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Mergers and Acquisitions: expected vs actual performance. A set of case study assessments

Supervisor:
Prof. Riccardo CALCAGNO

Author:
Marco SEBASTIANO

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Abstract

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by Marco SEBASTIANO

Nowadays, when discussing about M&A (Merger and Acquisition), scholars and professionals agree in saying that it is one of the widest and most complex area of financial assessment in which analysts could come across. This is not just because of the extreme variety of typologies, scenarios and parties involved, but also for the connection to other complementary crucial fields of investigations, such as strategy or project/enterprise management, that severely affect the analysis of each single deal. Although affected by a high failure rate post-deal, the attraction of companies towards this type of external growth mechanism has just increased across years, and it seems to have a defined interesting way to distribute among periods.

Supported by different literature state-of-the-art conclusions, the following paper aims at introducing the most importance features of an M&A operation and presenting which could be the potential Key Success Factors leading to a successful deal.

Specifically, the panel of case study assessments proposed in the third chapter, focuses on two main purposes.

Firstly, the concrete observations of theoretical topics, earlier introduced, and the comparisons of pre/post-acquisition metrics, looking at expected versus finalized performances on twelve transactions occurred among the period 1999-2017, and that distributed in two defined industries, namely the automotive and the tech one.

Secondly, it seeks to find empirical correlations among successful deals presented, till the formulation of some preliminary hypothesis about potential reasons for their positive post-acquisition performance metrics.

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List of Abbreviations

M&A	**M**erger (and) **A**cquisition
MCC	**M**arket (for) **C**orporate **C**ontrol
RBV	**R**esource-**B**ased **V**iew
SEC	**S**ecurities **E**xchange **C**ommission
LBO	**L**everaged **B**uy**O**ut
OEM	**O**rigianl **E**quipment **M**anufacturer
IMO	**I**ntegration **M**anagement **O**ffice
NDA	**N**on-**D**isclosure **A**greement
CTV	**C**ountervalue

Chapter 1

Introduction to M&As

1.1 M&As: Background and strategic context

1.1.1 Introduction to the M&A scenario

Every company is moved by the inherent goal of growing and achieving success, whether it is a big or a small organization, a public or a private one.

In this context Merger and Acquisition (M&A) activities represent a crucial portion of companies' corporate life-cycle being a potential reliable alternative for growth strategies. Indeed, with this term scholars and professionals refer to a multilevel and multistage process in which two entities/organizations incur in a transaction, where one plays the role of a bidder (the acquiror of stakes) and the other of a target (the seller).

Being a real form of investment, the former must pay something at the beginning to buy ownership of the latter, but without a real and certain perspective on future returns. M&As could be a huge source of growth and profit for organizations, but entail also a high level of risks along the entire long process, which starts with the decision-making and ends with the effective integration of the two businesses.

Furthermore, the different ways in which companies could start and conclude the deal would determine the typology of transaction itself accordingly. Next paragraphs in this chapter aim at introducing the majority of M&A types, so to have a general and effective context map about this complex environment. Examples of case studies will follow during the discussion, so to have a concrete contact with reality and ease the reading.

In high general terms, M&As activities are part of what is called Corporate Restructuring, namely a change in the financial and/or business structure of an organization with the purpose of directing the company towards expected future goals (other types of related activities are Spin-offs, top management changes etc.).

Indeed, a company (the bidder/acquiror) could decide to take the ownership of another one (the target) for a series of different reasons, like gaining access to new markets, extracting synergies or obtaining the control on strategic assets below the firm level. Besides, a deal that is aimed at acquiring peculiar desired competences from the target is better associated to the term *technology acquisition* (Cantamessa and Montagna, 2016).

In general, M&As have the potentiality to create value for the acquiring parties both in cases of target's similar assets and complementary ones. The former case typically

supports incremental innovations, while the latter can be an avenue for radical ones [1] (Makri, Hitt, and Lane, 2010).

The very first classification of deals comes from the name itself used to call these type of activities. Indeed, *Merger and Acquisition* is commonly cited as a single term using two apparent synonyms, but actually a merger is slightly different from an acquisition. Here the crucial distinction:

- **Merger**: in this type of deal two organizations join together, but one ceases to exist. Generally, the acquiring party would then consolidate both the assets and liabilities of the target and, at the end, there would be one single legal entity. This scenario could be clearer in case of public companies where, after the merger, one of the two stocks will be no more available for investors on the market. Notice that, post-deal the purchasing party is free to choose whether to maintain the name of the target, maybe creating a new company brand or to fully delete it. As suggested by (Kumar and Sharma, 2019), the brand name usage is a typical strategy which might be used by the acquiring company to take advantage of the brand image of the acquired party. Moreover, a merger commonly refers to a friendly transaction, namely an operation in which both parties are in favor towards the deal. The Fiat and Chrysler case in 2014 (object of a later analysis in this paper) is a clear example of a merger in which the remaining company decided to use both names of parties for the new organization, opting for the so called *FCA (Fiat Chrysler Automobiles)*.

- **Acquisition**: in this type of operation one party acquires the stake of the other entity, trying to take over the management control of the target. An acquisition could entail also not the entire share of participation of a target, but for example only even the 30%, being able to regard the acquired party as a real subsidiary and having a strategic decision-making role in the other business. When dealing with acquisitions, scholars refer to either friendly or hostile takeovers, because of the chance for an acquiror to purchase share of ownership on the market even without the consensus and the willingness from the target (a detailed discussion on this topic will be afterwords introduced). The Microsoft and LinkedIn case (later shown), is a clear example of a friendly acquisition, dated back in 2016.

In both cases, the acquiring entity must purchase the stock or existing assets of the target either for cash or for something of equivalent value (such as shares in the acquiring or newly merged corporation) (Berk and DeMarzo, 2017) and pay a relative amount of premium to compensate the exit option of target owners.

Two other terms are usually commonly cited when dealing with M&A operations and allow to detect useful insights about corporate restructuring:

- **Reverse Merger**: actually it is equal to a traditional one, but in this case a parent organization, typically large, merges with a subsidiary one, typically small. Most

[1] Both the *Radical* and *Incremental* connotations look at innovations from the technical functional side of the product/service offered. With the former term, scholars refer to an innovation introducing fully new features, which allow the good to be considered as a completely new one, and for which trade-offs with predecessors are pointless. Instead, with the latter term scholars refer to an innovation that brings upgrades, which then entails improved products, but still without altering the trade-off process with predecessors.

private organizations exploit this type of transaction to become a public company just thanks to the transaction incurred with the public subsidiary, so to avoid the entire, long and costly listing process. The Dell and EMC case is a perfect example. After having acquired EMC in 2016, Dell went public (for the second time in its history) buying back in 2018 shares that tracked the financial performance of the software maker VMware, a company in which EMC itself had stake of ownership, and that was a substantial party of interest in the previous deal transaction (a later discussion will better introduce the case study).

- **Divestiture**: when assessing an M&A case study, it is common to have the point of view of the acquiring party, the one that pays something and that takes the risk for something uncertain. Nevertheless, at the same time it is useful also to be in the shoes of sellers, in order to assess either reasons to be in favor of the deal or the defensive actions selected in case of a hostile takeover. Indeed, a divestiture refers to a case in which a company liquidates portions or the totality of assets (or business units) to focus on core businesses (or other opportunities). Here, the perfect example comes from the PSA and Opel case study, in which General Motors decided to liquidate the European automotive business led by Opel, after years of issues and losses.

  Although the term *divestiture* is commonly regarded as a sign of a failed investment, the high premiums affecting offers proposed by bidders are often a good incentive to undergo divestitures, intended as a way to earn something or to simply eliminate redundant assets. Moreover, divestiture is the method used by PEs and VCs to make profit under an exit option, but it is also the strategy of startups aiming at making attractive their businesses for a potential acquisition, rather than to push for long-term goals. This latter way of intending entrepreneurship is usually referred to the concept of *serial entrepreneurship* (Cantamessa and Montagna, 2016). It is the case for example of Chewy.com, a retailer of products for animals, that after only five years from its foundation was sold to the giant PetSmart for $ 3.35 billions (Cohen, 2020).

When dealing with M&As, it is common also to refer to the concept of *Market for Corporate Control*. In a nutshell, takeovers allow for the diffusion of new technologies and for the reallocation of capital to more efficient projects and to better managers (Donald and Simons, 2010). The idea is that the market could self adjust to inefficiency in management and control thanks to ownership exchange transactions among entities. Hence, this important business activity may be thought as a form of Darwinian industrial selection promoting social welfare (Eckbo, 2013) and the engine for this process is the managerial competition in the market for corporate control.

Indeed, the market is highly turbulent and dynamic and the presence of companies is steadily changing. (DePamphilis, 2011) observed how the composition of the so called Fortune 500 [2] has changed across time, and he remarked that only 70 of the companies who participated to the list in 1955 are now on the actual one.

[2]The *Fortune 500* is a list compiled and published annually by the *Fortune* magazine (now at its 67th edition), which provides the ranking of the U.S. 500 top companies in term of their respective revenues for the relative fiscal year.

Moreover, the M&A number of operations has mainly increased among years, spreading its popularity among top executives since the early years of the 20th century. Looking at data taken from the Eikon Database by Refinitiv, in 1985 the number of deals worldwide was almost 2,700, in the early 2000s about 40,000 and in 2018 it reached almost 53,000 cases. A similar increasing trend could be depicted for the yearly cumulative deal value associated, that in 2018 was about $ 3,394 Billions. Another interesting data comes from the research presented by (Gatti, Chiarella, and Della Ragione, 2019), where it is shown how M&A volumes have totaled on average the 6.5% of the global Market Capitalization over the past 30 years.

To conclude, alongside both the increased volume and value of deals, the M&A environment is highly affected by a substantial failure rate. Companies cannot simply buy other entities and naturally achieve the expected outcomes. To pay for the control is not enough. It is crucial to detect the right target, to pay the right price and to implement an effective post-deal approach, exploiting all potential benefits. Next paragraphs keep on introducing features of different types of deals (so to obtain a complete categorization), while the second chapter focuses on issues and obstacles occurring during the process and on the critical success factors coming from empirical evidences.

1.1.2 External versus internal growth

Companies can grow substantially by means of two different approaches: the internal or external growth. The original and mainstream way to grow, to acquire competences, to enter new markets etc. is the one to internally invest resources, assets and money in order to run R&D projects and new business plans. Scholars like (Kumar and Sharma, 2019) refer to this internal growth as *greenfield* or *organic* expansion.

Conversely, M&A acquisitions belong to the external growth category, also called *brownfield* or *inorganic* expansions. The same Kumar and Sharma indicate these type of deals as a typical way to climb a ladder multi-foot, by way of strategic tie-ups.

Indeed, at the same conditions, contrary to the much longer internal growth process, external growths are generally faster and, if well operated, conduct to almost the same level of appropriability of outcomes reached.

According to a recent study by (Gatti, Chiarella, and Della Ragione, 2019) almost the 15% of cash generated by the S&P 500 companies [3] since 2009 was then used for external growth.

Confirmations come also from a recent survey published in a dossier by (Cherowbrier, 2021), where it has been underlined that the 25% of respondents consider, as a top reason to buy, the easiness in achieving growth through acquisitions rather than organically. In effect, M&As are generally regarded as ways to obtain an exponential growth rather than a linear one, but this is true provided that the operation is started and conducted in a proper way.

However, the most significant barrier towards acquisitions is given by the high cost of the investment itself, which clearly set the basis for the trade-off among internal projects. Indeed, M&A entails higher cost when compared to R&D projects, but still results would be much different. Take for example the Microsoft acquisition of LinkedIn, set at almost

[3] The S&P 500 is a stock index created in 1957 by Standard & Poor's, which follows the trend of a panel of shares coming from the top 500 U.S. companies by Market Capitalization

€ 23 billions. For sure, an internal development of a similar social-network would have resulted in a significantly lower cost, if compared to the price paid. Nevertheless, those billions consider also the brand acquisition, an already consolidated platform and a future Cash Flow certainty, that an internal project could not have offered.

As said before, M&A deals entail the risk of a wrong target selection, a high price plus an expensive premium and the risk of a bad integration approach. Conversely, the internal growth entails the advantage to put lower and controlled effort on the investment, both in terms of expenditures, time and resources allocated. Unfortunately, the control of time drags the critical disadvantage of a much longer time horizon for the internal project/investment completion. Here, the risk of a competitor taking the lead during the time of expansion. Take for example the Fiat & Chrysler case (later object of this paper). The principal goal of Fiat was to expand in Europe and America, becoming one of the world biggest car manufacturer for the low-medium vehicle segment. To do so, especially in the automotive industry, it is crucial for organizations to have a substantial car fleet able to satisfy the needs of platform sharing, so cost reduction, while meeting the different customers' tastes on the market. It is clear that a project of growth of this magnitude would entail huge internal investments, R&D efforts and time, that with very high probability could not lead to the final result. In Chapter 3 there will be presented features of the deal which guided the decision-making by Fiat along with the characteristics that made this merger a successful one.

To conclude, in any case there is no a single scenario. The decision-making among internal or external growth is related to the type of investment, the industry associated, the external market conditions and the final outcomes that organizations are willing to acquire. Also, the firm-specific capability and commitment to execute a given strategy, as it was planned, is nothing but a trivial aspect that should not be taken for granted. Indeed, even if an acquisition seemed to be more attractive when compared to an internal R&D project or a strategic partnership, executives should carefully evaluate the possibility to actually be able to carry out the intended M&A and rationally be ready to abandon it (Cantamessa and Montagna, 2016).

1.1.3 Parties involved in M&As

When assessing a deal, one of the first thing to understand is the type of parties involved in the transaction. Differences could lay on the nationality of entities, on their ownership structure and on the high-level purpose for the deal.

