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Synergies disclosure in M&A deals

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To each special person who supported and trusted me during these years.

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INTRODUCTION

In the last few decades, company's financial disclosure has noticeably increased its relevance for its capability of increasing the firm's value: providing sensitive information to the market that exceed the mere adequacy to legislative requirements has been proved to intensify both the company's reliability and investor's confidence, thus improving the firm's fund raising possibilities. Gaining the financial community consensus, is critical both for listed and for non-listed companies: the former will obtain an increase in analysts following and investor's interest towards the company's securities with a consequent raise of the share prices as well as facilitation in strategic open-market operations; non-listed companies will gain shareholder and creditors support for the financing of growth projects.

While initially, corporate disclosure related only to financial reporting, in the last few years companies have become more aware about the importance of "soft" elements, such as strategic and forward-looking information. However, this type of communication usually exceeds mandatory requirements and is mainly included in the sphere of "voluntary" disclosure: one of the aim of voluntary disclosure is to integrate information that has been already requested by the legislator, without generating an over-legislative production. Moreover, it can be used as a mean to inform the market about the company's future evolution, thus reducing the information asymmetries between internal and external stakeholders.

In addition to the periodic communication, all the company's relevant event are subject to disclosure requirements: an M&A deal can be seen as an example of these corporate events for the changes in the company's strategic and competitive structure that it usually conveys.

A merger or acquisition requires the company to provide specific public information: however, the firm may also add details and supplementary elements that are not expressively requested by the legislator, although they are significantly useful for investors and other stakeholders to increase their knowledge about the deal and to improve their personal evaluation.

Both the European and American authorities indicate, among their reporting requirements, information concerning the companies that are taking part to the deal as well as the terms and condition of the transaction (including valuation techniques, the exchange ratio and all information that is relevant in order to assess the fairness of the purchase price). Moreover, companies must also disclose the characteristics of the new ownership structure and the management and experts' opinion concerning the legal and economic aspects of the merger as well as the appropriateness of

valuation methods adopted. As a matter of fact, the information concerning the forward-looking plans and achievements that the merging companies wish to realize (which should also represent the strategic rationale of the deal) are left outside the mandatory reporting requirements. Nevertheless, it has been proved to be a particularly sensitive information, as it includes some information that may be potentially relevant to determine the “approval” of the financial community. On the other hand, since forward-looking information is often the result of initial estimates and may not be so precise, they require an additional commitment for the companies who intend to disclose it, considering its potential impact. Companies need to convince the market, but they also need to consider whether sensitive information is coherent with their communication strategy or, on the contrary, it may be the possible source of competitive and legal damages.

Nowadays, the instruments used by companies to communicate with the market on a voluntarily basis have significantly increased: they include meetings with shareholders, conference calls, road-shows and meetings one-to-one. These instruments allow the companies to create a greater interaction with their interlocutors and, for the specific case of M&As, to persuade the market about the convenience of the acquisition from both the acquirer and target companies perspectives and at the same to give reasons about the fairness of the valuation method and purchase price.

It has been recorded that, in the last few years, M&A market has experienced a significant slowdown in terms of number of transactions and volumes, shifting from \$3668.7 B in 2007 to \$2215.1 B in 2013. A more illiquid market and the increase of equity-financed transactions have called into question the importance of an effective and reliable communication, especially from bidder companies’ perspective, in order to prevent the market possible negative reaction, due to a general skepticism that may be associated with the announcement of the deal.

The previously described situation has called into question the importance of voluntary corporate communication in M&As, especially with regard to forward-looking plans and achievements resulting from the transaction. These strategic gains include growth opportunities for the resulting entity, since it can capitalize on complementary resources of the merging companies in order to enlarge its size, increase its efficiency or enhance its market supremacy: all these gains can be monetized and the additional value they create takes the name of “synergies”.

The radical modification that has affected financial analysts and investors' demand for management projections concerning the deal's effects and companies' futures plans has noticeably influenced companies decisions concerning the disclosure of synergies, in order to be more compliant to the characteristic of the new market informative flows.

Despite this phenomenon is gaining increasing attention among academic and industry scholar, the existing literature concerning the discourse determinants of synergies forecasts release is very limited. This topic founds its basis both in the field of voluntary communication, but also with regard to the literature concerning M&A value drivers and synergies components.

According to voluntary disclosure literature, there are few theories that can explain companies' attitudes towards the release of sensitive information. According to the "*signaling theory*"¹, companies may decide to intensify their public communications in order to reduce issues related to informative asymmetries: this will allow them to strengthen the relationship with their investors and external stakeholders, with consequent improvements in their cost of capital, stock liquidity and analysts following. Another stream of studies supports the so-called "*information quality theory*"²: followers of this theory claim that companies are more willing to raise the amount of disclosed information consistently with the increase of its level of detail and precision. Finally, there are some theories that aim at explaining companies disclosure decisions by focusing on the costs that may be connected to the loss of competitive advantages or legal actions³. These theories have been analyzed and tested with regard to the disclosure of earning forecasts (e.g. Bamber and Cheon, 1997; Lennox and Park, 2006), the use of net income and proceeds (e.g. Leone, Rock, Willenborg, 2007; Autore, Bray, Peterson, 2008) and other periodic results projections: the contribution of our study consists in the application of the same approach of analysis to elements of non-periodic forward-looking information, i.e. synergies value forecasts.

The second area of studies, which involves our empirical research, refers to the reasons behind a merger or acquisitions value creation: also in this case, researchers developed different explanations, which can be classified in three main different groups. According to the first group, companies are willing to complete a deal in order to reach growth objectives such as the possibility of achieving larger size, higher revenues or higher returns: however, growth cannot be considered *per se* the reason for concluding an M&A deal since it needs to be integrated in the company's strategic plan, coherently with its specific business life cycle. The second group supports the so-called "*monopoly theory*", which asserts that deals are planned and concluded in order to increase

¹ Jensen (1986); Barry and Brown (1986); Kim and Verrecchia (1994); Lang and Lundholm (1996); Kothari, Li and Short (2001).

² Grossman and Hart (1980); Verrecchia (1990); Kimbrough and Louis (2011).

³ Haley and Palepu (2001); Verrecchia (1983); Dye (1986).

market power. Finally, the third group (which has proved to be the most critical in determining the additional value generated by the transaction) calls into question the opportunity of increasing both companies efficiency, through the realization of operational, financial and managerial synergies, in order to generate economies of scale or economies of scope. (Researchers have identified also other motivators, more linked to valuation arguments or behavioral issues: however, they can be considered minor theories⁴). Previous studies have mainly investigated this topic by focusing on documents provided by financial analysts and financial press (e.g. Devos, Kadapakkam, and Krishnamurthy, 2009; Houston, James, Ryngaert, 2001): conversely, in our analysis we will examine the phenomenon from an internal perspective, by examining companies press release and conference calls transcripts produced at the moment of the deal's announcement. In particular, we will focus on the third group of M&A value drivers, i.e. the presence of operational, financial and managerial synergies, in order to verify the connection between the long-term economic gains and the possibility of realizing improvements in the resource allocations.

The framework described so far aims at presenting the general background that rests behind the topic of our research: with this study we try to answer the interrogative related to the identification of motivators behind companies' synergies disclosure decisions. Moreover, we will explore the different type of communication that characterizes corporate disclosure documents and public meetings discussions at the time of the deal announcement.

In Chapter I, a short introduction about the whole study will be provided: the reader will be guided through a general overview of the economic context and academic panorama, in order to better understand the rationale underlying the study and clearly define its purpose and the research question that will guide our analysis.

Chapter II will describe more in detail the role of communication in M&A deals. The paragraph will start with an illustration of the relevance of corporate communication within companies' strategic plans, underlining their long-term and market-oriented goals. Afterwards, a general description of the different characteristics between mandatory and voluntary disclosure will

⁴ Trautwein (1990); Morck, Schleifer and Vishny (1990).

help the reader in the identification of the different elements included in the two categories, also with regard to companies' specific characteristics. Moreover, an exhaustive description of the informational necessities among the company's different stakeholders (both external and internal) will be proposed. Finally, we will display an in depth analysis of the specific characteristics and legislative requirements that characterize mandatory and voluntary disclosure of M&A operations: concerning mandatory disclosure, we will focus both on the European and the United States regulatory system, outlining their similarities but also the differences in the requisites that companies must observe; on the other hand, we will describe the items, instruments and channels utilized by companies to communicate on voluntarily basis during an M&A transaction.

Chapter III will provide an adequate theoretical framework concerning the subject of M&A: after introducing the topic, offering some essential definitions and an illustration of the historical evolution of the M&A market, the chapter will focus on the economic and strategic determinants of these type of transactions, both from the acquirer and acquiree perspective. After that, an accurate description of the merger and acquisition building process will be presented: this process involves two main stages, the assessment of the target company's value and the definition of the offer price proposed in the transaction, which will be both described with the help of some financial valuation notions. Finally, the last part of the chapter will present a complete overview of the value of synergies that can be realized within an M&A deal: this will include an explanation of the different types of synergies, their determinants, the different valuation techniques used for assessing their value and the process to ensures their effective realization (articulated in a modeling, execution and monitoring phase).

Our empirical study will be presented in Chapter IV: this chapter will be divided in two complementary parts, although they aim to provide an answer for two different questions.

The first part will investigate the type of information that is usually communicated by companies within their initial announcements: to address this issue, a content analysis approach has been selected. With this inquiry we intend to understand if there are some changes in the type of communication according to some specific characteristics of the deal (e.g. same industry, cross-border deals, payment method) and to verify the relationship between the amount of forward-looking information provided and the improvements in the company's operating performance, in order to test the reliability of management announced gains and expected synergies realization.

The second part of the chapter will examine the possible determinants of synergies disclosure, focusing both on the financial characteristics of the merging companies and on some

deal-specific features: the objective of this analysis will be to verify which academic theory better explains our results. In order to test the statistical significance of the outcomes stemming from the analysis of our sample data, we also utilized some empirical models.

Chapter V will summarize the findings and provide a general conclusion for the whole study; it will also discuss the limitation of our original contribution.

CHAPTER 1

THE ROLE OF DISCLOSURE IN M&A DEALS

1.1 INTRODUCTION

One of the main challenge for a company is represented by its capability to build strong relationships with its stakeholders: these relationships must rest on transparency, trustfulness and fairness. Sometimes these values clearly emerge from the company policies and behaviors, but it has been frequently observed that companies need peculiar strategies and tools in order to communicate their value-creation story.

It is possible to divide the study of corporate communication into three main branches, depending on different purposes and targets it may address. The first branch is business communication, which aims at increasing the company market share and capturing a broader demand, thanks to through an enhancement of the brand awareness and a particular stress on the company's products and services. The second relevant area is institutional communication, which has the function of influencing the general public: it seeks to establish the a clear positioning for the firm within its marketplace and to distinguish it versus its competitors, emphasizing the main aspects that contribute to determine the company's value. The last one is financial communication, whose main purpose is financial sources procurement.

We can define financial communication as the combination of strategies, tools and tactics related to the company's financial and economic situation: managers and shareholders need to create a sort of *consensus* around the firm's financial health and future perspectives. In addition, financial communication should not be addressed merely to potential investors and financing partners, but also to a broader audience that includes analysts, fund managers and medias.

In the last few decades, firms have become more conscious about the role of economic and financial communication: indeed, it was not so long ago that entrepreneurs and managers identified financial disclosure with the risk of affecting or endangering their privacy rights, by revealing to the competitors relevant information concerning their financial positioning. Nowadays this sentiment has changed and companies have become more aware about the relevance of clearly representing their operative and financial performances: disclosure is no more perceived as a mere compliance to mandatory regulation, mostly imposed to listed companies, which had precise obligations towards

the Stock Exchange Authority. These changes in the corporate culture panorama underline the close relationship between communication and financial and accounting statement (Salvioni, 2003): periodic disclosure is no longer simply a juridical constraint, whereas it represents the first official document used to satisfy informational expectations of a vast public. Balance sheets have very different addressees: therefore, both the regulatory system and companies attitudes are gradually shifting towards an integrated reporting system, which includes financial measures as well as operative strategies, compliance procedures, stakeholders guidelines and corporate social responsibility policies.

Some authors define economic-financial information as a real “product” regularly supplied by companies (Corvi, 1997): this product is more sensitive than the industrial ones, since it addresses the company’s reputation and therefore it is more likely to affect the company’s value in a long-term perspective. Indeed, if a firm selects a wrong marketing campaign or records some losses due to an unsuccessful product line, this will have a much lower effect on the firm’s reputation compared to the potential damages entailed by communication mistakes or negative rumors. Furthermore financial communication aims at increasing the interest of the financial community towards products (the company’s stocks and other kind of traded securities) that have to be placed in the financial market: this market complies with rules and behaviors that are quite different from those of retail markets for goods and services, since its buyers are significantly more concerned about the company’s value creation perspective than a final consumer would be. Financial products have to capture investors interest, thus they must guarantee great returns: in this regard, the company has to convince them about its financial robustness and its successful strategies, which will be capable to increase its long-term value and re-paying investors of the risk they faced through their investments.

From this brief introduction we could understand that, in the last decades, companies have become more aware about the importance of increasing the disclosure of information, previously considered just confidential: now it is relevant to understand which are the main addressees of financial communication, who contribute to determine its demand.

The first category is represented by the company’s shareholders, both majority and minority shareholders: they represent one of the most important class, since they invest their own capital in the company and personally assume the risk related to its operating activity. Although they should be one of the most informed subject, many public companies experience problems linked with the well-known Agency Theory: when there are different interests between individuals who owns a company (shareholders) and those who control it (managers), this can determine opportunistic

behavior from those who hold more information (managers). Therefore financial communication should contribute to the reduction of these agency problem.

The second class of individuals who claim for information, is represented by the company's internal and external stakeholders, i.e. its employees, suppliers and clients. They also have the right to be promptly informed, especially in case of substantial changes in the organization's structure: addressing people's concerns and creating a "people-oriented" communication stream is extremely relevant for increasing motivation, trustfulness and stimulus to a solid collaboration.

Investors represent another relevant class of communication beneficiaries. They can be divided into three main categories: financial partners (lending institutions, bondholders and other creditors), private investors (private citizens who hold a small share) and institutional investors (banks, hedge funds, holding companies, private equity, venture capital and other financial companies).

Finally, there are some players who do not have a direct interest the company's performances but have the role of transmitting them to the general public: this category includes financial analysts, mass-media, rating firms and other financial brokers. Relationships with these individuals are considerably relevant for the company, since they should further improve the relationships with investors by increasing their understanding and awareness of the company's value perspectives. Moreover, analysts should re-elaborate data and information according to different kind of stakeholders and stockholders, thus helping the latter in their investment choices.

Before introducing the next paragraph, which will present some of the main purposes that lead a company to be more transparent with its external stakeholders, it is necessary to spend some words presenting a topic, that is usually covered by the literature: value creation. Several empirical studies have demonstrated that a good communication leads to an increase in the company's value, thanks to the different perceptions and attitudes that can be generated among the audience. According to Bodega, Bombelli and Brogi (1996) the company first needs to become aware of its self-identity and consequently it needs to identify a precise image that has to be presented to the public. What really creates value is the possibility of using the feedbacks received by different audiences (thanks to a tailored communication) and to exploit these responses to adequate the offer in order to satisfy a broader demand. While this assumption can be applied also to corporate and business communication, there are other theories more "*market-oriented*": it has been observed that a complete and exhaustive communication policy usually leads to securities price premiums, especially when the market is facing some downturns or in case of company's crisis (positive effects on stock returns will be thoroughly debated in the next chapter).

The picture below gives a first logical scheme of the process that leads to value creation for a public company that is capable to convince the market of its financial strength and future successful strategies.



Figure 1.1 Market disclosure and value creation

Next paragraph aims at investigating the main purposes that lead a company to undertake an effective communication strategy.

1.2 THE STRATEGIC RELEVANCE OF CORPORATE COMMUNICATION

1.2.1 Financial communication main purposes

It is possible to list several objectives a company wish to reach thanks to its disclosure policies: in addition, they can vary according to the peculiar phase of a company's life cycle or according to the market momentum. Nevertheless it is possible to classify them into two main categories: strategic goals and tactical goals.

Strategic goals can be seen as "long-term goals" since they aim at building a clear and trustful relationship between the company and capital markets. The firm needs to gradually build its reputation, i.e. its public image that contributes to increase its credibility: in a historical period of limited financial resources, firms need to be able to facilitate their credit access and to decrease the cost of their financing. In order to pursue this aim, firms must adopt loyal behaviors: disclosed information must fairly represent the company's economic situation and give a fair portrait of its future perspectives. Disloyal and misleading practices of disclosing false information with the aim of increasing stock prices and making unrealistic capital gains may be effective in the short term: however, as soon as the market gains knowledge of the real situation, the company will experience dramatic consequences, also in the long term. Indeed, when a company loses its credibility, it is much harder to rebuild investors' confidence: disclosed information will be no longer perceived as reliable and finding new financial resources will be noticeably more expensive.

Tactical goals, on the other hand, are mainly "market-oriented". They include: accomplishing with informational needs of the financial community and institutions, increasing the interest towards the company's securities, attracting new investors and improving the relationships with the current ones. In order to reach these tactical goals, communication should be targeted to a precise audience: investors. However, as mentioned in the previous paragraph, it is possible to make a distinction between private (*retail*) investors and institutional investors. *Retail* investors are private citizens who decide to buy a small quantity of shares: since they usually lack of technical skills and knowledge, companies should tailor messages with a clear and simple language, in order to let them understand the potentialities and risks of their investments. On the other hand, institutional investors include companies and other kind of players who have sufficient financial resources to buy a considerable share of the company's total floating. Their investment activity follows precise strategic policies, established and implemented by skilled and talented professionals: these experts require very detailed and technical information, they will utilize to provide their investment recommendations. Institutional investors comprise investment banks, hedge funds,

venture capital, private equity and other “private” investors: the latter differ from *retail* investors since they have personal financial resources that allows them to buy a considerable share of the company’s capital.

It is also possible to distinguish between communication purposes that are typical of listed companies and those that are typical of non-listed ones.

As it can be observed from table 1.1, listed companies communication strategies aim at increasing shares value and average traded volumes, as well as sustaining tender offers and preventing hostile takeovers. Even if legislative disclosure requirements for listed companies are much stricter compared to those of non-listed companies, the former still may consider the advantages of providing additional information. Indeed, this voluntary disclosure significantly affects “secondary” communication, i.e. information release offered by analysts, mass-media and other kind of financial brokers: it has been observed that they exercise a great influence among investors and the general public, since their reports and suggestions have proved to be particularly price sensitive. Conversely, non-listed companies pursue different objectives: they seek for credit tools in order to finance growth projects; they wish to gain shareholder, creditors and employees support and to prevent possible incomprehension; finally they aim at increasing their credibility, also in the eventuality of a possible listing.

COMMUNICATION PURPOSES	
NON-LISTED COMPANIES	LISTED COMPANIES
<ul style="list-style-type: none"> ●Obtaining credit instruments in order to finance the company’s growth strategies; ●Maximizing shares price in case of IPO; ●Gaining the financial community consensus; ●Preventing misunderstanding; ●Obtaining shareholders, creditors and employees support; ●Increasing the company’s credibility. 	<ul style="list-style-type: none"> ●Facilitating tender offers; ●Sustaining the company after its listing in the Stock Exchange; ●Increasing shares value; ●Increasing traded volumes; ●Guaranteeing capital market influencers support; ●Preventing hostile takeovers.

Table 1.1 Communication purposes for listed an non-listed companies

1.2.2 Differences between mandatory and voluntary disclosure

In the last decades regulatory systems and governments recommendations connected to financial communication as well as companies' practices have followed four different paths (Guidara, 2011):

1. Financial statements reporting;
2. Information related to the company's strategic and competitive positioning
3. Information related to the ownership structure;
4. Forward-looking information.

The first category has been the one most affected by government regulation, while institutions have left room for discretionary practices with regard to those topics related to the other categories.

Literature concerning financial communication usually presents a common distinction in the treatment of this topic between mandatory and voluntary disclosure. Mandatory disclosure addresses the stream of information transmitted by companies as the consequence of legislative constraints. By contrast, voluntary disclosure aims at integrating mandatory disclosure with additional information given on a discretionary basis by companies in order to satisfy market informational needs. In the next section, a detailed description concerning the main characteristics and drivers of the two classes of communication will be presented.

Mandatory Disclosure

Mandatory disclosure refers to the public diffusion of company's documentation required by the legislator in order to comply with minimum transparency standards: mandatory disclosure is expected to protect savings and to guarantee financial markets stability.

In an historical perspective, the increased legislative regulation around business disclosure can be justified by some theories who identify corporate information as a public good: considering that companies' performance and economic evolution have a direct influence on stakeholders choices and behaviors, lawmakers need to assure them an adequate protection. Furthermore, especially in the past, it has been observed that companies are rather reluctant to voluntarily disclose information, thus compulsory legislative requirements are essential to ensure the correct functioning of financial markets.

One of the main problems that capital markets have always experienced is information asymmetries: market operators deal with a highly integrated and global market, where transactions are not linked with a physical place, whereas they take place in a dematerialized environment. These characteristics even amplify the danger of information asymmetries creation, hence compromising individuals' rational choices, decreasing market efficiency and increasing the probability of "hit and run" behaviors. Considering this scenario, financial regulators have gradually

understood the importance of creating measures that contribute to improve the informational environment and to increase the possibility for operators to take more rational and conscious decisions.

The legislative framework for companies' mandatory disclosure has developed in two main directions: financial regulation and market reporting. Financial regulation includes the set of norms that aim at guaranteeing financial markets transparency: they apply to all listed companies and to other financial operators, who are able to have a considerable influence in capital market transactions. On the other hand, prescriptions related to financial statements reporting apply to both listed and non-listed companies, even though with different intensity levels.

The first regulatory framework, capable to interrupt the "secrecy regime" that characterized financial markets, was established in the United States with the *Security Act* (1933) and the *Stock Exchange Act* (1934). These set of laws were set up after the financial crisis of 1929 and in 1934 led to the establishment of the Securities and Exchange Commission: the SEC enforces the Securities Act of 1933, the Trust Indenture Act of 1939, the Investment Company Act of 1940, the Investment Advisers Act of 1940, the Sarbanes–Oxley Act of 2002 and other statutes. SEC legislative activity has become even more intense after the corporate scandals that since 1990s shook U.S. financial markets (e.g., Enron, WorldCom, Global Crossings). The Securities and Exchange Commission has a regulatory and surveillance function also in the area of market reporting, even if companies mainly have to comply with the pronouncements of the Financial Accounting Standards Board (FASB) and to adequate their mandate financial reporting to the GAAP requirements.

European markets have experienced a more recent regulation: it is only since 1970s that the European Union pointed out the necessity of creating an effective supervisory board and increasing the legislation for market transparency. National Supervisory Authorities were established in each Member State and regulations like the Market Abuse Directive and MiFid Directive were produced in order to enhance system stability, market efficiency and competitiveness, and investor protection. Furthermore European Union set the basis for a regulatory system for banks, financial and insurance companies with Basel I (later updated with Basel II and Basel III) and Solvency II, as well as introducing new boards and authorities such as ESRB and the three European Supervisory Authorities, i.e. EBA, EIOPA and ESMA. In 2013 the role of the ESRB and of the three ESAs was reshaped by the introduction of the Single Supervisory System, which attributes the majority of supervisory responsibilities to European Central Bank. It was also in the same period that European Union started to harmonize accounting across the European Area: since 1973, thanks to the work of the International Accounting Standards Committee, now International Accounting Standards Board (IASB), it was possible to create a common framework for the accounting reporting that gradually

replaced national accounting standards. Nowadays, companies who need to communicate with the international financial community must adopt the IFRS for the filing of their balance sheets.

After a brief introduction of both the American and European regulatory framework, it is relevant to underline some of the main approaches adopted by the literature for the study of mandatory disclosure. A common distinction in the treatment of this topic is related to the time schedules of mandatory reporting and identifies three different categories: initial reporting, periodic reporting and occasional reporting. Initial reporting is required when a company starts a new activity or has to comply with a new regulation (e.g. the documentation that has to be provided for the Initial Public Offering or when a company decides to list its securities in a new stock exchange). Periodic information must be transmitted on a regularly basis (annual or infra-annual): the most relevant periodic document is the annual report. In the past years, annual report has been considered the only information source for listed companies: nevertheless, it conveyed several problems like complex and technical jargon, difficulties in the time comparison and discretionary compilation of some sections. However, in the last few years it has been recorded a partial improvement of these problematic aspects: firms are starting to increase the readability of their balance sheets, adding charts, graphs and other visual elements in order to increase the reader attention and curiosity. Finally, the last category is represented by occasional communication, released by companies in case of particular events apt at influencing trading activities.

The last consideration directly lead to a second distinction that is particularly appropriate for listed companies: indeed, literature distinguish between *price-sensitive* and *non-price-sensitive* information. The aim of *price-sensitive* information is to promptly inform financial markets about events that are particularly relevant for the company in order to evaluate in the news impact on stock prices. *Non-price-sensitive* information are more analytical and they give details about results already released through *price-sensitive* information.

It is possible to assert that the legislative development concerning mandatory disclosure has increased market efficiency: firms who do not comply with the regulation system usually experience an increase in their cost of capital as well as a considerable reduction of share prices and an intensified stock volatility. Moreover, mandatory disclosure reduces dangers of insider trading phenomenon: with few disclosure requirements companies' insiders (i.e. managers and directors) could profit from their private information, thus gaining a privileged position.

Considering all these positive aspects someone may think that new rules concerning additional information may improve market transparency and efficiency: however, this assumption can be rejected by two objections. The first one refers to securities increased volatility (Quagli, 2005): stock prices usually react towards public news release, thus too much information production

may cause excessive market movements. The second objection refers once again to market efficiency. Stock prices may not immediately incorporate new information available: therefore, increased communication could not directly lead to higher market efficiency.

Other evidences that support the non-increase of mandatory disclosure requirements come from firms balance sheets: it has been recorded that investments directed to increase the quantity and quality of information provided by the company are too expensive, therefore costs exceed the benefits experienced by the firm's stakeholders.

Mandatory Disclosure can be integrated by voluntary disclosure, providing deepen descriptions and additional details: next section will describe the main characteristics of this kind of discretionary form of communication.

Voluntary Disclosure

Companies who voluntary disclose corporate and financial information are not requested to comply with a specific regulatory system, but accept to release quantitative and qualitative data and news, in line with management strategic communication policies. Although financial community develops some expectations concerning the firms disclosure decisions, voluntary communication policies are sufficiently flexible.

This type of communication has recently increased its relevance for many companies (regardless of the industry they belong) and assumes different characteristics. Sometimes companies discretionarily release information that are not necessarily requested, such as business plans, news concerning the industry, projections referred to the implementation of a new strategy or to the introduction of a new product line, etc. Moreover, voluntary disclosure can be also seen as the set of data that integrate and complete with more accuracy information that is already requested by the legislator. For example in conjunction with the publication of interim or annual reports or with the communication of preliminary results, a company may decide to hold a conference call, set some meetings or road shows with analysts and financial journalists, in order to give some additional hints concerning the company's operating activity and external factors that contributed to generate those results. Finally, voluntary disclosure can be used as a "*disclaiming tool*": it is an important resource when a company is facing a negative period, since it can be used by managers to give reassuring messages both to stakeholders and to financial markets.

After this first explanation, it may be interesting to understand the reasons that should drive managers to increase their voluntary disclosure. In the majority of cases, managers assume individualistic behaviors that lead them to increase their supremacy and prestige: as a matter of fact, managers decide to intensify the communication flows since they aim at increasing their stock-

based remuneration, signaling their talent and skills and increase competition for possible changes in proprietary control. Moreover, there are other reasons connected with cost capital and stock volatility decrease and reduction of litigation costs.

Although managers' choices significantly affect the disclosure decisions, a company cannot overlook external changes and practices that are generally adopted. Just to give an example, nowadays the role of financial market has become considerably more important for companies' fund raising objectives: stock markets have both the function of providing firms with access to capital and of giving investors the possibility of acquiring part of the company's ownership, thus allowing them to participate to the company's future performance. As a consequence of the aforementioned evidence, companies need to increase the market consensus around their positive future results, hence obtaining convenient economic conditions for their financing requirements. Furthermore, technology evolution also contribute to the diffusion of information: companies need to increase their preside of the latest communication tools and to develop a cross-channel and multi-channel communication. Official websites and social networks are not only a mere advertising and marketing channel, but represent a useful platform where to publish information related to financials, corporate governance, analyst coverage, compliance system, corporate social responsibility and other relevant news, hence they need a constant updating and periodic renewals. Finally, there are some social factors that are influencing corporate communication: the previous system based on confidentiality and reticence to disclosure is gradually leaving room to a sort of "information right" that, on the contrary, severely penalize the non-disclosing decisions. Indeed, it has become common opinion the "*No news, Bad news*" rule, when financial markets negatively interpret a "no-comment" behavior in case of rumors or other kind of news referred to the company (Beretta, 2006).

It is worth to present another issue concerning voluntary disclosure, i.e. sectors that mostly capture investors interests: the first sector includes more qualitative information mainly related to corporate strategy and to intangibles, while the second one comprises data that are needed to understand the economic and financial evolution, forward-looking results and profit warnings. Both these set of information are essential for a company who needs to raise financial resources, since banks and other lending entities need to have a complete picture of the company in order to determine its creditworthiness and rating scoring. In fact qualitative information are necessary in order to understand the company's business model and its strategic positioning among competitors, for evaluating whether it has created some competitive advantages, it can capitalize on for future developments. Moreover, voluntary disclosure regarding the value of intangible assets may increase the external legitimacy to the management's activities, attract best partners and, more generally,

improve the company reputation (Epstein, 1994). Conversely, it is not possible to disregard the quantitative dimension: historical financial statements, industrial and business plans and forecast projections are indispensable to understand the company's capabilities to effectively use its resources and to create long-term value.

