Dipartimento di **Impresa e Management**

Cattedra **Economia e Gestione delle Imprese Internazionali**

Riassunto, indice e bibliografia di

Cross-Border M&A in High Technology Industries: Does Investor Identity Matter?

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ANNO ACCADEMICO

2013/2014

Analyzing data available on ThomsonOne in relationship to the market for control of High Technology companies in 2013 it resulted the remarkable role of either strategic and institutional acquirers. In addition to this, the relevance of the High Technology Macro Industry in terms of number of deals as well as aggregate value of transactions make it an undisputed ruler of the present merger wave. Therefore, it seemed to be worth investigating.

Another significant trend relates to the cross-border context for M&As. Since the 1990s the cross-border activity experienced a sharp acceleration mainly due to technological development and globalization. Moreover, nowadays it has to be considered that even when talking about domestic M&As, it is likely to observe cross-border issues and concerns since it is likely to deal with operations located in different countries (Child J., Falkner D. 2001). Hence, it is important to study this phenomenon which already ten years ago pervaded the M&A landscape (Hitt et al. 2001).

This investigation aims to analyze the role played by the identity of different investors on the success of cross border M&As. Specifically, 1) What is the effect of international investor identity on the (post M&A) economic performance of High Tech firms and 2) How the cross border connotation of an M&A influences the relationship between ownership and performance. In particular, in cross-border context, a reverse sign of the relationship was expected between institutional investors and performance with respect to strategic investors and performance.

Hypotheses were tested on all mergers, acquisitions and institutional buy-outs completed in the time window 2005-2009 having a target active in a high-technology industry. The sample consists of 321 companies of what 167 worldwide targets active in high-tech industries. 169 is the number of firms endorsing in 177 deals in the selected period of time. No industry restriction was introduced for the acquirers. The four high-tech industries are: aerospace and defense (SIC-codes 372 and 376); computers and office machinery (SIC-code 357); pharmaceuticals (SIC-code 283); and electronics and communications (SIC-code 36). The target sample consists of 167 different companies, of which 3.95% operate in the aerospace and defense industry, 4.52% are found in the computer and office machinery, 29.38% are active in pharmaceuticals, 62.15% operate in the electronics and communications sector.

The transaction context was used as a criterion to identify the subsamples on what to run the multiple linear regressions (MLR). The transaction context is composed of two dimensions: value creation strategy pursued and cross-border vs. domestic.

According to this analysis, it can be argued that **investor identity matters in cross-border contexts**. In particular, a positive relationship between percentage of ownership and R&D intensity has been found in the case of cross-border institutional investors. Symmetrically, a negative relationship held in the case of strategic international acquirers active in a complementary technology field was highlighted. Although some critical aspects, this investigation gives insights for further studies. One of the greatest peculiarities (and at the same time constraints) of this investigation is to have taken into account both institutional and strategic investors at the same time. However, the focus on the comparison between different investor identities and a measure of their specific contribution towards the value creation is a compelling topic in light of the general trends in M&As and the increasing pace of change in High-Technology industries.

In effect, the coincidence of financial crisis, with globalized and fast changing technological environment made to endorse M&As one of the best strategies to achieve a long-term wealth growth (Beck et al. 2013).

Particularly, globalization and communication technologies have been amplifying the need for economic agents to get involved internationally. Such a connotation can be reached to a different extent according to the organizational and financial efforts affordable (for the company) and the desired foreign market penetration degree. Caroli (2012) stated that reasons for internationalization can be clustered in two main categories: internal and external. The first being the retention of corporate' competitive position, the latter the opportunity to exploit or the need to adapt to a changing environment (Caroli 2012). Adjusting for high technology industries, to be open to internationalization became a matter of necessity. It has been broadly investigated that technology-intensive industries tend to build a great number of links with other institutions worldwide in order to enhance their innovative capabilities and enlarge their end market, therefore improving their economic performance or simply in order to maintain its competitive position (Chesbrough 2003). When these relationships are strong enough, the phenomenon analyzed is a Foreign Direct Investment (FDI) of which cross-border Merger and Acquisitions are an example. In literature has been often studied the part played by acquiring firms operating in technology-intensive industries (Cassiman et al. 2005; Cohen & Levin 1989; de Man & Duysters 2005; Hitt et al. 1996; Hitt et al. 1991; Nocke & Yeaple 2007; Yokota & Chen 2012; Cloodt et al. 2006), even if rarely in cross-border settings. However, lately institutional investors have the leading role in M&As scenarios. They preserve a remarkable position as acquirers of high-tech targets. Moreover, when moving to international transactions, financial institutions, such as private equity firms, demonstrate a greater advantage in detecting better deals than non-financial antagonists

(Humphery-jenner et al. 2013). Reasons of this being explained by an information advantage and previous business relationships with other internationally active professionals.