- **Domestic and cross-boarder deals**: with the term *domestic deal* scholars refer to operations among entities belonging to the same country and so that have the same nationality. Conversely, *cross-boarder* is used to refer to a situation in which one party acquires a foreign one. It could seem intuitive to think that the latter form of M&A introduces more critical issues during the entire process. Indeed, scholars remark the acquiror' s lack of knowledge and visibility towards different areas, from host country regulations and business norms, to the large and complicated world of culture, which lay down the ground for unique challenges when choosing the right target and the right integration approach. One of the main disincentive for companies opting for a cross-boarder deal is the level of corruption and political instability in the host country. In addition, imperfect capital markets (evidenced

by fluctuations in exchange rates), stock market movements and macro-economic changes, can add further reasons for transactions not to occur (Harold Mulherin, M. Netter, and Poulsen, 2017). In their paper (Erel, Liao, and Weisbach, 2012) showed that the probability to have cross-boarder M&As are on average higher given closer geographical proximity of entities involved, the better the level of accounting data available and the higher the commercial trade among countries, which parties belong to. Notice that, the problem of culture gap will be a principal subject for later analysis and it is actually regarded as one of the main reasons for unsuccessful deals.
Nevertheless, at the moment is important to remark advantages that this type of deal could offer and that justify the steadily increased percentage of cross-boarder operations across time. In effect, acquirors are so able to access unique contexts, new markets, new customers and resources. Moreover, under the logic of the Resource-Based View [4] this is a huge potentiality to integrate the general level of competences and knowledge carried on by individuals working for the target. Once again, the Fiat & Chrysler deal is an example of a case that allowed the exploitation of synergies coming from two different markets, namely the American and European one.
Notice that, the culture gap does not apply only for cross-boarder deals, but also for domestic ones. The reason behind lays simply in the way of conceiving the term *culture gap*. In a business environment, it does not stop at the languages and behavioral differences among individuals, but consider also the way of both making the business itself and organizing the company. The culture of a company is what allows to distinguish it from a peer, even if belonging to the same country, and that is why the literature puts besides the term *organizational gap*.
In conclusion, in case of cross-boarder deals two additional terminologies could be introduced, when considering the points of view of the two different parties. Indeed, scholars refer to *inbound* M&A (under the target perspective) when a foreign company acquire a domestic one. Similarly, they refer to *outbound* M&A (under the acquiror perspective) when a domestic company intends to run a takeover with a foreign target.

- **Private and public parties**: M&As could entail the combination of private and public companies, listed or not in markets for stock exchange and, when dealing with strategic entities, the former are usually smaller firms compared with the latter. Similarly, a deal could consider an acquisition of either an entire entity, (public or private) or a business units (below the target level), such as a specific division, a set of assets, a particular target's brand etc.
  Across the entire literature about M&As, there could be found different pros and cons of being a public or private organization, either in case of bidders or targets. Public bidders generally suffer the post-announcement market's answer for the incoming deal, but there could be cases in which market expectations are actually highly positive. Conversely, private bidders are allowed to remain anonymous, do

[4] In a nutshell, the *Resource-Based View (RBV)*, alongside the *Evolutionary theory of firms*, tries to explain a company as the sum of internal resources (employees and assets) and routines (also called *organizational competences*), which set the base for the company's uniqueness, able to justify the potential competitive advantage exploitable.

not suffer the pressure of the market and are not obliged to provide a detailed industrial plan in public financial review. The Dell & and EMC case is here a perfect example. At that time, Dell was a private company after leaving the market almost six years prior to the deal announcement. After declared the intention to invest, journalists and scholars tried to predict potential outcomes, but without having a clear and starting point about the long-term strategy of Dell: selling to private company is like going towards a black hole.
Conversely, looking at targets, the private conditions of sellers could be an obstacle for bidders in properly assessing and evaluating the business of the party interested in. Thus, both price estimates and the strategic decision-making suffer from a high uncertainty. At the same time, the public condition typically entails higher premiums paid by bidders, both for the market response after the announcement and for the higher presence of competitors in the bidding process. Example of transactions among a public bidder and a private target are those in which the latter is a startup not yet listed in the stock market and which is looking for significant growing alternatives. Here, outcomes of the match among a big acquiring company and a much smaller startup is not always easy to predict. In a recent article by (Finizio, 2021) it was introduced a survey made by the McKinsey Company and B Heros on a sample of 80 startups followed by big partners. It ended up that the 44% of respondents recognized decision-making process to much long and difficult to fully understand, the 38% identified a not managed cultural gap and the 26% recognized a different time to market approach. Hence, it could be underlined that most of the deal probability success, especially in these types of transactions, depends on the commitment of the bidder.

- **Financial versus strategic bidders**: as said before, M&As are a real form of investment and carry on a series of potential investors interested in. Strategic bidders are maybe the most intuitive ones, namely companies which run a business directly directed to end-consumers, intermediaries, or other organization themselves (for example a B2B or a B2C), and that incur in M&A transactions to exploit potential value creation along (or outside) their supply chains. Conversely, financial investors are typically institutional ones, traditionally PEs or VCs fund aiming at making profits (also through exit options) after several years of support, investment and bet in a company. What clearly distinguishes financial from strategic bidders is the lack of a business strategy itself towards the target. Furthermore, what has been detected from empirical analysis conducted by (Gorbenko and Malenko, 2014) is that financial investors, specifically PEs, are willing to pay higher premiums for poorly performing targets, while strategic ones have higher valuations, but for healthy targets with higher opportunity and growth perspectives. The reason lays in the careful and detailed monitoring activity made by PEs. Indeed, their core business aims at finding bad managed companies, generally in a mature market, so to divert their actual trend towards a better future growth, and making profit with exit options. Moreover, their diversified investments provide a reliable source for an easier access to debt financing. Howsoever, Gorbenko and Malenko tried to detect the common bidding behavior of both types of bidders. Using a sample of auctions and cash tender offers, they showed that on average strategic bidders have higher valuations than financial ones. A reliable reason entails the added value of synergies

TABLE 1.1: The M&A Taxonomy

Types	The industry of parties	Bidder's approach	Payment method
1	Horizontal	Friendly	Cash
2	Vertical	Hostile	Stock swap
3	Related-diversification		
4	Conglomerate		

among entities, estimated in the case of strategic parties involved in a transaction. Indeed, targets do know about the future potential benefit for acquirors completing the deal, which comes from synergy creation. Hence, the higher the latter, the higher the price asked by targets themselves.

1.2 Main features of M&A deals

1.2.1 Taxonomy of M&As

As anticipated, M&As operations are highly affected by a series of variables and features, that make each process unique and singular. Nevertheless, it is possible to categorize these activities while considering macro area of interest. Here, there will follow three major categorizations of M&As. The first one is related to the industry of interest of both parties; the second one deals with the bidder's approach towards the target management; the third one, instead, introduces the difference regarding the compensation method that bidders propose to target's owners. Across these contexts, the literature is highly diversified about effects and consequences of each of these features.

Scholars have tried to find correlations among M&A variables and the final level of performance of the deal, regarding its success or abnormal returns for shareholders of both entities. Sometimes empirical outcomes are highly opposite, and this is given by the complexity of assessment in this field.

The first cluster is about industries of parties, following the one presented by (Berk and DeMarzo, 2017). Specifically, it considers the level of relationship among the business area of parties.

- **Horizontal M&As**: it occurs when both the target and the acquiror run the same business in the same industry or in a similar line. In other terms, the two organizations provide the market a similar product/service and could be defined as competitors. A clear example, once again, comes from the Fiat & Chrysler case study. In fact, these two companies operate in the same automotive industry and are both direct producers/assemblers of cars (OEMs), while providing the market almost the same quality-level.
  The scope of these deals is to generate operating synergy through Economies of Scale (EoS), to enter new markets, potential new segments of the same product (high-low quality), and to enforce either the market share or the control over price. Especially for these last reasons, this type of M&As are the most overlooked and assessed by the Antitrust Authority;

- **Vertical M&As**: targets and acquirors share the same value chain, and deals move towards the relative industry supply chain. Indeed, the target could be for example a supplier of raw materials, but also the provider of the distribution network. Following the classification presented by (Kumar and Sharma, 2019), in case of M&As with targets belonging to a former supply chain stage, scholars refer to the term *Backward integration*; while, in the opposite case of targets belonging to a next supply chain phase, they refer to *Forward integration*. The main purpose is the achievement of a stronger control over the production cycle, while decreasing potential hold-up problems with suppliers and achieving both cost and time efficiency;

- **Co-generic M&As**: in this particular case the two organizations operate in a similar line of an industry, but offer a different product/service. As described by (Kumar and Sharma, 2019), this typology generally entails complementary in nature products by the two firms. The famous example they reported is the P&G[5] & Gillette one, dated back to 2005. Indeed, P&G is a large consumer goods company, while Gillette operates in the men's personal care market. Hence, this is the case of a related diversification made by the acquiror to enlarge the fleet of products offered to its customers. Indeed, the main scope is to exploit Economies of Scope, cost sharing and synergies coming from non-operating business units, like R&D, quality control, production management or market relationships;

- **Conglomerate M&As**: it occurs when parties operate in unrelated industries, with very low or zero level of correlation. As underlined by (Berk and DeMarzo, 2017), conglomerate M&As, popular in the '60s, have actually fallen out of favor with shareholders, because of the difficulty in creating value when combining two unrelated organizations. These types of deals entail higher managerial risks, but lower market risks, since companies paths should not follow the same trend. In effect, the goal is to acquire a negatively correlated organization, in order to cover in case of bad industry performances. PEs and VCs are the principal acquirors related to this category.

The second cluster entails the bidder's approach towards the deal and the simultaneous target's management point of view toward the takeover. Notice that, this category is highly effective for public companies, which have stocks in the secondary market available for acquisition by any other entity.

- **Friendly takeover**: these types of deal are characterized by the willingness of the target's management team to proceed with the transaction. Hence, both parties agree to the merger or acquisition, mutually seeking to find a satisfying conclusive transaction;

- **Hostile takeover**: the target management team is adverse to the deal, but the acquiror' s one still proceed offering to the market a certain amount of compensation, in order to purchase the desired share of ownership, able to run decision-making in the target's board. What moves and keeps alive the transaction is the presence of target's shareholders attracted by the high premiums offered by bidders.

[5]Procter & Gamble

However, the effectiveness of these bids is not so high given the difficulty in achieving the estimated stake. As a matter of fact, most of the time, the engine for hostile takeover is the presence of a toehold, namely the exploitation of a given former share of ownership in the target stake, that has been already acquired by the bidder in past transactions. As noted by (Eckbo, 2009) toeholds being used when they are worth having (higher than the 10% of target stake) do occur in hostile takeovers.

The third cluster is about the payment method proposed by the acquiror to conclude the transaction. It is one of the most analyzed and discussed variable in statistical assessments, with scholars trying to find evidence for the supremacy of one of the two methods for post-deal performances. Unfortunately, as suggested by (Eckbo, 2009) the payment type depends on tax considerations, information asymmetries, capital structure factors, and behavioral issues.

However, it is necessary to state that commonly these two methods apply simultaneously, with the bidder offering a portion of compensation in cash and the remaining part under a stock swap transaction. Typically, analysts find these info in a document named *term sheet*, where the structure and deal features are reported, such as the ones provided by the Refinitiv Eikon Database used for this paper. As an example, the eBay & Skype case (later discussed) was concluded with almost the 74% cash compensation and the 26% in stock, starting from a general deal CTV of about € 3.6 billions.

- **Cash payment**: what matters is the actual source of money, either equity or debt, that could have significant consequences on later performances and on initial offers. In effect, the study of (Vladimirov, 2015) underlines how the issuing of debt is associated with overbidding, while the exploitation of internal financing to underbidding. Indeed, cash offers are usually associated with initial and final premiums as suggested by (Eckbo, 2013). Notice that, the same observation works when considering public bidders, rather than private ones. Moreover, the cash compensation is clearly riskier and harder to sustain for bidders. In case of the equity choice, managers could be restrained putting in place own company's money, while in the case of cash issued with debt the past leverage level is a critical obstacle when trying to obtain new one. Indeed, as described by (Uysal, 2011), the capital structure plays a major role. He noted that over-leveraged bidders on average paid lower premiums and are far less likely to offer cash compensation. At the same time, when a highly leveraged firm announces an acquisition, the average wealth effect by the market is positive, since the latter perceives a strong commitment and a strategic relevance towards the deal. The later Microsoft & LinkedIn transaction (in 2016) is an example of a 100% cash deal, starting from a deal CTV of about € 23.7 billions;

- **Stock swap**: the term comes from the specific action of target shareholders "swapping" their old shares for new ones. When dealing with stock deals, scholars commonly agree to the crafty exploitation of overvalued bidder's shares made by acquirors' managers. Unfortunately, as a result the later long-term performances of the new entity are negative, as suggested by (Mark, Pulvino, and Stafford, 2004), that analyzed the lower bidder return in case of stock financing when compared with cash financed M&As. Indeed, (Vermaelen and Xu, 2014) showed that target shareholders always prefer the known value of the cash payment, and they should accept stock swapping only if the bidder could concretely justify the use of stocks

instead of cash. Without a clear and satisfying explanation, target shareholders could then conclude that acquiror' s shares are overvalued. Here, the Daimler & Chrysler case, later discussed, is a famous example of a 100% stock transaction.

1.2.2 Intrinsic M&A motivations

Companies could decide to run M&A transactions for a series of reasons, but the basic goal is the creation of value from the deal. Actually, it is exactly the additional value creation, deriving from the combination of two specific entities, that drives the offering of premiums from bidders. Theoretically, the level of premium proposed (namely the difference between the price offered and the stand alone value of the target) is the symptom of the expected benefit creation from the deal.

Scholars refer to the term synergy to identify this specific new value from a deal. The synergy comes from the complementarity among entities that join together. In a nutshell, when merging the right companies the final value is higher than the sum of isolated stand alone ones, and the difference is the synergy itself.

Following the taxonomy of synergies proposed by (Berk and DeMarzo, 2017), it is possible to recognize three different classes of additional value created:

- **Cost Synergy**: it is maybe the principal justification often disclosed by top managers when announcing the deal to the market. As discussed by Berk and DeMarzo, companies tend to satisfy and actually do achieve this type of synergy with more easiness, since common activities involve the elimination of redundant resources (assets or employees) and the cost sharing among units of business, such as R&D, SG&A expenses and other operational costs.

- **Revenue Synergy**: this condition applies when the acquisition opens paths toward expansion either in new customers, in new markets or a combination of both. Hence, this type requires a high commitment from both parties (but especially from acquirors) seeking the growth of sales, and justifying the effort in place with a higher margin (EBITDA and EBIT) than in a cost synergy scenario. As suggested by (Cherowbrier, 2021) it is possible to reach this goal through initiatives such as pricing, cross-selling, product innovation, and higher brand recognition.

- **Financial Synergy**: through combinations and restructuring companies could exploit the investment activity to change their cost of capital and increase the credit access availability, since the merger allows to diversify portfolios and to provide debt holders more assurance, thanks to combined assets potentially put as pledge.

Once presented the high-level value creation companies seek when proposing an acquisition, it is possible to present a deeper classification of singular motivations which bring to the creation of unique values. The assessment of different intrinsic and correlated motivations is crucial for the right post-acquisition analysis of performances and for the correct assessment of expected versus finalized deal outcomes.

Hence, it is important to underline that a single reason for an M&A transaction has a very low related likelihood, with companies actually trying to achieve various benefits. However, if before the deal a multiple scenario of opportunities might seem as a good

proxy for the deal success, at the same time multiple motivations could result in issues and obstacles in how different requirements might be satisfied post-merger.

In order to introduce the taxonomy of main motivations, the following section will be based on the cluster presented by (Angwin, 2007), who distinguished among three different levels.