Although it has been said that voluntary disclosure doesn't submit to any legislative requirements, accounting authorities have developed some recommendations. In the United States both American Institute of Certified Public Accountants (AIPCA) and the Financial Accounting Standards Board (FASB) have developed some proposals for improving financial and non financial reporting, which mainly focus on three areas: providing an explanation of the nature of business, increasing the number of forward-looking information and offering managers' perspective on the previous points. Considering also the peculiar situation of American companies, where managers have a significant role in controlling the firm's operational activity, it is not surprising that investors and financial statement users are willing to see the company "*through the eyes of management*" (Boesso, 2002). A company should therefore disclose a sort of management's analysis of financial and non-financial metrics in order to give reasons for changes in financial, operating and performance-related data. Forward-looking information should also include management valuation concerning future success factors and drivers, giving a complete picture of possible trends and risks.

European International Accounting Standards Board has also provided recommendations related to voluntary disclosure, especially for what it concerns intangible assets. Moreover, the IASB is undertaking many initiatives in order to investigate how disclosure in IFRS reporting can be improved: in 2013 IASB conducted a survey and created a discussion forum in order to collect investors opinions concerning companies disclosure improvements.

The next paragraph will present which are the main communication drivers in M&A deals, while paragraphs 2.3 and 2.4 will give a detailed description concerning mandatory and voluntary disclosure that is usually provided in this restructuring operations.

1.3 COMMUNICATION IN AN M&A: ADDRESSING DIFFERENT STAKEHOLDERS

Operations that cause significant changes in a company's governance and ownership structure determine relevant informational requirements, which can be justified by the willingness of maintaining and increasing corporate value. Mergers and acquisitions are included in these kind of operations: decisions taken by the management during the deals and in the second phase of integration have clear influences on financial achievements, operational efficiencies and system effectiveness. These decisions also include choices related to communication. However, it is necessary to observe that during M&A deals companies usually experience a tradeoff between disclosing or non-disclosing decisions: they should be rather cautious, since trivial mistakes may cause relevant consequences sometimes even irreversible. Decisions of disclosing information certainly have the positive effect of reducing investors and stakeholders uncertainty about future results: these individuals will be reassured by the company open and transparent approach, reducing their skepticism about possible *lemon* effect that could be generated by the integration with the new partner. On the other hand, the management could also *bona-fide* decide for a non-disclosing strategy: as a matter of fact, the success of some deals is determined by the so-called "*surprise effect*", mainly motivated by industry-specific reasons. In some circumstances, the management believes that releasing important information about the deal may attract other potential acquirers, hence reducing the company's competitive advantages: furthermore, revealing future strategic plan may also negatively affect the success of the strategy itself. What can be concluded is that disclosing decisions in mergers and acquisitions transactions often remain a *deal-specific* question.

Communication in M&A deals has always been a highly debated topic: in 2010, PricewaterhouseCoopers conducted a survey on U.S. companies that had completed mergers or acquisitions in the previous three years and respondents reported that cultural and communication challenges are one of the top drivers that are most likely to determine the M&A success, but also to represent possible risk factors that may cause its failure (please refer to figure 1.2).

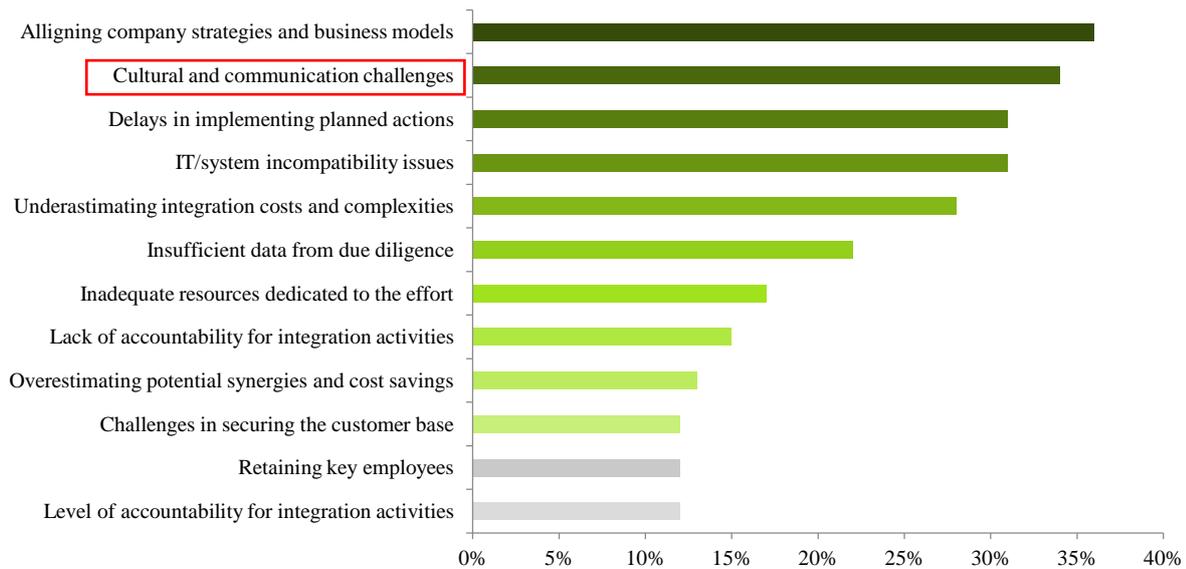


Figure 1.2 Critical success factors M&A deals (From Pricewaterhouse Coopers survey, 2010)

This empirical evidence directly lead to another important issue, i.e. the definition of informational necessities among the company’s different stakeholders. It is possible to make a distinction between internal informational needs, which mainly address employees concerns and claims, and external needs, primarily referred to investors.

Information directed to inside the organization needs to be carefully handled by managers, since deal success or failure is often determined by an organization’s ability to understand and satisfy employees’ specific requests. There are three main categories of information to be provided to workers. The first one refers to their future job position: employees need to know how the future business structure will affect their job, if they will have to acquire new competences or if they will lose some current benefits. The second one consists in the information that has to be released in case of rumors diffusion: if detailed explanations is not promptly given to employees, they will feel excluded by the company’s plans and may develop a sentiment of frustration and distrust. Finally, employees are willing to know if there will be any changes in corporate culture: corporate culture is essential for integration purposes, thus a clear dialogue on the new business combination’s value and identity is definitely a central issue.

As stated in PwC report: *“Successful organizations see the strategic value in communicating with employees before, during and after an organizational transition. Communication must be a constant through-out the entire transition to the new organization”*. (PwC, 2012).

For what it concerns external information needs related to M&A deals, it is possible to classify investors (financial markets) useful information in four categories (Gualtieri, 1990).

The first category refers to data concerning companies who are taking part to the deal: investors are willing to receive financial statements and additional available material in order to evaluate financial strengths and capacities of creating value. Information concerning the two entities characteristics and potentialities will also help investors to understand the reasons that drove the deal, as well as the objectives companies wish to reach through their integration. The second category includes terms and conditions of the transaction: indeed, relevant information for investors can be represented by payment methods, valuation techniques, intangibles and value of the goodwill. These data are necessary to understand and justify the price paid by the acquirer and to estimate its fairness. As for mergers, the same data are requested by investors in order to appreciate the exchange ratio, i.e. the number of the acquirer's shares that are offered for each share of the target: this ratio depends on the valuation of the target made by the acquirer, thus it is relevant to understand which factors have contributed to determine it. The third type of communications refers to forward-looking information, which include new business combination forecasted earnings, future executive board intentions concerning dividend policies, business and industrial plans and projects concerning management new strategies. Finally, financial markets are also interested in the new ownership structure that will gain the company's control: this information is particularly relevant since main shareholders will decide for the management in charge of implementing growing strategies, achieving those synergies that contributed to determine the conclusion of the transaction.

As previously pointed out, communication claims and requirements are numerous both from inside and from outside the organization: however, some of these requests must follow a precise legislative framework, while there are other information that are disclosed on discretionary basis. Next paragraphs will go in depth with this analysis, distinguishing between mandatory and voluntary disclosure in M&A deals.

1.4 MANDATORY DISCLOSURE IN M&A

Over the last twenty years, merger regulation has affected companies decisions and determined industries reassessments in several countries of the world's major economies. The two most notable enforcement regimes operate in the European Union (EU) and the United States (US). Both regimes regulate deal processes, reporting requirements and relationships with competent authorities who need to supervise on these relevant transactions. Furthermore, merger regulations, relying heavily on economic theory, set specific rules to facilitate the evaluation of potential anticompetitive transactions. Given the significance of the merger regimes in the EU and the US, an exploration of the main procedures and norms concerning disclosure requirements may give the reader a valuable instrument to frame the whole subject.

1.4.1 The European Regulatory System

According to the definition of IFRS 3⁵, a *Business Combination* is “A transaction or event in which an entity – (acquirer) obtains control of one or more businesses (acquiree(s))”. The standard also specifies that the transaction refers to entire businesses (not single assets) and need to involve only independent parties, i.e. intra-group deals or joint-ventures are not included in the discipline (Potito, 2009). However, what is interesting in the definition of the European Legislator, is that the standard clearly focuses on control, as the real driver of the business combination completion, hence underlying the substance of the transaction, rather than the legal form: therefore business combination may refer to several structures, such as mergers, acquisitions, takeovers, transferring of assets, transferring of stocks, etc.

The control issue represents the economic foundation that leads companies to opt for external growth and to be involved in new deals: control is defined in IAS 27 and IFRS 10⁶ and consists in the power to govern the financial and operating policies of an entity or business so as to obtain benefits from its activities. However control can be obtained both in a *direct* and *indirect* way: *direct* control implies a company to explicitly declare its intention of holding the governing power, as in the case of a merger; *indirect* control can be gained through purchases of securities that

⁵ International Financial Reporting Standards 3 “*Business Combination*”

⁶ International Financial Reporting Standards 10 “*An investor controls an investee when the investor is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee*”.

are traded on a regulated market, as for takeover bids. Therefore the European Legislator provided a legislative framework and minimum guidelines both for the conduct of takeover bids and mergers.

For the purpose of this study, it is relevant to present the main issues concerning disclosure reported in the *Takeover Bids Directives*, *Mergers Directive* and *Cross-Border Merger Directive*.

Takeover Bids Directive

The European Parliament and Council Directive 2004/25/EC of 21 April 2004 on takeover bids (*Takeover Bids Directive*) aims at providing an adequate level of protection for holders of securities throughout the Community, by establishing a framework of common principles and general requirements: indeed, when shareholdings include the possibility of controlling the company, the price includes this control premium, while minority shareholding are characterized by a lower value. Conversely, the Directive seek to guarantee an equal treatment to all shareholders' rights in order to assure the market efficiency and equal treatment to all participants: this objective is reached through the *Mandatory Bid Rule*. The rule asserts that when a person, who acts individually or in concert with other people, acquires shares above a specified percentage of voting rights, giving him/her control of that company, he/she is required to make a bid for the entire company and offer the same terms to all shareholders.

Before introducing the Directive prescriptions concerning communication and information reporting, it is relevant to rest on its general principles, in order to better understand the main purposes that should be achieved. These principles can be summarized as follows:

- Equal treatment of shareholders and safeguard of minority rights;
- Target shareholders must have sufficient time and information to be able to reach a properly informed decision on the bid; where it advises the holders of securities, the
- The board of the target company must give its views on the effects of implementation of the bid on employment and locations of the company's places of business;
- The board of the target company must act in the interests of the company as a whole and must not deny the holders of securities the opportunity to decide on the merits of the bid;
- False markets must not be created: rises or falls in the prices of the securities shouldn't be created with the purpose of creating market distortions;
- The acquirer must announce a bid only if he can fulfill it (he must dispose of sufficient cash and cash equivalents to guarantee its implementation);
- Target company must not be hindered in the conduct of its affairs for longer than is reasonable.

For what it concerns communication requirements, the Directive requires companies who decide to undertake this operation, to make the decision public without delay and to inform the supervisory authority about the bid. The most important disclosure requirements of takeover bids is represented by the *offer document*. This document contains the information necessary to enable the holders of the target company's securities to reach a properly informed decision on the bid. More precisely, the minimum information that the offer document must contain includes the identity of the two companies, the terms of the bid, the consideration offered and the maximum and minimum percentages or quantities of securities the bidder intends to acquire; it must also state the conditions to which the bid is subject, the bidder's intentions about the target company future business perspectives, the time allowed for acceptance of the bid and the national law that will govern the contract.⁷

Mergers Directive and Cross-Border Mergers Directive

Directive 2011/35/EU of the European Parliament and of the Council of 5 April 2011 concerning mergers of public limited liability companies and Directive 2005/56/EC of the European Parliament and of the Council of 26 October 2005 on cross-border mergers of limited liability companies both apply to limited liability companies also those who are ceasing to exist and are in liquidation, provided that the companies have not yet begun to distribute their assets to their shareholders. However *Cross-Border Merger Directive* refer to companies who are governed by the law of different Member States and is characterized by a more articulated process. Merger procedure requires several official communications and documents in order to satisfy informational needs of different stakeholders: disclosure requirements of the two Directives are presented as follows.

According to the *Mergers Directive* the first document to be published is the *Draft terms of merger* which includes information related to the companies and their registered offices, the exchange ratio, the terms relating to the allotment of shares and the rights conferred by the acquiring company. This document must be prepared by the administrative or management bodies of the two companies one month before the date of the general meeting, when each of the merging companies will approve it: in case on non-approval, the merger has to be considered invalid. Managers and directors shall be exempted from this requirement if the draft terms are made

⁷ There are several prescriptions included in the *Takeover Bids Directive*, including information directed to employees, defense initiatives to be undertaken by target company, rule referred to squeeze-out and sell-out rights, but they would go beyond the area of interest of this research.

available on the company website for that period. The draft terms of merger may also be examined by shareholders, together with annual accounts and reports of the administrative boards: this procedure aims at giving the opportunity to understand the financial situation of the companies who are taking part to the deal, their liquidity and debt load levels and current and future investments. If all conditions are met and companies general meeting approve them, the merge can be concluded.

Cross-Border Mergers Directive requires a similar procedure, even if the merge needs the opinion and certification of a larger number of subjects. As in the case of *Mergers Directive*, the first official document is represented by the *Common draft terms of cross-border mergers*, which includes minimum information on the deal⁸, published as prescribed by the law of each Member State in accordance with the *Directive on disclosure by limited liability companies* at least one month before the date of the companies' general meeting, that will decide whether to approve the merger or to reject it.

The second relevant document is the *Report by the Management Body*: this report should include the management opinion related to legal and economic aspects of the merger, the criteria for determining share exchange ratio and the implications of the EU Merger for shareholders, creditors and employees: the purpose of this document is to provide employees (or their representatives) with adequate information concerning the terms and characteristics of the merger, in order to establish an open dialogue with them.

The third communication requirement refers to the *Report by an Independent Expert*, which will provide experts' opinion about the appropriateness of valuation methods and approaches followed to determine the main metrics and values. The experts must be chosen among auditors or audit companies or appointed at the joint request of the participating companies by a judicial or administrative authority in the Member State of one of the merging companies. The experts must be

⁸ (a) the form, name and registered office of the merging companies and those proposed for the company resulting from the cross-border merger; (b) the ratio applicable to the exchange of securities or shares; (c) the terms for the allotment of securities or shares representing the capital of the company resulting from the cross-border merger; (d) the likely repercussions of the cross-border merger on employment; (e) the date from which the holding of such securities or shares representing the company capital will entitle the holders to share in profits and any special conditions affecting that entitlement; (f) the date from which the transactions of the merging companies will be treated for accounting purposes as being those of the company resulting from the cross-border merger; (g) the rights conferred by the company resulting from the cross-border merger on members enjoying special rights or on holders of securities other than shares representing the company capital, or the measures proposed concerning them; (h) any special advantages granted to the experts who examine the draft terms of the cross-border merger or to members of the administrative, management, supervisory or controlling organs of the merging companies; (i) the statutes of the company resulting from the cross-border merger; (j) where appropriate, information on the procedures by which arrangements for the involvement of employees in the definition of their rights to participation in the company resulting from the cross-border merger are determined pursuant to Article 16; (k) information on the evaluation of the assets and liabilities which are transferred to the company resulting from the cross-border merger; (l) dates of the merging companies' accounts used to establish the conditions of the cross-border merger.

entitled to secure from each of the merging companies all information they consider necessary for the discharge of their duties.

Finally, a *Pre-merger certificate* must be issued by the competent authority in each jurisdiction to confirm that the requirements of the Directive and local implementing law have been satisfied. Each Member State must designate the authority in charge of establishing the legality of the cross-border merger according to national laws. That authority must ensure that the merging companies have approved the common draft terms of cross-border merger in the same terms.

If all these documents have been correctly filed, the relevant national authority (the authority the Member State of the surviving company) will publish a *Preliminary Certificate* and then a *Final Certificate*, attesting : (i) that the merging companies have approved the Merger Plan according to the same terms; (ii) that preliminary Certificates have been duly issued for each of the companies participating in the EU Merger; and (iii) where appropriate, that arrangements for employee participation have been determined in accordance with the Directive. The merger will take effect from the date decided according to the law of the Member State to whose jurisdiction the company resulting from the cross-border merger is subject. The Final Certificate, along with all the relevant Preliminary Certificates and the Merger Contract, must be filed in the local commercial registry with jurisdiction over the surviving company.

Further requirements concerning European mergers are established by the Council Regulation 139/2009 or *Merger Regulation* that addresses concentrations with an “*European dimension*” (if their global or European turnover exceeds particular threshold requirements): these deals must be conducted under the jurisdiction of the European Commission in order to avoid anti-competitive behaviors⁹.

After this analysis of the European legislation, the next section will introduce the main requirement of the U.S. legislation, in order to let the reader appreciate the differences that affect the two legislative systems.

1.4.2 The United States Regulatory System

Mergers and acquisitions in the United States are mainly affected by two sets of laws: securities laws and anti-trust laws. The former generally apply to transactions that occur both in the primary and secondary market: this section will chiefly focus on tender offer procedures, included in sections 13(D), 13(E), 14(D) and 14(E) of the Securities and Exchange Act, as amended by the

⁹ The Regulation addresses “*concentrations which would significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position*”.

Williams Act. For what it concerns anti-trust laws, this section will primarily present disclosure requirements for merger deals. There are also several regulations affecting M&A at a state level: these state regulations usually include stricter norms for hostile takeovers. Other relevant laws that address communication and disclosure issues are Regulation FD (concerning the selective disclosure), environmental and labor laws, whose main issues will be reported in the last part of the paragraph.

Whenever either the bidder or the target company is traded on an open market, both of them will be subject to the substantial reporting requirements of the current federal securities laws. Securities regulation includes three main set of laws:

- Securities Act of 1933
- Securities and Exchange Act of 1934
- Sarbanes Oxley Act of 2002

The Securities Act is the main federal legislation that regulates the offer and sales of securities, especially in the primary market: it requires issuers to fully disclose all material information that a reasonable investor would necessitate in order to consciously take his/her investment decisions: companies are required to register with the government by presenting a registration document. This document includes a prospectus with copious information about the security offered for sale, the company, the business, the management and it includes financial statements, audited by public independent accountants. This is the first official document used by a company to present itself to potential investors: nevertheless, it is not only required for initial public offering, but also for the issue of new securities in case of a business combination transaction, a merger in which the applicable state law would not require the solicitation of the votes or consents of all of the security holders of the company being acquired and in case of other transactions that could determine a change of control. In these circumstances, the prospectus (Form S-4 for business combination) includes a pro-forma statement and forward-looking statements, in addition to historical financial statements: these unaudited reports are particularly useful since they can give a description of the companies' future performance as well as an insight of the proposed combination financial effects.

Securities and Exchange Act aims at regulating transactions that occur mostly in the secondary market: also this Act includes mandatory disclosure procedures, designed to force companies to make public information, underlining the purpose of protecting investors. In addition, the Act provides for direct regulation of the public markets (i.e. the securities (stock) exchanges) and of its participants (industry associations, brokers, and issuers). All disclosure requirements and periodic filings are supervised by the Securities and Exchange Commission (SEC) and later made

available to all investors through EDGAR, its online filing system. The Securities and Exchange Act mandatory disclosure system operates at several stages and different forms of disclosure can vary depending on the situation and the registrant: either way, only companies with assets of more than \$10 million and whose securities are held by more than 500 are required to file annual and other periodic reports with the SEC¹⁰. For the purpose of this study we will present only disclosure requirements that are requested within tender offers: these requirements are included in sections 13(D), 13(E), 14(D) and 14(E), as amended by the Williams Act. *“The Williams Act was intended to protect target firm shareholders from lightning-fast takeovers in which they would not have enough information or time to assess adequately the value of an acquirer’s offer. This protection was achieved by requiring more disclosure by the bidding company, establishing a minimum period during which a tender offer must remain open, and authorizing targets to sue bidding firms”*. (DePamphlis, 2012). The Williams Act applies to all kind of tender offers (both friendly and hostile takeovers) and the most relevant sections are Section 13(D) and Section 14(D). Section 13(D) includes ownership disclosure requirements: it is stated that when a single person or a company acquires 5% or more of the stock of a public company, this person or firm must file a document (*Schedule 13(D)*) with the SEC within ten trading days containing the following information and any additional requirements the Commission may require, as necessary or appropriate for the protection of investors:

- the background, and identity, residence, and citizenship of, and the nature of such beneficial ownership by, such person and all other persons by whom or on whose behalf the purchases have been or are to be effected;
- the source and amount of the funds or other consideration used or to be used in making the purchases;
- if the purpose of the purchases or prospective purchases is to acquire control of the business of the issuer of the securities, any plans or proposals which such persons may have to liquidate such issuer, to sell its assets to or merge it with any other persons, or to make any other major change in its business or corporate structure;
- the number of shares of such security which are beneficially owned, and the number of shares concerning which there is a right to acquire, directly or indirectly, by (i) such person,

¹⁰ Periodic reporting include Form 10K, (the annual report), Form 10Q (a succinct quarterly update of Form 10K) and Form 8K in case of relevant acquisition or disposals (it describes the assets acquired or disposed, the payment method, the identity of the acquire. It must also identify who the financing source used to finance the purchase and the financial statements of the acquired business.

and (ii) by each associate of such person, giving the background, identity, residence, and citizenship of each such associate;

- information as to any contracts, arrangements, or understandings with any person with respect to any securities of the issuer.

On the other hand, Section 14(D) includes rules that govern the tender offer process, although it can also be applied to acquisitions of any size. This section considers obligation both for the acquirer, but also for the target company. The former needs to publish a tender offer statement (*Schedule 14(D)-1*) in which the firm will disclose its intentions, the identity of the target companies and the type of securities involved, the business plans, the financing sources and any past agreements that may be issued with the target firm. The tender offer period will begin by the date on which the tender offer is published, advertised, or submitted to the target. Conversely, target company must file the so-called “tender offer solicitation/recommendation statement” (*Schedule 14(D)-9*) within ten days after the tender offer’s commencement date, in which the management will present his considerations about the offer in order to advise its shareholders on the convenience of the offer itself. Williams Act disciplines the whole tender process, including shareholders rights, contingent approvals of other authorities and the well-known “best price” rule, which requires all shareholders to be equally paid, even in the case of increasing offered prices (please refer to table 1.2).

Finally the Sarbanes-Oxley Act closes the set of securities laws with disclosure implications: however the Act comprises periodic disclosure requirements, which fall outside merger and acquisitions procedure, while it applies to all listed companies. The Act calls for quarterly certification of financial statement, disclosure procedures for CEOs and CFOs and annually certification of internal control system.

The second set of laws, which add significant recommendations on disclosure requirements during an M&A deal, is represented by anti-trust regulation. This regulation is primarily composed by three Acts:

- Sherman Anti-Trust Act of 1890
- Clayton Anti-Trust Act of 1914
- Hart-Scott-Rodino Antitrust Improvements Act of 1976

Sherman Act and Clayton Act define the main conditions and characteristics according to whom a combination or agreement should be considered illegal, as potentially dangerous for the market competition: in fact they prohibit stock acquisitions or mergers if these operations may result in monopolies or market over-concentrations. However, these Acts mainly contain criminal and civil penalties: on the contrary, the Hart-Scott-Rodino Antitrust Improvements Act includes

reporting and notification requirements that must be completed prior to the merger in order to prevent negative consequences both for the companies and for the market stability.

Hart-Scott-Rodino Antitrust Improvements Act requires companies (of a certain size) to notify the intention of concluding a merger both to the Federal Trade Commission (FTC) and the Department of Justice (DoJ), the two main anti-trust authorities. These authorities will give their approval to the acquisition if, according to their valuations, it is unlikely to embody anti-competitive purposes. Disclosure requirements must be filed to Pre-merger Notification Office of the Federal Trade Commission and to the Director of Operations of the DoJ Antitrust Division: they include background information on the “ultimate parent entity” (the parent company in case the buyer is a subsidiary) of the acquiring and target companies, a description of the transaction, all background studies relating to the transaction and the financial statements of the companies who are taking part to the deal. The Act also provides some conditions under which companies have these filing obligations: in particular, companies need to undertake either the “*size of transaction*” test or the “*size of person*” test. According to the “*size of transaction*” test, when the transaction in which the buyer purchases voting securities or assets is valued in excess of \$63.4 million, companies must report under the HSR Act. Conversely, the “*size of person*” test requires companies to report even if the transaction is valued at less than \$63.4 million but the acquirer or the target firm has annual net sales or total assets of at least \$126.9 million and the other party has annual net sales or total assets of at least \$12.7 million. These thresholds are adjusted upward by the annual rate of increase in gross domestic product.

	WILLIAMS ACT	HART-SCOTT-RODINO ACT
Required Filing	<ol style="list-style-type: none"> <i>Schedule 13(D)</i> within 10 days of acquiring 5% stock ownership in another firm Ownership includes stock held by affiliates or agents of the bidder <i>Schedule 14(D)-1</i> for tender offers Disclosure required even if 5% accumulation not followed by a tender offer <i>Schedule 14(D)-9</i> for target company 	HSR filing is necessary when: <ol style="list-style-type: none"> Size of transaction test: The buyer purchases assets or securities >\$63.4 million or Size of person test: Buyer or seller has annual sales or assets > \$126.9 million and other party has sales or assets > \$12.7 million Thresholds in (1) and (2) are adjusted annually by the increase in gross domestic product.
File with Whom	<i>Schedule 13(D)</i> <ol style="list-style-type: none"> 6 copies to SEC 1 copy via registered mail to the target executives 1 copy via registered mail to each public exchange on which target stock traded <i>Schedule 14(D)-1</i> <ol style="list-style-type: none"> 10 copies to SEC 1 copy hand-delivered to the target executives 1 copy hand-delivered to other bidders 1 copy mailed to each public exchange on which target stock traded (each exchange also must be phoned) 	<ol style="list-style-type: none"> Pre-merger Notification Office of the Federal Trade Commission Director of Operations of the DoJ Antitrust Division
Time period	<ol style="list-style-type: none"> Tender offers must stay open a minimum of 20 business days Begins on date of publication, advertisement, or submission of materials to target Unless the tender offer has been closed, shareholders may withdraw tendered shares up to 60 days after the initial offer 	<ol style="list-style-type: none"> Review/waiting period: 30 days Target must file within 15 days of bidder's filing Period begins for all cash offers when bidder files; for cash/stock bids, period begins when both bidder and target have filed Regulators can request 20-day extension

Table 1.2 Pre-notification Filings Requirement (based on DePamplis, 2012)

Finally it is relevant to conclude the description of United States M&A disclosure regulation with a brief remark on Regulation FD (fair disclosure regulation).

Regulation FD prevent companies to realize a selective disclosure: it recommends that an issuer, or person acting on its behalf, who discloses material non-public information to certain people (in general, securities market professionals and holders of the company's securities who could make profit on the basis of these information), he/she must publicly disclose that information by filing a Form 8-K, or by using other methodologies that equally guarantee an effective broad and non-exclusionary diffusion of the information. Moreover the timing of the required public

disclosure depends on whether the selective disclosure was intentional or non-intentional: if the selective disclosure was intentional, the issuer must immediately disclose the information to the general public; if the selective disclosure was not-intentional, the person must make public disclosure promptly. After the adoption of Regulation FD it has been recorded that managers are more likely to provide voluntary disclosure, since they aim at reducing the price volatility that could follow involuntary rumors related to the company.

1.5 VOLUNTARY DISCLOSURE IN M&A

We observed that both in the European and in the United States regulation system, when companies decide to conclude a merger or an acquisition, they need to meet several disclosure requirements: the forms to be filed usually include information concerning the acquirer and acquired companies (or merging companies), the characteristics of securities, companies historical financial statement, the terms of the transaction including the date from which it will be effective, the ratio applicable to the exchange of shares in case of a merger, future business perspective of the acquiring company or of the companies that will result from the merger and many other relevant information.

For what it concerns merger agreement we observed that both the European and the American legislation request management and external independent to provide their opinion about the legal and economic aspects of the transaction, the appropriateness of the metrics and valuation methods and, in general, the convenience and implications of the deal. Nevertheless, this opinion does not include a clear valuation concerning the reasons and motivations that drove the business combination: although in the United States Form S-4 (to be filed according to the Securities Act) requires companies to give “*reasons of the registrant and of the company being acquired for engaging in the transaction*”, this part is included in the section “*Terms of the transaction*” and it has given little significance. Communication concerning the goals and advantages of the transaction are, indeed, extremely important since they allow to know which is the effective “added” value conveyed in the deal: for this reason, voluntary disclosure may contribute to increase the companies stakeholders’ awareness towards the real value of the change and the worthiness investment.

As stated by Rock (Rock, 1990), it is important to be able to “sell the deal”: both the acquirer and the acquired company need to understand which are the correct manners and instrument to convince shareholders, financial analysts and mass-medias and other stakeholders. “Selling the deal” requires companies to increase their commitment and to create a communication strategy that exceed the mere mandatory disclosure requirements entailed by the legislation system: acquirers need to convince everyone about why that target company and why in that precise period, while target companies need to persuade about the additional potentialities of the new business combination and about the convenience of the deal.

