuer, 2007). This is why the real options literature in the international business field has studied the types and values of growth options investments in the FDI context. For example, most studies have focused on the growth options value of international investments such as international joint ventures (e.g., Kogut, 1991; Tong et al., 2008) or ownership choice such as minority ownership or joint ventures (e.g., Chi, 2000; Cuypers and Martin, 2010).

However, we identified an important but less explored research topic in the literature on growth options in FDI. Although studies have measured the value of growth options or firm's static choices related to growth options in FDI, few studies have examined the impact of host country environmental changes on subsequent changes in investments (e.g., Fisch, 2008). Moreover, more recent studies focus on the across-country flexibility associated with switching options and examine MNCs' behavioral choices, including production shifts (e.g., Fisch and Zschoche, 2011; Lee and Song, 2012) or subsidiary divestment (e.g., Chung et al., 2010; Fisch and Zschoche, 2012). Meanwhile, few studies have examined MNCs' dynamic behavioral choices under changing market conditions within their host countries from the growth options perspective. Specifically, studies on how and when companies exercise their growth options are still lacking.

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This study attempts to fill this research gap. We first examine foreign investors' increased investment in their foreign subsidiaries in response to reduced host market demand uncertainty. Next, we consider three contingency factors associated with subsidiaries' characteristics to examine which of the foreign subsidiaries is enlarged under reduced uncertainty. Specifically, we consider a subsidiary's ratio of its local sales, localized product, and intermediate goods out of total sales. We use these three indices as an indication of their strategic orientation towards their host country market. We predict that subsidiaries with higher local commitment are more sensitive to uncertainty in local market demand than are their counterparts.

Through empirical analyses of panel data on Korean FDIs, we find that a foreign investor tends to increase its level of investments in its foreign subsidiary when its host market demand uncertainty is reduced. We also find that a subsidiary with more local sales or localized or intermediate goods is enlarged under reduced uncertainty. We believe this study contributes to the real options literature in the FDI context by examining the interplay between changing market conditions and the characteristics of subsidiaries in the exercise of growth options embedded in FDI.

Theory and Hypotheses

Host Market Uncertainty and Growth Options in FDI

Among the external uncertainties MNCs face in their FDIs, unpredictable market demand in host country markets influences their operations most significantly (Cuypers and Martin, 2010; Kogut and Kulatilaka, 1994). Changes in host market demand influence a foreign investor's production and sales. Market demand uncertainty may make it difficult for the foreign investor to determine an appropriate long-term investment structure. Therefore, changes in host market demand require a more flexible response from firms, enabling them to retain upside benefits by increasing their involvement, while curbing downside risks by shrinking or divesting their investment. In other words, foreign subsidiaries operating in host market environments characterized by high market uncertainty need quick and flexible adjustments for their performance and longevity.

Foreign direct investment typically includes growth options because MNCs are entitled to future decision-making rights, without obligation, to increase their involvement flexibly and incrementally according to the changes in the host's unpredictable market conditions associated with their initial investment (Kogut and Chang, 1996; Kogut and Kulatilaka, 1994; Kogut, 1991; Tong et al., 2008). If their host markets have considerable scope for growth, foreign subsidiaries increase their local commitment by increasing their investments (Kogut, 1991; Kogut and Kulatilaka, 1994; Tong et al., 2008). However, if there is little or no scope of growth in the host markets, foreign subsidiaries shrink or divest their investments. Firms thus adapt their strategy to the unique conditions of the host country and avoid making strategic errors by gathering information on the emerging economic conditions of the host countries before making further investments.

The real options literature finds that platform investments, first investments in foreign countries for instance, have the traits of growth options (Kogut, 1991; Kogut and Chang, 1996; Kulatilaka and Perotti, 1998). Such seed investments allow foreign investors to test the water in their host country markets and gather information about the local economy and players. The accumulated knowledge permits foreign investors to become locally involved sequentially in response to the changing host country environment (Cuypers and Martin, 2010; Marciukaityte et al., 2009; Reuer and Tong, 2010; Tong et al., 2008; Xu et al., 2010).

Thus, country-specific investments in market knowledge, relationships to local economic entities, and productive capacity have the characteristics of growth options and act as on-the-ground sensors of host market conditions. Based on these investments, foreign subsidiaries of MNCs respond to country-specific environmental changes more rapidly, exploit growth potential in the country in a more timely manner, and increase their involvement in local markets more flexibly.

Reduced Host Market Demand Uncertainty and Increase in Investment

Growth options embedded in FDIs within host countries permit the use of an incremental strategy through sequential investments (Xu et al., 2010). This option affords management the strategic flexibility required to adjust the timing of strategic decisions, including deferring further investments or additional choices, according to the changing conditions of the host country market (Chi, 2000; Kogut, 1991; Tong et al., 2008). Thus, MNCs make foothold investments in new foreign markets for possible future expansion (Chang, 1996; Kogut, 1983). Once the initial foothold investment is established, foreign direct investors can expand their operations in a given country with relative ease if demand turns out to be stronger than expected. Since the initial direct investment made in the foreign country serves to hold the options open for greater future commitment, it may be considered a platform investment carrying growth options for sequential entry (Kogut and Chang, 1996).

The issue of exercise timing for real options is essential in determining how these actually provide firms with value. In general, the literature suggests that an option is valuable when it allows the firm to wait until uncertainty is resolved before fully committing to an investment (Li and Li, 2010; Folta and O'Brien, 2004). Consistent with this logic, studies of the factors influencing the timing of international investments such as Dixit (1989) and Goldberg and Kolstad (1995) found that MNEs tend to delay investment when macroeconomic conditions are highly volatile. Real options theorists have drawn upon financial options arguments to identify the appropriate conditions of exogenous uncertainty influencing the timing of exercising options and assessing the value-enhancing effects of options such as buyouts or divestments of initial investments. Reduced uncertainty reduces growth options value, which signals their exercise (Fisch, 2008). Resolved host-market uncertainty associated with initial investments allows more business opportunities for foreign investors, who are then more