The first group of M&As is related to so called *classical motivations*, namely the ones that scholars and professionals assign to the traditional growth purpose of acquirors, who rely in affordable opportunities to expand their business. As reported in a survey conducted among famous M&A advisors and reported by (Cherowbrier, 2021), the 28% of respondents declared that growth strategy through reasonable acquisition proposals is the main reason for buying.

Thus, the first cluster introduces motivations such as:

- **Economies of Scale and Scope**: in trying to consolidate the market share and fight the competition from peers, companies engage in acquisitions to obtain more control on production and to become more efficient upon costs. In a nutshell, Economies of Scale allow to work on sharing direct production costs, for example sharing plant operations or resource activities, while Economies of Scope focus more on indirect marketing or distribution costs, saving from the production of different but related products/services. Overall, the final goal is to better manage price choices and to follow a path to monopoly, reducing at the same time both competitions and industry overcapacity.

- **Vertical Integration**: clearly associated with vertical M&As, these type of deals allow companies to achieve more bargaining power along their production value chain. Thus, principal benefits could be depicted in two different areas. Firstly, acquirors obtain more coordination and cost control along the production cycle (Berk and DeMarzo, 2017); secondly, they are able to reduce hold-up problems [6] with upper and lower suppliers, namely decreasing contractual issues, that would have brought to cost and time wastes. In general, as suggested by Berk and DeMarzo, vertical companies are complex to manage especially given their large size, so it is not trivial to find a highly vertically integrated entity. For example, interesting it is the case of Microsoft Corporation (later analyzed) that has never expand into the direct Personal Computer manufacturing, even if being the main provider of Operating Systems for the majority of devices worldwide. Conversely, oil companies generally control all stages of production development.

- **Competence enhancing**: while the previous two motivations are strictly related to economic performances, this third reason regards firms' desire to find new resource and/or assets able to increase internal competences and so chances of competitive advantages. Indeed, companies may start M&A operations to incorporate talent experts, maybe specialized in a specific area, betting for the efficient complementarity with already owned ones. In this way, acquirors could exponentially increase their capabilities and company's knowledge (such as know-how, know-why etc.)

[6] *Hold-up problems* occur between two parties working together under contractual clauses, but that suffer from the relationship itself, since one of them is able to exploit a higher bargaining power and reduce the other party's benefits and profits.

by exploiting the potentiality of target's brand, employees, patents and other intellectual properties. However, it is clear that the only acquisition it is not enough to accomplish purposes. If not well managed, the integration could destroy the intrinsic value of targets, and unsatisfied talented employees might leave the company itself. Moreover, another issues is related to the idiosyncratic performance of resources. Specifically, a group of selected employees, considered as specialized and talented ones, might beautifully perform in a given scenario (the pre-merger one), but when put in a different context (the post-merger one) their effectiveness could substantially decrease. Scholars attribute this problem to the RBV approach, that explains company's outcomes as derived from a unique matching among internal routines and resources (Cantamessa and Montagna, 2016).

The second group is related to what Angwin considered as *under-recognized motivations*, namely the ones moved by intentional and rational causes which lay under the simple and intuitive growth scope of acquirors.

Hence, the cluster introduces:

- **Efficiency**: as anticipated, the Market for Corporate Control (MCC) concept regards target inefficiency as one of the main reason for bidders to chase deal completion. Indeed, acquirors often argue to be able to run the target organization better than actual top executives. It should be underlined that in reality, inefficient top executives could be directly fired by target shareholders voting to substitute the board of directors, and so avoiding the need of a takeover to be better off. However, empirically very few top executives are replaced in this way, and reasons mainly lay on managerial entrenchment mixed with the passive role of investors that, if unsatisfied, simply sell their stocks, bringing the share price to decrease. Thus, the opportunity for bidders to conclude a good affair. In effect, in a recent interview reported in a Statista Dossier made by (Cherowbrier, 2021), the 12% of respondents actually declared that the main reason to acquire is the opportunity to purchase companies at attractive prices. Scholars refer to the concept of Q-Theory of M&A to explain how the MCC allows for the reallocation of assets, from less efficient entities to more efficient ones. This concept relies on the Tobin' s Q value, namely the ratio among the intrinsic market value and the replacement cost of a certain asset or group of assets (in a broad sense, even a company itself). Thus, the Tobin' s Q expresses the discrepancy among the market valuation and the real cost of acquisition of a new asset. While looking at M&As, the former could be intended as the Present Value of estimated CFs that come from the new company, while the latter as the cost of acquisition plus the integration one. In the end, companies predict the Tobin' s Q ratio to evaluate if the inefficiency and mismanagement bring the target to be currently undervalued and if its market price is lower than the expected cumulative benefits deriving from it. Indeed, (Gort, 1969) for example explained how underperforming and under-valued organizations (low-q targets) are generally bought by well-performing high-q bidders, while a similar refined hypothesis is described by (Yang, 2008), who concluded that rising companies tend to buy falling ones;

- **Tax saving**: the making of profits implies the payment of taxes upon it, but no taxes would be paid in case of a final company's loss. Hence, organizations could exploit the beneficial tax reduction derived from the high acquisition cost incurred

in. The method of payment also affects future due payments for parties. Any cash exchange implies tax considerations but, from the side of bidders, also a gain on tax reduction, given the loss from the acquisition itself (debt interests for example reduce the final profit and so the related taxes). Moreover, when bidders purchase target assets directly (instead of stocks), then they can enjoy higher depreciation, and any goodwill recorded would then reduce future taxes (Berk and DeMarzo, 2017). Indeed, professionals refer to the *carrying forward of taxes* when a loss in a certain year can offset not only the acquisition year tax, but also those of the following several years, so that in future companies should pay only for the surplus after offset by the loss. Besides, other advantages are introduced either in a stock swap deal (leading the M&A to be tax-free) or when convertible bonds are adopted in the transaction. In this latter case, the interest on debt reduces the net income and, till the conversion into common shares, the acquiror enjoys earning of capital (Song, Zhang, and Chu, 2009);

- **Diversification**: mainly related to the case of conglomerate mergers, benefits of diversification are materialized in three different forms (Berk and DeMarzo, 2017). Firstly, given the lower likelihood of bankruptcy, acquirors enjoy a direct company's risk reduction reflected in a lower cost of capital or Weighted Average Cost of Capital (WACC). Secondly, debt capacity and credit availability increase accordingly, while lastly acquirors could enhance the liquidity availability derived from the assets melting. However, as anticipated, conglomerated organizations are complex to run and, if the purpose is to increase shareholders protection through a diversified portfolio of business units, companies' diversification is not so effective. This is due to difficulties in properly evaluating performance metrics. Hence, shareholders are better off if they personally diversify their own investment portfolio, by acquiring other companies' shares;

- **Earning growth**: after a merger companies could enjoy the increment in Earnings Per Share, even in the case in which there is not a real economic value creation. This phenomenon in known under the name of *Bootstrapping effect* and it is attributed to the case in which bidders acquire a lower P/E multiple target.

TABLE 1.2: The Bootstrapping effect

Metrics	**Acquiror**	**Target**	**Merger**
Share outstanding	2,000,000	2,000,000	2,500,000
Share Price ($)	200.00	50.00	200.00
Market Value ($)	400,000,000	100,000,000	500,000,000
Earnings (After Tax) ($)	8,000,000	8,000,000	16,000,000
EPS ($/share)	4.0	4.0	6.40
P/E	50	12.5	31.25

The example in Table 1.2 shows a typical scenario. It is presented the case of two companies with the same EPS, but with the target, maybe working in a mature market, having low growth opportunities as reflected by its P/E and share price

accordingly. However, along with the same number of shares in the market and the same level of profits after tax, they have equal EPS. To complete the transaction €100 millions must be paid, but the bidder decides to propose a stock swap. Hence, the latter would entail a 0.25 exchange ratio and the related issue of 500,000 new shares. As anticipated, the deal does not provide additional economic value creation (zero synergies), so the new overall level of profits it is just equal to the sum of previous ones, and considerations on the share price follow the same argument. At the end, the new company ends up having a higher and more attractive EPS only due to the the lower target P/E. Clearly, a rational and crafty investor should understand the logic behind (Berk and DeMarzo, 2017);

- **Managerial hubris**: to this category belong overconfidence and empire building mainly driven by agency costs. With the latter term, scholars refer to the case in which managers prefer to maximize their personal wealth at the expense of the shareholders' one, abandoning the firm's best option strategy (Angwin, 2007). Indeed, top executives (CEO firstly) might have personal interests and reasons to proceed in a deal. For example, managers could decide to run a larger, multinational company only for the prestige and the higher salary that would follow accordingly. Overall, the compensation benefits deriving from a large deal are far higher than a smaller deal ones. Hence, in attempting a non-rational acquisition, arrogant executives (heavily relying on their abilities) might likely end up with winners' course issues and overvaluations. Irrational choices could be advanced even in the case in which managers actually think to be altruistic and to work for the shareholders interests, but then fail in choosing the right target. This last scenario is associated to the notion of *stewardship* (Davis, Schoorman, and Donaldson, 1997);

- **Innovation stifling**: as proposed by (Angwin, 2007), deals belonging to this category mainly aim at preserving the competitive advantage of acquirors. They could proceed in M&A transactions to purchase a rival proposing an innovative tech, services or a new general product to the market. Hence, there would be a double effect. On one hand, acquirors close down potential competitions and secure future Cash Flows and strategies, while on the other side, they acquire intellectual properties always available for future exploitation. However, the overall social wealth is limited due to the contraction of innovation timing;

- **Sequential M&As**: in some cases a company could decide to run a strategy of sequential M&A operations having the same general purpose. Hence, if considered as independent, a single acquisition might result without a clear benefit, and with returns not justifying the initial investment. But when looking at the set of deals, these can lead to a high level advantage. For example, an organization might intend to run M&As with the scope of enhancing internal firm knowledge around a given topic, so to be ready for next important strategies. A scenario that scholars associated to the so called *learning by grafting* concept (Cantamessa and Montagna, 2016). Actually, it is important to state that sequential M&As represent the business model of some financial bidders, such as Private Equity Funds and Venture Capitalists, focused on building up a portfolio of companies.

The third group is related to maybe the least analyzed reasons, the ones that could be found out only when considering the more detailed environment around the acquiring

party, its secret and deeper strategies, facing something that common investors could not see immediately. Angwin called them *imposed motivations*:

- **Eat not to be eaten**: while the other motivations turn around the growth perspective, there could be cases in which companies proceed in transactions just for self-protection towards potential hostile takeovers. Indeed, by acquiring an available peer, said company C, company A increases its size and consolidates its stake and value accordingly. In this way, another potential competitor, said company B, who was thought about to acquire firm A, it is then discouraged in proceeding towards the takeover. Occurrences of these type of M&As have been empirically tested by scholars such as (Phalippou, Xu, and Zhao, 2015). Moreover, with the *eat not ot be eaten* concept it could be introduced an important observation about the high failure rate of M&A. Indeed, even in the case of an unsuccessful merger, scholars and professionals should consider that the no-deal NPV would not have been zero, but instead negative if the takeover had not occurred (Cantamessa and Montagna, 2016). In this way, the concept of "failure" should be reviewed, since even worse performances could have been resulted by the hostile acquisition.

- **Political persuasion**: bidders' Governments could significantly affect investment decisions putting pressure towards a deal, because maybe following higher-level national interests. It is a movement usually pursued by Governments trying to secure the national ownership in home companies and so preventing a foreign one taking the lead in internal firms. Famous is the case of the Italian direction pressing Olivetti to acquire Telecom Italia and avoiding the German takeovers. Unfortunately, post-deal the high level of debt severely affected Olivetti's performances and share price. Hence, in these cases future returns would be quite uncertain, since the acquisition would not reflect a real strategic decision from bidders.

- **Other external pressures**: overall the external environment could force companies in opting for an M&A operation, so to quickly overcome current issues. For example, (Angwin, 2007) referred to customer/supplier pressure or social/environmental one. The former case could happen when an important customer forces its supplier to acquire another entity for the procurement of a new desired component; the latter case when, for example, the company should follow ESG commitments.

(Angwin, 2007) was studying the correlation among post-deal performance assessments and the preventive bidders' perspectives. He noted that an overly trivial view of M&A reasons might have resulted in a distorted analysis of performance accordingly. Hence, he observed how these motivations (and other sub-ones) could have been condensed into four different levels:

- **Exploitation**: companies follow M&A strategies to beat competition with a high level of likelihood. Potential synergies are properly depicted and, if well integrated, the final party would be able to exploit them all.

- **Exploration**: organizations identify optimal targets for potential future growths in new area of interests, securing the chance for future CFs. However, the deal include a certain level of wager and the likelihood of success are not extremely high.

- **Statis**: companies in good financial and economic conditions try to secure their actual competitive advantage closing down potential rising issues. However, benefits either are lower if compared with acquisition prices or have a short-term time horizon.
- **Survival**: companies desperately try to avoid own demise proceeding towards low takeover returns, hopefully higher than the non-acquisition scenario ones.

These classifications help scholars and analysts in finding the right perspective towards performance assessments. Indeed, when evaluating outcomes in the *survival* and *statis* scenario, the synergy creation is likely to be an inefficient analysis solution. As a mere example, a deal that shows almost zero revenue synergy and low cost synergy finalization, but that originally belonged to the "survival" class, then should not be considered as an unsuccessful deal simply by means of those poor performances. Instead, a deeper evaluation of its no-deal scenario should be carried on.

So far in this paragraph, acquirors' reasons have been underlined under different perspectives. Nevertheless, it is important to remark also potential target motivations to be in favor of the deal, namely showing the potential reasons which allow the target being part of a friendly transaction. Here, the study made by (Song, Zhang, and Chu, 2009) helps understanding different target approaches.

- **To raise cash for other investments**: it is the case of companies selling a group of assets, a business units or an entire subsidiary, to finance additional related investments;
- **Poor performances**: under the logic of the Market for Corporate Control, top executives might perceive the actual inefficient management and could decide to get rid of poorly performing businesses. For example, when General Motors sold the subsidiary Opel brand to the PSA Group, it was an occasion to eliminate a billionaire-loosing division in the European market;
- **To decrease risk and promote diversification investments**: similar to the first scenario, but with targets aiming at reinvesting on specific diversified businesses;
- **To avoid future critical financial conditions**: target shareholders and top managers perceive the future risk of incoming losses and could prefer to get rid of the loosing-business beforehand.

1.2.3 How firms are sold?

The M&A deal process is a long and complex one. First of all, it is important to distinguish the ways in which it could actually start. Scholars and professionals differentiate a bidder-initiated deal from a target one. This preliminary consideration allows to remark and confirm the precedent selling reasons proposed. Furthermore, as studied by (Eckbo, Norli, and Thorburn, 2013), the role of seller-initiation has increased across years, surprising who initially viewed at M&As as something more attractive for acquirors. Indeed, they observed a sample of 3,800 public-target operations among 1996-2009 and confirmed that its 45% had a common feature: target initiation.