It is relevant to understand what should address the voluntary disclosure and which form should it assume in order to absolve its function.

One of the main issues companies are willing to voluntarily disclose are future earnings effects: albeit mandatory disclosure already requires financial projections and estimates, companies

may decide to give a greater and more accurate detail on earnings forecasts. Moreover executives may also decide to release the positive consequences of profit increases: as a matter of fact, additional liquidity generated by the expected income improvements may be used for higher dividend payouts, new investment projects and other growth initiatives the resulting company will be willing to finance. Profit forecast voluntary releases are also influenced by factors like the type of bid, the bid horizon, shareholder and management structure and by the industry of the two companies (Brennan, 1999). For example there is evidence that disclosure is higher in case of contested bids, since the management is interested in convincing its audience about the positive future performances of the business combination; furthermore earning forecasts will be more numerous the shorter the bid horizon: in fact managers estimates will be more precise when the bid date is closer to the forecast period end. In addition it has been observed that positive news concerning future earnings are usually point estimates, while bad and neutral news forecasts are more likely to be qualitative.

Another common topic of voluntary disclosure in mergers and acquisitions is represented by information concerning the value of intangibles and intellectual capital: these items are particularly relevant for determining the acquisition price but also to understand the potential development of the new entity included in the strategic plan. Legislators have already recognized the importance of a correct esteem of all companies assets within these transaction (e.g. the *Cross-border merger Directive* requires the management body to provide an “*evaluation of the assets and liabilities which are transferred to the company resulting from the cross-border merger*”): however, intangible assets are highly company-specific and for that reason may necessitate a deeper explanation in order to appreciate their real value and to dissipate any skepticism about their possible overvaluation. Intellectual capital also includes information about research, development, and innovation; it has been recorded that these data are seldom reported to financial analysts even if they are extremely relevant to understand what is often considered one of the main drivers in M&A: synergies.

Synergies value is probably one of the most important issues in voluntary disclosure within an M&A deal: they refer to the additional value created by the combination of two firms that would not been achieved if these firms operate independently. This value may result from different type of synergies (operational, financial, intellectual, etc.) and may depend on the entity of synergy flows, the timing for their achievement and the likelihood of their realization (Garzella and Fiorentino, 2012). Synergies are extremely relevant in M&A deals, since they may affect their conclusion and their success: for this reason, giving exhaustive and accurate information on synergy value is considered necessary to gain stockholders and stakeholders confidence. Further explanations

concerning M&A synergies and their value will be presented in next chapter: so far it is relevant to underline their role within voluntary disclosure in order to convince companies audiences about the worthiness of the operation.

In the previous paragraphs it has been stated that companies need to observe many filings requirement both prior and during the deal: these reports are very detailed documents, with a significant quantity of information, usually written with highly technical jargon. On the contrary, one of the main advantages entailed in voluntary disclosure is the possibility of using different form of communication, characterized by more friendly language and capable of creating a greater interaction with the interlocutor.

Instruments of direct communication usually utilized by companies on a voluntarily basis include meetings with shareholders, conference calls, road-shows and meetings one-to-one (especially with particular categories of subjects). Shareholders meetings represent a considerable opportunity for increasing shareholders' awareness concerning the various aspects of the transaction: managers will have the possibility of giving more details about some elements that may have been omitted or that may result still controversial. Shareholders, on the other hand, can express their appreciation or disappointments about the same discussing topics, benefiting of a more interactive and open dialogue. Road-shows and meetings with analysts wish to meet the same communication purposes: moreover analysis will have the possibility of interacting with executives who will give immediate feedbacks, thus avoiding possible misunderstandings and improving the appropriateness and completeness of the messages. The aim of these meetings with representatives of the financial community is to improve their sentiment towards the deal, so to obtain a positive reaction of the market. Another important instrument of voluntary disclosure typically used with financial analysts, but also with journalists and other stakeholders is represented by conference calls. Conference calls fulfill the same goals of direct meetings, but they do not require the simultaneous presence of the subjects: conference calls are particularly used for mergers and acquisitions announcements, since it has been observed that companies who utilize this instrument record higher returns they would have recorded otherwise (Kimbrough, 2011).

Although direct forms of communication are undoubtedly the most effective and successful channel to release information, companies may also decide to reach their audience through indirect communication tools, especially when there are some timing of geographical impediments for holding those meetings. Shareholders letters and press releases as well as online dossiers available on the companies' websites are valid and effective instruments as well.

Once having completed the panorama concerning mandatory and voluntary disclosure requirements and opportunities within M&A deals, next chapter will shape the theoretical framework necessary to better understand the context and purpose of the proposed analysis.

CHAPTER 2

M&A THEORETICAL FRAMEWORK

2.1 INTRODUCTION

2.1.1 Academic and legislative definitions of merger

The term M&A usually refers to the type of restructuring activity that aims at transferring the control from one entity to another by increasing the value of the companies taking part to the deal in order to create a configuration that should optimize the market structure. Indeed, M&A activity can be considered as a process that contribute at creating the necessary conditions to innovate and improve the industry competitiveness, the same process that Schumpeter addressed with the term of “*creative destruction*”.

The main idea involved within M&A operations is the “change of control”: as stated in the previous chapter, the International Financial Reporting Standards include mergers and acquisitions in the category of business combinations that can be defined as transactions in which an acquirer obtains the control of one or more target companies. However the meaning of “control” can change significantly (Forestieri, 2009): it can be seen as the acquisition of the totality of shareholder equity, but also as the acquisition of a majority shareholding (where a subject acquires enough voting rights to appoint a sufficient majority in the board of directors to control strategic commercial decisions) or as the acquisition of a number of shares though which the minority shareholder can *de facto* exercise the control by influencing the votes of a majority of shareholders.

As specified by IFRS 3 M&A are considered transactions in which a company acquires the control of another entity, another “business” which can be defined by three elements: inputs, i.e. economic resources that characterize the operational activity of the company (e.g. non-current assets, intellectual property, intangible assets); processes, i.e. the system of activities which are able to transform inputs into outputs (e.g. operational processes, strategic and financial management); outputs, i.e. the final results of the transformation process. Considering this clarification it is possible to understand that mergers and acquisitions do not include the control of single assets or group of assets of other combination of entities a part from those that occur between independent subjects.

Mergers and acquisitions are usually considered very similar type of transactions: however there are some characteristics that differentiate the two operations.

First of all, a merger is generally considered as a process through which two companies unify their activities in order to expand their business operations: this sort of deal usually finalizes on friendly terms since it should be the result of a negotiation between companies who both are willing to take profit from the transaction. The reasons that push both the acquirer and the acquiree to conclude the deal will be further presented in the following paragraphs: so far, it is relevant to anticipate that what is peculiar in merger activities is the high level of integration between the companies taking part to the deal, who believe that the new structure represent will be more successful in maximizing their value compared to the “stand-alone” strategy. Finally it is relevant to remind that mergers usually involve companies of similar dimensions (market share and financial structure).

On the other hand, acquisitions can be defined as the practice utilized by a company to take over another one, thus gaining the right of ruling its operations. Unlike mergers, it is rather common that, within acquisition, the acquiring firm is financially stronger than the target one and larger both in terms of size and financials: indeed, the acquirer cash slacks are usually utilized for completing the takeover, gaining the ownership of a sufficient number of share that allows it to exercise the control over the target company. Another distinguishing characteristic between acquisitions and mergers is specifically the management approach during the deal: as stated before, mergers are usually described as friendly transactions, whereas acquisitions may also be “hostile” operations, i.e. without the consensus of the target firm management and main shareholders, who conversely will adopt measures to impede the possible change of control.

Other distinctions between different transactions that are included within “M&A deals” are pointed out by the literature with regard to ownership consequences, the listing status and the method of payment.

According to the ownership structure that will result after the transaction, target companies may be integrated within the acquirer ownership structure or the two companies may decide to create a new entity. The first case includes the so-called “merger by acquisition” in which one or more companies are wound up without going into liquidation and transfer to another company all their assets and liabilities: shareholders of the acquired company will receive shares of the acquirer and eventually an additional cash payment. Moreover, integrated companies may also maintain their identity: this is the case of holdings and financial groups with a very diversified portfolio. The

second situation generally refers to “merger by formation of a new company”: companies taking part to the deal will transfer their assets and liabilities to a different entity, the so-called “*newco*” and will choose to exist.

The listing status can be considered another distinguishing criterion: mergers and acquisitions may occur between public companies or between private one. The former will carry out the transaction within the stock exchange, thus complying with the relative regulatory system, whereas the latter will be subjected to different legislative requirements.

Finally it is possible to distinguish between cash-financed offers and stock-financed offers, depending on whether the acquirer uses debt or equity in order to finance the acquisition. The stock method of payment allows shareholders of the target company to sell their shares and to receive new shares of the acquiring company, coherently with the equity valuations carried out before the deal beginning. Furthermore, it has been observed that stock-financed offers may signal that the bidder’s stocks are overvalued, thus they are offered as acquisition currency or when the merger synergies are rather imprecise and uncertain or significantly difficult to estimate.

Next paragraph will give an insight concerning the historical M&A activity, which can be divided in seven phases, the so-called “*mergers waves*”.

2.1.2 M&A: An historical perspective

Mergers and acquisitions have become a global phenomenon in the last decades: however, United States can be considered the first market to be interested in such transaction, since mergers have occurred with a certain regularity for at least one century. This cyclical recurrence within M&A market is usually addressed by the literature as “mergers waves”, characterized by different features and triggered by economic factors and other non-economic causes: macroeconomic environment, interest rates volatility and monetary policies played a significant role in designing the process of mergers or acquisitions, as well as “behavioral” factors like stock market excessive exuberance or manager over-optimism.

The first wave took place between 1893 and 1904: this phase can be portrayed as the wave of horizontal mergers, which affected companies operating in the manufacturing and transportation industries (especially steel, telephone, oil, mining, railroad), creating the first market “giants”. This wave ended with the beginning of the World War I.

The second ten-years-wave (1919-1929) was enhanced by the economic boom that followed the end of the war: both technological developments, like the diffusion of railroads and motor vehicles transportation, provided the necessary infrastructure for such operations to take place. Moreover mergers and acquisitions were also encouraged by the government policies, which have been implemented in 1920s. Major automobile manufacturers such as Ford and FIAT were the result of the result of this second wave, ended in 1929 because of the financial crisis due to the stock exchange crash and followed by the great depression

The tax relief of 1940s lead to the third wave between 1955 and 1970, mainly characterized by conglomerates mergers, particularly inspired by high stock prices, interest rates and strict enforcement of antitrust laws. One of the main reasons for this wave of mergers was management seek for expansion and diversification: benefiting from the sustained level of stock prices, even small companies had the possibility of acquiring large firms, using their overvalued equity as payment method. However, these conglomerates usually recorded poor performances which lead to a dramatic fall of their share prices at the beginning of 1970's, consequently ending this third phase.

The fourth wave commenced in 1974 and ended in 1989 was a period large takeovers which involved big players. Investment banks contributed to realize numerous and often cross-border hostile takeovers which took place especially in the oil, pharmaceutical, banking and airline industries. The fourth mergers wave came to an end with the collapse of banks' capital structures, due to aggressive lending activity to fund these types of transactions: this episodes gave reasons for the implementation of anti-takeover laws and market transparency regulation.

The fifth wave (1993 – 2000) was primarily boosted by globalization and deregulation. Multinational conglomerates were created through the so-called "*mega deals*" considering that, in those years, size was perceived as a competitive advantage. As pointed out by a KPMG report, during the fifth phase the volume of M&A shifted from 342 billion dollars in 1992, \$3.3 trillion dollars worldwide in 2000. Six of the 10 largest deals in M&A history took place from 1998 to 2000. Stock market bubbles can be addressed as the main causes that set the end of this wave, together with great scandals of companies like Enron and Worldcom which signed the history of business economy.

Finally, between 2003 and 2008 M&A market experienced a significant recovery inducing the sixth wave. Once again globalization was among the main determinants, which contributed to generate new multi-national companies. Furthermore, new financial subject like private equity and

venture capital funds also increased the possibility of new acquisitions practices, determining great changes in companies ownership structure.

Many studies have been conducted to investigate around the causes of mergers waves. Some authors suggest that companies are more likely to undertake mergers and acquisitions when technological advantages increase the profitability of investments in already well-managed firms, both for listed and non listed firms: this first insight is usually addressed as the “*Q-theory of mergers*” (Jovanovic and Rousseau, 2002). Another “neoclassical” explanation for mergers waves was proposed by Harford in 2005, who assumes that mergers occur when the industry experience some shocks (technological, regulatory, political), which increase the profitability of mergers in correspondence of those shocks. A third theory claims some behavioral reasons: Shleifer and Vishny (2003) argue that several merges occurred during stock market booms, where both managers and shareholders were affected by excessive optimism due to a share price overvaluation, which allowed them to conclude stock-financed transactions frequently resulting in wealth-destroying deals. These theories were recently tested both with listed and non listed companies (Gugler, Mueller and Weichselbaumer, 2011) in order to understand whether these waves can be considered more like an industry-specific or a speculative phenomenon: these researches resulted to be more consistent with the behavioral theory, suggesting that M&As are more likely to be driven by stock market bubbles.

2.1.3 The actual market of M&A

Since 2007 the global market for M&As experienced a considerable reduction, with an annual value shifting from \$3668.7 B in 2007 to \$2215.1 B in 2013, recording a sharp decrease in 2009 (\$1710.2 B) and a gradual recovery until last year. As it can be observed from the graph (Figure 2.1) global M&A value in 2013 decreased by -3.2% YoY. Several reasons contributed to this downturn, with different characteristics depending on the specific geographic area: Europe was mainly affected by the resilient debt crisis; in the United States political uncertainties and difficulties connected with the fiscal cliff increased fluctuations in the stock markets; finally some emerging countries like China experienced considerable slowdowns in their economies growth rates.

However, these factors only partially contributed to the decrease in the level of M&A global market value, as it can be appreciated by the geographical split that follows:

- **Europe.** European M&A market declined by -12% from \$717.8 B in 2012 to \$631.3 B in 2013, experiencing the second annual decrease, after a first recovery from 2009;
- **U.S.** U.S. total M&A market value persisted in their growth with a +3.8% upside from US\$ B in 2012 to \$893.1 B in 2013, recording the highest annual value since 2007 \$1.3 T.
- **Asia pacific (excl. Japan).** In 2013 this region reached the highest M&A market value since 2001, with total deals worth \$403.4 B, 15% upside from the previous year (\$350.9).
- **Japan.** Japanese M&A market declined by 39.9% YoY in 2013, reaching a total value of \$42.9 B. However, it can be noticed that the swing trend in M&A total value is particularly due to the Japanese market small size, with reduced volumes of primarily large-cap deals.



Figure 2.1 Global M&A deal value split by geographic areas. Source: Mergermarket Trend Report 2013

Another characteristic that has to be monitored when analyzing the global M&A market is the average deal size: starting from 2010, after two years of constant increase, last year this variable recorded a downturn of 4.2%, decreasing from \$325.1 B in 2012 to \$311.5 in 2013. United States was the region that recorded the largest number of “mega deals” while Asia Pacific experienced its fourth year increase in deal average size since 2009, even with lower volumes compared with those of the U.S. market.

Some considerations can also be done with regard to the method of payment used within M&A deals: Mergermarket in its Trend Report 2013 (www.mergermarket.com) suggests a

breakdowns of M&A global deals by method of payment, distinguishing between “cash only” deals, “equity only” deals and “cash and equity only” deals. It has been observed that both the shares representing “equity only” and “cash and equity only” deals registered a considerable increase from 2012 to 2013, suggesting that acquiring companies assume an overvaluation of their share prices, thus making stock a convenient form of payment. In particular, between 2012 and 2013 “equity only” deals increased from 3.3% to 7.8%, “cash and equity only” deals from 6.9% to 15% while “cash only” deals decreased from 72.7% to 70% of total deals.

Finally, it is possible to drive a comparison analysis within M&A market, comparing different industry values. Looking a Figure 2.2 there is clear evidence that Technology Media and Telecommunication represent the first industry for M&A large-cap deals, with a global market worth \$510.1 B and it is expected to grow further also in 2014. M&A in the Financial Services industry have declined every year since 2007, also due to the influence of substantial changes in the regulatory framework. Both Consumers and Ereny industries decreased their share as percentage of total deals value: nevertheless in the first half of 2013 many relevant deals occurred both in the food and mining sector. Nevertheless, in 2013 Technology segment (within TMT industry) can be considered the undiscussed leader in M&A deals, with a market worth \$166.2 B.

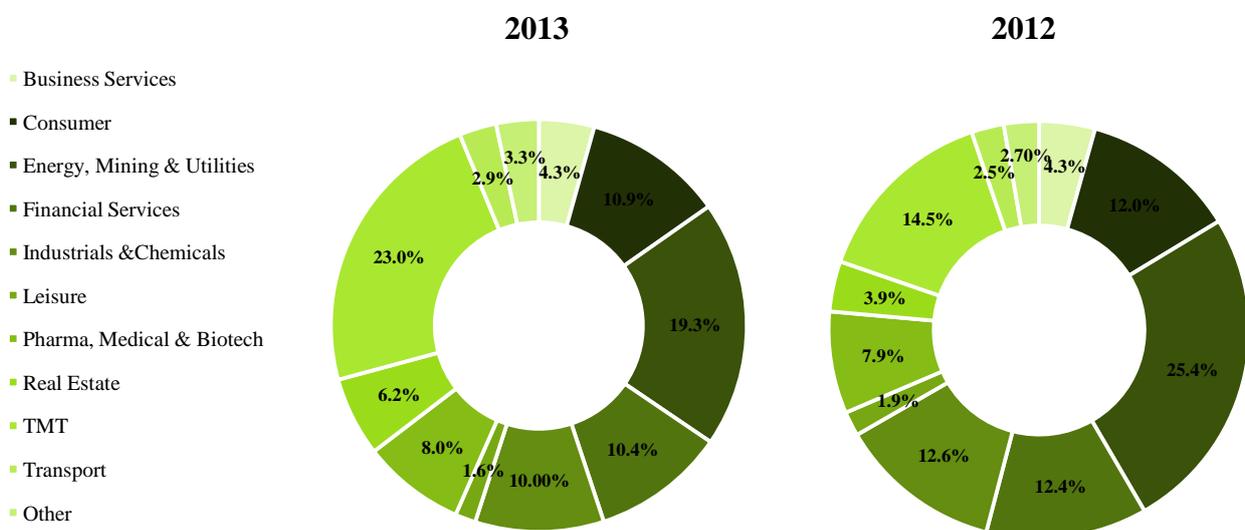


Figure 2.2 Market Share Comparison. Source: Mergermarket Trend Report 2013

2.2 ECONOMIC AND STRATEGIC DETERMINANTS FOR M&A DEALS

2.2.1 The acquirer companies perspective

Reasons which motivate mergers and acquisitions have been extensively investigated by the literature, leading to different theories that cannot be attributed to an univocal explanation.

One of the main purpose for concluding an M&A deals is certainly companies seek for growth, which results in a consequent improvement of their strategic positioning. Growth objectives can either be reached internally through investments in technological and operational innovations or new product development (organic growth) or externally, by means of acquisitions (external growth). The latter may have different connotations for the company, such as larger size, higher revenues or higher returns: however, growth cannot be considered *per se* the reason for concluding an M&A deal since it needs to be integrated in the company's strategic plan, coherently with its specific business life cycle. External growth implies many advantages like for example the possibility of attaining the target company know-how in order to manage new production processes (Potito, 2009): this achievement will allow the firm to fast reach its strategic goals, without waiting for new investments break-even or for new product lines to be successfully understood by the market. New strategy rapid implementation will also give the possibility to gain a significant competitive advantage over competitors, taking profit from the "first-mover" positioning. Growth by acquisition will also allow the company to expand in new market without losing the focus on its core business: as a matter of fact, it will be able to combine its undisputed experience within its sector with the strengths and expertise coming from the acquired company, thus optimizing resources coming from both of them but at the same time preserving individual identities and competitive advantages. Finally, entry and legal barriers will no longer represent a problem for the company who will decide to implement an external growth strategy.

The second reason why companies may decide to conclude M&A operations can be identified in the opportunity of increasing their efficiency. The efficiency theory (Trautwein, 1990) argues that mergers and acquisitions are executed in order to achieve synergies, which can be classified into three main categories: operational, financial and managerial synergies. It will be given account for the topic of synergies in the next paragraph while, concerning the efficiency theory, it is relevant to point out one of the main result included primarily within operational synergies, i.e. cost reduction. Companies are induced to drive M&As with the purpose of increasing their savings by implementing two possible strategies that the literature identify with the names of "economies of scale" and "economies of scope". "Economies of scale" are characterized by a

reduction of average costs in correspondence of increased volumes of sales: this effect can be achieved whenever fixed costs are spread out over larger units of products. On the other hand, when a company realizes “economies of scope” it can obtain the same reduction of average costs thanks to a differentiation strategy: enlarging the product offering and diversifying the revenues geographic distribution ensures an improvement in the product mix without decreasing the company’s profits. These two effects give reasons in particular to horizontal mergers, i.e. operations which aim at integrating companies within the same industry who will consequently enlarge and consolidate their market share. Companies who integrate horizontally will gain the possibility of increasing their sales prices as the result of their improved bargaining power; furthermore they will acquire new competences, combine different or complementary technical resources and marketing activities and increasing their client basis.

The third theory supporting M&A reasons is the “monopoly theory”, which claims that deals are planned and concluded in order to increase market power. This theory usually applies to vertical integration and conglomerate acquisitions: the former in the process by which companies expand their business into areas that are at different points on the same supply chain, for instance by acquiring suppliers or distributors; conversely, conglomerates include companies who operate in different sectors or even different markets: they place themselves at the opposite side of horizontal integration and are usually executed by companies belonging to rather saturated and mature markets. Firms who realizes vertical integrations or conglomerate acquisitions seek to achieve larger independency within their industry especially by increasing the control of the end market, as well as deterring potential new entrants. Moreover, cross-subsidization of products and reduction of competition in more than one markets represent main objectives companies are willing to achieve, especially through conglomerates. As a matter of fact, non-correlation between different activities or different businesses contribute to reduce the overall risk carried by companies, while increasing their chances and success opportunities.

It is possible to identify other factors and causes that motivate companies to plan acquisitions and mergers which cannot be attributed to economic reasons, albeit they gave room different theories particularly linked with behavioral and even irrational issues (Trautwein, 1990; Morck, Schleifer and Vishny, 1990).

One of these reasons is the acquisition of undervalued companies: it has been argued that managers are willing to conclude M&A deals if they believe the target company is underestimated. This approach takes the name of “valuation theory”: this theory rests on the presence of information

asymmetries, since managers believe they have better information on the target firm than those of the stock market. Therefore, according to the bidder management, these stock have been trading at a discount compared to their peers, thus they represent a good investment opportunity. The valuation theory assumes the presence of agency between managers and shareholders, who are pursuing different objectives: takeovers have precisely the function of restoring this equilibrium of interests with the possibility of introducing a high-skilled management, capable to maximize the company's value. Target companies will have a significant incentive to accept the offer as soon as they see the possibility of increasing their stock prices as a consequence of the improvement in the company's performances. However, one of the critics that has been moved to the valuation theory claims that it contrasts with the efficiency market hypothesis, which assumes that all public and private information are incorporated in stock prices and for this reasons undervalued firms should not exist. Conversely, some other authors (Wensley, 1982) gave evidences that the two arguments are not mutually exclusive: when the bidder makes his offer, he will reveal his private information to the market and gradually the stock price will adjust to a new level as a result of the action of rational investors. In this way the efficient market argument does not preclude the existence of undervalued companies, although it refuses the possibility for the bidder to have a competitive advantage thanks to his private information because of the market immediate reaction. Even if not directly addressed by the valuation theory, information asymmetries may also lead overvalued bidders to conclude stock-financed acquisition: in this case, managers of the acquiring firm will take profit from their private information by using an overvalued "currency" as method of payment, thus protecting themselves from possible future losses due to stock price reassessment towards their fair value.

Another theory involving behavioral issues is the so-called "empire-building theory": according to this hypothesis, M&A operations are concluded because of managers' willingness to maximize their own utility. It has been given evidence that, in some circumstances, managers overpay target companies because they pursue personal interests instead of shareholders ones: M&As may, for example, improve managers' job securities or improve their portfolio diversification (Morck, Schleifer and Vishny, 1990). When companies conclude an M&A deal, this usually represent a key point, especially if the transaction size is particularly relevant: consequently, the deals has a noticeable effect also for managers career and reputation, giving them the possibility of realizing great professional and personal achievements. For this reason managers may overpay the target company, just for the aim of concluding a deal which would significantly increase their prestige. M&A deals may also destroy shareholders worth if they are driven by managers excessive optimism or if they are affected by managers' hubris. Both these arguments are

related with the assumption that managers overestimate their ability of effectively driving the target in order to achieve the expected synergies and to justify the premium paid. Managers believe that their valuation of the target company is better than that of the market: a sort of manager's irrationality compared to market rationality (Forestieri, 2009).

Irrational arguments also represent the basis of the "process theory", which claims that companies' decisions of acquiring other firms or to merge with them are not the result of a rational strategic plan but the consequence of irrational choices, governed by the following forces:

- Difficulties connected to individual natural limited capabilities in processing information which lead to incomplete valuations and common simplifications;
- Companies past practices and routines that are rather difficult to be changed: companies believe that past solutions that have contributed to successfully solve critical situations may apply also for new challenges, even if the context has changed or if some conditions are no longer applicable;
- Political games raising from inside the organization gain the upper hand on rational strategic decisions.

Finally, it is relevant to point out some elements that particularly affect cross-border mergers and acquisitions: as a matter of fact, there are some issues that have a peculiar influence on these kind of deals compared to domestic operations and which may lead companies to perform additional valuations in order to determine the convenience of the deal. One of these factors are geographic differences since it has been observed that companies are more likely to conclude deals the shorter the geographic distances with the potential partner, due to reasons connected with the frequency of trading activities and cultural backgrounds between the two countries. Furthermore country-specific factors like different accounting disclosure and governance structures also have a significant role. Valuation also contributes to increase the likelihood of M&A deals to be concluded between two countries: valuation can substantially vary over time for each country as a result of fluctuations in exchange rates, macroeconomic adjustments and stock market movements. Some analysis gave evidence (Erel, Liao and Weisbach, 2012) of the fact that volumes of mergers between particular country pairs are strictly correlated with differences in exchange rates returns, country-level stock returns and country-level market-to-book ratios. It has been proved that companies coming from wealthier countries (where the currency has recently appreciated) and who have relatively high market-to-book value usually purchase firms who experience a downturn in

their domestic economy. Finally, it has been observed that differences in firm-level stock returns are more common among cross-border transactions compared to domestic ones.

As it can be learnt so far, there are different determinants which drive companies to conclude M&A transactions beyond the market re-assessment and rationalization: some of them are influenced by economic factors whereas other possible arguments are based on behavioral issues. It is now relevant to investigate on the driving reasons for acquired companies to conclude the deal, trying to understand if they are truly in a weaker position or if they are motivated by great achievements coming from the transaction.

2.2.2 The acquired companies perspective

In the M&A market it is not unusual that the acquired company is the one who makes the deal proposal: this situation usually occurs when these companies are facing considerable losses in their core business or when they are gradually losing their competitive positioning. Large companies and holdings may decide to dismiss some businesses or subsidiaries if perceived as no longer coherent with business strategies and new market trends.

Companies may also opt for divestitures when they are part of a precise strategic plan especially for large and well-diversified companies: investments and disinvestments are implemented in order to maximize the company's value.

It has been observed that companies increase their pressure for selling part of their business as well as for claiming a change of directions when they need liquidity: when companies are not in the position of further increase their level of leverage, they may decide to conclude disinvestment in order to avoid bankruptcy. However, liquidity needs may also be connected with critical investment, which can no longer be postponed. In some circumstances, shareholders believe that their firm's financial crisis is due to wrong decisions carried out by incompetent managers: a possible solution for introducing new managerial skills is to sell part of the company to private equities of venture capitals, who will start the balance sheet reconstructing activity usually followed by new strategic plan, in order to maximize the value of their partnership in the company.

Another common cause that drives shareholders and entrepreneurs to sell their companies and conclude their working activity is their weakened motivation: as a matter of fact, they see low growth perspectives within their sector or if they believe to have lost their competitiveness.

Therefore it appears to these entrepreneur that the only way to preserve the company's reputation is to sell it. This phenomenon may also occur within family businesses when the new generation chooses not to continue the business activity.

Finally, unsolvable conflicts between shareholders represent another voluntary selling decision in order to allow the company to continue its activity with a new direction unbiased by internal power fights.

2.3 THE MERGER & ACQUISITION MODEL-BUILDING PROCESS

The process of establishing how much an acquisition or a merger is worth is rather a challenging issue: it involves two main stages, the assessment of the target company's value and the definition of the offer price proposed in the transaction.

Determining the target fair value

The first phase requires an initial analysis of the firm's specific industry dynamics and competitive positioning, followed by an accurate examination of its financial historical results. This preliminary investigation is necessary in order to define the future financial metrics that will contribute to determine the company's value in an open market transaction, which can be seen as the result of several factor that can be summarized as following:

- The amount and timing of the cash flows that will be generated by the target company in the future years, adjusted by the value of synergies and other considerations that will contribute to increase or destroy value in the resulting entity;
- The acquirer's rate of return given its perceived level of risk those forecasted cash flows;
- The presence redundant (non-operating) assets;
- The amount of interest related to debt obligations and other liabilities that is assumed by the acquirer.