Therefore, cross-border M&As are a significant aspect within the decision-making setting for both institutional and strategic investors. Although it presents greater challenges than domestic in all deal phases, it also gives the opportunity for higher returns (Swenson 1993; Markides & Ittner 1994). In other words, cross-border M&As projects are characterized by high variance. Therefore, management risk aversion has a significant impact on the choice. Moreover, according to the classical theory of finance[1] and the managerial view of the firm, stock is the expression of the management's performance[2], which manifests mainly through effective coordination and resources' allocation efforts. Then, consistently with Liebenstein's X-Efficiency Theory (1966[3]) and the Agency Theory (1973[4]), it is only by achieving the desired level of engagement of management that is possible to maximize the value of the firm. Only shareholders will benefit of such a maximization. From what has been presented so far, it is clear that the interest of the ownership is to lead to such a maximization and the tool they can use is their influence on corporate level strategies. Actually, to pursue a defined corporate strategy, a more and more focused breakdown of plans is required (business strategy; operating strategy) and increasingly detailed and verifiable plans are passed down the management staircase (tactic; operations). The synthesis of such a process, that embeds corporate governance guidelines, is summarized in mission and culture statements of a company and leads to the achievement of the vision[5]. Consistently, in order to reduce agency costs due to moral hazard, it is expected that the ownership will be activating the leverages it is more familiar with in order to overcome agency costs as much as it can. In particular, a financial investor will be leveraging on financing opportunities while a strategic investor will be leveraging on the strategic ones. However, both are expected to positively impact on corporate performance. Therefore, it can be argued that knowledge enhancement and financing gathering creates the opportunity to boost the economic performance of a high-tech firm. In other words, the synergistic behavior of the acquirer should trigger either one or both these leverages: technology transfer through technological learning and/or effective financing gathering through the reduction of the perceived risk

[1] Stock gives the owner rights on cash flow (to equity) generated by the activity financed (Myers 1984)
[2] Where the firm is interpreted having a coordination function
[3] Harvey Liebenstain, *Allocative Efficiency vs "X-Efficiency"*, (Leibenstein 1966)
[4] It refers to *Fiduciary rationality and public policy: the Theory of Agency and some consequences*, by Stephen Ross (The first paper explicitly proposing the agency theory).
[5] Also authors like Hofstede contributed in building the theoretical connection between value systems, organizational culture and organization's founder(s) nationality (Hofstede 1985).

The general reason for cross-border transactions is exactly the same of domestic ones: it occurs in the event that the combination of the two entities is held to increase value according to the acquiring firm's management expectations. Such an improvement is measured in terms of synergistic gains and success of the transaction, depending on how they are split between stockholders of target and acquiring firms (Bradley et al. 1988). However cross-border transactions bring with them additional factors that can either act as obstacles or facilitate the merger. For instance it has been found that "weaker-performing economies tend to be targets", while firms in countries whose stock market has increased in value or currency has recently appreciated and with a high market-to-book value tend to be purchasers (Erel et al. 2012; di Giovanni 2005). Clearly, when factors that would obstacle cross-border M&As are mitigated, the likelihood of their happening increases. According to the Resources Based View perspective, this category of determinants, which deals with macroeconomic trends, belongs to the so called *external motivations* for a cross-border equity transaction. In the sense that whichever firm would be able to speculate on a macroeconomic disequilibrium and have good chance of success. However, the likelihood to succeed is enhanced by firm specific factors, leading to the shaping of another pool of drivers, recognized as *internal motivations*. Similarly to the nomenclature used for risk measures, the term *specific* refers to determinants driven by the investor identity and specific business. In particular, it is only by combining corporate strategy and core business that a company becomes able to undertake value creating, reasonable and consistent decisions. Moreover, as already brought to attention, the value created by the acquisition depends on the specific ability of the investor firm to generate both operating and financial synergies (Chaplinsky & Schill 2000). Therefore, it is advisable to group these *internal motivations* according to the identity of the investor into *strategic determinants* or *financial determinants*. At this point, it stands to reason that strategic determinants will be prevalent in case of *strategic* investors, while the latter will rule the action of *financial* investors. The analysis of synergistic behavior of the acquiring firm determines what leverages will be activated by the specific acquirer in order to succeed in the M&A process. Particularly, expected synergies achieved can be attributed to different factors, e.g. informative advantage, expertise in a complementary phase or product.

Therefore, *internal motivations* are the cornerstone of synergistic gains insofar as they determine what leverages will be activated (by the specific acquirer) in order to succeed in the M&A process. The literature generally recognizes that there are three different value creating strategies that can be put in place when the target is a high-tech one. In the case of high-tech acquirers, Cassiman at al. (2005) identified two main strategies based on technological or market relatedness. In the case of financials, the key strategy to explicit a potential conspicuous capital gain is the ability to activate an expert and international network of professionals (Humphery-jenner et al. 2013). Therefore, a joint analysis of acquirer and target firms specific capabilities to ascertain the opportunity for value creating strategies leads to the following three contexts:

(*a*) financial, when the acquiring firm is part of the industry of financials;

(*b*) same technology fields (STFs)[6], when acquirers and targets operate in the same industry;

(*c*) complementary technology fields (CTFs)[7], when the acquiring firm is not a financial but operates in a different industry.

The first lays on financial purposes while second and third refer to transactions with strategic purposes. For each value creating strategy context (represented by the letter) two hypothesis has been formalized, in order to summarize the concepts and build the theoretical frame in which the econometric results have been presented.

Hp1-a : The higher the percentage of ownership possessed by a financial investor the better will be the post M&A performance of the acquired firm

Hp1-b : The percentage of ownership acquired by a strategic investor who operates in the same technology field and the post M&A performance of the target firm are negatively associated or not associated

Hp1-c : The percentage of ownership acquired by a strategic investor who operates in a complementary technology field and the post M&A performance of the target firm are positively associated

Hp 2-a : In CB M&A the higher is the percentage of ownership possessed by a financial investor the higher will be the post M&A performance of the target firm

Hp 2-b : In CB M&A the higher is the percentage of ownership possessed by a strategic investor who operate in the same technology field the lower will be the post M&A performance of the target firm

Hp 2-c : In CB M&A the higher is the percentage of ownership possessed by a strategic investor who operate in a complementary technology field the lower will be the post M&A performance of the target firm

[6] Following the acronyms introduced by Cassiman et al. (2005)
[7] *Ibidem*

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