In bidder-initiated M&As, generally the acquiror has two operative ways, either it directly contacts the target's BoD proposing the basis for the deal (so starting a friendly negotiation) or privately contacts target shareholders, even knowing about the adversity of the other party (so starting a hostile transaction). In this latter case, the deal completion depends on the capacity of both parties to preserve their own interests.

In case of public takeovers, representing the core of this paper in the last empirical chapter, generally scholars refer to three main points in time to describe the high-level structure of a deal. Indeed, as proposed by (Boone and Mulherin, 2007) the process timeline starts with a private initiation contact among the two parties, followed by a period of strategic and financial analysis; subsequently, in the second milestone, organizations publicly declare to the market the intention to run a deal and proceed in the negotiation (with offers and counter offers), till the third milestone, representing the deal resolution. Moreover, the crucial role of the first private stage of the process is underlined by both Boone and Mulherin, and later confirmed by (Liu and Mulherin, 2017), observing how most bidding actually occurs behind the public stage: although generally only few bidders participate to the public stage, they underlined the need to look at the private one in order to properly assess all potential bidders interested and competing for the target.

Hence, when looking at bidder-initiated operations, an M&A deal process is characterized by four main steps (Cantamessa and Montagna, 2016).

First of all, bidders should privately run strategic assessments to identify a panel of potential targets with desired competences.

Subsequently, after preliminary contacts and NDAs (Non Disclosure Agreements), acquirors could run due diligence processes with the main purpose of evaluating the intrinsic target value and concluding with a price range detection. This phase is crucial to identify the right target and its related synergy creation. Given its importance, companies use to ask for expert consultancy (both a strategic and a financial one) in trying to find all potential linkages among parties and concluding with the optimal price to be proposed. Thus, the choice of deal advisors is key too. For example, (Kale, Kini, and Ryan, 2003) concluded that the partnership with top-tier banks is related with higher acquirors'returns.

In conclusion, only after an effective analysis, the acquiror is ready to run the real negotiation process. If well concluded, the fourth step would entail the critical and long integration phase. Even in this case, the role of external advisors could facilitate the removal of obstacles along the path and guide to optimal decision-making processes.

As anticipated, deals could be either friendly or hostile ones. In the former scenario, both in seller and bidder-initiated M&As, the target has the opportunity to chose among two general bidding processes, namely either an auction or an isolated negotiation. The classical definition of an M&A auction is the one of a takeover with more than one publicly announced bidder and in which all potential acquirors are in a common competitive fight, similar to a tender offer. Here, scholars have widely assessed the impact of auctions on the target shareholders' value creation through the deal. The most accredited study has been conducted by (Boone and Mulherin, 2007) themselves, in which they provided evidences confirming that the average wealth effect for target shareholders is comparable in both negotiations and auctions. The proposed assessment starts from an intuitive preliminary consideration, namely that (under the *agency cost hypothesis*) an auction should

TABLE 1.3: Pros and cons of both auctions and negotiations

Type	**Advantages**	**Drawbacks**
Auction	High price competition	Information cost
	High completion probability	Low flexibility over the process control
Negotiation	High confidentiality	No direct competition
	Flexibility	Chance of single negotiation failures

be the best alternative, since it allows the target to be in contact with multiple bidders and to obtain a higher final offer. At the same time, what has been proven is that another high-level consideration should be taken into consideration, namely that (under the *information cost hypothesis*) an auction could compromise the privacy of target information, with best practices, intellectual properties and company's routines being potentially unveiled.

Other scholars such as (Eckbo, 2013) have focused on the similarity among auctions and negotiations while considering another perspective. Indeed, although it could seem intuitive that an auction provides higher targets' returns than single negotiations, even engaging in an isolated transaction, the negotiation actually takes place in the *shadow of an auction*, given specific multiple isolated contacts with different bidders, which at the end could lead to the final price offered almost equal or higher than in the auction scenario.

Nevertheless, it is important to remark that auctions and negotiations have singular pros and cons which should be carefully analyzed by targets when choosing the desired methodology. Indeed, Table 1.3, derived from the analysis of different academic observations, shows the main advantages and drawbacks of both auction and negotiation and how they exchange pros and cons themselves.

In conclusion, parties should then analyze their specific own scenario and decide which methods better fit with actual requirements.

Previous considerations regard the case in which the deal is a friendly one and targets are actually willing to sell their stakes. However, as anticipated a great portion of operations shows adverse targets' top management teams facing the threat of hostile takeovers. Indeed, in order to complete the operation, bidders (in this case better called *riders*) should be able to obtain enough shares to replace the target Board of Directors, moving transactions in their favor.

Moreover, when attempting a hostile takeover bidders face two different obstacles: one one side, the adversity of the management team and on the other side the so called *free ride problem* (Berk and DeMarzo, 2017). The latter scenario, explained by the game theory, occurs when target shareholders (privately contacted) prefer not to sell their own shares being better off by keeping their stakes and hoping for the other peers to sell. The reasons to be adverse lay under the value creation (so share price increment) that is implicit in the acquisition purpose. Shareholders know that, not selling, they will likely own a higher price share post-deal. Because all rational owners are assumed to be equal, at the end no one (or a great majority) would not sell and the bidder would end up with no enough stake in hand.

In order to overcome both problems, bidders use to exploit two main solutions:

- **Toehold**: the acquiror does not allow for the takeover intention to be revealed and starts purchasing target's shares under anonymity. In this way, shareholders are not stimulated to keep their stakes, since they do not know about any value enhancing behind. This operation allows to reduce the risk for the bidder not to reach the minimum controlling stake in the target. Thus, the toehold is exactly the already acquired percentage of stakes, that an entity owns before revealing its intention to acquire. Overall, as noted by (Betton and Eckbo, 2000), toeholds allow for a higher probability of deal success and lower premiums paid accordingly. However, actual regulations (SEC rules for example) make it difficult for entities to purchase a certain quota, said 10%, in secret (Berk and DeMarzo, 2017), so that the exploitation of toeholds has mainly decreased over time.

- **LBO**: it stands for Leverage Buyout and works by putting leverage on a target, in order to stimulate the shareholders' selling of stakes and so to reduce the free ride problem. In a nutshell, bidders could run the acquisition by issuing new debt and exploiting the debt capacity of the target itself. Specifically, provided that the takeover is well ended, the debt repayment would be mainly due to future Cash Flows coming from target businesses. In this way, shareholders who think to remain and not sell, would then have a lower benefit than the case of no leverage buyout. In effect, if in a all equity takeover the final benefit for remaining shareholders is said V, with an LBO it is V-d, where d is the portion of the hypothetical debt repayment from a single shareholder.

Toeholds and LBOs are effective ways to conclude a hostile takeover and large is the actual number of deals completed thanks to them, especially in the '70s and '80s (Eckbo, 2013).

However, along the history of M&As, target themselves have created several defensive methodologies to effectively face unwanted takeovers, including:

- **Poison pills**: when certain conditions are met (like the threat of a hostile takeover) current stockholders have the right to purchase new shares issued at a far discounted price. In this way, potential bidders should acquire a larger percentage of stake and accordingly pay a higher amount than expected. At the end, they would likely abandon the operation.

- **Staggered boards**: also called *classified BoD*, it involves executives with a three-year mandate, but only one-third of them is allowed to be elected each year. So, even if bidders' selected members obtained a seat, then they would control only a minority of the entire board, resulting in almost null decision-making powers (Berk and DeMarzo, 2017).

- **White knights**: in this last case, targets look for a trusted third party, known as *white knight*, whose purpose is to acquire the target itself avoiding the bidder to complete the hostile takeover. Clearly, the new party should acquire just upon formality, leaving incumbent managers under control, and receiving other forms of compensations agreed with the target.

In M&A processes involving public firms an important role is also played by information flows around investors, which actually affect the negotiation process itself. Indeed, when a deal is publicly announced, there are no certainties that it will be concluded at the initial declared price, since it is commonly recorded that parties' share prices (target especially) do change in response to the news. That is why acquirors usually pay higher amounts than expected and why it is so important to run a due diligence resulting in a price range detection.

Moreover, even with cases in which the premium proposed is a large one, because of the swinging credibility towards the actual deal success, there are no assurances that the target share price would increase till the expected level (stand alone plus premium). This last scenario is associated to the concept of *merger arbitrage*, in which investors actually speculate and bet on risky deal expectations. The closer the post-announcement share price to the offered one, the higher the market/investors' belief that the deal would be concluded. Scholars refer to the difference among prices as the *merger-arbitrage spread* (Berk and DeMarzo, 2017). At the end, bidders should then increase the offer so to enhance the probability of success, trying to reduce the related spread.

Alongside merge arbitrage, the concept of *merge run-up* is typically discussed by scholars and professionals. It is the case of confidential deal information that mistakenly leak out on the market pre-announcement, and that cause the preventive target price rising. This increment likely reflects anticipations on deal synergies and confirmations come from the fact that typically, if the deal do not proceed, the run-ups fall back to zero-value, till the pre-announcement target price. (Betton et al., 2013).

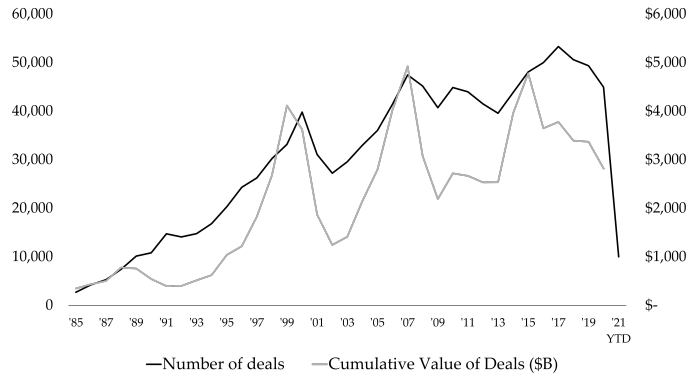

FIGURE 1.1: M&A Waves - Annual cumulative deal value and number of transactions worldwide

1.2.4 M&A waves

The M&A environment is characterized by an unstable level of operation since the distribution of the cumulative number of deals and its associated countervalues worldwide follow some peaks of activities succeeded by drastic drops. For this reasons scholars refer to the *Merger Waves* concept when describing operational movements. Indeed, as shown in Figure 1.1 [7], both the yearly cumulative number of deals and transaction values have mainly increased over time (upwards trends), but still reaching higher and higher apexes and then suddenly decreasing.

Moreover, each wave seems to be associated with a specific general deal feature, which allows to depict singularity in cycles. For example, acquisitions in the '60s were mainly associated with conglomerate mergers, while the wave in the '80s with hostile takeovers, in which bidders purchased low performers and sold them off at higher prices than the deal ones.

With the rising of takeover defense mechanisms hostile takeovers leaved the space for friendly ones in the '90s. In those years, cross-boarder deals dominated and industries' consolidation occurred. Interestingly, the second-last wave is approximately the 2004-2008 one, where Private Equity Funds led principal acquisitions.

Last years, instead, have depicted a quite unstable scenario and the Covid-19 event is still highly affecting the path: a new wave started in 2015 and was steadily increasing till the end of 2019, then the pandemic forced investors to stop activities and to be stalled. Companies are currently recovering from the setback, but markets are quite confident. However, what is certain is that a major role in the 2015-2019 wave has been played (and actually so it is for incoming years) by the technological innovations/disruptions, more than previous years. Indeed in Chapter 3, a deeper analysis of current leading scenarios will be conducted.

While there are no doubt in saying that the average growth of both deal number and values are associated with global competition and higher financing possibilities, scholars and professionals briskly discuss about reasons for the presence of waves: this is due to

[7] Data review from the IMAA (Institute of Mergers, Acquisitions & Alliances) - imaa-institute.org

the wide range of causes that could be detected, but overall the common conclusion deals with two main motivations.

Firstly, *industry shocks* (in a wide sense) are severe causes for a wave to begin. Among different sub-origins, they include disruptive technological innovations, able to drastically change the role of players in a given market, and so to affect the entire value/supply chain (and also related industries) in a ripple effect.

Deregulation is a pushing effect for shocks too, since it changes the nature of competition itself in a given environment and stimulates companies in running large profitable investment operations.

Moreover, as noted by (Garfinkel and Hankins, 2011) even in stable market conditions waves could start by companies that vertically integrate to hedge in case of future dubious times. The conclusion is that Cash Flow uncertainties could foster the rising of a series of M&A activities.

Alongside industry shocks, an economic expansion is another clear boosting effect to increase the willingness of companies in pursuing external growths. Conversely, worldwide crisis and related bull markets are empirically associated with lower levels of M&A activities accordingly (Berk and DeMarzo, 2017).

With the term *economic expansion* it is possible to refer to a wide group of events, such as effective monetary policies, cost of capital rebating and Cash Flows availability enhancement for firms, due to periods of low interest rates. Good economic conditions entail also higher valuations for firms and, as noted by (Shleifer and Vishny, 1992), higher asset appreciations lead to a larger debt capacity for M&A deals. Conversely, bad macro-environment scenarios negatively affect CEOs in attempting new investments.

Indeed, since overall markets' wealth conditions could be associated with uncertainty levels, depicted for example by the common volatility index VIX [8], in their recent paper (Gatti, Chiarella, and Della Ragione, 2019) pointed out how the total deal value is clearly negatively correlated with the level of volatility itself, given that significant VIX peaks are followed by drops in the cumulative deal value.

Interestingly, when looking at the level of the average annual LIBOR [9] in Figure 1.2, it could be detected that, after the big 2008 crisis, the investment behavior of companies has severely changed. In effect, before 2008, the worldwide M&A deal value trend nearly followed the LIBOR one, with peaks and drops almost at the same year. This behavior drastically changes after 2008: peaks and drops now collide, and the negative correlation among the interest rate and the cumulative deal value becomes clear.

To conclude, the state of the art shows discordant empirical evidences on post-deal performance metrics, when trying to infer whether in-wave-initiated deals actually perform better than those which are far from a wave.

[8] VIX: used to refer to the *Chicago Board Options Exchange's (CBOE) Volatility Index*, it is one of the most popular indicator for the volatility's stock market's expectation, based on S&P 500 index options.

[9] LIBOR: acronym for *London Inter-Bank Offered Rate* it is one of the principal interest rate benchmarks for risk-free indexes and it helps in determining interest rates for financial contracts all around the world. Actually, after the 2008 crisis, its relevance has decreased and it will be soon replace from another risk-free benchmark (from: Transition from LIBOR to risk-free rates - https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor).