As stated before, an accurate valuation begins with an appropriate understanding of the past competitive dynamics and the company's relative performance within its industry: this investigation will contribute to increase the knowledge of the relationships among operating variables as well as among external drivers that may influence them. If these relationships and external influencing drivers are expected to persist also for future years, this will increase the accuracy and precision of the forecasts related to profits, sales and cash flows: the probability of same-trends continuity increases with the maturity of the industry (the lower industry growth rates, the higher the stability of past trends for financial metrics) and with the peculiar life cycle of the company (if the firm has experienced many changes in the last few years, in terms of product lines, investments, corporate culture, it is less probable that financial result will replicate in the same way also in the future). In addition, it is common practice to provide an indication of the company's profitability through ration and performance indicators that are can give an immediate picture and precise measures of the historical performance (Johnson, 2010): some of these ratios are for instance profitability ratios

(gross margin, operating margin), efficiency ratios (days payables, days receivables, inventory turnover), liquidity ratios (current and quick ratio) and debt ratios (financial leverage and interest coverage ratios). Historical data should also be normalized, i.e. eliminating non-recurrent items and misleading accounting practices that have been changes during the years: nevertheless, these items and policies may still affect the future results and therefore they should be subjected to an accurate scrutiny.

The normalized historical financial metrics are utilized in the formulation of forecast for a period of three to seven years: operating results should be incorporated in the cash flow statement in order to establish the value of the target company through the discounted cash flow methodology. Forecasts should also include the best available information related to external growth drivers and other influencing factors, such as demand growth rates, consumers savings trends, products and raw material price evolution, technological changes, information related to competitors and their offering, products substitutes, etc. These projected cash flows refer to the target company under a *stand-alone* hypothesis: however, the business combination will bring some changes that need to be considered for the correct evaluation of the company's value.

The *stand-alone* cash flows must therefore be adjusted both for those economic and financial flows that increase the firm's value (the so-called "synergies") but also for those sources which may destroy part of the value, when combining the two firms (integration costs and other possible negative effects generated by the acquisition). Adjusting for net synergies, regarded as the difference between positive synergies and "*value destroyers*", is a crucial step for the determination of the acquisition fair value: as it will be presented later in the chapter, synergies are unique for each potential buyers and therefore they require an accurate examination and validation of the assumptions made by the acquirer, in order not to overstate them or to fail in identifying those gains opportunities that may not be so evident. The common approach followed to correctly classify synergies is the conduct of a due-diligence: once these additional cash flows are identified, their present value is separately computed, attributing the correct probability and timing of realization. The same approach is also followed for determining the present value of those factors that may decrease the total value of the business combination, such as low productivity, shift in consumers' tastes, high employee turnover that can be included under the name of "negative synergies". Moreover, it is necessary to take into account also cost associated with the productivity improvements, the activities of recruiting and training new and existing staff members and costs associated with the exploitation of revenues opportunities. Net synergies cash flows are later added to the discretionary cash flows of the company on *stand-alone* basis and then integration costs are

subtracted by this total amount: this process will finally conduct to the correct discretionary cash flows that will be generated in the transaction.

In order to determine the present value of these cash flows a correct discount rate should be applied: some of the elements that contribute to determine the rate of return are the acquirers' cost of capital, the industry characteristics, the intrinsic risk associated with the target company's cash flows and the systemic risk associated with the external economic conditions. As we can see, there are several sources of risks whose predictability increases with the accuracy of their analysis, which involves both the company's relative performance under different economic conditions and the volatility of its historical results. Moreover, an assessment of the target company's financial exposure, its dependency on exchange rates fluctuations and the degree of liquidity related to its assets also contribute to identify the correct level of risk, associated with the correspondent rate of return. When assessing the discount rate a company's cash flows, it is often useful to perform a sensitivity analysis on forecasted results in order to consider different possible scenarios: it is therefore necessary to identify some growth drivers on which future metrics are highly dependable and to consider a range of their possible evolution. The greater the variability of cash flows related to changes in these growth drivers, the higher the level of risk the business combination will bare in the future.

The third element that needs to be considered in the financial analysis that has to be performed for determining the acquisition fair value is the presence of redundant assets: this type of assets are not related with the company's production capability and even if they generate income, they are not linked with fundamental operations. Redundant assets are usually removed by the vendor before the sale of the business and their financial effects are not included in the cash flow statements. The acquirer should be very cautious in the identifications of redundant assets: some assets may appear redundant at the present time, but may have some consequences in the near future; in other cases there are some activities that appear as inconsistent with the company's operations but in fact are the result of wrong investment decisions realized by the management in the previous years.

Finally, the valuation should consider also the debt and other financial obligations: the interest bearing debt obligations reduce the sum the acquirer is willing to pay for the assuming the control of the target company. Moreover, there are some financial and non-financial liabilities that are not always represented in the balance sheets: these include off-balance sheet financing, guarantees of indebtedness of other companies, warrants, costs associated with discontinued

operations, exceptional employees benefits (such as post-retirements benefits), environmental liabilities and other losses associated with particular contractual agreements (such as derivatives contracts).

Definition of the offer price

The initial offer price proposed by the acquiring companies swings between a minimum price, that is represented by the target value on a *stand-alone* basis, and a maximum price, that is the sum of the target company's present value and the present value of future net synergies. There are three main factors that influence the collocation of the definition of the real price between this value range:

- The number of potential willing buyers;
- The information asymmetries connected with the expected synergies to be achieved;
- The adjustments for premiums and discounts.

For what it concerns the first element, it has been observed that the price tends to get closer to the maximum limit of the price range with the increase in the number of willing buyers: the diffused interest among offerers increases the bargaining power of the target company, shifting upwards its fair value.

The number of willing buyers also differentiates according to the availability of synergies: it is possible to distinguish three groups of takeover synergies depending on their degree of appropriateness. The first group refers to the so-called "general synergies" and involves benefits that are expected with the substitution of the incumbent management with a new board of executives and the value creation related to the activities of debt restructuring and changes in the financial structure: these types of gains can be achieved both by "strategic" and by "financial" acquirers (for instance Private Equity and Venture Capital). The second group addresses those synergies that imply cost savings related to economies of scale, economies of scope, increased price stability, increased market share; these synergies named "endogenous synergies" can be achieved through horizontal or vertical integrations between companies that operate in the same industry or that show similarities in terms of technological development: therefore, the shortlist of potential buyers reduces significantly and the price is highly correlated with the dimension of a specific segment of the control market. Finally, the third group is represented by "unique synergies", i.e. synergies that can be achieved only thanks to a peculiar relation between the bidder and the target,

such as complementary localization of the production activities or collateral product offering: it is not clear how these synergies may influence the offer price, since the negotiation roughly assumes the shape of a bilateral monopoly.

Once the “base” initial offer price is determined as the effect of both the number of bidders and the level of synergies appropriateness, it can be later adjusted for premiums and discounts which are attributed on the basis of comparables transactions (relative valuations) and of the differences resulting from the application of dissimilar valuation methods. Premiums include both “acquisition” and “control” premiums: the first is determined with regard to different valuations coming from strategic investors within the control market; control premiums, on the contrary, are specifically referred to the increased benefits associated with the control partnership: when an investor has acquires the control, he will gain the possibility of deciding the strategic guidelines, concretizing capital operations, implementing activities on the open market. On the other hand, investors who will obtain a minority shareholding will experience discounts on their acquisition price: the discount is primarily associated with the lack of imposing their control orientation and with the reduced liquidity of their shareholding, due to poor negotiation activities and interest towards them. There are also some other sources for the presence of discounts in the offer price: it has been observed that investors’ appreciation is lower in connection with “pure” holding companies (“holding discount”), mainly motivated by fiscal reasons and by the presence of high corporate costs; in addition, it is rather common that even business combinations that are driven by diversification reasons are often characterized by significant discounts, since they entail lower credibility at the eyes of stockholders. The offer price is affected by many other factors that are usually unique for the specific transaction, but the aforementioned elements wish to give an initial framework to address and determine the offer price.

The next paragraph will present one of the main determinants of the acquisition fair value: the synergies that may result from combining two companies.

2.4 ASSESSING THE VALUE OF SYNERGIES

2.4.1 Synergies determinants

In the previous paragraph it has been pointed out that M&A deals allows companies to grow, since they can capitalize on complementary resources in order to enlarge their size, increase their efficiency and enhance their market power. For this reason it is possible to state that these operations generate worth if the value of the new entity is greater than the value of the single firms taking part to the deal: this increased value takes the name of synergies.

“Synergy is the additional value that is generated by combining two firms, creating opportunities that would not been available to these firms operating independently” (Damodaran, 2005). As stated by Damodaran, the deal will have the effect of increasing the number of projects and new initiatives to be implemented by the two companies, which will consequently lower the significance of the *stand alone* valuation: the additional value achievable by the acquirer will correspond to additional cash flows generated by the target and by future activities derived by the integration process.

The aforementioned definition is usually explained by the following relation:

$$W(B+T) > W(B)+W(T) \quad (1)$$

$W(B)$ = Bidder Value

$W(T)$ = Target Value

$W(B+T)$ = Value of the new entity (after M&A)

Synergies are relevant for three main reasons:

- They determine the convenience of an M&A deal;
- They significantly influence the offer price, which should comply with the following constraint in order to avoid the transfer of wealth from the bidder to the target:

$$P \leq W(T)+W(Sin) \quad (2)$$

P = Acquisition Price

$W(T)$ = Target Value

$W(Sin)$ = Value of Synergies

- They represent the guidelines for implementing the post-merger integration strategy.

This relationship between acquisition price and value of acquisition represents a first simplification, further extended by the literature with more detailed theories which analyze the value of acquisition. One of these is the “value stratification” model developed by Massari (Massari, 1998): according to this model, the acquisition value can be obtained computing the target *stand alone* value and the value of synergies (as stated in Formula 2) together with the value of differences in the firm’s risk profile and the differential flows value. Indeed, Massari argues that a simple *stand alone* valuation based on single firms’ past financials is not adequate in order to point out the acquisition value: the main reasons for this argument is that those valuation methods can be applied if we consider a steady state hypothesis, while M&As drastically change companies’ equilibrium, therefore it is necessary to adopt a different method which takes into account further considerations. The Value’s stratification model also describes how the acquisition value should be distributed between the bidder and the target company: the acquirer value can be seen as the difference between the net present value of future cash flows after the deal (the acquisition value) and the acquisition price: if this difference is positive, the acquirer will increase his value, otherwise he will transfer value to the seller. Therefore, the following relations should be valid in order to describe this condition:

$$W_{acq} = W(T) + W(Sin) + W(Risk) + W(O) \quad (3)$$

$$W(T) + W(Sin) + W(Risk) + WO > P + C_t + C_i \quad (4)$$

W_{acq} = Acquisition Value

$W(T)$ = Target Value

$W(Sin)$ = Synergies Value

$W(Risk)$ = Risk differential value

$W(O)$ = Differential flows value

P = Acquisition Price

C_t = Transaction costs

C_i = Integration costs

In order to correctly evaluate synergies, it is necessary first to categorize them in two groups: operating and financial synergies.

Operating synergies are those synergies that allow companies to increase their growth opportunities as well as their operating income from existing assets. It is possible to distinguish four types of operating synergies:

1. *Economies of scale*. As stated in the previous paragraph, economies of scale increase the company’s efficiency structure, reducing costs and improving its profitability. They usually characterize horizontal mergers, i.e. mergers of companies within the same business;

2. *Greater pricing power.* As a consequence of aggregation of companies, the reduced competition and larger market share will allow the new entity to gain higher margins and operating income;
3. *Functional resources combination.* The transfer of functional and operational resources will also contribute to lower the average costs and to increase investment opportunities. Managerial competences can also be shared in order to increase the reciprocal know-how and expertise;
4. *Higher growth in new or existing markets.* Probably the most relevant, growth synergies may result in higher cash flows, greater long-term growth rate and longer growth period. These achievements can be reached for example through the acquisition of companies who are expanding in emerging markets, where they have already established a good distribution network that will largely facilitate the acquirer in reaching the end consumer and easily enlarging its customers base.

On the other hand, financial synergies are connected with the possibility of obtaining a reduction in the company's cost of capital. This advantage may result from the action of four different influences:

1. *Cash slack.* This is the case of an acquirer with an excess of liquidity and poor investment opportunities who chooses to purchase a firm with high-return projects but limited cash to finance them. This situation is rather common for large firms acquiring small ones and for publicly traded firms acquiring private businesses. The increase in value comes from the possibility of implementing projects thanks to the excess cash, that otherwise would not have been taken;
2. *Financial structure optimization.* An M&A deal can optimize the financial structure for two main reasons: it can reduce the excessive leverage and it can increase the debt capacity. In the first case the acquirer may supply financial resources to the target in order to reduce its debt load and to improve its rating; the second case may occur when companies' earnings and cash flows become more stable and predictable as a result of the acquisition, thus allowing them to increase their borrowing more than they could have increased as individual entities;
3. *Tax benefits.* These benefits may arise from the acquisition of companies with past operating losses: the acquirer can therefore reduce its taxable income, by including the losses in its P&L statement. Moreover, other possible tax advantages may come from the increased depreciation charges after the integration of the target company's assets. Finally, the

enlarged debt capacity allows tax savings, since companies can benefit from the interest tax shield.

4. *Diversification*. It has been addressed as “*the most controversial source of financial synergy*” (Damodaran, 2005). Diversification implies a reduced bankruptcy probability and a consequent lower risk premium. The sum of these two factors will finally result in a reduction in the cost of debt.

Before presenting how these operating and financial synergies how it should be estimated the correct value of synergies, it is relevant to remind that their valuation is particularly affected by two factors: the synergies implementation time and their level impact on the acquirer firm. According to these factors it is possible to classify various synergies, in order to allow companies to find an order for the different M&A opportunities, choosing those deals characterized by synergies lower implementation time and higher impact.

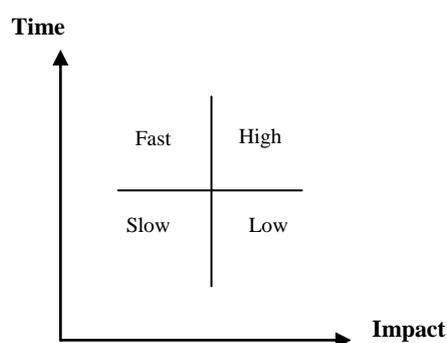


Figure 2.3 Synergies matrix. (from Black, Wright and Bachman, 1988)

2.4.2 The valuation of synergies

It has been observed that the value of synergy is the difference between the value of the combined firms (value of the new entity) and the value of the single firms in a *stand alone* status. In order to evaluate synergies using the Discounted Cash Flow approach (DCF valuation), it is necessary to value the firms independently by computing the present value of the expected cash flows (using different weighted average cost of capital), than to value the combined firms without synergy (the sum of the aforementioned *stand alone* valuation) and finally estimating the value of the new entity considering also synergies: the difference between the value of the combined firms with synergies and without synergies provides exactly the value of synergies. This valuation is usually developed in two stages. The first stage includes analytical estimates: it refers to the first post-integration phase, a short time horizon which is necessary in order to reach a new equilibrium for the new-born

company. The second stage will be computed by discounting the company's cash flows at a suitable weighted average cost of capital, which may be influenced by various factors, namely the operative risk of the target company, the acquirer new financial structure and the acquirer tax rate. Using the DCF model, the enterprise value (EV) of the new entity resulting from the M&A deal can be described as follows:

$$EV = \frac{\sum_{t=1}^{n-1} FCFF_t}{(1+r)^t} + \frac{FCFF_n}{r-g} * \frac{1}{(1+r)^n} \quad (5)$$

EV= Enterprise value of the new entity with synergies

FCFF = Free Cash Flows to Firm

r = Weighted Average Cost of Capital

g= Perpetual growth rate, which can be computed as follows

$$g = \text{Reinvestment Rate} * \text{ROC} \quad (6)$$

$$\text{ROC} = \frac{\text{EBIT}(1-t)}{\text{Book Value of Equity} + \text{Book Value of Debt}} \quad (7)$$

Moreover, when valuing synergies, it is relevant to separate the value of synergies from the value of control, i.e. the additional value that can be created by the acquirer better capabilities in managing the firm more effectively with a possible change in investment, financing and dividend policy.

Once again, a distinction between operating and financial synergies will be made in order to better understand the characteristics of the valuation methods.

Valuation of operating synergies

When valuing operating synergies, it is necessary to identify the correct inputs that need to be introduced in the model: they will be different depending on the type of synergies that can be achieved in the deal and we can divide them between costs synergies, revenues synergies and growth synergies.

- *Costs synergies.* They increase the enterprise value of the new firm because they allow cost savings, increasing the cash flow in the period of the savings, thus increase the enterprise value by the present value of the savings. In the long term they will also increase operating

margins (and income) with a consequent effect also on cash flows. Cost synergies may refer to manufacturing costs synergies, sourcing synergies, R&D synergies and SG&A synergies.

- *Revenues synergies.* They aim at producing higher cash flows by increasing revenues thanks to cross-selling synergies between the acquirer and the target company and to other additional sales enhancing potential.
- *Growth synergies.* Growth synergies can be classified in three different groups. The first group includes the possibility for the new entity to earn higher returns on its investments than those the firms would have generated independently: as a consequence of a higher return on capital, also the growth rate will increase (please refer to formula 6). The second group refers to the opportunity for the combined firm to find a larger number of investments: since increased investment opportunities imply a higher reinvestment rate, according to formula 6 the growth rate will also increase. Finally, after the merger or the acquisition the combined firm is expected to gain a larger market share and improved competitive positioning: therefore the new entity will be able to maintain excess returns and growth for a longer period of time.

Both cost and growth synergies will contribute to increase the free cash flows to firm which will generate a higher enterprise value compared to the combined firm value without synergies.

Valuation of financial synergies

In the previous section different financial synergies were described: it is now interesting to investigate how they can affect the DCF model by influencing its inputs, thus increasing the enterprise value of the company resulting after the merger or the acquisition.

- *Cash slacks.* They increase the enterprise value by the present value of the new projects that can be implemented because of the availability of increased liquidity and financial resources.
- *Debt capacity.* An M&A deal allows the acquirer to increase its debt capacity because of a reduction in its default risk. The default risk rating improvement may be achieved when the new entity is characterized by more stable and less variable cash flows. *“If the cash flows of the acquiring and target firms are less than perfectly correlated, the cash flows of the combined firm will be less variable than the cash flows of the individual firms. This decrease in variability can result in an increase in debt capacity and in the value of the firm”.* (Damodaran, 2005)

- *Tax benefits.* After the acquisition the acquirer can significantly reduce its tax payments, thus and Tax benefits resulting from increasing the firm's value since it will add to the present value of the future cash flows also the present value of the future tax savings. As said before, the lower taxable income which allows tax savings may result from the target company operating losses carried forward and integrated in the acquirer's P&L statement and from the increased depreciation charges resulting from the target company's fixed assets. However, tax synergies shouldn't represent the only reason for concluding an M&A, since they will end to a wealth reduction in the economy.
- *Diversification.* Mergers and acquisitions motivated only by diversification reasons fail in reducing the cost of cost of capital and they will not improve the new firm's enterprise value. This evidence can be justified considering that the reduction in earnings variance conveyed by diversification policies will have no effect on the individual firm's value, which is affected by firm-specific risk: since the beta of the combining firm is computed as the weighted-average of the individual firm's unchanged betas, in the same way it will not be affected by any changes.

Synergies valuation is considered one of the most critical issues within the deal design, since it considerably affect the merging firms decisions. Indeed, managers and analysts usually meet some difficulties to correctly assess the value of synergies which are primarily connected to the complexity of testing the hypothesis at the base. Moreover, it is relevant to understand which are the advantages coming from the integration and their probability of concretizing: indeed, companies may face some difficulties in re-organizing the new activity during the post-merger phase or they may bear higher integration cost or eventually costs connected with negative synergies. These hypothesis should be taken into account in order to avoid overestimations of future synergies.

Valuation may also be biased by the characteristics of the potential buyer perspective (Forestieri, 2009). We distinguish three type of acquirers: the stock market, financial investors and industrial investors. The valuation carried out by the stock market is usually a "relative valuation" which utilize multiples of comparable transactions in order to estimate the acquisition price for the target company. Financial investors such as private equities and venture capitals usually perform a *stand alone* valuation which takes into account the potential operative cash flows that may result by a highly-stressed financial structure. Finally, industrial investors are the only one who consider the presence of synergies in their valuation.

Beyond the DCF method, there are other approaches to value synergies generated by a business combination: one of these, is the real options method. Proponents of the real options argue that the DCF method is not always apt to value future opportunities because of the low visibility and great uncertainty on future cash flows. For example, the acquisition of a small company who is fast increasing its market share in emerging countries can be seen as the option of expanding in a new market rather than a set of expected cash flows. These future growth opportunities and improved competitive positioning should be considered as a premium to be added to the discounted cash flow of the combined firms. It has been argued that synergies are highly uncertain and need considerable actions carried out by managers in order to become effective: hence, the real option method can be considered an appropriate approach to support the management in its decision process, both in terms of deal screening and synergy valuation. Therefore, the acquisition value can be seen as the sum of the target company's value in a *stand alone* hypothesis ("asset in place") and different options value: the latter can be divided in "out-of-the-money real options" (for the acquisition target company) and the "real options", which are turned into "in-the-money real options" (for the post-acquisition combined entity) using the resources of the acquirer (Kinnunen, 2010). Real options can also be considered "growth options" that are priced at the current market price because of their availability to other potential acquirers. Furthermore, "real options" cannot be fully priced by the market since they are highly correlated with the specific acquirer and test his capability to effectively manage the post-integration phase in order to create the expected additional value. Real options are usually valued using the "pay-off method": this method has different application, although they all stand on a pay-off distribution. The net present value of real options may be estimated using simulations such as "scenarios" simulations or "Monte Carlo" simulations and then attributing different probability to each scenario. Another possible method uses a possibility distribution weighting the real option value by the positive area of triangular fuzzy distribution (Collan et al., 2009). Although these method can be particularly useful in some circumstances when the growth opportunities are rather uncertain to evaluate, it is necessary to remind that real option valuation is sometimes considered with a certain skepticism, while other valuation methods are generally preferred.

Once the value of synergies has been estimated through an effective valuation, one of the main challenges is to understand how these synergy benefits have to be shared between the acquirer and the target company. This split of synergies gains depends on the characteristics of the potential buyers: the more unique these characteristics in order to achieve the synergies, the large

the share of synergies benefits the buyer should receive. On the other hand, the target firm will be able to gain the highest premium share if it will capitalize on its bargaining power by forcing all bidders to converge to the highest offer price. Moreover, publicly traded companies are more likely to get synergy premiums compared to private firms, since the latter have more difficulties in attracting competing bids for their lower market visibility. Synergy gains can also be evaluated considering stock price returns: there is clear evidence that sellers are the real winners in M&A deals: it has been proved that they obtain a price upside around 16% on average, far above the 2% increase experienced by acquirers. These results may suggest that acquisitions have very little or even negative effect on the acquirer's returns: however, this is not always the case. The significant difference in price returns can be explained by two main reasons: company's size and competing bids. When the acquisition involves bidders with large market share and small target firms, it is not surprising that bidders' stock prices do not experience a considerable reaction at the merger announcement dates. On the other hand, it has been observed that whenever a bidder proposes a higher offer price, target companies receive some kind of benefits. Finally, it has been argued that target companies are not the only winners in mergers and acquisitions: competing bidders will take profit from the transfer of their partnerships to the winning bidder, while investment banks, advisors, hedge funds also receive compensations from their services and from the speculation around the bid success probability.

Synergies can therefore be considered one of the main source of returns in M&A deals, determining the its real worth. However, opinion concerning the possibility for synergies to increase companies' value are puzzling: sometimes acquirers pay a premium that significantly exceeds synergies fair value or they may erroneously evaluate them.

The "Synergy Trap"

There are several explanation synergies overpayment which are mainly related to behavioral and operational factors: some of these arguments can be summarize them as follows.

- *Biased valuation.* Since the deal is usually designed by deal makers hired by the acquirer, who are interested only in the conclusion of the deal, no matter whether the valuation lead to an excessive acquisition price.
- *Managers hubris.* High-profile and self-confident managers may overestimate their capacity in delivering synergies after the acquisition, especially if they believe the M&A may represent a key element for their professional success.

- *Post-integration failures.* Companies may fail in the implementation of new synergic strategies if they do not send enough accuracy and commitment to plan also the post-merger phase.

Moreover, there are several mistakes that both analysts and managers make in the valuation of synergies. First, acquiring companies often subsidize target firm stockholders since they fail in correctly identifying the various sources of synergy. Secondly, analysts may choose the wrong discount rate: synergies have to be valued by using the combined cost of capital, i.e. the weighting average between the cost of capital of the bidder and target company, while the discount rate must incorporate the correct level of risk that characterizes synergies cash flows. Furthermore, synergy value has to be computed separately from the control value, avoiding to combine them and to attribute the wrong discount rate. Finally, an excessive optimism about the timing of synergy gains may also cause some bias to the valuation.

2.4.3 The realization of synergies

Companies should be particularly aware about the aforementioned threats that may compromise the achievements of those gains claimed during the pre-merger phase.

Avoiding failures in capturing synergies value is possible, but it requires a new and different approach of looking at and thinking about synergy: executives are requested to adopt a more skeptical and cautious attitude, starting from casting the real existence of the beneficial gains that can be achieved through the deal. They need to collect information and data in order to subject their assumptions and deal-sensitive hypothesis to a rigorous evaluation process: such approach will prevent managers to waste precious resources on synergy programs that are unlikely to succeed even before the starting of the negotiation process. This methodology will have also the positive effect of giving evidence to the company of its synergy opportunities and resources needed to implement them, thus increasing its awareness concerning the organization potentials and the characteristics of potential partners and target companies for future deals.

Many advisor companies and consultancy firms have large investigated on the steps and methodologies that need to be undertaken by companies in order to increase the deal value through synergies and to deliver wealth through a successful transaction: as a matter of fact, synergies should be scrutinized assuming an analytical but at the same time holistic approach, which

considers their entire life-cycle framework, from the first identification to their monitoring and post-deal measurement of how they contributed to the increase in the shareholders' value.

It is possible to identify three main consecutive phases which allow the full realization of synergies: the modeling phase (i.e. the analysis of the value drivers and the valuation of their realization probability and timing), the execution phase (i.e. the design of a detailed work plan with dedicated resources and integration procedures) and finally the monitoring phase (i.e. the system of reporting procedures and indicators which help to the tracking of synergies achievements).

1. Synergies Modeling

The process of modeling synergies starts from their correct identification and the figure in charge for carrying out this task is the finance and corporate development team. This team starts to collect information and data concerning the company to be acquired: as stated by PriceWaterhouseCoopers in its *Transaction Services Roundtable (2010)*, typical inputs for assessing these information are discussions with the target, the analysis of target-provided information during the due diligence procedures, quarterly and annual reports, general industry knowledge and researches and analyst reports. These sources are mainly utilized as a control benchmark to avoid assumptions that may result too optimistic. Moreover, bidder dealmakers should present a complete checklist of common market-based synergy achievements before evaluating untapped potentials that stands from target specific on-going contracts and market position. An accurate due diligence of the to-be-acquired company should also be performed, with a peculiar focus on value drivers and risks areas that may be relevant for the success or failure of the deal: this will help to prioritize information and to avoid being overwhelmed by the complexity of different valuation issues. Due diligence team first needs to analyze the historical financial results to determine projections about the company future performance on a stand-alone basis; secondly it should identify the possible gains and benefits coming from the merger or the acquisition, included their probability and timing of realization and the cost connected with their achievement; finally, the team should classify all the possible risks, deal killers and risk mitigating sources.

The identified synergies are later validated by functional units which are responsible for the implementation of those strategies that are functional to reach the expected results. Functional units must have a good understanding of business processes, both in case of cost and revenues synergies: it results that, on average, "focused" transactions (i.e. deals between companies that operates in the

same core business and which may even be competitors) have higher probabilities to successfully identify and realize synergies. This pre-merger planning which involves functional units gives a great contribution to the decision-making process in the phase that precedes the closing of the deal as well as it will help to effectively capture synergies, once the deal will close. Moreover, functional managers who will not take part in the definition of synergies goals, will experience a considerable drop of motivation and will probably fail in achieving them: therefore, carefully assigning roles and responsibilities for synergies execution is a critical step that has to be performed unquestionably before the deal closing.

Finally, another area in which executives should be very cautious about concerns the set of additional costs and negative effects, included under the name of “negative synergies”. Negative effects due to a misalignment of accounting policies, additional expenses for sales and marketing investments, increased employee benefits, customers unwillingness to continue relationships with the new entity and regulatory costs are just some of the negative synergies pointed out by advisor companies, which insist in reminding companies the importance of including these measures in their valuation models, in order to reach more fair estimates and avoid losing money and resources in unsuccessful deals.

2. Synergies Execution

Clear ownership and accountability are also crucial in the stage of realizing the previous identified synergies: managers and other professionals responsible for achieving synergies should be subject to a transparent reporting system that will both present the execution progress of synergies realization strategies and will help them in maintaining a focused approach on the results to be achieved. Transparency will also improve relationships with stakeholders, allowing them to monitor the reaching of pre-determined financial targets and strategic goals.

Before the execution of the integration process, a detailed project plan must be presented: this plan works with a “business case” mode, i.e. each value driver should have a detailed description of resources, risks and dependencies and for the most valuable business cases this raw description is further concretized into a workplan that includes dates, deliveries and concrete measures to be implemented. Workplans and initiatives must be prioritized and then the effective execution phase can be put into practice: there are also some peculiar factors that may affect the realization of synergies and are specific to the type of synergies targeted. For cost synergies, executive management’s tone and commitment are proved to be crucial, while revenue synergies

rely on execution by the sales and product/engineering teams, which align their efforts through a combination of technologies that may then be sold through new distribution channels.

The execution of synergies in a business combination is not free of possible challenges and problems that may increase the complexity of the integration process and considerably lower the total value created for the stockholders: a survey conducted by PriceWaterhouseCoopers showed that the most common sources of these challenges refer to delays in implementing planned actions, an underestimation of integration costs, the overestimation of potential synergies, some cultural and communication issues and mistakes made by managers in defining and properly execute the integration plan. Another report provided by Accenture¹¹ warns against the “one-size-fits-all” approach to conduct the post-merger integration: it has been reported that many companies adopt methodologies reported by the literature or by the other best-practice cases to define their integration plan. By contrast, the realization of synergies must follow a process that should be highly customized according to the firm specific complexities, regulatory framework, market momentum, the degree of overlap in geography and business practices. Moreover, Accenture professionals have observed that companies usually create teams around functions and cost areas: however, even for cost synergies, it is also essential to continue improving processes such as product design and sales&marketing functions, in order not to lose the focus on the new entity value proposition.

3. Synergies Monitoring

Finally, it is relevant to design a good framework for the tracking of synergies achievements: this phase is critical both for evaluating the job carried out by those responsible for the realization of the integration process and also for assessing the success of the transaction. The monitoring procedures should include financial and non-financial metrics, such as employees retention, product bundling, integration milestone. Some of the common metrics used for assessing the real realization of synergies focus both on revenues growth and cost reduction.

On the revenue growth side we can find:

- The entering in a new market
- Selling of complementary product
- Volume discounts
- Reduced competition

¹¹ Acenture (2004), Outlook: Post-merger integration myths versus high-performance realities, www.accenture.com

On the cost reduction side some of the metrics analyzed are:

- Elimination of surplus structures
- Reduction of production overheads
- Personnel and non-personnel cost reduction
- Increased product standardization
- Increased purchasing power

The process of controlling for synergies achievements should be conducted at a central level, in order to give appropriate feedbacks and acknowledgements to each business units; in addition, the monitoring and transparent reporting system is also necessary for improving the communication process with the market and the financial community and increasing the company's reliability and reputation.

It has been observed that many companies claim for synergies in order to justify the offer price they propose in an M&A deal: however, both valuation and delivery plan need to be effectively carried out in order to give reasons for the premium paid by the acquirer. They also require a successful communication process given the high skepticism of the market towards their possible overvaluation. The next chapter will present an empirical analysis on synergies disclosure policies and practices, their effect on the deal completion and on companies stock returns in order to understand how firms may capitalize on their voluntary disclosure for creating value.

CHAPTER 3

THE DETERMINANTS OF M&A SYNERGIES DISCLOSURE. THE EMPIRICAL ANALYSIS

3.1 INTRODUCTION

The following empirical research aims at investigating the companies' attitude towards the disclosure of the value of synergies in M&A deals. Since the objective is quite wide, a further clarification is needed: first, we tried to classify the voluntary disclosure provided by the executives at the time of the deal announcement in order to verify the relative importance that is attributed to the expected synergies and strategic benefits compared to other kind of information concerning the deal; we also tested the connection between the type of information provided and the companies improvements in their operating performance, following the conclusion of the deal. Furthermore, we observed the relationship between some peculiar features of the deal as well as the companies financial characteristics and their disclosing decisions, in order to test the possible determinants of voluntary synergies disclosure.

The rationale behind our investigation relies in the debate that is usually associated to the disclosure decisions within M&A deals: it has been proved that one of the most important motives of M&As is synergy value (Mukherjee, 2004), which can be determinant for the conclusion of the deal itself. However, despite the existing body of knowledge and consolidated praxis, the measurement and assessment of synergies still remains a great issue. The main reason why there is still little agreement around this topic lies in the great influencing potential related to the disclosure of such information: as a matter of fact, firms may voluntarily provide information on synergy value to persuade stockholders and stakeholders on the effectiveness of the proposed M&A. This controversial situation has raised the interest for exploring the effective behavior that is assumed by companies and the reliability of the information provided.

To address the purpose of the research a sample analysis methodology was preferred over other forms of inquiry. As I will further enlighten in the next paragraphs, we decided to select a sample of deals undertaken by companies listed in the main American stock exchanges in the year

2013. The identification of some precise criteria for the collection of a broad number of observations reduced the bias that other type of analysis, such as a case study methodology may convey.

The research study presented in this chapter can be divided in two sections: the first section will accurately analyze the content of press releases and conference-call transcripts provided by the management at the dates of the deal announcements. The aim of this first part of the analysis is to classify these documents in different categories in order to test the relative importance that is attributed both to the historical and forward looking information: the classification system adopted can be considered in line with the study of Kimbrough and Louis (Kimbrough and Louis, 2011). However, the innovative element of our research, conversely to Kimbrough and Louis study, can be found in the use of a content analysis software (NVIVO SQL), which contributed to the coding procedure, instead of a mere line-by-line manual coding.

After observing the characteristics of the information provided, it was a natural consequence to investigate the various aspects that may have led to such type of communication. Therefore, in the second part of the research, we will focus on some deals factors and companies specific characteristics which may influence the disclosure of information related to synergy value.

The presentation of the two parts of the research will be preceded by some introductory sections which will be critical for a better comprehension of the whole study. Therefore, the following paragraphs will provide a brief review of the existing literature and they will explain both the objectives pursued within this work and the methodology followed for the construction of the sample.

3.2 LITERATURE REVIEW

Synergies disclosure can be considered a rather recent topic within the existing literature related to disclosure policies in M&A deals: so far, the majority of studies have focused on other relevant issues of voluntary disclosures - such as intangibles, intellectual capital or corporate social responsibility (e.g. García-meca, Parra, Larrán and Martínez, 2011) while they generally overlooked the investigation of the use and reporting of synergy value.

Although strategic benefits and financial gains coming from the deal are one of the main topic of interest from both investors and analysts perspective, prior research related to this topic is very limited. To our knowledge, synergies disclosure determinants have only been investigated by Dutordoir, Roosenboom and Vasconcelos (2013) who examined the causes that more frequently lead bidding firm managers to include synergy forecast estimates in their announcements, by deriving from the M&A and voluntary disclosure literature a set of predictions on the determinants of the synergy disclosure decisions. Our study partially retrace the approach followed by Dutordoir, Roosenboom and Vasconcelos research, although it extending the analysis by including an examination of the informative content provided by managers in their announcements; moreover, while their study test the effect of synergies disclosure on bidder stock returns as a proxy of the company's performance after the conclusion of the deal, we test the relationship of synergies amount on another type of proxy, which mainly focus on operative performance rather than on market one.

Prior studies also analyzed the topic of synergies disclosure: Bernile and Bauguess (2011) studied the impact of operating synergies on company's operating performance, by examining the relation between traditional ex ante and ex post accounting measures of performance and the availability and size of insiders projections. They also analyzed the effect on firm's stock returns, proving that ex ante investors reaction is related both to the availability of information provided by the management and their implied gains; on the other hand, by looking at the long-term returns, they demonstrated that investors take into account the ability of firms to deliver the initially projected synergies, proving once again the importance of operating synergies in determining the merger performance. The relationship of synergies estimates availability and firm's performance was previously analyzed by Houston, James and Ryngaert (2001) who focused their attention on the banking sector, by analyzing a limited panel of 64 bank mergers, occurred between 1985 and 1996. They adopted a methodology that allowed them to calculate the present value of the management's

projection of the estimated costs savings and revenues enhancement in order to test both the rationale underlying the valuation and the consequent consistency of the purchase price. Secondly, they investigated the relation between these estimated gains and the change in the bidder and the target stock returns: in this way they were able to look at each deal from the perspective of management, analysts, and investors. The empirical results showed that for the majority of deals, synergies were more linked to the possibility of reducing operating costs and consolidate overlapping operations, rather than to the perspective of obtaining revenues enhancements.

However, these stream of studies takes the synergy disclosure decision as given and rather focus on the credibility of managers forecasts by analyzing the effect of projection of performance measures: the contribution of our research will be to shed light on the motivators that ex-ante will influence the disclosure decision rather than to test the ex-post effects.

Moreover, the topic of synergies disclosure was analyzed from the market perspectives: the study of Cicono, Clarke, Ferrisa and Jayaraman (2009) gave evidence to the still persistent investors' skepticism towards the amount of possible gains, proved by the fact that the market still discounts management's projections. They analyzed the "soft" information included in M&A deal announcements: with the help of a content analysis software they developed two qualitative measure of optimism and synergies expectations, which they proved to be negatively correlated with companies stock returns. As a matter of fact, investors seem to underestimate those announcements that contain overly optimistic statements as well as they are tend to discount the projected gains that are claimed to be generated from the merger: anyway, the "soft" content of M&A announcement holds a relevant role for investors decision.

Our study considerably improves the approach followed by Cicono, Clarke, Ferrisa and Jayaraman for what it concerns the content analysis, since it exceeds the mere automatic calculation of two qualitative proxies. As a matter of fact, we performed a line-by-line coding, thus determining a detailed categorization structure which gave a more complete overview of the specific qualitative characteristics of the documents content.

Finally, a portion of literature deals with the topic of M&A synergies by looking at their effective components: Devos, Kadapakkam and Krishnamurthy (2009) investigated the characteristics of operating and financial synergies by analyzing Value Line forecasts. In this way, they shed new light on which are the type of synergies that effectively contribute to increase company's value and that can be justified in the valuations and which are those factors that shouldn't

be valued as “true” synergies: they found that mergers generate gains by improving resource allocation rather than by reducing tax payments or increasing the combined firm market power..

It is relevant to notice that this study analyzed the components of synergies forecasts provided by analysts: conversely, our study will investigate the information produced by the management, thus assuming companies’ internal perspective.

As it comes out from this synthetic review of the literature concerning M&A synergies disclosure, the previous studies have mainly investigated the consequences of disclosure decisions, whereas there is still little evidence about the determinants that lead managers to reveal information on synergies projections. This analysis brings a new contribution to the existing literature since it extends the knowledge about management disclosure decisions within mergers and acquisitions deals; moreover, the content analysis of deal announcements documents will help to understand which are the current practices adopted by companies in terms of disclosure, with a specific focus on forward-looking information and their relation with companies operating performance evolution.

3.3 RESEARCH OBJECTIVES

The main objective of this empirical research is to verify the relative weight attributed to the communication of synergies by the companies' executives and to investigate which could be the determinants for such disclosing decision.

In order to analyze the type of information provided by the management, we focused our attention to the information content of the most common communication tools, used by companies to relate with the financial community, i.e. press release and conference calls transcripts. We opted to exclude other type of communication forms, such as articles extracted from the online and offline press because we wanted to focus on the management point of view and his perception on the deal value creation.

Moreover, the research will investigate the relative incidence of the information related to historical details compared to the one addressing the forward-looking forecasts and expected achievements. In particular, a specific attention will be given to understand the differences in the typology of information between companies who communicate the value of expected synergies (from now on "disclosing companies") and those who do not provide this detail.

After this initial descriptive analysis, a regression model will test the connections between the information categories and the improvement in companies operating performance after the conclusion of the deal; the aim of this analysis is to verify if there is a connection between the performance improvement forecasted at the moment of the deal announcement and the effective operating improvement that is achieved by companies after the merger: more broadly this section will also test the credibility and accuracy of the management predictions.

The second part of the research will be more focused on the causes and factors that may have influenced the managements disclosing decisions observed in the first part of the analysis: specifically, we aim to verify if some financial characteristics of the bidder or the target as well as some peculiarities of their relative position within the deal may influence this decision. In order to pursue this aim, we developed some hypothesis based on the previous literature, in line with the study of Dutordoir, Roosenboomb and Vasconcelos (Dutordoir, Roosenboomb and Vasconcelos, 2011): both the univariate and multivariate analysis that will be presented later in the chapter aim at testing the validity of these hypothesis.

The next paragraph will present the criteria followed for the construction of the database which will be utilized both for the descriptive analysis and for the regression and *probit* models.

3.4 SAMPLE CONSTRUCTION

The following paragraph will present the criteria which have been followed for the data selection and the following construction of the database: this database will constitute the basis for both the descriptive and empirical research.

For the first part of the analysis, it was necessary to collect a certain number of press releases and conference-call transcripts related to M&A deals: in order to complete this step, it was essential to define some specific criterion for the selection of deals.

The list of deals was derived from the Bloomberg portal, an online database providing current and historical financial quotes, business newswires, and descriptive information, research and statistics on over 52,000 companies worldwide. Bloomberg database has a specific module dedicated to M&A activity, including lists of the largest deals by region or date, activity breakdowns by industry, and a brief League Table. The possibility of inserting some precise inputs and obtaining a complete list of deals that satisfied our wished criteria, allowed us to create a complete database without overlooking any observations.

The initial Bloomberg M&A screen presents the feature of Figure 3.1.

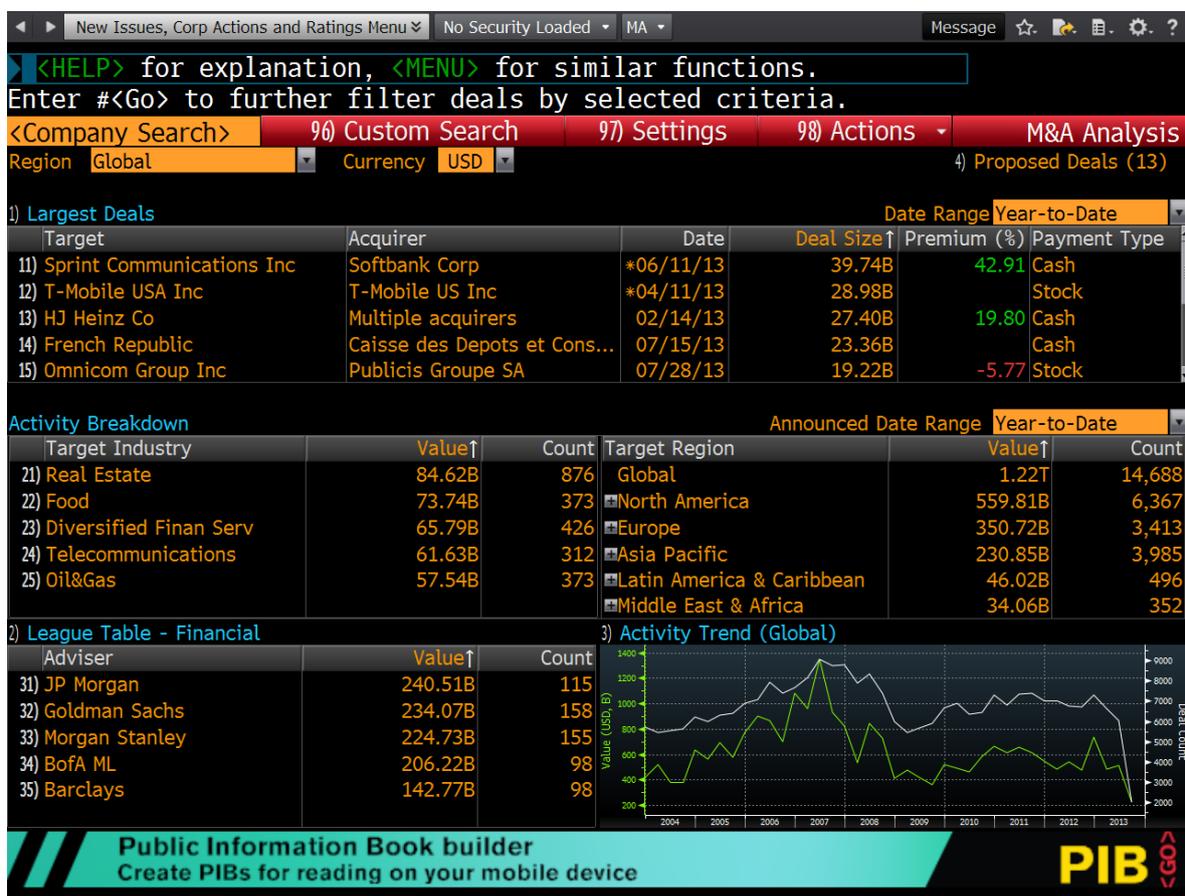


Figure 3.1 Bloomberg M&A research portal - Start page

The most common way to obtain a list of M&A deals that corresponds to some precise criteria is to use the “Custom Search” command. (for an example of a customized search, please refer to figure 3.2).



Figure 3.2 Bloomberg M&A research portal – Custom search page

In this way, we obtained a sample of deals announced between January 1st 2013 and December 31st 2013, in the form of acquisitions, mergers, acquisitions of assets, acquisitions of major interests: we excluded acquisitions of partial interests, minority stake repurchases, privatizations, leveraged buyouts, spinoffs and recapitalizations. We decided to focus on the last year time horizon because we considered it more representative of the actual situation that characterize the M&A market. Moreover, we preferred not to enlarge the number of observations by extending the time horizon of our research since, for the purpose of our analysis, the numerousness of our sample could be considered adequate.

We didn't put any constraints both on the deal nature (we considered both friendly and hostile deals) and on the method of payment (we evaluated “cash”, “stock” and “cash&stock” as purchase methods). For what it concerns the deal status, we included both completed and pending deals.

In line with the reference literature, we opted for considering only deals whose size was bigger than \$50 Million; furthermore, we eliminated deals which involved target companies with a share price below one dollar, calculated 22 trading days before the offer is publicly announced.

We only included deals where either the bidder or the target were U.S. companies: we motivated the constrain on the geographical origin with the choice of focusing on the American market, given its more intense M&A activity. We also opted for the American companies because of their peculiar disclosure legislation and voluntary disclosure practice: as a matter of fact, in comparison with the European legislation, the Security and Exchange Commission requires the companies to attach all the voluntarily produced documents to the official forms that have to be fulfilled for the announcement and conclusion of mergers and acquisitions. Therefore, with either the bidder or the target to be American companies, the procedure of collecting documents which constitutes the second part of the database description, resulted more undemanding.

Finally, we decided to consider only companies listed in the main American stock exchanges, i.e. NYSE, NASDAQ OMX, NASDAQ Stock Market, and the National Stock Exchange.

Once the list of deals was created, it was possible to select some useful accounting information as well as other critical information such as the companies industry and SIC codes, their country, the total number of analysts recommendation, the deal size, the announced premiums and the cash terms. For what it concerns the accounting measures, we collected some missing values not recorded in the Bloomberg database, which have been integrated thanks to the use of the Orbis database.

Orbis is a global company database, produced by Bureau van Dijk, which provides large historical series of financial information. With the aid of a “Bath Search”, it was possible to upload the list of companies collected with the Bloomberg database and to select the financial measures or ratios, if necessary also selecting different reference periods.

From our initial sample of 423 observations, we excluded 24 deals for which it was impossible to find documents related to their announcement. Moreover, we also excluded 9 deals, given the presence of two bidding companies: these combined acquisitions would have set some distortions in our analysis since it is not possible to isolate the variables content for the specific company. Therefore, our final sample consists of 290 M&A transactions, of which 276 are completed deals: in table 3.1 and figure 3.3 it is possible to have a picture of the whole sample, classified by the bidder industry affiliation, where industries are defined using Kenneth French's algorithm to translate SIC codes into twelve industries.

Fama-French Industry	Num. Of Deals
Chemicals	5
Healthcare	47
Finance	89
Bus. Equip. & Elec.	55
Manufacturing	13
Other	20
Shops	8
Telecom	21
Energy (Oil, Gas)	10
Non-durable Cons. Goods	7
Durable Cons. Goods	5
Utilities	10
Total	290

Table 3.1 Sample deals breakdown by Fama-French Industry group

Industry Affiliation

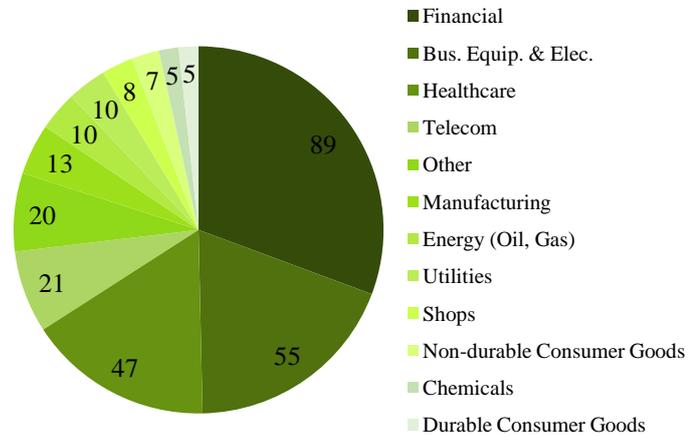


Figure 3.3 Sample deals breakdown by Fama-French Industry group

Once the list of deals was created, it was necessary to collect the related press releases and conference all transcripts: all these documents can be found in the Investor Relation section of the companies' websites. Nevertheless, this process would have been excessively time consuming and thus we opted to utilize LexisNexis, an online database which provides business, legal and news information about international companies. LexisNexis is associated with a large number of external information providers and therefore it was possible to retrieve some external sources which assured an exhaustive selection of available documents.

From the "Find Source" section we selected a panel of sources commonly used in the literature, which included FD Wire, PR Newswire, Business Wire, Canada Newswire and Marketwired. Furthermore, the following research criteria have been inserted, in order to effectively include all the desired information in our research:

- SUBJECT(Mergers & Acquisitions OR Merger Or Acquisition) AND
- HEADLINE(purchase OR acquire OR merge OR merger OR acquisition OR agreement)
- GEOGRAPHIC(United States) AND
- DATE AFT(1/1/2013) AND DATE BEF(12/31/2013) AND
- COMPANY(this field was filled for each bidder company of the Bloomberg sample)

Finally it is relevant to specify that the selection of the documents included only investors material produced by the management of the bidder or (rarely) of the target companies: this choice was made in order to uniform the documents sample. Therefore, articles produced by the industry press as well as any different type of news have been excluded. Moreover, we opted to consider uniquely those press releases and conference call transcripts which referred to the date and the deal announcement, thus excluding any documents with a subsequent reference date, duplicates or documents related to the date of the conclusion of the agreement. In conclusion, we eliminated summaries and incomplete documents in order to guarantee the analysis homogeneousness and coherence.

3.5 PART I - CONTENT ANALYSIS OF M&A ANNOUNCEMENTS

3.5.1 Methodology

The database of the documents, created according to the criteria presented in the previous paragraph, has been critical in order to develop the first part of the research project, whose aim consists in the analysis of the main characteristics that can be observed by investigating the content of the companies press material published at the date of deal announcement.

In line with the methodology followed by Kimbrough and Louis (Kimbrough and Louis, 2011), a classification system composed of six different categories was created in order to verify the variance in the informative content of press releases and conference call transcripts. These categories reflect the informative requirements usually demanded by investors and, more generally, by the whole financial community: we can divide the six categories in two macro categories, i.e. the “*historical information*” and the “*forward looking information*”.

The first category refers to the information concerning the deal’s technical features, which include: the various components of the purchase price and the factors that contribute to determine its amount; the considerations regarding the amount and form of the contractual agreement; the timing and conditions at which definitive agreement is concluded; the financial resources as well as the new credit facilities that may have been expressly opened by the acquirer in order to fund the acquisition; the approval requirements of the target company’s shareholders and the status of the legal procedure; the presence of previous deals concluded between the two companies and particular facts happened in the negotiation phase if impacting for the conclusion of the deal; finally, we also included in this category additional considerations that refer to the deal’s execution and to the effect of competing offers both on the purchase price and on the signing of the definitive agreement. Since all the aforementioned items are the result of valuation activities and estimations carried out in compliance with the current legislation, the information that is part of the first category can be considered as “historical”.

The second category is composed by the information regarding the bidder company, i.e. its business model, its product and services, its customer base and its financial results. Similarly, the third category includes the financial and business characteristics of target company as well as its strategic rationale in getting involved in the deal, which considers the strategic and economic benefits expected by the target. Again the content of these items can be considered “historical” information, since it refers to the past activity of the two companies. The content of these two categories assumes a great relevance in terms of communication with the financial community:

especially for the transactions which involve private target companies, it is extremely important to provide additional information to financial analysts, allowing them to refine their estimates and to get a more complete picture of the deal's rationale, integrating their information with additional details that may not be publically available.

On the other hand, analysts and investors are also interested in receiving details concerning the future opportunities of the companies, as a consequence of the deal: the "forward-looking" information is critical for improving the quality of analysts recommendations: the remaining three categories all incorporate with this type of information.

The fourth category is represented by the deal's strategic rationale, which embraces all the strategic benefits expected by the bidder as well as the factors impacting in the achievement of the strategy success: in the majority of the cases it includes qualitative and "soft" considerations, presented in order to support the strategic motivations for the conclusion of the deal. However, this category also comprises a set of information that is extremely relevant for the purpose of our analysis, i.e. the sources of synergies, their amount and the timing forecasted for their realization. In fact, whenever present, this information has more specific and detailed characteristics compared to the general strategic benefits and optimism statements: it generally describes both the concrete opportunity conveyed by a new customer base, the expected market expansion and new distribution channels, the position of combined entity in industry and also it aims at quantifying the amount of cost saving and revenues enhancements that can be obtained from the combination of the two companies. In this category we also included the companies considerations about the relation between the deal and the whole strategic vision as well as its impact on other previous transactions and strategic initiatives: in this way, the company justifies its decision, underlining the coherence of its action with the overall strategic and financial plan.

All the integration details have been grouped in the fifth category: they provide information concerning the future steps that will be undertaken by the companies in order to integrate both operations and peoples, the changes in the board of directors and the executives in charge of managing the integration phase. If the merger project envisages the creation of a new entity, its operational characteristics and strategic positioning are also part of this category. Moreover, it includes details concerning the costs and risks expected by the companies to align their physical structure, operational procedures and companies' cultures as well as further integration plans that may be considered in a second stage.

Finally, the last category includes information concerning the deal's impact under the economic and financial profile. Analogously to the other "forward-looking" information categories, the quantitative data related to the changes in the capital structure and to the effect on the acquirer's

balance sheet and income statement are considered critical for the construction of the valuation model. Furthermore, many companies usually disclose a “*pro-forma*” statement with the capital structure and other financial and non-financial metrics of the combined company, included the combined results and the financial leverage.

The classification system described so far, constituted the basis of the textual analysis, which aims at coding all the documents collected within our sample, in order to test the relative incidence of each informational category on the total information provided by the companies in their public announcements.

There are two main approaches for conducting an analysis on qualitative data: the first method (also adopted by Kimbrough and Louis in their study, Kimbrough and Louis, 2011) is a line-by-line manual coding, while the second one realizes the coding through the use of a technical software. In our analysis, we opted for the second methodology and we decided to use NVivo, a qualitative data analysis (QDA) computer software designed for qualitative research. NVivo provides the user with a set of advantages, otherwise not exploitable with a simple manual analysis, such as:

- *Time saving.* NVivo allows us to manipulate and organize different sort of data in a short time, thus considerably reducing the time consumption in the initial phases of our analysis. Afterwards, the data can be easily organized around nodes and transformed into words, categories or other codified elements. Moreover, the possibility of realizing some queries in order to examine the available data contributed to reduce the test and elaboration time;
- *Effectiveness in data processing.* This easy-to-use software helps the researcher to move to a mere collection of data to a consistent and robust conglomerate of argumentation, associated around a *node*, specifically identified in the examination phase according to the desired classification system. Using *free nodes* and *secondary nodes*, which result from the aggregation of the free ones, the researcher can easily arrive to a deductive conclusion;
- *Better control over the process.* Due to the qualitative nature of data, the software does not generate conclusions autonomously, but simplifies the re-examination process, giving to the researcher the vision of the complete process.

In order to get the most from NVivo, all data have been collected and examined according to six *parent nodes*, which reflect the aforementioned categories. However, the six *parent nodes* have been further divided into subcategories created on the basis of the literature and practical evidences that usually characterize the six macro-categories: this process leaded to the creation of 32 *free nodes*, as it can be observed from figures 3.4 and 3.5.

The motivators behind this process rely upon the nature of the available data: in fact, since the content of the documentation was extremely different in terms of accuracy and details provided, reducing the coding to just six categories would have made the analysis imprecise and the evidence collected not sufficiently organized. Using NVivo, we have been able to group separate topics around common characteristic, even if they originated from the different type of document (press releases and conference call transcripts).