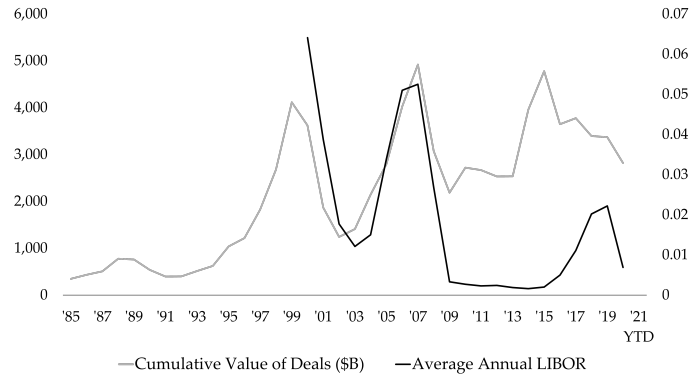

FIGURE 1.2: Annual cumulative deal values and the LIBOR trend

Provided that there is no a clear and objective evidence, the general trend is quite more directed towards the consideration stating that (on average) acquirors' long performances related to in-wave-deals seem to be worse and thinner, and that these transactions would be associated with poor-quality target selections (Duchin and Schmidt, 2013).

The main reason supporting this theory is that waves stimulate top managers in taking fast and low-level decisions, because involved in a hectic changing environment. Here, the inferior decision-making (mainly derived from the fear of a potential hostile takeover) takes the lead and brings to bad transaction.

Confirmations come from the assessment conducted by (Gatti, Chiarella, and Della Ragione, 2019). They noted that in turbulent market scenario, initially perceived as the worst for wave to occur, decision-making could be far more effective. Specifically, best players could sound more reliable if initiating a takeover in these periods, so the financing availability should be higher. Also, the average end price would be lower, given that the uncertain period should let target to accept lower offers. Finally, target selection and due diligence processes could be run in a more flexible and relaxed way, since the fear of bidders competition is less likely.

1.2.5 The M&A Paradox

In order to properly conclude this analysis, it is should be remarked that discrepancies and issues in M&A assessments still exist.

The main questions scholars steadily ask themselves regards the growing deal frequency alongside the high failure rate associated, estimated to be between the 70% and 90% (Christensen et al., 2011). It is exactly this peculiar scenario that brings to the concept of the *M&A Paradox* (Weber, Tarba, and Bachar, 2011).

Indeed, failure rates could be depicted by medium-long term acquirors' returns or by post-deal profitability metrics that together, if compared with both expectations and prices paid, could point out if transactions were actually good investments. This assessment methodology is for sure objective and reliable, but still quite myopic according to (Angwin, 2007). As anticipated, in his paper Angwin depicted four main macro-levels of motivations associated to a deal initiation, and especially two of them, namely the *statis*

and *survival* conditions, should not be associated with a value creation performance analysis, since the purpose of these transactions was not actually to create synergies, but to avoid a larger reduction in profitability that would have occurred if deals had not been carried on.

Thus, the need to combine a metric assessment with possibility to analyze the external environment and the actual reasons for a deal initiation, in order to properly depict failure motivations. This is the focus of the Chapter 3 herein.

Chapter 2

Key Success Factors in Mergers and Acquisitions

2.1 Obstacles for a successful deal

2.1.1 Introduction to the main three failure reasons

Mergers and Acquisitions are critical ways of pivoting companies' capabilities when organizations start thinking about where and how they are positioned in the market, and which competences they are lacking. Existing capabilities give companies the opportunity to compete, but new ones to actually win.

Clearly, from a portfolio perspective, if the goal is to grow the business, it is critical to leverage both internal developments (through R&D initiatives) and M&As. Unfortunately, from a tactical perspective there will be a choice among internal growths and external ones.

However, M&As are a clear and effective opportunities for companies willing to achieve an exponential growth and to drastically restructure previous strategies. This is true provided that the entire long and tough process is properly run by organizations. Anything but a trivial duty. Indeed, as earlier presented, scholars and professionals refer to M&As as high failure rate operations, which widely do not meet intended results.

But how do analysts asses a deal and how do they conclude if it has been a success or not? First of all, the main focus is the assessment of benefit creations from the side of acquirors, since typically, when a target accepts a deal, the price paid is usually beneficial from its side.

The literature is widely variegated in terms of performance metrics to be used, but on average scholars suggest methodologies that include the analysis of accounting measure of profitability, cash flow generations and share price changes occurring post-merger (Gatti, Chiarella, and Della Ragione, 2019). Thus, provided that normal external conditions remain stable, if metrics were lower when compared to pre-merger ones, or if important expected economic/financial levels were not met, then it could be concluded that the deal is an unsuccessful one.

Though some scholars slightly criticize this limited view of performance assessment (as suggested in the study by Angwin earlier introduced), this paper will be based on these general accepted perspectives.

Bidders cannot simply acquire other entities and expect to obtain an immediate result in the way it was conceived, especially if they have chosen the wrong target, if the initial

TABLE 2.1: The three main failure reasons and their determinants

Main causes	**Wrong target selection**	**Excessive Offers**	**Failed integration**
1	Information asymmetry	Overvaluation	Culture gap
2	Overconfidence	WACC fallacy	Failed talent retention
3	Empire building	Winner's course	

investment was to high to face later benefits, and if the operative matching among entities was weak.

An M&A deal is a real investment project for companies and, as every kind of project, it entails a big portion of uniqueness if compared to other ones, so that every case is different from a peer. Take for example a deal among two domestic entities and another one where there is a foreign organization. Issues and obstacles would be very different in these scenarios. Moreover, even in the case of two domestic deals, there could be one operation among two assets-similar organizations, and another one with asset complementarity among entities. Here, typically the former would have a cost synergy goal, while the latter a revenue one.

The list of different cases could be infinite and so it would be for the detection of failure motivations behind a deal. However, it is possible to sum up all various perspectives under three main high-level (but effective) failure reasons, namely the wrong target selection, the extreme price paid and the bad management of the integration stage, occurring post-acquisition. Considerations of this type that will follow are commonly supported by scholars and professionals, such as (Song, Zhang, and Chu, 2009).

Before proceeding, it is necessary to remark an important observation to have clear in mind the general context of the analysis. Indeed, the failure reasons herein proposed take into account only the deal internal motivations for failure, namely the ones that depend on bidders'/targets' movements and their decisions along the deal process. All external factors, the ones clearly not under the control of parties, are then not considered in the context of the three motivations just announced. The same observation could be depicted analyzing the Deloitte survey results proposed by (Cherowbrier, 2021) among a group of U.S. companies, which run an unsuccessful deal in 2018. Indeed, the 37% of them declared as economic forces one of the main reasons for the failure, the 33% blamed not materialized expected sales (that could be associated with wrong price and wrong target selection) and the 32% blamed integration gaps in the group of failure causes.

Hence, the following paragraphs will introduce a detail description of these motivations, presenting principal causes for each type, as briefly summed up in Table 2.1.

2.1.2 The wrong strategic choice of targets

As anticipated, the due diligence process is a critical step for every M&A operation, but it is anything but a trivial task to carry on.

The purpose of the target range selection and of the further final choice (after the due diligence) is to detect the best optimal party able to exploit a value creation path. Indeed,

each potential target would incorporate singular synergy expectations, and here the importance of a well run company analysis, in order to properly infer a real expectancy coming from each party.

However, two main obstacles decrease the effectiveness of target selection. The first one introduced is due to issues among parties in contact, while the second one to bidders' internal issues:

- **Information asymmetry**: this situation depicts the case in which bidders have low target information at disposal to run an effective due diligence, so that consequences are double, namely a wrong target selection plus an excessive price payment. Indeed, the knowledge gap does not allow to determine real potential synergies, so that targets could easily enjoy higher personal benefits. However, there could be cases in which targets themselves suffer from info asymmetry. As noted by (Dierickx and Koza, 1991), the discrepancy could discourage bidders (knowing about the gap) to propose a high price during negotiation, and resulting in the loss of bargaining power from targets. Interestingly, the hardness of info asymmetry depends on weather the target is or not adverse to the deal. In effect, (Gao, 2011) noted that, in friendly takeovers, the seller's top management team has less incentives in keeping secret certain information, especially because target's top employees hopefully would maintain their job positions in the new consolidated company, and so are willing to avoid any earlier conflicts;

- **Overconfidence and Empire building**: these two terms refer actually to motivations for deal-initiation and are also reasons for poor decision-making during the target detection. Indeed, overconfidence and empire building bring to overvaluation and a steadily insistence from CEOs towards sub-optimal selections. Here, the main drivers for such a situation are the heavy managerial entrenched position and the pursuing of personal interests coming from the company's investments. As noted by (Harford, Humphery-Jenner, and Powell, 2012), an important motivation for poor post-deal returns is strictly related to the case in which the bidder's management do acts for its own interest, rather than for the shareholders' one.

2.1.3 The excessive price offered

Once the target has been chosen, even in case it is the best optimal one, another crucial step is played by the effective price paid to consolidate the deal. As anticipated, the price should reflect the stand-alone value of the target plus the premium paid to justify the expected quota of synergy. Clearly, the goal is to offer a price that allows the firm not to waste all value creation in the price paid. Hence, a major role is played by the potential range amount, identified in the due diligence process. However, two main issues affect the final value offered.

- **Overvaluation and Winners'course**: as anticipated, reasons to have winner's course and overvaluation lie down in both the empire building and information asymmetry scenarios. When many bidders participate to an auction (or to singular private negotiations), it is likely that, at the end, the final acquiror will have to pay a price much higher than its initial expectation, simply because competition on price inevitably will lift up offers. For example, (Povel and Singh, 2006) explained that a

target could run sequential negotiations in order to reach the highest price, while moving from better informed to lower informed bidders. Hence, especially in conjunction with CEOs' overconfidence, acquirors would pay a higher amount than budgeted, leaving low chances to gain enough profits from the investment.

- **WACC fallacy**: M&As are real investment operations and, as such, they are evaluated and chosen also considering the relative Net Present Value (NPV), which is derived from both the initial price paid and the future combined Cash Flows (plus expected synergies). Hence, inflows and outflows are then discounted according to a given interest rate, and here lies the issue. When acquiring a company, the best approach would entail the exploitation of a discount rate whose value reflects at best the similar intrinsic risk of the target itself. Thus, the acquiror should find other public organizations, almost equal to the intended target and, using the Capital Asset Pricing Model (CAPM), it should depict the relative risk rate. Unfortunately, it is quite impossible to have these type of comparisons, because each firm is unique, and even working in the same sector under similar projects, many would be the features that make each company different from a peer. Hence, at the end acquirors end up using the common internal Weighted Average Cost of Capital (WACC), that reflects the risk of its own entire business portfolio controlled. (Cantamessa and Montagna, 2016). In this way, acquiring companies run into a mismanaged decision-making since the WACC rate does not account for certain project-peculiar risks. Thus, bidders would opt for more risky M&A projects, abandoning the selection of those ones which entail less dangers. Specifically, if the target party has a real risk higher than the bidder's WACC one, then it would be overvalued by acquirors (Kruger, Landier, and Thesmar, 2015).

2.1.4 The mismanaged post-deal phase

The integration process represents maybe the most crucial stage of mergers and acquisitions. Let's imagine that a bidder identifies its best optimal target, runs a perfect due diligence operation, pays the right price, but then faces difficulties and obstacles when combining the two entities: a part of the entire expected value creation could not materialize if something went wrong.

Across years, the literature has analyzed the integration stage with a steadily deeper interest, since many are the potential obstacles to be faced; some of these issues are in common among different transactions, but others are highly deal-specific.

That is why scholars, such as (Marks and Mirvis, 2011), refer to the matching among financial and organizational strategies as a necessary condition towards a successful deal approach. Thus, two main setbacks could be identified.

- **Culture gap**: as anticipated, in the M&A context the term *culture* should not be considered only related to the nationalities of parties and their associated features. Each company is different from another one and in effect, under the Resource-Based View, it is composed by both unique resources and routines, which lead each potential merger to be unique too. The gap lies, for example, also in the different daily decision-making strategies or in companies' hierarchical structures. Thus, the association with the perhaps better explanatory term of *organizational gap*. Clearly,

the strictly national differences among parties do increase the severity of the discrepancy, and that is why cross-boarder deals entail a basic additional obstacle to overcome. Confirmations come, for example, by the observations of (Ahern, Daminelli, and Fracassi, 2015) that pointed out how a low synergy realization is associated with larger cultural differences. However, is important to state that organizational/culture gaps sometimes could be considered either as a drawback or an advantage (Warter and Warter, 2014). As a matter of fact, in the latter case, the culture diversity allows bidders to exploit unique source of competitive advantage, thanks to the acquisition of rare assets and/or resources.

- **Failed talent retention**: integration could fail also because of experts and talented employees leaving the target company after the deal completion. The main motivation behind this deliberate layoff is the fear of a future uncertainty in the new management, mixed with the opinion of a bad takeover. Since people actually incorporate part of the knowledge used by the company to be profitable and competitive, a wrong talent retention might irreversibly destroy the value just acquired.

Hence, the integration approach faces two main obstacles: an intrinsic and inevitable culture gap and the abandonment of key employees. Moreover, the management of the post-deal phase is extremely complicated since culture has not a real form and there are not direct levers to lead it towards a desired connotation. What can be done is to understand it and to pool resources under a single purpose. Indeed, according to (Malnight, Buche, and Dhanaraj, 2019) now more than ever, employees (especially *millennial*) want to work for companies that operate for higher-level causes and in which they are united under the same ideals.

According to a recent survey by Gartner, when talking about profits, CEOs have cited cultural aspects the 7% more in 2016, compared to 2010. On average, companies spend every year almost $ 2200 per employee to enhance interpersonal communities and companies' culture creation, still only the 30% of CHRO (Chief Human Resources Officer) talks about a good return from this investment (HBR, 2019).

To conclude, most of the time there is no a clear strategy to follow in order to have the best culture integration, obstacles will be there and some key employees will leave. What is crucial is to mitigate problems and to achieve the best value possible from the culture merger.

2.2 Key Success Factors

As said, companies should evaluate the right target, the right price and the right integration approach to implement, while considering that a failure in one of these areas would be critical to the deal success. Hence, acquirors should have a clear strategy for each of these topics and, helped by advisors and consultants, be ready for each unavoidable challenges to face along the path.

Now, the first part of the further analysis introduces critical factors to potentially overcome the previous failure motivations, while the second part deals with the introduction of the literature KSFs on more levels of assessment.

2.2.1 Target selection

Even if it could be commonplace, the major role is played by the complex due diligence process and its sub-Key Success Factors. Specifically, it has two main purposes: the first one is the optimal target selection, while the second one the subsequent optimal price offering.