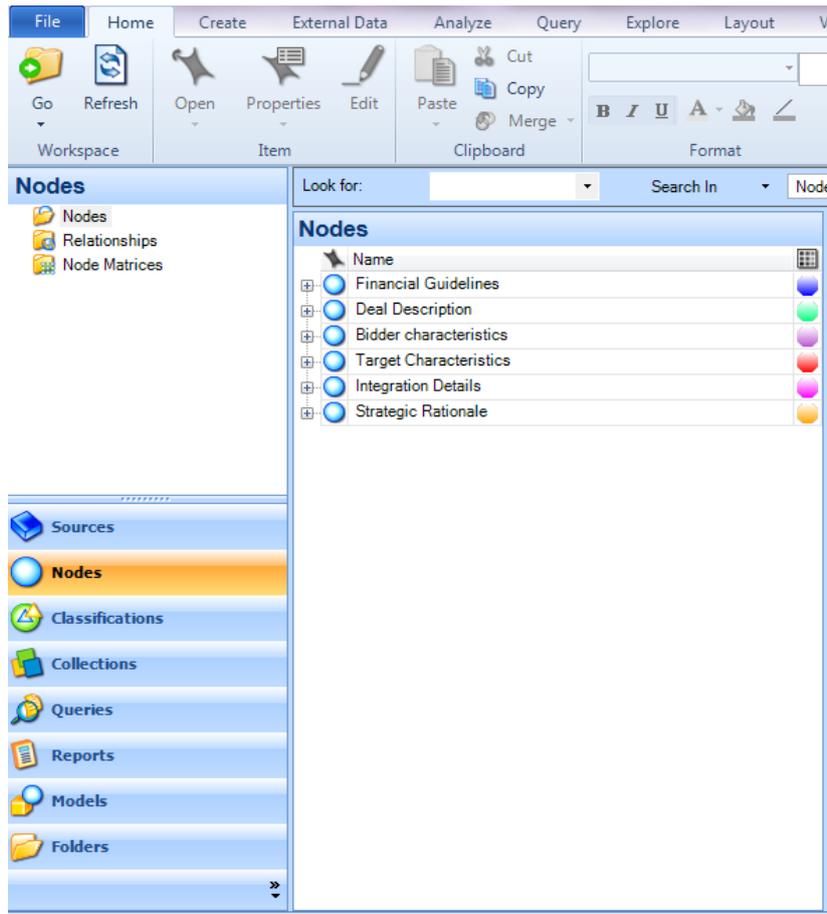


Figure 3.4 NVivo Nodes Module (Tree nodes)

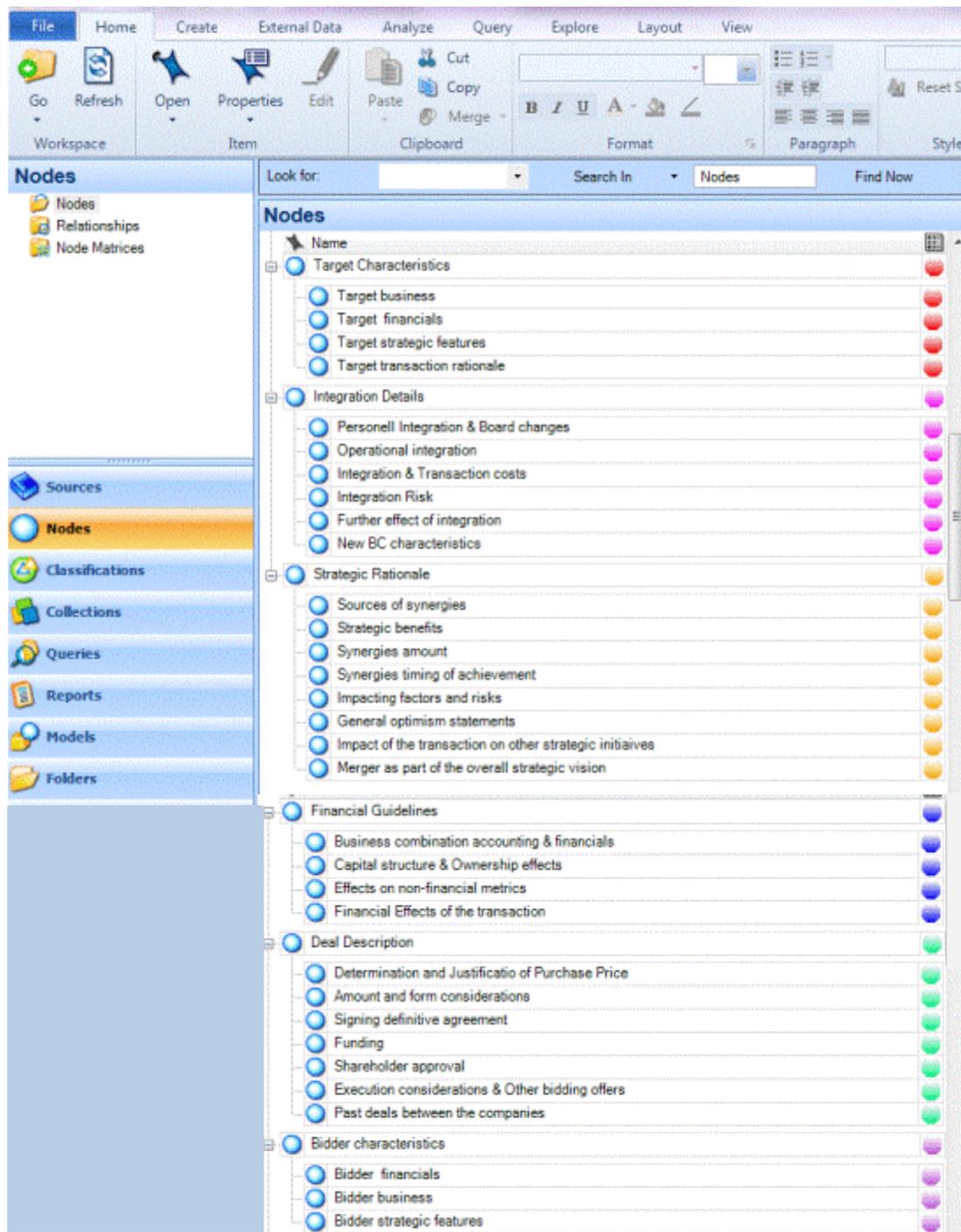


Figure 3.5 NVivo nodes module (Children nodes)

Finally, for each category it was possible to obtain both the number of references and the number of words coded in each source: in this way we could associate to the qualitative analysis also a quantitative dimension.

The NVivo software has also been used in order to classify the sources according to the different characteristics that differentiate the related mergers and acquisitions. The sources

classification resulted significantly helpful for realizing some matrix queries that contributed to the different analysis, according to the following variables:

- The first variable that has been examined is the *integration type*: mergers and acquisitions can originate horizontal integrations if the two companies belong to the same industry, thus they incorporate a competitor and increase their market share. Conversely, we will talk about “diversifications” if the deal involves companies belonging to different industries. We established if the deal could be considered a horizontal integration on the basis of the 12-Fama-French Industry Classification System: we collected the companies SIC codes from Bloomberg database and aggregated them using Kenneth French's algorithm. Although Bloomberg has its own industry classification system, we preferred to use the Fama-French Twelve-Industry Classification System because of its wider use and generally accepted standing;
- The second variable is the *geographic origin*: we identified as “cross-border” the transactions that occur between companies that are located in different countries. The geographic constraint was considered among the search criteria inserted in the Bloomberg database for the sample construction: more precisely, we imposed that at least either the bidder or the target were a U.S. company, thus we included also the “cross-border” transactions;
- We assumed the *payment method* as the third variable for our analysis: this is considered a critical factor, given its influence on the conditions at which the deal is concluded. For the bidder company management equity payment transactions need a larger effort in terms of communication skills, especially for what it concerns the fairness of the market valuation of equity. The details related to the payment method used in the sample transaction were also collected from the Bloomberg database;
- The final variable is the *bidder company industry*: similarly to the procedure followed for determining the industry affiliation for the first variable of *integration type*, we used the Fama-French Twelve-Industry Classification System. We performed the analysis by industry with regard to the bidder company because of it is the one who will exercise the control and will lead the action of the new entity both its original industry and in the industry of the target company.

3.5.2 Content analysis of the announcements

3.5.2.1 General Analysis

The first analysis has been performed from a general point of view, in order to observe the sample characteristics on the whole: the purpose of the general analysis is to observe the communication attitudes assumed by the management of the announcing companies.

As we can observe from figure 3.6, the most important category is represented by the category of “*strategic rationale*”, which represents the 27.94% of the whole information. The second largest category is embodied by the “*deal description*” (22.71%). It is relevant to observe that the two largest categories refer both to historical and forward-looking information, underling that they are both critical for the investor information necessities: as a matter of fact, the two “macro-categories” have a very similar size, with the historical information, slightly larger (51.69%) than the forward-looking information (48.31%). The third category that occurs more frequently is related to the “*target characteristics*”: the large majority of announcements is published by the bidder company, which gives greater importance in presenting the target business, rather than its own one. In fact, the acquirers assume that analysts and investors already have a large knowledge of their business models and financial features and prefer to focus the communication on the target company: therefore the “*bidder characteristics*” category represents only the 10,05% of the whole information. The remaining categories are referred to the deal’s financial guidelines and integration detail with a percentage of respectively 10.44% and 9.92%.

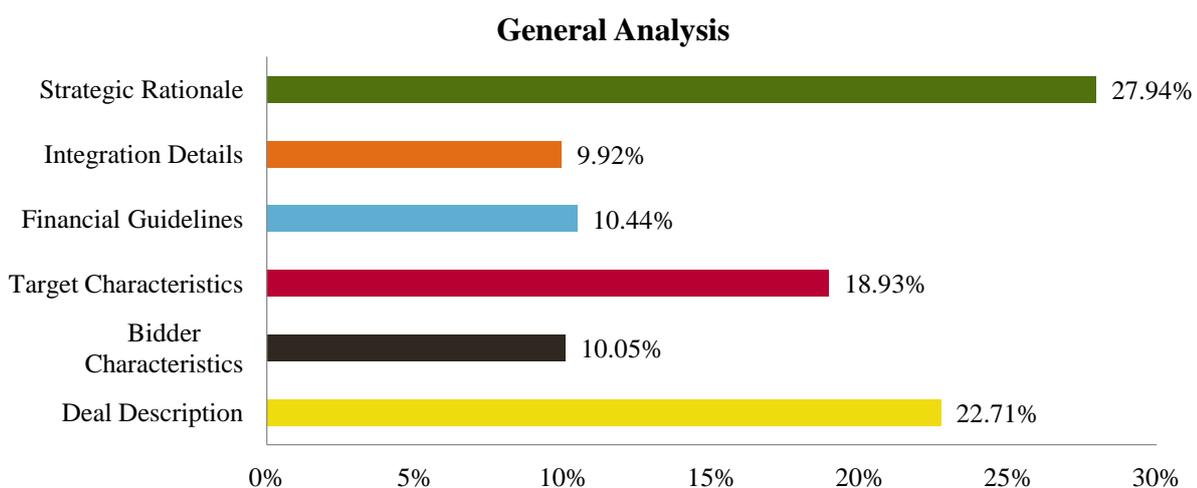


Figure 3.6 Announcement documents content analysis - General Analysis

In order to verify the differences in the disclosure provided through different communication tools, we performed the analysis by selecting only those deals for which the conference call transcripts were available (the 11% of total deals).

In this way it was possible to see whether there were some topic of discussion that emerged more significantly whenever the parties had the possibility of deepen some aspects of the deal; at the same time this analysis reveals if the press release are ineffective in reaching some informative requirements. From this analysis, it is possible to observe that the financial community is particularly interested in receiving information concerning the strategic strengthens of the resulting entity as well as the future synergies that will emerge when combining the two companies: as a matter of fact, the subcategory labeled as “*synergy amount*” is equal to the 10.31% of the total number of references, well above the average recorded in the general analysis (8.03%). On the whole, the “*strategic rationale*” category represents the 31.38% of total information. Similarly with the general analysis the description of the deals’ characteristics embodies the second largest category: however its relative importance is lower compared to other categories, which in this subanalysis acquire a greater relevance. As a matter of fact, conference calls seem to give a greater weight to the illustration of financial guidelines (15.58%) and details concerning integration projects (13.77%), whereas they receive a much lower consideration with the press communication. Another informative category that decreases significantly its relative importance when analyzing only conference call transcripts is the “*target characteristics*”.

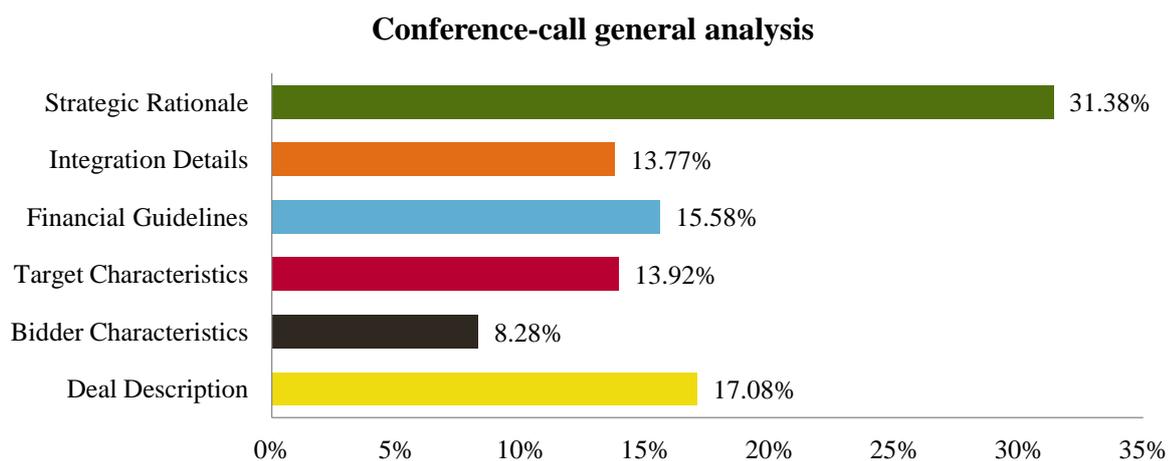


Figure 3.7 Conference-calls announcement documents content analysis - General Analysis

3.5.2.2 Analysis by integration type

The first variable that we used to perform our analysis is the type of integration: one of the main motives that usually induces companies to acquire partners or to merge with them is the possibility of enlarging their customer base, creating economies of scale and strengthening the market share. These strategic actions are typical of horizontal integrations and can be more easily established between companies belonging to the same industry: for this reason, we expected a greater importance of the strategic information with regard to deals where both the bidder and the target companies were in the same industrial sector.

Our expectations have been confirmed by the results of our analysis: comparing figure 3.8 and 3.9, it is possible to observe that horizontal deals record a higher share of the “*strategic rationale*” category (29.8% vs. 26.43% of non-horizontal deals). Moreover, for horizontal deals the relative importance of the other categories involving forward-looking information (i.e. “*integration details*” and “*financial guidelines*”) is higher if we compared it to non-horizontal deals. Observing these results we can deduce that companies which integrate horizontally have a clearer vision concerning their future projects and financial sources that will allow them to reach their strategic objectives: this evidence is probably due to their greater knowledge of the competitor they are going to acquire as well as to the potential synergies. Concerning the latter, for horizontal deals, the subcategory “*sources of synergies*” represents the 9.47%, well above the 6.61% of non-horizontal deal and above the total sample value of 8.03%.

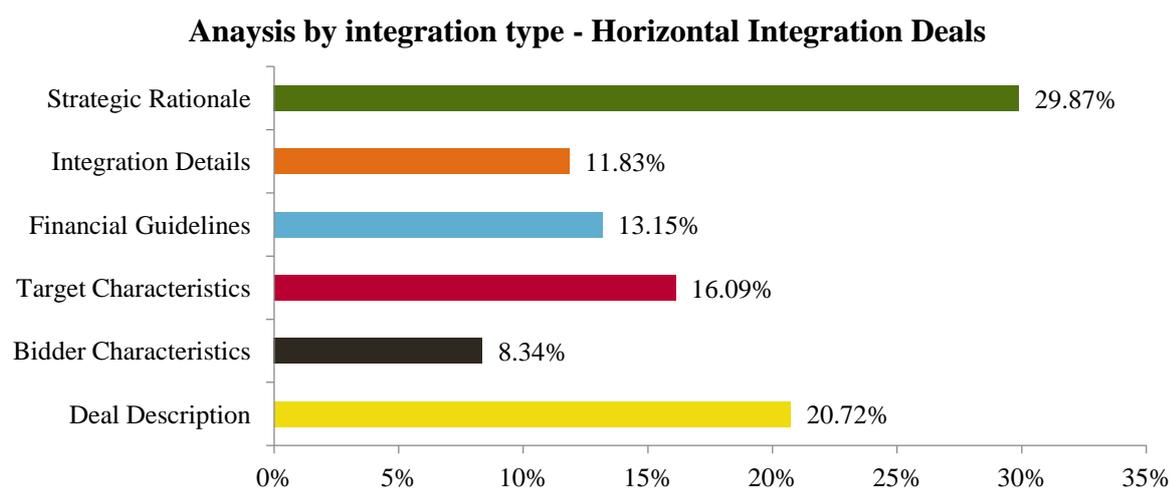


Figure 3.8 Announcement documents content analysis – Analysis by integration type for horizontal deals

It is also relevant to observe that non-horizontal deal dedicate more attention to inform the financial community about the characteristics of the target company: we could expect this result

since companies need to provide more details about the target companies business models in order to convince their audience about strategic benefits they will receive from the specific characteristics of the acquiree. Therefore, it is necessary for them to stress both the target commercial offer and internal resources as well as its financial and strategic strengths: as a matter of fact, the subcategory “*target business*” shows a 300 bps relative increase, compared to the data recorded from the general analysis.

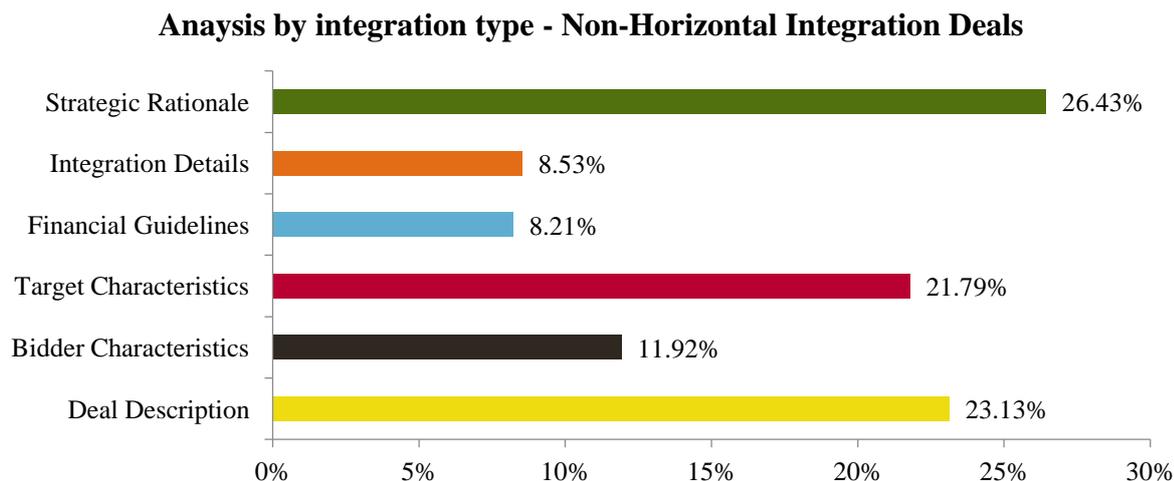


Figure 3.9 Announcement documents content analysis – Analysis by integration type for non-horizontal deals

3.5.2.3 Analysis by geographical origin

The second aspect we decided to investigate refers to the geographic distance between the merging companies: in the last years, the number of outbound deals has increased considerably for U.S. companies, reaching a market share of \$ 176.1 B, almost a fourth of inbound deals (\$ 728.2 B). However, in 2013 the phenomenon of cross-border deals recorded a 6% decline from the previous year¹², which can be primarily connected with changes in the nature of the U.S. investors: as a matter of fact, the improved economic conditions increased the proportion of corporate investors (versus U.S.-based financial sponsors), who usually opt for stable domestic deals rather than riskier investments in the emerging markets.

In our sample the number of cross-border deals represents the 25% of total deals¹³: whenever the bidder is a U.S. company, it was reasonable to assume that they prefer to underline the characteristics of target companies, given their lower public recognition. There is also a small proportion of deals that involves foreign bidders and U.S. target companies: in these cases, there is

¹² Mergermarket M&A Trend Report: 2013, www.mergermarket.com

¹³ We treated as “cross-border” both deals, in which either the bidder or the target are non-U.S. companies.

a great focus on the target company just in case the latter is a privately-held company or whenever it belongs to a different industry.

These assumptions have been confirmed by our empirical results, as it possible to observe from figures 3.10 and 3.11: for cross-border deals, the category “*target characteristics*” represents the 21.30% of total deals, well above the 18.18% of the same category related to non-cross-border deals and also above the average of the total sample (18.93%).

Analysis by geographic origin - Cross-border deals

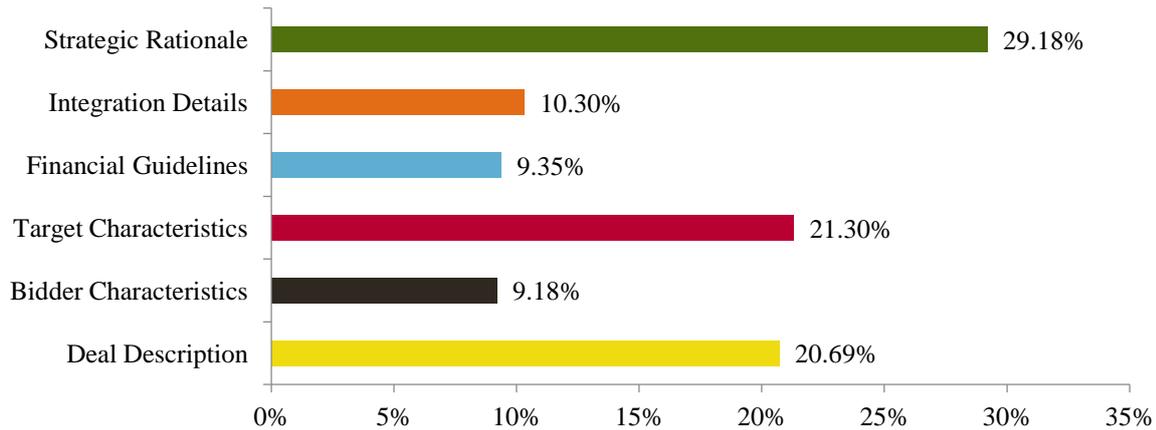


Figure 3.10 Announcement documents content analysis – Analysis by geographic origin for cross-border deals

Moreover, companies involved in cross-border deals dedicate more attention in providing their public with details about the deal’s strategic rationale and integration plans, which represent respectively the 29.18% and 10.30% of total information, as to indicate the importance for investors in receiving forward-looking details especially at the occurrence of informative gaps due to different geographic origins.

Analysis by geographic origin - Non Cross-border deals

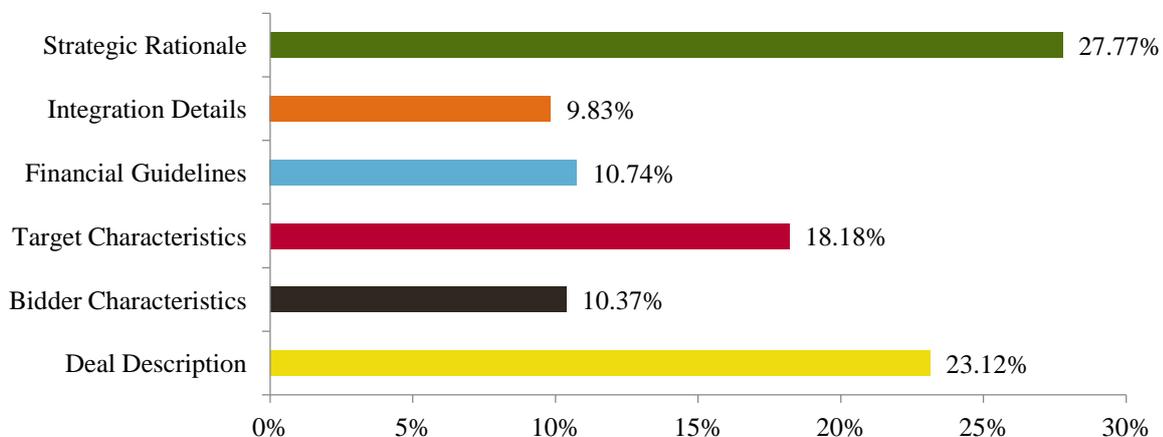


Figure 3.11 Announcement documents content analysis – Analysis by geographic origin for non-cross-border deals

3.5.2.4 Analysis by payment method

We also performed the analysis considering the method of payment used by the bidder company: as already said in the previous paragraphs, we collected this data from Bloomberg database, which distinguishes between “cash”, “stocks” and “cash&stocks”. However, we decided to group the two methods of “stocks” and “cash&stocks” in a single category named “*equity paid transactions*”, since we were interested in understanding the possible changes that may have occurred with regard to the communication techniques within stock-financed deals (no matter if they were totally stock-financed or only partially).

We expected “*equity paid transaction*” to provide more details on bidder companies financial characteristics, given the fact that their stocks are usually considered overvalued; moreover, it was also reasonable to expect these deals to focus more on future financial and non-financial effects of the transaction as well as the possible changes in the capital structure of the resulting entity.

These expectations have been only partially confirmed: the category of “*bidder characteristics*” recorded a lower value in equity paid transactions (7.33%), compared to cash-financed ones (11.03%). On the other hand, coherently with our expectations, the category of “*financial guidelines*” denotes a larger percentage for equity paid transactions (circa 280 bps over the average of the total sample).

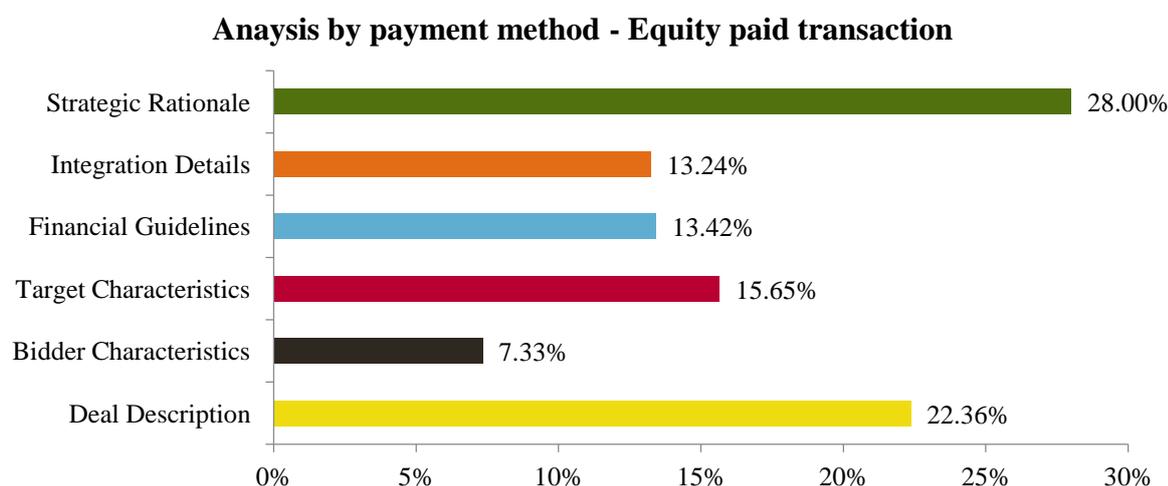


Figure 3.12 Announcement documents content analysis – Analysis by payment method for equity paid transactions

Although we didn’t report it, we also analyzed the different characteristics that could have emerged between deals that are totally stocks-financed and deals that include only a portion of equity financing: for the aforementioned categories, we observed very similar results, showing the

same attitudes among the two types of deals: the category of “*bidder characteristics*” represents the 7.49% of total information for “stocks” deals and the 6.90% for “cash&stocks” ones, while the category of “*financial guidelines*” is equal to 12.97% in “stocks” deals versus the 13.65% of “cash&stocks” ones.

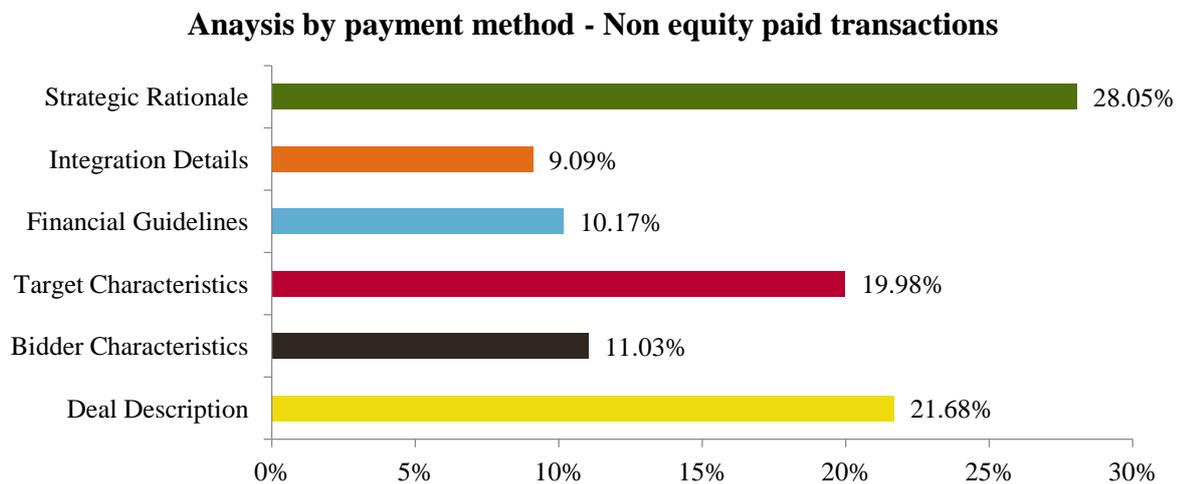


Figure 3.13 Announcement documents content analysis – Analysis by payment method for non- equity paid transactions

3.5.2.5 Analysis by bidder industry

The last variable we analyzed is represented by the industry of the bidder company: as specified in the previous paragraphs, for our analysis we used the Fama-French twelve-industries Classification System, which groups companies’ SIC codes into twelve industrial categories by applying a specific algorithm. Nevertheless, we decided to present exclusively the first four industries, which experienced the largest number of deals within our sample: this choice was made in order to simplify the exposition, reducing conceptual redundancies.

Therefore we considered the following industries:

- Finance (which represents the 30.7% of total deals)
- Business Equipment & Electronics, i.e. Computers, Software, and Electronic Equipment (which represents the 19% of total deals)
- Healthcare (which represents the 16.2% of total deals)
- Telecommunications (which represents the 7.2% of total deals)

It is relevant to underline that the results reported by our sample are rather consistent with the evidences that emerge from the survey carried out by Mergermarket in 2013¹⁴, that we already described in Chapter 2. This research is published on a biannual basis and aims at monitoring the performance of the M&A market. It illustrates the quarterly growth trend as well as the volumes of deals and their values: the survey is conducted both at global and regional level for six geographic areas (Europe, U.S., Asia-Pacific, Japan, Africa & Middle-East, Emerging Markets). The same “standard” set of analysis is replicated in each geographic area: it includes an analysis by industrial sector with a specific focus on cross-border deals trend; in addition, it provides a detailed catalogue of the regional “top deals” and financial advisor league table.

For what it concerns the M&A breakdown by industry, Mergermarket survey evidences indicates TMT (Technologies, Media & Telecommunications) as the industry with the largest number of deals concluded in the year 2013, with a percentage of 33.4% : if we group the two Fama-French¹⁵ categories of Telecommunications and Business Equipments & Electronics, we obtain a percentage similar to that reported by the Mergermarket survey. Moreover, with regard to the finance industry, Mergermarket considers separately the industry of Financial Services and the one of Real Estate: however, if we take them together in order to make a comparison with the Fama-French “Finance” category we obtain percentage of 12.7%. This result is quite different from the evidences provided by our sample (30.7%), although it is positioned as the third largest category. Finally, in Mergermarket analysis the healthcare category (the fourth largest industry for 2013 U.S. M&A market) represents a percentage of 10.8% over the total number of industries, which is quite coherent with the data of our sample (16.4%). Another industrial category, which according to Mergermarket experienced a great M&A activity during 2013 is the Energy, Utilities & Mining, with a market share of 15.4%: this result appears not to be consistent with the one provided by our sample, which shows a value of just 7.6% (by combining together the Energy and Utilities Fama-French categories).

The first industry that has been analyzed is Finance: it includes banks, insurance companies, real estate and REITS activities. The two informative categories that denote the largest share are the “*deal description*” and “*strategic rationale*”: it is not surprising that bidder companies tend to describe carefully the characteristics of the deals, given the fact that investments within this industry are usually very expensive and it is relevant to properly comprehend the convenience of the whole operation. Concerning the category of “*strategic rationale*”, this is the second largest

¹⁴ Mergermarket M&A Trend Report: 2013, www.mergermarket.com

¹⁵ As already discussed, in our study we adopted the Fama-French twelve-industry classification system.

category, even if under the average: this result can be explained by the fact that many of these deals are represented by incorporations of smaller companies that operate in the same region and are characterized by a high degree of geographic overlap, thus with a quite clear strategic convenience.

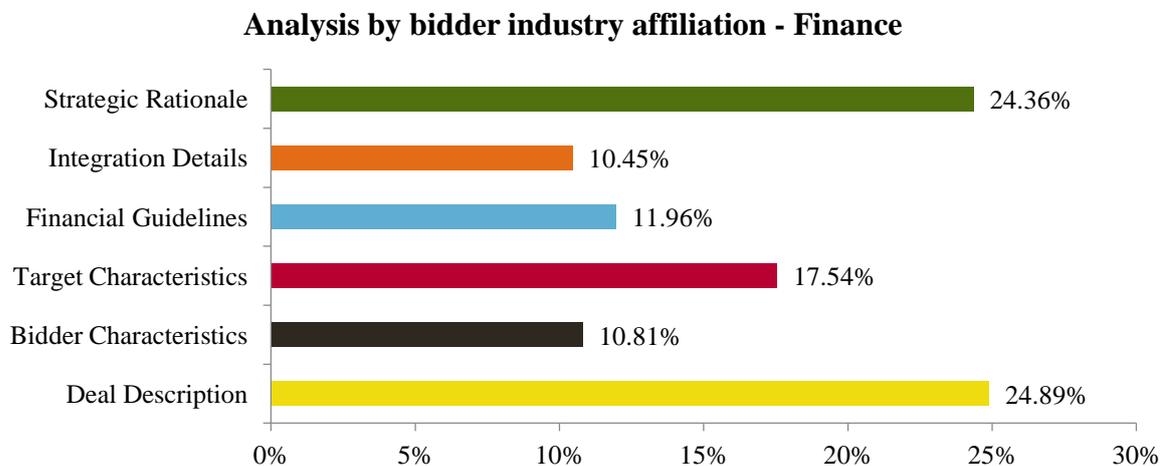


Figure 3.14 Announcement documents content analysis – Analysis by industry affiliation for finance industry deals

The second industry we examined is the Business Equipment & Electronics industry, whose representation of the informative categories is provided by figure 3.15. For this industry much space is left to the presentation of the strategic benefits (31.66%) and to the description of the target company’s main features (20.44%).

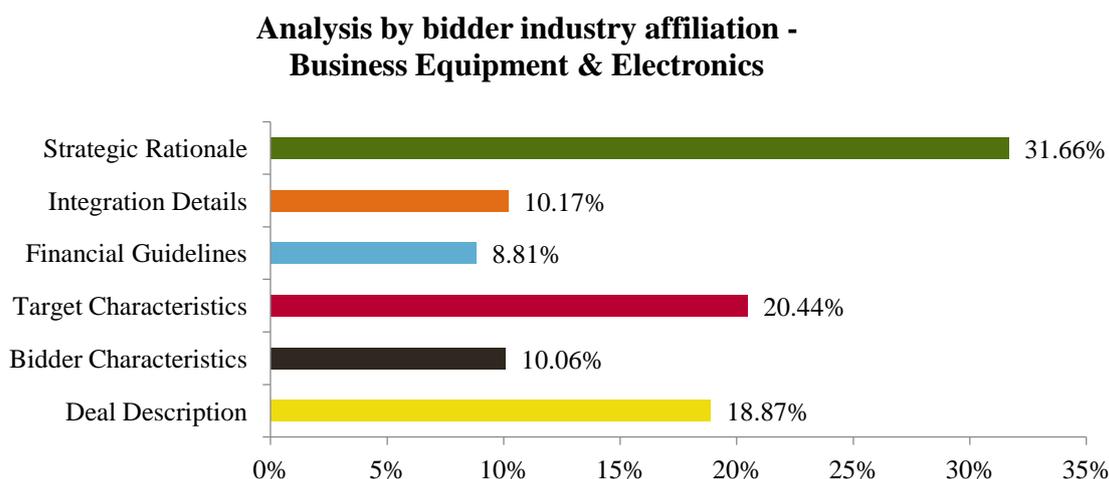


Figure 3.15 Announcement documents content analysis – Analysis by industry affiliation for business equipment & electronic industry deals

Concerning the underlying strategies, for this industry it is possible to observe opportunities both in the mature market segments and in the growth segments. In mature markets, such as semiconductors and hardware (PC, servers, tablets), the majority of deals aims at building

horizontal consolidation focused on scale, market relevance, and cost structure, which are adequately stressed by companies when announcing the deals. A second strategy uses M&A to move into new markets, fill product/solution gaps and accelerate research and development (R&D) initiatives, in order to capture and monetize the industry growth trends: this second strategy usually requires the acquirers to provide additional details on target companies, since they are often unknown by the financial community.

The third industrial sector that has been examined is related to the world of healthcare services and products, which for our sample also includes pharmaceuticals, medical equipment and biotechnologies. This industry is characterized by a great contribution of the so-called “soft” components, i.e. resources linked to human capabilities and other intangible resources. Since these resources are often difficult to quantify, companies try to be exhaustive with the description of these elements, which are part of their strategic vision: as it can be deduced by the distribution of informative categories presented in figure 3.16, once again the “*strategic rationale*” is the largest category with a share of 31.02%, showing the necessity to provide investors with additional details about the aforementioned topics. It is also relevant to observe that in 2013 the dollar value of transactions has decreased by 25.1%¹⁶: nevertheless the deal activity that occurred continued to be supported by a great level of confidence from the debt market, given the traditional attractiveness of historical standards in the areas of cost, structure and debt capacity that characterize companies within this industry. Therefore the demand for details concerning the form and conditions of the deal continued to be sizeable: this phenomenon is proved from the relative weight assumed by the “*deal description*” class which represents the second largest informative category.

Analysis by bidder industry affiliation - Healthcare

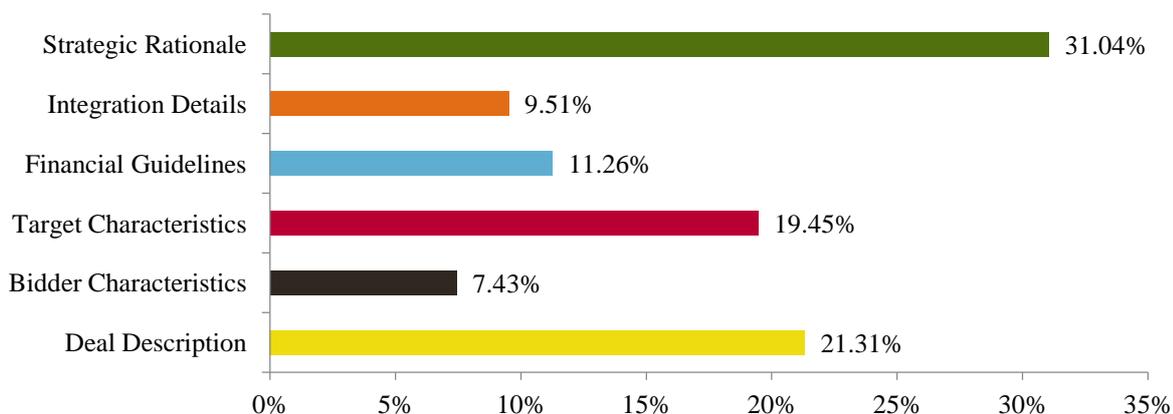


Figure 3.16 Announcement documents content analysis – Analysis by industry affiliation for healthcare industry deals

¹⁶ Data provided by Ernest & Young report, www.ey.com

Finally, we decided to report some details concerning the telecommunication industry, as the fourth largest industry within our sample in terms of M&A activity. It is possible to observe that the informative categories breaking down that characterizes this industry shows characteristics similar to the business equipment and electronics industry: as a matter of fact, the two sectors are often considered together, as a consequence of the proximity of their product offering.

For this reason, we can find again that the category of “*strategic rationale*” presents the largest share over the total information provided (31.88%), followed by the “*target characteristics*”, which shows a share of 23.19%.

Analysis by bidder industry affiliation - Telecommunications

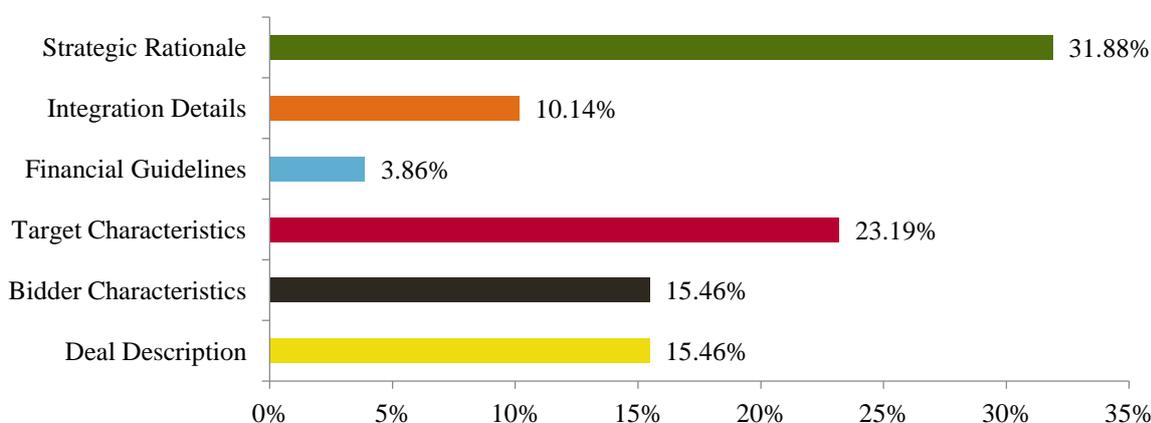


Figure 3.17 Announcement documents content analysis – Analysis by industry affiliation for telecommunication industry deals

From this first part of the analysis, we can observe the significant role assumed by the communication of the strategic rationale of the deal: when announcing the deal, companies are willing to provide a logical rationale for justifying its convenience, as part of the overall strategic vision. However, this category often includes very generic and optimistic statements that claim about future achievable gains, without providing specific details nor quantitative measures. The same level of vagueness cannot characterize the other two categories that include forward-looking information, i.e. “*financial guidelines*” and “*integration details*”, for which we generally observed relative lower level of disclosure (even replicating the analysis at different levels).

For this reason, in the next paragraph we will test the relationship between the three different categories of forward-looking information and the improvements in companies’ operating performance, in order to test whether companies increase the release of this type information when they effectively realize positive results, or if they have difficulties in meeting previously claimed expectations.

3.5.3 Inferential Analysis. The effect of forward-looking information on companies operating performances

In the previous paragraphs it has been possible to underline the topics that more frequently emerge within the two most common tools, i.e. press releases and conference calls, adopted by companies for the announcement of M&A transactions towards the financial community. In particular, from the descriptive analysis it came out a general predominance of the forward-looking information, which seems rather reasonable if we consider the impact that such kind of operations have on companies' business activity and performances.

3.5.3.1 Research design

It appeared interesting to verify the relationship between the type of communication provided and the changes in merging firms' operating performance following the completion of the deal: for this reason we decided to build a linear regression model that could test the relationship between the changes in companies' operating performance and the forward-looking information provided at the moment of the deal's announcement. More precisely, we assumed that within the forward-looking categories, companies usually provide quantitative dimensions of the strategic achievements and efficiency improvements they claim to realize. Therefore, we considered the quantity of words coded at each of the forward-looking categories as a proxy of the accurateness of future estimations as well as of the fairness of management projections concerning the performances of the resulting entity, carried out at the time of the deal's completion.

We used a simple OLS regression: we didn't opt for a panel regression model, since our sample is composed by entities characterized by single observations, therefore a simple OLS model appeared more appropriate. The model was developed considering as dependent variables two performance ratios commonly used by prior literature and as independent variables the six informative categories included in our classification system for the coding of the sources within our sample. More precisely, for what it concerns the dependent variables, we considered only the operating performance of bidder companies, since they were the ones who usually provided the announcement. It is also relevant to specify that we excluded those observations that reported a performance deterioration: we decided to focus only on "successful" deals, since they were more significant for the purposes of our analysis (we couldn't test the effectiveness of the various informative categories with non-performing deals).

The dependent variables used in our OLS analysis are represented by the following performance indicators:

- ROA ratio: represented by the variance between the bidder company average ROA ratio measured over the 1st and 2nd quarter after the completion of the deal and the bidder company ROA ratio of the last quarter before the deal’s announcement¹⁷. These data were taken from *Orbis* database and refer to companies ROA (%) calculating using P/L before tax.

$$ROA_Q = ROA_{avg.Q1toQ2} - ROA_{Q-1} \quad (1)$$

- EBITDA/Tot.Assets ratio: represented by the variance between the q the bidder company average EBITDA/Tot.Assets ratio measured over the 1st and 2nd quarter after the completion of the deal and the bidder company EBITDA/Tot.Assets ratio of the last quarter before the deal’s announcement. Data related to quarterly value of EBITDA and Total Assets were taken from *Orbis* database.

$$EBITDA_TO_Assets = \frac{\frac{EBITA}{Tot.Assets_{avg.Q1toQ2}}}{\frac{EBITA}{Tot.Assets_{Q-1}}} \quad (2)$$

For what it concerns our independent variables, our attention has been focused on the three categories that refers to forward-looking plans, i.e. “*strategic rationale*”, “*financial guidelines*” and “*integration details*”. In order to give a quantitative dimension to the various information categories, for each source we considered the number of words for each category and then we computed its relative weight over the total number of words.

Moreover, we decided to consider a specific quantitative measure that is particularly interesting for the purpose of our analysis: the expected amount of achievable synergies indicated within deals’ announcements. (This value is not always provided, even by companies that expressively claim that they will achieve some synergies from the acquisition). For its different nature, we decided to isolate this variable in a separated model, whereas the information categories are included in the same regression model.

¹⁷ We decided to measure the evolution of the operating performance over a period of six month in order to uniform the observation time for all the companies within the sample (also for those deals that occurred in the second half of the year).

Finally, we also included some control variables that are commonly used by prior literature, i.e. the bidder company's total assets and its sales to assets ratio, which can be considered two proxies of the firm's size.

Therefore, we performed two different analysis, one for each dependent variable. For each analysis we built two different models: the first one considers the informative categories as independent variables, while the second one considers the synergies amount. We also tested the unique model, although for logical reasons we preferred to treat the two models separately.

If we do not consider the control variables, the four different models can be represented as following:

- $ROA_Q = \beta_0 + \beta_1 Strat_rat + \beta_2 Fin_guid + \beta_0 Integr_det + \varepsilon$ (3)

- $ROA_Q = \beta_0 + \beta_1 Syn_discl + \varepsilon$ (4)

- $EBITDA_to_Assets = \beta_0 + \beta_1 Strat_rat + \beta_2 Fin_guid + \beta_0 Integr_det + \varepsilon$ (5)

- $EBITDA_to_Assets = \beta_0 + \beta_1 Syn_discl + \varepsilon$ (6)

Next paragraph will provide a descriptive analysis of the different variables included in these models, providing the first qualitative outcomes of our inferential analysis.

3.5.3.2 Descriptive analysis

Before introducing the regression models and the related results, it is interesting to illustrate the main qualitative statistics that characterize both our dependent and independent variables.

Concerning dependent variables, a descriptive analysis can be appreciated from table 3.2: it includes the number of observations, the standard deviation and the minimum, maximum and mean value assumed by the two dependent variables. We named as “*ROA_Q*” the variation of quarterly ROA ratio (before and after the completion of the deal) as described in the previous paragraph; “*EBITDA_to_Assets*” corresponds to the variation of the EBITDA/Total Assets ratio, also described in the previous paragraph. As already explained in the previous paragraph, we decided to consider only performance-improving deals: therefore, it is relevant to notice that we reported only those observations with a positive value (or at least equal to zero), in order to uniform the descriptive analysis to the inferential one.

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA_Q	139	3.169856	4.749482	0	31.89
EBITDA_to_Assets	252	1.024127	.7273159	.09	9.38

Table 3.2: Summary statistic of the dependent variables “*ROA_Q*” and “*EBITDA_to_Assets*”

We also provided a descriptive statistic of the independent variables that are part of our model: consistently with the evidences of the content analysis, we obtain greater mean value for the *strategic rationale* variable (“*Strat_rat*”), considering that we coded a larger number of words within this information category. The variable of *synergies amount* (“*Syn_amount*”) is composed of only 40 observations (circa the 14% of our total sample), characterized by a high level of standard deviation, due to the very different size of the deals.

Variable	Obs	Mean	Std. Dev.	Min	Max
Fin_guid	290	109.8897	248.1931	0	1733
Integr_det	290	105.7512	232.6918	0	1661
Strat_rat	290	230.3276	337.5278	0	2218
Syn_amount	40	126.7357	203.8647	5	1000

Table 3.3: Summary statistic of the independent variables “*Fin_guid*”, “*Integr_det*”, “*Strat_rat*” and “*Syn_amount*”

The next paragraph will illustrate the regression models used for our inferential analysis, pointing the main results and considerations.

3.5.3.3 Main findings

As already explained in the previous paragraph, we performed two different analysis, in which the dependent variables are represented respectively by the variation of the bidder company ROA and EBITDA/Total Assets ratios.

The first OLS analysis considers as dependent variable the ROA ratio: table 3.4 shows the estimation results. We reiterated the regressions for each single independent variables (Models 1 to 3) and then we considered them altogether (Model 4); finally, we included also the control variables (Model 5). As we can observe from the table, the two variables of *financial guidelines* (“*Fin_guid*”) and *strategic rationale* (“*Strat_rat*”) shows significant coefficient; the relationship between these two variables and the variance in the quarterly ROA ratio is positive, indicating that companies tend to increase the quantity of details and both qualitative and quantitative information only in case they expect to effectively realize operating performance improvements.

VARIABLES	ROA_Q				
	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
Fin_Guid	0.00832*** (0.00190)			0.00638** (0.00306)	0.00607** (0.00277)
Integr_Det		0.00602*** (0.00179)		-0.00293 (0.00316)	-0.000303 (0.00289)
Strat_Rat			0.00513*** (0.00118)	0.00388** (0.00192)	-0.000203 (0.00188)
Tot_Assets					3.82e-06 (6.27e-06)
Sales_to_Assets					3.573*** (0.632)
Observations	137	137	137	137	137
R-squared	0.123	0.077	0.122	0.149	0.319

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.4: Regression analysis of the impact of informative categories on the improvements of ROA ratio

Notes: This table presents the results of an OLS analysis of the relationship between the informative categories included in our announcing documents classification system and the merger performance represented by ROA. The analysis was computed using default standard errors. The number of observations and R-squared are reported in the final rows of the table. ***, **, and * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

From the next table (3.5) we can appreciate the results of the regression model which presents the relationship between the same dependent variable used in the previous model (ROA ratio) and the value of synergies reported by companies in their announcements. The results show that this relation is positive and the variable is statistically significant: therefore, it is possible to

deduce that managers are willing to disclose the detail of achievable synergies amount only in case that this information is significantly precise and if they are confident in realizing the forecasted objective. Looking at the coefficient, we can state that a 1% increase of synergies amount is associated with a 1.1% increase in the company’s quarterly ROA YoY (1.4% if we consider also the control variables, as represented in model 2).

VARIABLES	ROA_Q	
	(1) Model 1	(2) Model 2
Syn_amount	0.0109** (0.00480)	0.0139** (0.00624)
Tot_asset		-1.73e-05 (9.98e-05)
Sales_to_asset		-1.579 (1.513)
Observations	38	38
R-squared	0.121	0.154

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.6: Regression analysis of the impact of synergies amount on the improvements of ROA ratio

Notes: This table presents the results of a OLS analysis of the relationship between the management synergies amount projections and the merger performance represented by the improvement of the ROA ratio. The analysis was computed using default standard errors. The number of observations and R-squared are reported in the final rows of the table.

***, **, and * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.

The second OLS analysis aims at testing the relationship between merging companies’ EBITDA/Total Assets ratio and the amount of forward-looking information provided at the time of the deal’s announcement. (The same considerations made for describing Models 1 to 5 hold also in this case). By looking at table 3.7 we can observe that, when we consider the three variables all together (Model 4), the only significant variable is represented by the category *strategic rationale* (“Strat_rat”): this result is particularly appreciable if we consider that this category includes information concerning the sources of synergies, their amount and the timing of their achievement, showing that companies who give a more detailed description of these items, usually succeed in achieving them, thus improving their operating performances.

VARIABLES	EBITDA_to_Assets				
	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
Fin_Guid	0.00132*** (0.000275)			-0.000386 (0.000473)	-0.000372 (0.000420)
Integr_Det		0.00153*** (0.000280)		0.000144 (0.000519)	0.000484 (0.000463)
Strat_Rat			0.00122*** (0.000169)	0.00134*** (0.000302)	0.000690** (0.000280)
Tot_Assets					2.45e-06** (9.97e-07)
Sales_to_Assets					0.577*** (0.0754)
Observations	252	252	252	252	252
R-squared	0.084	0.107	0.172	0.174	0.354

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.7: Regression analysis of the impact of informative categories on the improvements of EBITDA/Tot. Asset ratio
*Notes: This table presents the results of a OLS analysis of the relationship between the informative categories included in the announcing documents classification system and the merger performance represented by EBITDA/Tot. Assets ratio. The analysis was computed using default standard errors. The number of observations and R-squared are reported in the final rows of the table. ***, **, and * indicate the statistical significance at the 1%, 5%, and 10% level.*

The considerations exposed before are confirmed by the results obtained from the relationship between the value of synergies amount and the EBITDA/Tot.Assets ratio: the independent variable has a positive and statistically significant coefficient, showing the amount of synergies that the bidder company expects to realize and the performance improvement of the resulting entity are positively correlated.

VARIABLES	EBITDA_to_Assets	
	(1) Model 1	(2) Model 2
Syn_amount	0.00210*** (0.000614)	0.00104* (0.000603)
Tot_asset		-3.58e-07 (9.91e-06)
Sales_to_asset		0.711*** (0.148)
Observations	34	34
R-squared	0.261	0.597

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3.8: Regression analysis of the impact of synergies amount on the improvements of EBITDA/Tot. Asset ratio.
*Notes: This table presents the results of a OLS analysis of the relationship between the management synergies amount projectionst and the merger performance represented by the improvement of the ratio EBITDA/Tot Assets. The analysis was computed using default standard errors. The number of observations and R-squared are reported in the final rows of the table. ***, **, and * indicate the statistical significance at the 1%, 5%, and 10% level, respectively.*

Once we tested the effectiveness of the communication related to expected operating achievements and financial improvements included in the management forecasts within the voluntary companies' disclosure tools used at the moment of the deals' announcement, in the next paragraphs we will try to investigate which are the possible factors that contribute to the decision of publicly revealing those forecasts: in particular we will test the determinants of the disclosure of synergies forecasts.

3.6 PART II - INFERENTIAL ANALYSIS OF SYNERGIES DISCLOSURE DETERMINANTS

3.6.1 Hypothesis development

In paragraph 3.2 we already discussed the research questions of previous studies, which have mainly investigated the consequences of disclosure decisions, whereas there is still little evidence about the determinants that lead managers to reveal information on synergies projections. A possible explanation for this phenomenon can be attributed to the nature of the research topic, which is in fact still a controversial issue as it can be included in the highly disputed macro-area of voluntary disclosure. Many researchers have investigated the reasons that induce companies to voluntarily disclose sensitive information in addition to the mandatory reporting as well as the market reaction towards them: it is possible to resume them in few significant theories that lead to some empirical evidences.

One of the main theories at the basis of voluntary disclosure is the “*signaling theory*”: according to this theory, companies are willing to disclose additional information since they want to give a precise signal about the positivity of their results. In the specific case of M&As, bidder companies, who increase their voluntary disclosure, wish to indicate that they are not overpaying the deal or completing a deal which is not consistent with shareholders’ value maximization (Jensen, 1986; Jensen & Meckling, 1976; Moeller et al., 2005): this position is consistent with the findings of Barry and Brown (1986) and more recently of Cheynel (2013) and others, who argued that by reducing information asymmetries by increasing financial disclosure, companies will reduce their cost of capital since investors will bear less risk in forecasting their investments’ future payoffs¹⁸. Moreover, Kim and Verrecchia (1994) and Diamond and Verrecchia (1991) found evidences on the relationship between information disclosure and improved stock liquidity (focusing on the fact that investors are more confident that the transactions may occur at a “fair” price). Finally, the “*signaling theory*” includes financial analysts as one of the target of voluntary disclosure: Bhushan (1989a, b) and Lang and Lundholm (1996) gave evidence to the fact that voluntary disclosure increases information intermediation, while Kothari, Li and Short (2001) proved that it reduces analysts forecasts errors. All these findings can be included among the reasons that induce companies (especially bidder companies) to provide additional information about specific topics such as synergies, in order to reduce information asymmetry about their

¹⁸ “If this risk is non-diversifiable, investors will demand an incremental return for bearing the information risk. As a result, firms with high levels of disclosure, and hence low information risk, are likely to have a lower cost of capital than firms with low disclosure levels and high information risk.” P. Healy and K. G. Palepu, Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature, *Journal of Accounting and Economics* 31 (2001) , p. 405–440

values, thus reducing the market possible negative reaction by closing the information gap between managers and shareholders.

Voluntary disclosure within M&A deals can also be explained by the “*information quality theory*”: according to this theory, managers should raise the amount of disclosed information consistently with the increase of its level of detail and precision. As a matter of fact, it holds the vision that “*no news, bad news*”, meaning that shareholders are more likely to discount stock prices, whenever they have the feeling that some information is withheld by managers because they attribute it a negative value. Therefore some studies, e.g. Grossman and Hart (1980), Verrecchia (1990) and Kimbrough and Louis (2011) demonstrated that, when shareholders have rational expectations, managers should fully disclose all available information that can be credibly communicated.

Finally, there are some theories that underline the possible risks and negative effects of voluntary disclosure for the specific case of M&A deals. As a matter of fact, revealing sensitive information may damage the company’s competitive position since competitors may take advantage from some key elements of the transaction: all these arguments support the so-called “*proprietary costs*” theory, indicating as “proprietary” information the set of news potentially dangerous for the company’s competitiveness. Similarly to this theory, the “*litigation costs*” theory also asserts that voluntary disclosure may have a negative effect on the deal’s value creation: supporters of this theory (e.g. Healy and Palepu, 2001) argue that managers may decide not to disclose forward-looking information if they think to possibly be penalized by legal actions, since the legal system makes no distinctions between unintended forecast errors committed in good faith and errors made on purpose and connected to a precise unfair management policy.

These theories represented the theoretical framework for the development of our hypothesis, which supported the selection of the variables that have been used within our empirical model for the multivariate analysis. These variables embody some of the possible factors that may have a significant influence in the management synergies divulgation attitudes: among them the corporate size, the industry affiliation, the method of payment, the geographic distance, the firm’s growth opportunities, the deal’s relative size, the financial analysts’ coverage and the litigation risk.

The corporate size

According to previous theoretical studies¹⁹, company size has been proved to be an important determinant of disclosure levels. Although some researchers claim that agency costs should increase

¹⁹ Among them Lang and Lundholm (1993) and Watson et al. (2002)

with firm size as a consequence of their greater exposure to the public attention (e.g. Jensen and Meckling, 1976), we agreed to those who assert that information asymmetries are higher for companies with a smaller size: therefore we should expect these companies to disclose more projections concerning the synergies value in order to reduce the informative gap, coherently with the signaling theory. As a measure of the firm size, we used the bidder company total asset and the sales to total assets ratio, both measured at the time of the deal.

Therefore, the following hypothesis can be formulated:

H1. The disclosure of synergies amount within M&A announcements is negatively related to the firm size.

The industry affiliation

Mergers and acquisitions that occur between companies within the same industry have greater opportunities to reduce overlapping operations, increasing economies of scale and decrease competition through the incorporation of rival player: for these reason companies that conclude same-industry deals have more arguments for justifying the strategic rationale of the merger as well as they can give a more precise estimation of the future synergies and operational projects they intend to implement (in line with the “*information quality theory*”).

Therefore, the following hypothesis can be formulated:

H2. The disclosure of synergies amount within M&A announcements is positively related to same-industry deals.