The following discussion deals with its first chronological goal, introducing specific considerations for a successful decision-making.

It is important that the due diligence process depicts all cost and revenue synergies and results in a detailed business plan for some years post-acquisition. The latter introduces, along with synergies identification, expectations about the commitment towards several operations to be carried on, such as capital expenditures, removal of redundant asset, layoff plans etc.

Indeed, scholars refer to the term *pro forma* income statement to intend an enterprise document based on financial and economic performance metrics, derived from assumptions and hypothesis on deal completion (Berk and DeMarzo, 2017).

First of all, acquirors analyze the effective operations run by target's business divisions to test if a preliminary but important fit does exist. In other words, if synergies could be actually pursued.

Subsequently, by a trend ratio assessment, bidders could depict the actual target wealth and healthy, its capital structure, growing expectations and its future credit line. Theoretically and if publicly traded, acquirors should determine if the target share price is over or undervalued, so to infer the right offer to propose.

At this point, it is important to remark that each acquiror has its own characteristics and path dependency, resulting in a singular analysis. Under the Resource-Based View, this is driven by the different fit degree among parties' assets. So, this last discrepancy is one of the first thing that should be considered when evaluating a target.

The presence of a multi-year industrial plan is fundamental, within which the M&A strategy and the choice of targets are placed. The most important variables identified are for example: target offer lines, geographic presence, market sectors covered, business partners, customers, financial parameters and the human capital.

Specifically, the first filter applied by bidders regards the complementarity or the similarity of assets, since from it actually depends the final purpose of the transaction itself: if the acquiror desired to increase its actual market share and enjoy cost reduction (through general Economies of Scale), it would merge with a similar-business party. Conversely,

the enhancement of value exploitation along the supply chain (to avoid suppliers' transaction fee or to enjoy greater control of the production cycle) should be related with the acquisition of a complementary-business entity.

Following the approach presented by (Song, Zhang, and Chu, 2009), the second check bidders should make regards the fit degree among parties' debt ratios. Even if the potential target was a good one in terms of strategical fit (businesses and operations), it could not be attractive under its mere capital structure, having a significant debt ratio level.

Moreover, the financial situation of targets it is not only important for the strategic target selection, but also for the payment approach and financing solutions intended by the bidder. For example, a Leverage Buyout should be carried on only if the target shows substantial capacities to properly repay the debt. Also, in the case in which the acquiror puts target's assets as warranties, then the latter should have a high liquidity level. When the goal of bidders is to actually increase own debt capacity (maybe for a higher-level and long-term strategic plan), they should select quite diversified-business targets, namely selecting the only ones showing not 100% related Cash Flows.

Target selection, especially in case of a stock swap as the compensation method chosen, is highly affected by both the level of Price/Earning ratio and the Earnings-Per-Share one. Indeed, acquiror could opt for organizations that present a low P/E and a high EPS so that, after the acquisition, the overall combined EPS would increase even in case of low or zero effective value creation. Thus, this bootstrapping effect would lead the final merged company's share price to raise.

If the goal of the parent company focused on innovation enhancement, then an important consideration would come from the empirical evidences of (Bena and Li, 2014). Indeed, they noted that acquirors with relatively small R&D expenses, but a consistent level of Intellectual Properties (maybe from a high number of patents released) are able to better exploit the matching among opposite parties, namely the ones having large R&D costs, but a low number of patents published. This consideration follows the idea that firstly the price paid would be moderate, since a small number of patents would then be associated with a low value of assets obtainable; secondly, given the large expenditures in the Research and Development Department, the target is likely to be a potential growing-opportunity one, provided that is well selected and subsequently properly managed.

Alongside the asset typology, scholars refer to another key success factor for a good target selection, namely the analysis of its relative size. This is given to the intrinsic level of risk resulting from the dimension of a company, whether it is a multinational or a small one. Intuitively, the larger the target, the higher the bet made by the bidder's management towards the effective realization of expectations (Gatti, Chiarella, and Della Ragione, 2019).

To conclude, along with the critical role of the due diligence process, an additional KSF is played by the past experience in M&A deals. Through previous transactions, acquirors learn how to run a better due diligence and to overcome potential issues deriving from the information asymmetry among entities (Cuypers, Youtha, and Xavier, 2016). At the end, past experiences help in achieving higher value from the target selection. For example, as detected by (Capron and Shen, 2007), the takeover on private companies seems to be associated with a higher value transferred to acquiror, since on average private organizations initiate a lower number of transactions compared to public ones, resulting in a higher experience degree for the bidders.

TABLE 2.2: Price determinants

Bidder side	**Seller side**	**Combined side**
Stand-alone and synergies	Need for sale	Corporate Governance
Expected return	Target involvement post-deal	Warranty level
Exit Option	Monetization speed	Deal structure
Outside Option		

At this point, it is important to underline that the role of experience actually affects all stages of a deal. Companies learn how to run a negotiation, concluding with a lower price paid, and understand how to implement a successful integration process.

2.2.2 Valuation methods for price determination

As anticipated, the due diligence process aims at selecting both the right party and the right price to be paid, which are decided upon the features of the target itself. Price determination is anything but a trivial operation, and additional critical decisions regard the payment method, once the evaluation is completed.

Overall, as shown in Table 2.2 the price determination spins around three main areas, which consider the different perspectives of parties involved in the transaction.

For example, the presence of outside options, namely the availability of alternative investments as profitable as the the target deal, highly affect the offer acquirors are willing to propose.

Typically, companies evaluate targets in two different ways: either relying on empirical approaches or on analytical ones. Actually, there are different methods to be used, but the most applied ones involves the *Multiple-based* and the *Discounted Cash Flows* analysis.

The overall assessment of the company provides for an initial forecast of the short-medium term discounted Cash Flows, which is highly influenced by the target's current business and by the expected synergies; to this initial estimate, a quota identified as *terminal value* (or *continuation value*) is then added, expressing the potential value of the target for the long-term. It is in the computation of the terminal value that the different methodologies get crucial.

Before proceeding, it is important to underline that bidders use to apply both of them, so to have a deeper confirmation on outcomes obtained.

The first empirical approach presented is the simplest one and entails the evaluation of the target terminal value through the analysis of comparable market peers.

Even being a quite simple analysis, it provides a reliable rough estimation about the potential target long-term market value. Indeed, it is based on the fundamental assumption stating that the value of a company, in the very long-term, could not significantly differ from the value of similar entities, given that both the market growth and risk rates should be almost equal.

Hence, first of all analysts have to identify a panel of similar companies in terms of related business, sector and size and then have to detect their singular multiple value, according to those decide for the assessment.

The panel of multiple value considers for example the EV/Revenues, the EV/EBITDA, EV/EBIT or the P/E ratio.

The most applied one is the EV/EBITDA, since it allows to exclude topics such as tax policies or capital structure, in order to concentrate only on the operating efficiency of companies (Berk and DeMarzo, 2017).

Once obtained all ratios from all peers, analysts detects the weighted average or median, so to obtain the conclusive multiple to be used. Indeed, the final operation entails the multiplication among the relative expected target value at horizon and the latter ratio. Following the example of the most common metric:

$$\textit{Target Terminal Value} = \textit{Target EBITDA at Horizon} * \textit{Average EBITDA Multiple} \tag{2.1}$$

Notice that, as a further conclusive operation it is possible to slightly adjust this last result, in order to consider eventual size or margins discrepancy.

To conclude, it is important to state that another multiple assessment could be depicted when looking at comparable transactions (instead of companies' multiples), namely identifying past evaluations inferred by previous M&A operations among similar companies.

The second approach towards target evaluation is inevitably much more complex than the previous one. It entails a two-steps process: the first stage regards the analysis of the common short-medium term stream of expected Cash Flows (stand-alone plus synergies) resulting from the deal completion and discounting them to a relative interest rate (as anticipated, commonly the Weighted Average Cost of Capital WACC). So, this first phase (similar to the one of the multiple-based analysis) aims at computing the actual value of a target and singular matching potentialities. Here, the due diligence experience and the company's assessment routines play a crucial role.

The second stage, instead, regards the long-term evaluation of targets, while considering it as a perpetuity source of profit.

Conversely to the first approach, this one relies on the fundamental assumption stating that the value of any firm (considered as the totality of its asset) at a given time period is determined by its expected profitability flows, discounted by a rate that reflects its intrinsic risk.

Specifically, the terminal value at time T (or t+1) is computed assuming a growth rate g for Cash Flows, and chosen by bidders in order to detect both the stand-alone growth and the synergistic one (Berk and DeMarzo, 2017).

Hence, the simplified final formula would have almost this form:

$$\frac{\sum_{k=1}^{t} FCF}{(1 + r_{WACC})^t} + \frac{FCF_{t+2}}{r_{WACC} - g} \tag{2.2}$$

To conclude, it is notable to underline that actually there is no a clear best option, since both approaches show pros and cons, as described in Table 2.4 and 2.3.

Once detected the optimal target value relying on these two methods described, bidders decide upon the price range that will be used during the direct negotiation.

TABLE 2.3: Pros and cons of the multiple-based evaluation

Advantages	**Drawbacks**
Speed	Complex panel of peers detection
Diffusion	Need for market data interpretation
Easy applicability	Volatility of market quotation
Availability of public company info	
Engagement of market values	

TABLE 2.4: Pros and cons of the DCF evaluation

Advantages	**Drawbacks**
Analytic and detailed computation	WACC fallacy
Evidence of synergistic contributions	Contestable reliability degree
High diffusion	Not suitable for cyclical sectors and start-ups

As said, an important KSF is the payment method chosen to propose the acquisition offer, whether it is a cash deal, a stock swap or a combination of both. The severity of the choice on the compensation methodology derived from signals, that a choice of this type sends to the market.

Specifically, although a stock swap could lead to a successful investment, it has been empirically tested that the announcement of a stock deal is associated with a negative abnormal return for bidders, if compared to a cash one (Gatti, Chiarella, and Della Ragione, 2019). In a nutshell, the reason for the former case lies in the overvaluation signal that the market perceives regarding bidder's share price. Conversely, in the latter case (cash deal) the market could consider that only a strong and committed bidder would decide to put real money on the table. Moreover, stock deal seems to be associated with a lower long-term bidder returns, and the analysis of (Mitchell, Pulvino, and Stafford, 2004) supports this hypothesis.

Nevertheless, stock swap compensations are reliable and effective payment methods, especially when considering particular scenarios. For example, the low target's transparency level, its poor corporate governance quality and the political instability of the country it belongs to, could be all factors affecting the information asymmetry among parties. Thus, in order to avoid over-payment, bidders could opt for stock swap, so sharing with targets the risk of a failure (Huang, Officer, and Powell, 2016).

In conclusion, there is no a clear conclusion that leads to prefer cash to stock compensation. Bidders should deeply evaluate the surrounding scenario and decide for the payment method accordingly.

2.2.3 Integration methods

As anticipated, even selecting the right target and paying a relatively good price, acquirors need to link the two unique companies to create a stronger one. Failures in the

management of integration, even in some little aspects, could severely compromise the accomplishment of expected outcomes or destroy the entire value creation.

Although being so crucial, empirical analysis show how top managers usually pay less attention to an effective implementation, because putting more efforts on strategic business choices and industrial plan constructions (Weber, Tarba, and Bachar, 2011).

A good integration phase leads both to the achievement of budgeted performances and to the resolution of critical organizational gap among parties. Indeed, (Larsson and Finkelstein, 1999) showed how successful cultural harmonies are possible, even in the case of a significant cultural gap, provided that a proper integration strategy is designed.

Because every deal is unique, there is not a single integration strategy to be followed, but at the same time managers should not think that the stronger and heavier the integration level, the higher the likelihood of success.

Indeed, as explained by (Lubatkin, Schweiger, and Weber, 1999), the integration entails changes in the target's daily routines, as well as a mutations in decision-making processes upon the target's management team. So, the matching inevitably alters the past autonomy of key target's employees and, if this switch level was severe, then they could decide to leave the company, causing a significant loss of value creation. Confirmations come from the study proposed by (Hambrick and Cannella, 1993), showing how high target's employees turnovers are associated with lower performance for the acquiring party.

Thus, along with advisors, acquirors should be able to evaluate the right integration approach according to two principal key drivers: the potential level of synergies and the expected integration effort. Actually, the latter could be referred to a different set concepts: according to (Haspeslagh and Jemison, 1991), the integration effort could be substituted with the *need of autonomy* (for target's executives), while for (Weber, Tarba, and Bachar, 2011) with the *cultural difference* (among parties). Both of them are actually reliable and do show analogies, since a higher level of culture gap is also associated with a higher need for target employees to remain in stable work condition (so the autonomy exigency), avoiding big changes after the deal completion.

Imaging to plot these two variables in a Cartesian graph, scholars have identified four main integration approaches available for firms:

- **Holding**: associated with both low variable levels, it is the case of a highly diversified investment, where there is a low risk of organizational mismanagement. Thus, the integration strategy is gentle and quite simple.

- **Preservation**: in this case potential synergies are moderate, so the acquiror does not need a deep integration. However, at the same time culture gap is elevated, so it is recommended to leave target's top managers with enough autonomy levels, so to avoid any stand-alone value reduction and to peacefully exploit the moderate potential value creation.

- **Symbiosis**: it is the most complicated approach, since both variable levels are severe. The company needs to exploit high potential synergies, but at the same time the culture gap put at risk all the stand-alone and the value creation resulting from the deal. Advisors should be highly taken into consideration, in order to develop a sophisticated implementation strategy.

- **Absorption**: with high potential synergies the need for a strong integration is higher. Luckily, the organizational and culture gap is relatively low, so the acquiror could operate on shaping decision-making activities and routines at its complete favor.

With the introduction of the potential integration approaches, the first important key success factor has been depicted, but no strategy fits at all, and company should decide in relation to different aspects. The previous framework, indeed, tries to help decision-making, while summing up drivers into two main variables and identifying four main approaches.

However, after this strategic choices, acquirors should concretely run its implementation. It is not enough to decide for the best optimal approach: a correct implementation and an associated resource allocation are crucial during the concrete merger.

Following the Deloitte paper by (Baber, Dadlani, and James, 2019), other KSFs could be depicted during the integration stage: first of all, significant is the presence of a specific integration team, commonly called *Integration Management Office (IMO)*, composed by key people able to lead the critical decision-making and promote leadership across the new combined entity.

Secondly, the importance of speed. Notice that, it does not mean that the faster the better, but that a fast decision-making and a good sharing of goals among employees are crucial for an effective combination. Acquirors, indeed, should not allow the acquisition to take a back seat and target employees to underestimate the true value behind the deal.

Last but not least, the communication effort. It is essential to let everyone understand his/her important role in the integration stage and his/her significance for the overall company once completed. It is better to frequently communicate than avoid sharing of thoughts.

In conclusion, according to the past cited paper from Deloitte, the authors concluded that the gap among the expected deal value (what paid) and the target true value (the maximum that it should have been paid) accounts for almost a 30%. Instead, the gap among the target true value and the actual value (what achieved post-deal) accounts for the 70%, associated to integration issues.

2.2.4 Pre-merger and Post-merger KSFs

The three elements so far introduced (the right target selection, an acceptable price and a proper integration strategy) represent the high-level group of M&A Key Success Factors.

It has been underlined how an M&A process is a multidisciplinary one and that there is not a real recipe bidders could follow along the path. Instead, what they can do is to rely on empirical observations on past deals and adjust their strategies according to similar scenarios. Thus, the crucial role of external advisors that, collecting past case studies, could heavily support decision-making operations and guide towards optimal solutions.

However, the analysis of deals and their critical success factors allows to depict an important point in time in a deal process and so to distinguish two different macro-phases of M&As, namely the pre and post-integration ones.

Both stages show peculiar features and associated key success factors, but most important these latter have intrinsic correlations and cause-effect relationships to be further understood by scholars.

Hence, following the study proposed by (Gomes et al., 2013), this last section aims at introducing a recap of crucial variables and their place in the deal process.

Pre-integration KSFs

- **Target evaluation and final choice**: bidders should avoid to select irrationally and the business strategy should be the main driver, against empire building and overconfidence. Indeed, looking at the target' asset typology, acquirors could exploit *economies of sameness* (similar assets), *economies of fitness* (complementary assets) (Larsson and Finkelstein, 1999), or even diversification. At the end, bidders are asked to find a reasonable trade off among a strategic and a cultural/organizational fit;

- **Payment of the right countervalue**: the due diligence process should depict a price range that allows companies to achieve synergies and not pay more than the value created itself, otherwise the overall investment would be a negative NPV one. In general, it has been empirically tested that cross-boarder deals show higher obstacles in price evaluations, since entailing larger information asymmetry compared to domestic ones;

- **Size Mismatches**: no clear consequences could be inferred when looking at the size difference among parties, but observations could be introduced when looking at extremes' aftermaths. Indeed, a too small target (compared to the acquiror) could tend to be undervalued and quite ignored by the new ownership, loosing attention from top managers. Conversely, a large target, maybe bigger than the actual acquiror, could struggle to obtain the leadership and to dominate the decision-making;

- **Past experience**: following the *Organizational Learning Theory*, it is intuitive to say that, as well as mangers and employees develop unique routines and knowledge for daily activities, which then take roots in the company itself, so they do build for M&A transactions. Hence, standardized routines help executives in taking faster decisions and overcoming obstacles with more probability. Moreover, companies

could try to mitigate the lack of experience (or even further boost knowledge, if they do have experience) by engaging qualified deal advisors. Here, the choice of consultants is key too, since each of them could have singular core competences in specific industries;

- **Courtship Period**: as suggested by (Gomes et al., 2013), a potential KSF lies in the pre-deal mutual business among parties that could happen during the so called *courtship period*, a time horizon in which parties could get to know each other better, before actually decide to merge. Hence, for example they could start working together informally around a common topic or make thing serious and build up a real Joint Venture (JV).

Post-integration KSFs

- **Integration approach and strategy**: besides being a complex operation even in the case in which all aspects are in favor of the deal, the integration process introduces a significant paradox. Indeed, a stronger implementation does not lead always to better results and companies could even destroy the value acquired in trying to incorporate targets. No standard paths do exist in this case, and bidders should adjust strategies to the different scenario, while relying on the empirically accepted framework, such as the one proposed by (Haspeslagh and Jemison, 1991) and previously introduced in this paper;

- **Leadership**: after the deal, commitment and leadership should be immediately showed to both parties, especially to targets. As suggested by (Angwin and Meadows, 2009), bidders should appoint a managerial figure, which takes the lead as the leader during the integration phases. This character could be an *Insider* (chosen from the target itself) to motivate colleagues, or an *Outsider* (external to the organization) aiming at making big changes;

- **Speed and efficiency**: although the lack of a right speed at which the integration should be run, it is clear that companies need to be efficient and fast, and reasons lie down in two aspects. First of all, target's employees should not be leaved with an inconsistent strategy to follow, since it is important to make feel them part of big project. Secondly, and especially in the tech industry (Vester, 2002), companies cannot waste time, as competition follows closely and parties could lose the competitive advantage intended from the deal itself;

- **Integration Management Office**: as anticipated, the creation of a task force with the purpose of controlling every stage and sub-scopes of the integration process, it is commonly regarded as a key success factor. Nevertheless, the appointment of the members is anything but a trivial operation, since each individual has a singular background and competences, which could or not fit with the deal features. Hence, external advisors could help in deciding upon the team selection and they could actively participate to decision-making consultancy. The point is that it is not enough to have a good integration strategy, but also a prepared team able to successfully implement it;

- **Communication and sharing**: it is crucial to the deal to communicate with both external stakeholders (suppliers and clients) and internal one (resources), so to reassure about strategies and commitments. Moreover, scholars and professionals underline that communication is not just in words, but also in action and behaviors from managers and leaders;
- **Talent retention and HR management**: besides experts retention previously discussed, acquirors should care about the soft employees training to accompany them throughout the integration journey, providing them new assignment and goals.

To conclude, these key success factors inevitably present intrinsic mutual relationships, since decisions taken pre-merger have clear aftermaths during integration. For example, (Gomes et al., 2013) showed how the previous target selection has a huge impact on the integration approach to implement. Also, past experiences affect both speed and the integration team's performance, as well as the courtship period allows to be ready and more prepared for the HR management.

Strengthened by the theoretical notions previously introduced, it is now possible to present the empirical analysis carried out on twelve case studies, completed between 1999 and 2017.

The assessment will be useful to identify direct links with theoretical concepts and to evaluate reliable examples about successful or failed case studies. Alongside the data analysis and the description of the transactions, it follows a development of observations with the aim of understanding the causes that lead to say that a case was positive or negative, which were the determining factors of the failure or which, instead, the key success ones.

As anticipated, each case is unique and different from a peer, therefore the same mistake made, for example a wrong selection of the target, must be contextualized with the operating acquiror. Furthermore, a direct comparison between the common characteristics of the cases and the development of preliminary hypotheses will follow.

Chapter 3

Case study assessments

3.1 Performance evaluation

The first two chapters have introduced to the general environment around M&A transactions, their overall features and have underlined characteristics leading to successful or unsuccessful deals.

Hence, the first purpose of this last chapter is to provide empirical and real evidences in past transactions, that could support what introduced so far.

Secondly, the case study assessments aim at finding conclusive hypothesis on what is actually associated with successful deals.

To do so, the analysis has focused on performance evaluations under methodologies acknowledged by scholars and professionals.

In general, the academic literature shows that, on average, target's shareholders do benefit from the selling, while acquirers' ones obtain negative or unaffected returns (Kumar and Sharma, 2019). They also underlined how crucial is the comparison among pre-deal financial parameters and post-merger ones.

Nevertheless, as anticipated in the previous chapters, performance evaluation could suffer from relative myopia towards organizational efficiency. This is true especially in the case of private firms or transactions occurring below the firm level of large companies, for example the acquisition of small business units or little subsidiaries purchased by multinational companies. In this latter scenario, it is quite complex to properly assess share price or profitability consequences (Donald and Simons, 2010).

Hence, the case studies that have been chosen allow to properly depict the effect of a deal, being the cases of similar size parties or smaller targets with huge potential change for acquirors. As anticipated, the methodology for the performance assessment is in line with the common academic literature system, as suggested by (Gatti, Chiarella, and Della Ragione, 2019).

Indeed, on one hand the assessment has focused on medium-long term levels of specific financial metrics, such as the Market Capitalization, Return On Equity (ROE), Return On Asset (ROA) and EBITDA/Total Asset. The relative choice has taken into consideration advantages of each metric when put in the analysis of a M&A operation, for example:

- **Market Capitalization**: it helps inferring the general stakeholders and investors' evaluation of a company deal, reflects expectations towards the deal success, and it allows to depict the market's appraisal of the company value, based on its actual and estimated profitability;

- **Return On Equity**: it allows to compute the return for shareholders who decide to remain and believe in the acquiror decision to run a deal;
- **Return On Assets**: after a deal, the asset of the two companies merge accordingly, so it ends up being a reliable index providing the effectiveness of target selection;
- **EBITDA/Assets**: always relying on the effectiveness of considerations coming from the asset analysis, this index allows to match the EBITDA metric and to start looking at the economic efficiency of a deal. Moreover, as anticipated in Chapter 2, the EBITDA excludes all tax policies, capital structure and other features, allowing to easily compare deals, even if belonging to different industries.

On the other hand, the approach has entailed the analysis of accounting measures of profitability, like Revenues, EBIT Margin, R&D Margin and Net Income. As for financial metrics, the latter ones has been chosen according to specific motivations:

- **Revenues**: it allows for a quick view to the revenue synergy coming from a deal. The analysis is also sustained by the Revenue Change index, that depicts the actual growth difference among the years pre and post merger;
- **EBIT Margin**: in conjunction with the level of revenues, it is possible to understand if the deal provides or not both revenue synergies and cost ones;
- **R&D Margin**: the R&D expenditures is not actually a direct metric to assess the potential deal success. However, companies with a competitive advantage heavily rely on investment to fight innovation from peers. Thus, a successful M&A should not decrease the R&D expense a company could actually afford;
- **Net Income**: at the end, the profitability of a company is depicted by the final net income level that takes into account, for example, both operational business and interest expenses (maybe incurred to issue debt for the acquisition).

3.2 Premises to the case studies

As anticipated, this chapter introduces a data analysis on successful and unsuccessful M&A operations. The great majority of data is sustained by information mainly derived from the Eikon Database of Refinitiv, but there will be notices whenever additional external sources have been examined.

Starting from the assumption that unsuccessful M&As represent the dominant part, the analysis has investigated about potential common features among successful deals, till the elaboration of final hypothesis related to reasons that led a successful deal to be such a good one.

Given the relative restricted sample size and in order to provide more reliable and stronger final considerations, the assessment has focused on two different industries, namely the automotive and technology one. The former is associated with the analysis of horizontal deals among OEMs as leading actors, while the latter is based on both horizontal/vertical and co-generic deals, exploring trend and connotations affecting this wide industry.

Deals that have been chosen reported a countervalue higher than $ 500 millions and the performance evaluation follows the common accounting metric comparisons earlier anticipated.

Specifically, the assessment has focused on pre-deal performance metrics compared with post-merger ones, and it has aimed at seeking preliminary correlations among operations. The general methodology has entailed the evaluation of a five-years performance trend, including the first year prior to the deal completion, and has considered the rational screenshot (at a given point in time) to provide a value per each parameter. Rationality, in this context, means that data have been chosen so to properly depict the pre-deal scenario and a reliable post-deal one; for example, when a deal had taken place in a certain year, but at its end, then the pre-merger performance is the one of the same period. Also, final post-deal levels have been chosen so to avoid any selection of particular ones, maybe caused by singular events. To the latter belong cases in which new M&A transactions happened some years after the relative deal analyzed, or whenever macro-external scenario would have provided low reliable results. Here, the Covid-19 is a clear example of a driver that has prevented a medium-long term analysis.

The assessment has tried to explain main reasons under metrics and performance indexes and, whenever possible, it has compared real outcomes versus announced expected synergies from deals. Notice that, for each specific metric, only common and reliable data found have been reported. Other expectation values, instead, are directly quoted in the case descriptions (being specific to the singular deal). Moreover, the contextualization of data provided is important also to underline insights behind information, even in the case of strange or negative results, actually associated to successful transactions. Hence, the structure of the chapter shows a preliminary introduction to each selected deal, to conclude with the final hypothesis on the related industry.

3.3 The Automotive industry

3.3.1 Fiat & Chrysler

Deal completion	2014 (however a significant toehold remarks initial contacts in 2009)
Compensation	$3.65 B (€ 2.89 billions) in cash for the remaining 41.46% of stake, while the overall target acquisition is set to about $6.3 B.
Acquiror	The Fiat Group provided low-medium quality vehicles, concentrating in the European and South-American market.
Target	Chrysler had important footholds in the U.S. market, producing medium-quality automobiles. The company struggled bankruptcy since the Chapter 11 in 2009, with Fiat obtaining increasingly interest in its ownership.
Analysis period	2014 - 2018
Deal purpose	Cost synergies through combined plant efficiency, resource allocation and distribution efforts. Revenue synergies by the intention to raise the Chrysler U.S. market share and to run new operative plants in the APAC zone, achieving new markets and customers (in China especially).

Occurrence The new company went public under the new name *Fiat Chrysler Automobiles*, better known as *FCA* and the deal was an astonishing success. Behind values, it lies a strong commitment and managerial capability to run intended strategies and to properly adjust them according to needs. Although initial uncertainties, targets were moved from unit sales to margin and all critical goals where achieved. Chrysler took again the lead in USA and overall both companies grew together, also in the APAC zone.