The method of payment

It has been observed that the market has the propensity to discount “stock for stock” deals (i.e. deals which have been partly or totally financed by the acquirer equity): the aversion towards these deals is motivated by the fact that the determination of the transaction price is highly dependable on the bidder stock returns, which by contrast may not be traded at their fair price. The assumption that stock-financed deals may be motivated by bidder stock prices overvaluation has been analyzed by many studies, among them Sheifer and Vishny (2003): in line with the signaling theory, they affirm that companies should opt for disclosing additional information by providing projections of the deal’s potential gains, in order to counteract the market skepticism associated to a possible purchase price overvaluation.

In line with these theoretical studies, the following hypothesis can be suggested:

H3. The disclosure of synergies amount within M&A announcements is positively related to stock-financed deals.

The geographic distance

The way geographic origin may influence the company's attitude to reveal voluntary information in M&A deals is still an interesting empirical question. If we look at this variable from the "*signaling theory*" point of view, we should expect that the company's decision to disclose synergies projections should be positively related with the increase of the geographic distance between the two merging companies, since they need to counterbalance the information asymmetries which can be connected to two main causes: first, investors are usually more informed about companies listed in the same national stock exchange; secondly, synergies between companies that operate in distant and maybe culturally different market spaces are usually more difficult to realize. On the other hand, the "*information quality theory*" would suggest the management to react in the opposite way. When deals involves companies operating in different countries (cross-border deals), they are usually characterize by less precise information than domestic deals because of differences in accounting standards and regulations, language, and culture (Eckbo and Thorburn, 2000), with a consequent higher uncertainty about synergies value: therefore, managers may be more reluctant to release imprecise information to the financial community.

Nevertheless, we assume that the argument supported by the "*signaling theory*" may prevail and for this reason we formulate the following hypothesis, by including a dummy variable equal to one for cross-border deals:

H4. The disclosure of synergies amount within M&A announcements is positively related to cross-border deals.

The firm's growth opportunities

Firms' growth opportunities include all the set of new initiatives and investment projects that can increase a company's market share and attribute it a competitive advantage over its pairs: these growth opportunities can be seen as a proxy of the proprietary costs, since they are really sensitive to change the company's value creation if disclosed to the public. Whenever growth options assume a significant value, managers are very careful in revealing any information that may negatively affect this competitive opportunity. We utilized both the bidder's Market to Book ratio and the Tobin's Q ratio as measures for proprietary costs. Moreover, we included another proxy of proprietary costs, i.e. the Industry Concentration ratio²⁰: we assumed that in highly concentrated

²⁰ In economics, a concentration ratio is a measure of the total output produced in an industry by a given number of firms in the industry, usually measured with the market share of the four and the eight largest firms.

markets (markets in which few large firms hold large market shares), companies usually reduce their propensity to disclose sensitive information like the one related to synergies value.

Taking into account the aforementioned arguments, the following hypothesis can be formulated:

H5. The disclosure of synergies amount within M&A announcements is negatively related to the bidder measures of growth opportunities.

H6. Companies are less inclined to disclose information concerning synergies value in highly concentrated product markets.

The deal's relative size

A further hypothesis that we advanced, refers to the relative importance of the deal for the bidding firm: we assumed that firms are usually more likely to disclose information they consider financially and strategically significant for them. In order to include this assumption we built the Relative Size ratio, computed as the ratio of the deal's value to the bidding firm's market capitalization.

Consequently, the following hypothesis can be proposed:

H7. The disclosure of synergies amount within M&A announcements is positively related to the deal's relative size.

The financial analysts' coverage

Lang and Lundholm (1996) demonstrated that firms with more informative disclosures have larger analyst following, less dispersion in analyst forecasts and less volatility in the revision of forward-looking values; in addition, other studies found that by providing additional information, companies obtain more uniform analysts opinion with a consequent reduction of stock prices volatility and a decrease in firms' cost of capital. For these reasons we assumed that synergies disclosure may help companies to improve the assessment of a fair valuation by financial analysts, as well as increasing the interest of investors towards their stocks. In order to test this hypothesis, we included the variable of Analysts Recommendations²¹ to provide a numeric proxy of the interests that financial analysts dedicated to the company by the time of the deal's announcement.

Hence, the following hypothesis can be established:

H8. The disclosure of synergies amount within M&A announcements is positively related to the involvement of financial analysts.

²¹ Data available from Bloomberg database.

The litigation risk

The last variable we included in our model is represented by a proxy of the litigation costs that may be associated with the release of synergies forecasts. As exposed before, we assume that companies are less likely to disclose voluntary information if they envisage the material possibility of incurring in legal actions, based on the accuse of biased and unfair projections. In line with the study of Dutordoir, Roosenboomb and Vasconcelos (2013) we utilized a dummy variable equal to one for firms that operate in the computer hardware, software, or pharmaceuticals industry as a proxy for litigation risk, since it has been demonstrated that they face higher probabilities of shareholder litigation actions than companies belonging to other industries.

Consequently, the following hypothesis can be formulated:

H9. The disclosure of synergies amount within M&A announcements is negatively related to companies' exposure to litigation risk.

In the next paragraphs we will test our hypothesis with the help of a univariate and multivariate model, in order to verify their consistency and significance.

3.6.2 Research design

In this second part of our analysis we investigate on the determinants of synergies disclosure: in particular, we will test some deal's characteristics that may influence the company's decision to disclose sensitive information; we will also try to understand if there any financial or operating feature that more frequently recur among disclosing companies.

As already exposed in paragraph 3.3, we collected the necessary data concerning the transactions within our sample from Bloomberg database²²; moreover, we utilized the Orbis database for the collection of financial and accounting information related to the merging companies: in this case, we performed a “*batch search*” including the names of both bidders and target companies who took part to the transactions that constitute our sample²³.

It is necessary to specify that our data have some limitations:

1. for some companies it was not possible to derive some accounting measures (especially P&L data) because they are not included in the standard reporting metrics envisaged for that particular industry (e.g. companies within the banking industry usually do not report the EBITDA value in their P&L statements);
2. Orbis database collects information that is only publicly available: for this reason, the access to accounting data of privately held companies was very limited.

We tested whether the univariate results hold in a multivariate setting by conducting a *probit* analysis: *probit* models are *binary response* models, i.e. models that include binary dependent variables²⁴ which can assume only two values, zero and one. The response probability of the *probit* models can be described as following:

$$P(y = 1/x) = P(y = 1/x_1, x_2, \dots, x_k) \quad (7)$$

²² In particular the following measures have been extracted: Deal Status; Acquirer Industry Group; Acquirer NAICS code; Acquirer SIC code; Target Industry Group; Target NAICS code; Target SIC code; Payment Type; Cash Terms; Announced Premium; Announced Total Value (mil.); Current/Completed Total Value; Acquirer Market Value of Equity; Acquirer Country; Target Country; Acquirer Financial Advisor; Target Financial Advisor; Acquirer Total Analyst Recommendations; Target Total Analyst Recommendations.

²³ In particular the following measures have been extracted: Acquirer Total Assets ; Acquirer Total Equity; Acquirer LT Borrowings; Acquirer Sales ; Acquirer EBITDA ; Target Total Assets; Target Total Equity; Target LT Borrowings; Target Sales; Target EBITDA.

²⁴ Binary dependent variables can be considered an example of **limited dependent variables (LDV)**, “*broadly defined as dependent variables whose range of values is substantially restricted*”. Wooldridge J. M. (2009), *Introductory Econometrics – A modern approach*, South-Western.

which indicates the probability of realizing the event $y=1$, given a set of explanatory variables x . If we consider the function $G(z)$ (for all real numbers z) as a functions which assumes exclusively values between zero and one, in the *probit* model $G(\cdot)$ is the normal cumulative distribution function, which can be expressed by the following expression:

$$G(z) = \Phi(z) = \int_{-\infty}^z \Phi(v)dv \quad (8)$$

where $\Phi(z)$ is the normal standard density of $z = \beta_0 + \beta_1 x_1 + \beta_2 x_2 \dots + \beta_k x_k$, which is called “*z-value*” of the *probit* model.

In our specific case, our dependent variable is the synergies disclosure (*Syn_discl*) dummy variable, which assumes the following values:

- $y=1$ if the management discloses a quantitative measure of synergies amount;
- $y=0$ if the management does not provide any projections of synergies amount.

Our explanatory variables x are represented by all the variables also included in the univariate model, whereas *z-values* are based on robust standard errors.

Concerning our independent variables, as already anticipated in the previous paragraph, their selection is coherent with the assumptions expressed in our hypothesis: as a matter of fact, the variables aim at representing a proxy of the main argument proposed in the hypothesis.

Specifically, they can be summarized as following:

- Firm’s size: we utilize two metrics, the bidder company’s book value of total assets and the bidder company’s sales over total assets ratio, whose data have been obtained from companies balance sheet;
- Industry affiliation: we utilize a dummy variable equal to 1 if the companies operate in the same industry (the industries are identified by the 4-digit NAICS code);
- Method of payment: we utilized a dummy variable equal to 1 if the deal is (partly) financed with equity;
- Geographic distance: we utilize a dummy variable equal to 1 if the deal is cross-border;
- Firm’s growth opportunities: we utilize two similar metrics, the bidder company Market to Book ratio and the Tobin’s Q ratio, which represent the relation between the bidder market value of assets with its corresponding book value (the Tobin’s Q considers also the value of long-term liabilities); moreover, we consider a third measure, i.e. the bidder Industry Concentration Ratio that we obtained from U.S. Census data based on the firms’ 4-digit NAICS code (due to the lack of come information in the Census database, we could calculate the ratio only for 154 observations);
- Deal’s relative size: we computed this variable as the ratio of the deal’s value to the bidding firm's market capitalization;

- Financial analysts' coverage: we utilize a variable equal to the number of financial analysts recommendations recorded for the bidder company;
- Litigation risk: we utilize a dummy variable equal to 1 if the bidder belongs to the computer hardware (SIC codes 3570–3577), computer software (SIC codes 7371–7379), or pharmaceuticals (SIC codes 2833–2836) industries.

For further clarifications, a detailed description of the complete set of variables can be appreciated in Appendix B.

We decided to use a simple *probit regression* model and not a *panel probit regression* model for the same reasons exposed in the previous paragraphs: our sample is composed by entities characterized by single observations, therefore any type of clustering methodology appeared inappropriate. Moreover, it is relevant to point out that we also performed a *panel probit regression* clustered by industry (with the Fama-French industry classification system): however, we didn't observe any improvements in our results, whereas they even showed lower level of significance. For these reasons, a simple *probit* model was finally adopted.

Therefore, the model we adopted can be estimated using the following equation:

$$\begin{aligned}
 Syn_discl = & \beta_0 + \beta_1 Tot_asset + \beta_2 Sales_to_asset + \beta_3 Mkt_to_book + \\
 & \beta_4 Tobin_q + \beta_5 Same_ind + \beta_6 Eq_paym + \beta_7 Cross_board + \beta_8 Relavite_size + \\
 & \beta_9 Analyst_recom + \beta_{10} Ind_conc_ratio + \beta_{11} Litig_risk + \varepsilon
 \end{aligned}
 \tag{9}$$

The main findings resulting from the inferential analysis are presented in paragraph 3.6.4, after the illustration of the main descriptives that characterize our model.

3.6.3 Descriptive analysis

In this paragraph, we analyzed the possible synergies disclosure determinants, using a qualitative approach with the help of a univariate model. This descriptive analysis is represented by table 3.9, which provides the mean and median of each variable, distinguishing between disclosing and non-disclosing deal. We considered as “disclosing”, those deals for which the bidder companies’ management provided a quantitative measure of the synergies they expect to realize from the deal.

(Synergies projections have been hand-collected from the deals announcing documents, which have been extracted from the Lexis Nexis database and analyzed with the help of NVivo content analysis software).

Variable	Disclosing deals (40)		Non-disclosing deals (250)	
	Mean	Median	Mean	Median
Tot_asset	9,559.443	6,571.86	20,877.73	3717.97
Sales_to_asset	.651	0.56	.57256	0.44
Mkt_to_book	1.89772	2.08	3.38025	2.39
Tobin_q	2.106779	1.79	2.250294	1.82
Same_ind	.725	1	.336	0
Eq_paym	.5	1	.164	0
Cross_board	.225	0	.26	0
Relative_size	1.2575	0.71	.1940196	0.12
Analyst_recom	15.05	14	16.10081	14
Ind_conc_ratio	.2636842	0.16	.1825926	0.11
Litig_risk	.275	0	.18	0

Table 3.9 Descriptive statistics of disclosing and non-disclosing deals. (Disclosing deals refer to those deals for which the management provides a quantitative measure of the synergies they expect to achieve from the transaction).

As we can observe from table 3.9, the variable “*Tot_asset*” is considerably different between disclosing and non-disclosing deals: in particular, the results are coherent with our hypothesis that smaller companies are more likely to increase their voluntary disclosure in order to reduce those information asymmetries that usually characterize companies with smaller market shares. Conversely the variable “*Sales_to_asset*” seem not to capture the same aspect and we can conclude that it is probably not representative of the firm’s size.

The “*signaling theory*” also seems to be confirmed by the results recorded for the equity payment variable (“*Eq_paym*”), whereas for the variables “*Same_ind*” and “*Cross_bord*” the “*information quality theory*” seems to prevail. As a matter of fact, the mean value of the variable “*Eq_paym*” is considerably higher for disclosing deals, showing that companies involved in stock-financed transactions try to disclose more information concerning synergies in order to persuade the market about the strategic convenience of the deal, thus avoiding it to be considered a mere

speculation connected to the company's stock prices overvaluation. For what it concerns the "Same_ind" variable, we confirm our initial hypothesis that assumes merging companies with the same industry affiliation to increase their voluntary disclosure on synergies value, given their higher probability of realizing costs savings connected with the reduction of overlapping operations that can be accurately monetized. Conversely to our initial expectations, also for the variable "Cross_bord" the "information quality theory" appears to justify our empirical results: although we expected that cross-border deals would disclose more information because of their need to reduce the symmetries problems connected with the geographical, cultural and legislative distances, we observed that, by contrast, this variable has a lower value for disclosing deals. A possible deduction could be that companies involved in cross-border deals may have less precise projections concerning the material value of synergic benefits than companies involved in domestic transactions: anyhow, the two value are not significantly different from each others.

Another consideration that can be made by observing table 3.9 refers to those variable which represent a proxy of the "proprietary costs theory": both the Market-to-book ratio (variable labeled as "Mkt-to-book") and the Tobin's Q ratio (variable "Tobin_q") register a lower value for disclosing deals rather than for non-disclosing ones. This evidence is in line with the assumption that whenever companies experience some growth opportunities (e.g. when the market evaluates firms' assets more than their intrinsic book value), they may face some competitive losses if they publicly disclose too precise and detailed information. On the other hand, the bidder industry concentration ratio ("Ind_conc_ratio"), which can be considered another proxy for proprietary costs, is not particularly different between both types of deals, while it shows a slightly lower value for non-disclosing deals. The same consideration can be made for the variable representing the litigation risk ("Litig_risk"), which partially rejects our assumption that companies subject to higher litigation risk tend to disclose less forward-looking information in order to reduce the risk of being involved in legal actions for their involuntary mistakes in forecasting synergies values.

Consistent with our hypothesis we found that disclosing deals have a significantly larger relative size than non-disclosing deals, suggesting that these deals represent relevant investments for bidding firms, which are proud to communicate to the market such a significant event that characterize their corporate story.

Finally, the last variable that characterizes our model is the number of analysts recommendations ("Analyst_recom"), a proxy of the financial community interest dedicated to the bidder company: even if the two types of deals do not show significantly different results, disclosing deals have a higher value, coherently with our hypothesis that companies with a larger

following are more likely to disclose additional information in order to increase the fairness and precision of their valuations, thus reducing their cost of capital.

The following tables (3.10 and 3.11) present a more detailed description of the mean, standard deviation, minimum and maximum value assumed by our variables, distinguishing by disclosing and non-disclosing deals.

Variable	Obs	Mean	Std. Dev.	Min	Max
Tot_asset	40	9,559.443	12,762.28	352.27	67,714.3
Sales_to_asset	40	.651	.6189975	.03	3.36
Mkt_to_book	40	1.89772	8.926092	-128.88	22.76
Tobin_q	34	2.106779	1.405799	.01	9.19
Same_ind	40	.725	.4522026	0	1
Eq_paym	40	.5	.5063697	0	1
Cross_board	40	.225	.4229021	0	1
Relative_size	40	1.2575	1.809738	-1.13	10.8
Analyst_recom	40	15.05	7.67931	5	30
Ind_conc_ratio	19	.2636842	.2107713	.07	.8
Litig_risk	40	.275	.4522026	0	1

Table 3.10 Descriptive statistics of disclosing deals

Variable	Obs	Mean	Std. Dev.	Min	Max
Tot_asset	250	20,877.73	83,231.09	311.42	885,296
Sales_to_asset	250	.57256	.6866658	0	7.85
Mkt_to_book	250	3.38025	3.41108	0	18.34
Tobin_q	250	2.250294	1.355718	1.02	6.74
Same_ind	250	.336	.4732864	0	1
Eq_paym	250	.164	.3710184	0	1
Cross_board	250	.26	.4395142	0	1
Relative_size	250	.1940196	.6062264	-6.61	3.86
Analyst_recom	250	16.10081	10.34672	1	62
Ind_conc_ratio	135	.1825926	.1324339	.08	.57
Litig_risk	250	.18	.3849581	0	1

Table 3.11 Descriptive statistics of non-disclosing deals

We also tested if there is a statistically significant difference between the underlying distributions of the two sample variable means: in order to perform this test, we utilized the *Wilcoxon-Mann-Whitney test*, which is a non-parametric test, analog to the independent samples t-test. From the Wilcoxon test, we observe that only for five variables we obtain *z-values* that allow us to reject the null hypothesis, thus stating that the mean values of the two groups are statistically different. However, this result may be biased by the differences that characterize the size of the two groups (the group “disclosing deals” counts only 40 observations, which is considerably lower

compared to the 250 observations of the “non-disclosing deals” group). From table 3.12 we can observe the z-value results obtained from the Wilcoxon test.

	Tot_ asset	Sales _to_ asset	Book _to_ value	Tobin_ q	Same_ ind	Eq_ paym	Cross_ bord	Relative _size	Analyst _recom	Ind_ conc_ ratio	Litig_ risk
<i>z-value</i>	-0.916	-1.230	-2.231	-0.660	-4.676	-4.833	0.471	-7.143	0.099	-1.970	-1.411

Table 3.12 - Two-sample Wilcoxon rank-sum (Mann-Whitney) test performed for all independent variables

In the next paragraph we will observe the statistical significance of these variables in influencing the synergies disclosure decision.

3.6.4 Main findings

As we can observe from table 3.13, which summarizes our inferential model results, the number of observations is lower than the number of observations that composed our initial sample, since for some companies it wasn't possible to calculate the "Tobin's Q" ratio because of the lack of some accounting information. Furthermore, in this model we excluded the variable "Industry Concentration ratio" (data available for only 154 deals) in order to maintain a number of observations similar to our initial sample.

Our *probit* model seems rather coherent with the results obtained in our univariate analysis: coherently with the "signaling theory" we obtain a strong negative impact of the main variable measuring the firm's size ("Total_asset") on the disclosing decision, as well as a significant positive influence of the variable "Eq_paym", which proved once again how stock-financed deals are more willing to give an accurate estimate of the forecasted synergies.

VARIABLES	Syn_discl	
	(1) Model 1	(2) Model 2
Tot_asset	-3.82e-07* (3.07e-06)	-5.90e-06* (3.54e-06)
Sales_to_asset	0.215 (0.126)	0.170 (0.304)
Book_to_value	-0.0216 (0.0290)	-0.00781 (0.125)
Tobin_q	-0.0156 (0.0920)	-0.443* (0.226)
Horiz	0.698*** (0.236)	0.858*** (0.323)
Eq_paym	0.727*** (0.264)	0.627* (0.350)
Cross_board	-0.173 (0.243)	-0.244 (0.472)
Relative_size	0.815*** (0.237)	0.572** (0.238)
Analyst_recom	0.00226 (0.0128)	-0.00854 (0.0217)
Litig_risk	0.257 (0.295)	0.166 (0.444)
Ind_conc_ratio		2.613** (1.038)
Constant	-2.151*** (0.340)	-1.643*** (0.481)
Observations	261	145

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table 3.13: Probit analysis of the determinants of synergies disclosure decisions.

Notes: This table presents the results of a probit analysis of the determinants of the synergy disclosure decision. z- statistics are based on robust standard error. The number of observations is reported in the final row of the table.

***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

In addition, also the “*information quality theory*” receives strong evidence if we look at the significant positive impact of the same industry variable, consistent with the qualitative results observed in our univariate model. Although not statistically significant, the “*Cross_bord*” variable shows a negative relation with the synergies disclosing decision, confirming once again the qualitative results and rejecting our initial assumptions of a positive correlation.

For what it concerns the “*proprietary and litigation costs theory*”, once again the results are very similar to our descriptive statistics, with a negative impact of the variables “*Mkt_to_book*” and “*Tobin_q*”, indicating that when a company owns some growth opportunity it doesn’t reveal sensitive information to the market. Furthermore, consistent with the univariate results, but against our predictions, the litigation risk has a positive impact, even if not particularly significant.

Finally, we found a considerable positive effect of the variables representing the deal’s relative size (compared to the company’s size) and the number of analysts recommendations: both companies involved in deals that are particularly relevant for them and companies that usually receive a great interest from the financial analysts community are more likely to increase their disclosure about their available projections in order to further augment analysts following and investors attention.

In Model 2 of table 3.13, we decided to include also the industry concentration ratio (variable “*Ind_conc_ratio*”): we performed a separate analysis since this variable was available only for a reduced panel of observations, while in the first analysis we wanted to consider the largest accessible base. The results obtained from this second analysis do not significantly differ from our initial model, showing in general the same positive/negative variables impact as well as the same statistical significance. Moreover, the industry concentration ratio has a positive impact on the disclosing decision (the coefficient is also statistically significant), coherently with the evidence of the univariate model: nevertheless, in our initial hypothesis we expected it to be negatively correlated with the synergies value disclosure because of the proprietary losses that may derive from the additional disclosure in highly concentrated markets. A possible explanation for this phenomenon may stem from the time gap between the concentration ratios calculation period and the reference date of the observation that constitute our sample (the latest U.S. Census data refer to the year 2007, while our sample is composed by deals concluded in the year 2013).

From the evidences emerged so far, it is possible to conclude that overall our initial hypothesis seem to be confirmed by the empirical results recorded both in our univariate and multivariate model. In the next paragraph we will provide some qualitative comments that will lead to the final conclusion of our research.

CONCLUSION

Comments to the main results obtained

Before concluding our work, it is important to recall our expected objectives, presented in the first chapter. This study aimed at investigating the characteristics of companies' public communication documents divulged in conjunction with the announcement of M&A deals. It also intended to provide a focus on the relationship between the disclosed forward-looking information and the improvements in operating performance. Moreover, one of the main goal of our research was to analyse the possible determinants of management disclosure choice concerning the expected synergies value: in line with our hypothesis, we included in the set of factors both companies' financial characteristics and deal-specific features.

According to our findings, companies attribute significant relevance to the communication of the deal's strategic rationale and future achievable benefits: this communication even increases within those deals who recorded some improvements in their operating performance after the completion of the deal. Therefore, it is possible to state that companies, who are confident in achieving significant benefits and gains from the deal, are more willing to intensify the related communication. Moreover, it exists a positive relation between the communicated amount of synergies forecasts and the improvements in companies operating results.

In the second part of our analysis the results showed that the main determinants for the disclosure of synergies projections are the same-industry affiliation (horizontal deals), the transaction payment through companies' equity instruments, the bidder company size relative and the level of industry concentration (measured by the *Industry concentration ratio*). Additionally, although characterized by a negative relation with the disclosure decision, a significant factor is represented by the bidder company's size (measured by the *Bidder company total assets*, which has been assumed as a proxy of the corporate size). The evidences resulting from each of these variables could be attributed to specific theory, developed in the field of voluntary disclosure: we observed that the same theory were also coherent with the outcomes collected in the first part of our analysis, giving even more strength to our results and showing the complementarities of the two parts of the study.

We found that companies who integrate horizontally (i.e. same-industry deals) have a tendency to provide more details concerning the financial and operative synergies as well as integration plans and financial effects of the deal, since they are more confident about the information they release: this evidence confirms the information quality theory. The same theory supports the result obtained from our inferential model included in the second part of our analysis: the same industry affiliation is positively related to the disclosure of synergies forecasts, i.e. we can include it among the significant determinants of the disclosure decision.

Moreover, also with regard to cross-border deals the information quality theory seems to prevail: companies involved in cross-border deals increase their communication related to the target company's characteristics, since they have more information than the market and they want to convince it about the potentialities of that specific partner. Conversely, the *probit* model shows a negative relation between synergies disclosure and the variable "cross-border", from which we can conclude that the information on achievable synergies could be less precise with the increase of the geographic distances.

On the other hand, companies who finance mergers or acquisitions with equity instruments have showed to provide a larger amount of details concerning the financial guidelines of the deal: this result is consistent with the signaling framework, which claims that companies usually disclose information in case of information asymmetries situations, which require them to convince the market. Additionally, we also found that synergy disclosure is more likely for equity-financed deals, for which bidding firm shareholders might be more skeptical about the value-creating potential.

The last two variables that have been proved to be critical in explaining the model of synergies disclosure determinants are the deal's relative size and the number of analysts recommendation: these variables are not representatives of any particular academic theory, although they can be justified rather by behavioral practices.

Finally, we can conclude that the disclosure of synergies projections in M&A deals is not attributable to a unique theory, although there are significant and rational factors that can explain it: we can also state that it seems to be a clear trade-off between bidder companies' desire to improve the market reception of their deal, and their reluctance to disclose imprecise information, which could create a reputational damage in the long-term by negatively affecting their financial performance.

Limitations of the research

A first point that could be objected refers to the limited dimension of our sample and the collection of data circumscribed to year 2013: our choice was motivated by reasons connected with the first part of our analysis, i.e. the content analysis. Since all the documents required a line-by-line reading and coding, we decided to concentrate on a limited sample because of the time constraints related to this kind of activity. Our observations refer to the year 2013, since we wanted to represent a situation that could be representative of the current M&A market characteristics: nevertheless, the choice of a such recent time window didn't allow us to test the deal's consequences over a very long time horizon.

Another possible improvement that can be applied to our study concerns the selection of the research tool used to collect the documents examined in our content analysis: as a matter of fact, the number of documents provided by our database (i.e. Lexis Nexis) may be affected by some limitations in comparison with the documents availability that characterizes other on-payment databases. Moreover, it was not possible to include in the variables selection any type of data related to the target company, because of the lack of this information in the Orbis database: once again, the access to different databases (e.g. Compustat) may have lead to a larger available dataset.

From these considerations we can conclude that the limitation of our study, rather than been considered weaknesses, may be viewed as an opportunity to uncover deeper meaning in the data, therefore raising the necessity for further investigation. In this sense, researches assessing the disclosure of synergies forecasts may rely on a wider and more diversifies sample, as well as more unrestricted research tools. To add consistency to the findings, a different research approach may also provide a deeper analysis of the long-run effects of synergies disclosure on companies operating performances.

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APPENDIX

APPENDIX A – INFORMATION CATEGORIES

Historical Details	Forward-Looking Details
DEAL DETAILS	STRATEGIC RATIONALE
Amount and form considerations	Strategic benefits
Signing of definitive agreement	Sources of synergies
Determination and justification of purchase price	Synergies amount
Funding of the merger	Synergies timing of achievement
Shareholders' approval	Impacting factors and risks
Execution considerations and other bidding offers	Merger as part of overall strategic vision
Historical relations between the companies	Impact of transaction on other strategic initiatives
	General optimism statements
BIDDER BUSINESS	INTEGRATION DETAILS
Bidder historical financial result	Operational integration
Bidder business model	Personnel integration & Board of Directors changes
Bidder strategic features	Integration risks
	Integration and transaction costs
	Further effects of integration
	Characteristics of the new business combination
TARGET BUSINESS	FINANCIAL GUIDELINES
Target historical financial results	Effect of merger on nonfinancial measures
Target business model	Financial effects of the transaction
Target strategic features	Business combination accounting and financials
Target rationale for the transaction	Capital structure and ownership effects

APPENDIX B – VARIABLES DESCRIPTION

Variable name	Calculation method	Source
Bidder Total Assets	Book value of the bidder's total assets measured at fiscal year-end prior to the deal announcement	Orbis
Bidder Sales/Tot. Assets	Book value of the bidder's sales over the total assets measured at fiscal year-end prior to the deal announcement	Orbis
Market to book ratio	The ratio is calculated by comparing the market value of equity measured at the fiscal year-end prior to the acquisition announcement date with its corresponding book value.	Bloomberg - Orbis
Tobin's Q	The Tobin's Q ratio is calculated by comparing the market value of a company's equity and liabilities with its corresponding book values. It is computed as the sum of the market value of equity and market value long-term debt over the sum of the book value of equity and book value of long-term debt	Bloomberg - Orbis
Same Industry	Dummy variable equal to one if the bidder's four-digit NAICS code (obtained from Bloomberg Database) is the same as the target's.	Bloomberg
Cross-border	Dummy variable equal to one if either the bidder or the target firm is domiciled outside the United States	Bloomberg - Researcher elaborations
Equity Payment	Dummy variable equal to one if the deal is (partly) financed with equity	Bloomberg
Relative size	Ratio of the deal value reported by Bloomberg database to the book value of the bidder, measured as the value of bidder total assets.	Bloomberg – Orbis
Number of analysts' recommendations	Total number of analysts' recommendations for the bidder company	Bloomberg
Litigation Risk	Dummy variable equal to one if the bidder belongs to the computer hardware (SIC codes 3570–3577), computer software (SIC codes 7371–7379), or pharmaceuticals (SIC codes 2833–2836) industries.	Researcher elaborations
Industry Concentration Ratio	Bidder industry concentration ratio obtained from U.S. Census data based on the 4-digit NAICS code of the firm (obtained from Bloomberg Database). We use the last available census (2007).	Researcher elaborations