TABLE 3.2: Fiat & Chrysler performance metrics

Metrics	**Pre**	**E**	**Post**	**Insights**
Revenues (€B)	78	119	115.4	The targeted € 119 B were associated to 7 millions of cars sold. FCA was able to reach € 155 B while having sales increased "only" for 10.5%.
Unit Sales (M)	4.3	7	4.84	The target has to be revised due to objective limitations from the distribution network side.
EBIT Margin	4.1%	7%	6%	Jeep (from Chrysler) and Alfa Romeo (from Fiat) led the profitability. The U.S. Market share from 12% to 15% The Jeep sales unit dominated the Chrysler Group, increasing from 16% to 40%. The Chinese market from 0.6% to 2.80%. SG&A decreased by 25.2% on revenue unit.
R&D Margin	2.57%		2.6%	The average R&D change in euros for the first three years was positive and equal to 13.6%. FCA immediately focused on keeping innovation and R&D margin in line with the average industry level.
Net Income (€B)	0.9	5	5.05	The Average Net Income change between 2014 and 2018 was 171.4%.
NFP	9.7	0.7	-1.9	
EBITDA/T.Ass.	9.0%		13.1%	
ROE	7.6%		14.8%	
ROA	2.02%		3.52%	
Market Cap (€B)	3.46		18.09	The EPS went from 0.46 to 3.2 €/share

3.3.2 Daimler-Benz & Chrysler

TABLE 3.3: Daimler-Benz & Chrysler performance metrics

Metrics	**Pre**	**E**	**Post**	**Insights**
Revenues (€B)	117.57	160	136.40	The U.S. market share of Chrysler went from 16.8% in 1998 to 13.8% in 2003 and the Benz Group never succeeded in expanding in North America. Average Revenue Change 2.9%.
EBIT Margin	5.30%		4.08%	The company expected $ 3 billions in cost synergy that never materialized. Initial plan did not involve huge layoff strategies, but by 2003 almost 26,000 employees were fired.
R&D Margin	5.1%		4.08%	Although the released of 10 new Chrysler models, failing in recognizing that the U.S. auto market was moving into the SUV era, revenues fell and operating costs were not improved by efficiency or synergies. The company never pushed for R&D investment to beat competitiveness. Indeed, the average R&D expense Change among these years was about -3.1%.
Net Income (€B)	4.82		0.8	
EBITDA/T.Ass.	8%		8.4%	
ROE	26.16%		(1.20%)	
ROA	6.60%		(0.21%)	
Market Cap (€B)	59.08	92	37.47	The EPS went from 5.03 to 0.85 €/share

Deal completion	1998
Compensation	$ 40.5 billions in an all stock-swap transaction
Acquiror	Daimler-Benz AG was one of the major European (German) OEMs, providing to affluent clients high-quality/luxury cars and commercial vehicles, mainly sustained by the success of the Mercedes-Benz brand all over the world.
Target	Chrysler had large outcomes in the U.S. offering medium-level automobiles, attracting the interest of investors through the profitability of minivans and the Jeep brand.
Analysis period	1998 - 2003

Deal purpose	Given the geographical and product offering complementarity, everyone expected a good deal, as well anticipated by parties, that labeled it a *merger of equals*. The goal was to increase the Benz's market presence in the large and profitable U.S. automotive one, while Chrysler could have improved its fleet with the exposure to Daimler-Benz experts. Overall, the new company was intended to be the world third biggest car manufacturer, only after General Motors and Ford.
Occurrence	It soon became evident that Daimler was playing the role of the dominant party, and that the acquisition was mainly moved by an empire building approach. Culture clashes became relevant and a key issue was the Benz's pride for its own high quality vehicles and the continuous perception of the very inferior level of Chrysler's ones. Although some meeting programs and seminars, the integration miserably failed. Daimler was highly adverse to the price policy of the Americans and did not trust their factory lines and quality control systems. Moreover, Germans professionals had centralized decision-making, bureaucracy and methodical approaches, while the Americans almost the opposite. It ended being a high failure also from the HR management side. Talented employees (actually the Chrysler CEO too) preferred to leave the company instead of suffer from internal fights and competitions. Chrysler lost its market share and the Benz group never succeeded in expanding in North America. Data in Table 3.3 provide evidences for the failure.

3.3.3 Ford & Volvo

Deal completion	1999
Compensation	€ 5.64 billions ($ 6.45 B)
Acquiror	Ford was one of the biggest OEMs in the world (only after the General Motors Company) providing to the market both medium-quality cars and luxury-ones, given some high-quality brands in its fleet.
Target	Volvo (from the larger holding Volvo AB) had footholds in Europe especially, aiming at offering the market the safest high-quality vehicles at disposal.
Analysis period	1999 - 2003
Deal purpose	The idea was to implement the Volvo brand in the so called Premium Automotive Group (PAG), in which luxury brands such as Jaguar, Aston Martin and Land Rover were involved. Hence, the scope to increase create cost synergies and push the sales of Volvo both in Europe and in America.
Occurrence	Initial expectations were not met and the overall company lost market share. Organizational gaps did not allow to fully exploit Volvo competences and capabilities and to share them with the other ones in the PAG. Scholars refer to discrepancies in the information flow and decision-making process, too rigorous and bureaucratic for Ford, while flexible and team-oriented in Volvo. At the end, Ford paid almost $ 6 B to acquire Volvo and in 2009 sold it to the Geely Holding Group for just about $ 1.9 billions. The reader could refer to data in Table 3.6 for a deeper analysis.

TABLE 3.6: Ford & Volvo performance metrics

Metrics	**Pre**	**E**	**Post**	**Insights**
Revenues ($ B)	118		147	The Average Revenue Change was 3.8%, far lower than similar deals.
Volvo Sale Units (M)	0.43	0.8	0.45	Operational synergy with the PAG division were not met.
EBIT Margin	5.5%		(0.2%)	The US market share of Ford went from 25.2% in 1998 to 19.4% in 2004.
R&D Margin	4.9%		5.0%	The Average R&D Change was 4.3%.
Net Income ($ B)	4.05		3.9	Mainly sustained by the Financial Services business units of the company, and the negative EBIT Margin, actually, is then a confirmation.
EBITDA/T.Ass.	7.2%		5.6%	
ROE	78.5%		21.9%	
ROA	8.33%		1.14%	
Market Cap ($ B)	40.22		26.50	

3.3.4 PSA & Opel

TABLE 3.7: PSA & Opel performance metrics

Metrics	Pre	E	Post	Insights
Revenues (€B)	54.03		74.73	The success was mainly driven by the sharing of market exploitation. PSA for example joined the Eastern Europe market in which Opel had concrete footprints. Average Revenue Change 11.1%.
LCVs Sales	-	+25%	+26.6%	"Light Commercial Vehicle" The goal was reached and overperformed in 2019 with almost 552,000 units sold.
COGS (€B)	-	1.1	1.3	It was mainly driven by the synergy cost reduction given shared platform and assets.
EBIT Margin	4.71%		6.25%	The SG&A Margin itself decreased from 9.57% to 8.66%.
R&D Margin	2.0%	2.5%	2.8%	The R&D Margin was kept in line with the market one, about 3%. Still the expected R&D Margin increment of 25% was achieved, reaching a total of 39.5%.
Net Income (€B)	1.74		3.20	The overall business plan entailed a tighter fleet of cars, in order to concentrate on few market solutions and to better manage both manufacturing and procurement costs.
EBITDA/T.Ass.	7.2%		5.6%	
ROE	13.20%		17.70%	
ROA	5.00%		6.60%	
Market Cap (€B)	12.30		19.50	The EPS went from €/share 1.9 to 5.5

Deal completion	2017
Compensation	€ 1.14 billions ($ 1.21 B) consisting in € 491 M in cash and € 649 M in warrants, convertible into almost the 4.7% of PSA stake.

Acquiror	The PSA Group was recovering from the severe negative conditions after the 2008 crisis. Through a new business plan depicted by a new experienced CEO, the company was trying to exploit the European demand, that accounted for almost two third of the overall source of profits.
Target	The Opel division itself was itself struggling in the European market, under the guide of General Motors, and since 1999 it had lost almost several billions.
Analysis period	2016 - 2019
Deal purpose	This M&A was actually part of a new turnaround projects towards a complete renovation of the company. The intended strategy focused around a new tighter fleet of cars to boost for detailed and efficient cost synergies.
Occurrence	The deal success is highlighted in data in Table 3.7. For sure, a crucial role was played by the pre-acquisition alliances among General Motors and PSA, focused on the the development of shared platforms and technologies. PSA knew the Opel group and its way to operate. Moreover, as underline by (Friedman et al., 2018), a key success factor was the high commitment of an experienced CEO (then properly transferred to managers) towards the implementation of a detailed turnaround program, plus the speed of integration, able to generate benefits soon after the post-acquisition year.

3.3.5 Volkswagen & Porsche

Deal completion	2012 (however initial toeholds date back in 2009)
Compensation	€ 4.49 billions ($ 5.626 B) in cash, plus the assumption of € 2.58 B ($ 3.23 B) in liabilities.
Acquiror	After the failed LBO by Porsche, the Volkswagen Group seized the day and became the real acquirer, by a switch of parties. The typology of transaction changed itself, from a hostile one to a friendly agreed acquisition. Top executives at Porsche understood that it was the best approach towards the company survival.
Target	In those years Porsche (one of the best OEMs for premium-luxury vehicles) was completing a LBO over Volkswagen, but suddenly the 2008 recession put in critical condition this movement, and it ended up with almost € 10 B not repayable.
Analysis period	2012 -2017
Deal purpose	The deal scope was to increase and confirm the VW expansion towards the premium-luxury segment and consequently the position as the world's number one carmakers.

Occurrence	When looking at data provided in Table 3.10[1], it is necessary to introduce the famous *Diesel-gate* scandal about the CO2 emission falsifications, equipped with a VW diesel engine installed in vehicles sold in USA and Europe. The event was drastic with almost € 14 billions of refund and repair costs. Nevertheless, the reaction of the group was astonishing and merits do no come alone.

TABLE 3.10: Volkswagen & Porsche performance metrics

Metrics	**Pre**	**E**	**Post**	**Insights**
Revenues (€B)	159	221	230	Revenues of Porsche went from € 13.97 B to € 21.67 B. The Average Revenue Change is 5.8%, quite low if compared with the other successful case ones, but the effect of the 2015 Diesel-gate scandal should be considered.
Units Sold (M)	-	10	10.7	Confirming the VW Group as the world number one carmaker.
EBIT Margin	5.97%		5.99%	Strong resilience from the Group after the Diesel-gate scandal. The initial level of EBIT Margin in 2012 (when it was acquired) was at 5.9%, in 2014 at 6.2%, then decreased to 3.2% after 2015, but fast recovered in 2017, setting to a level back to 5.9%. The COGS Margin decreased from 82% to 80% in 2017.
R&D Margin	5.0%		5.8%	The highest in the sector, reaching 6.3% in 2016.
Net Income (€B)	21.71		11.35	Mainly given by the payment incurred for the 2015 scandal.
EBITDA/T.Ass.	7.2%		5.6%	
ROE	29.77%		11.09%	
ROA	6.97%		2.76%	
Market Cap (€B)	53.85		83.44	Although the 2015 scandal the market perceived the long-term commitment of the VW Group.

[1] *In all Tables provided "E" stands for "Expected"*

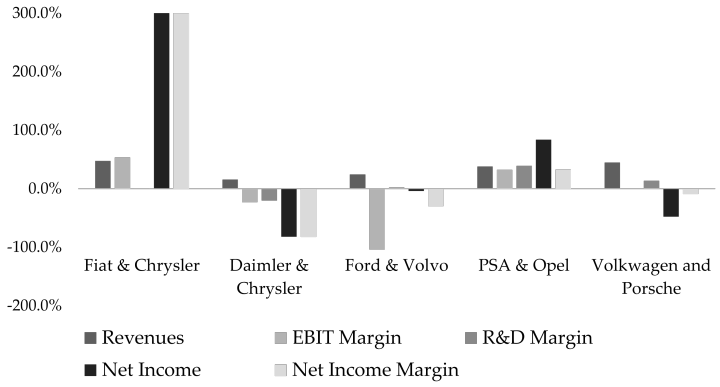

FIGURE 3.1: Automotive - Case comparison on profitability metric changes pre-post deal

3.3.6 Final observations about Automotive M&As

When considering the high failure rate of M&A (as earlier described set among 70% - 90%), both the Daimler & Chrysler and Ford & Volvo case studies represent a good opportunity, among different other unsuccessful deals, to confirm what discussed about issues and mistakes in M&A projects.

At the same time, what it has turned out is, instead, the role of some features of successful M&As, appreciable when looking at the other three case studies herein analyzed.

The Figures 3.1 and 3.2 actually show why it is possible to regard some deals as successful, and others as failed ones. Indeed, it possible to notice the graphical difference related to these types of transactions while looking at the Pre and Post Change (positive or negative) of the principal performance metrics, previously anticipated, and computed applying the ratio among the last and initial annual metric values. For each case study, one graph deals with profitability indexes, namely the level of Revenues, EBIT Margin, Net Income and Net Income Margin. The other graph, instead, with with financial ones, so the level of Return On Equity, Return On Assets, EBITDA/Assets and the Historical Market Capitalization. The reader could refer to Table 25 and its related Figure 7 in the Appendix for a complete data presentation.

Notice that, as earlier described, the only simple overview to these levels could seem controversial, since not all values follow the concept of successful or unsuccessful deal. Thus, the contextualization is crucial.

However, the three operations, earlier analyzed and labeled as successful, do show all metrics (or almost their totality) with positive change and with bars in the upper zone of the graph. Conversely, unsuccessful deal metrics drop down.

Now, after having presented each singular case study and carefully looked at data, two major hypothesis could be depicted, underlying what seems to be a group of some critical aspects associated to potential success in the Automotive industry.

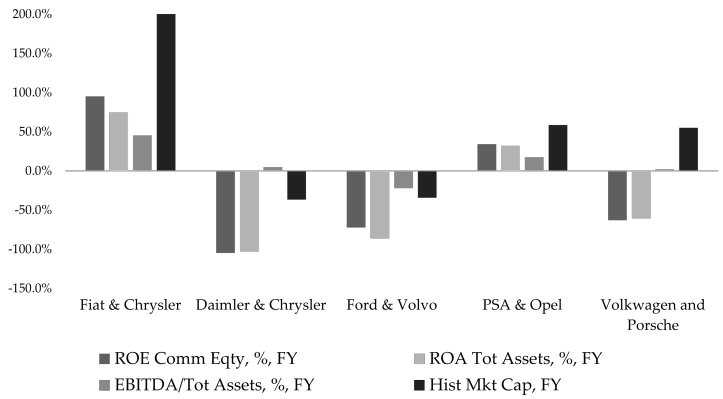

FIGURE 3.2: Automotive - Case comparison on financial metric changes pre-post deal

The relationship among Acquiror vs Target product quality segment

Similarly with other manufacturing firms, carmakers provide to the market different products, namely vehicles and automobiles, characterized by a wide quality range. Some companies offer low-quality cars, more affordable and suitable for certain use case scenarios, but the scale of quality could increase till luxury or expensive sport cars.

The choice of the quality to provide is totally up to the company itself and it has no negative connotation, even in the case of a low level. Indeed, quality depends on path dependency, long-term strategies, and market environment, so on the business model carmakers intend to pursue.

After the analysis of the case studies introduced, it is possible to detect a certain degree of correlation among the success of deals and the quality of products (cars) offered by the two parties.

Specifically, the horizontal deals among carmakers, that entails both peer-to-peer quality segment and a lower-quality brand acquiring a higher-quality one, are associated with astonishing results leading to the consideration of a successful merger. It is important to state that the quality relationship should be depicted not directly in the holding company promoting the transaction, but in the concrete brands of the two parties, in which synergies are expected to take place.

The FCA deal is the first example that can be introduced. The idea behind the transaction was to link two big companies in the market for low-medium quality vehicles, and to rely on the exploitation of potentialities, coming especially from two brands of the combined entity, each per party: Alfa Romeo (from the Fiat Group) and Jeep (from Chrysler). Notice that, the sport-division of the Fiat Group, involving Ferrari and Maserati, actually was not supposed to share operating strategies with Chrysler. However, along with the other brands in the overall fleet, no company dominated, but mutual help allowed to accomplish expected synergies. The U.S. market share of Chrysler rose again, from 12% to 15% and the overall company pre-post performances were excellent: +424% on Market Capitalization, +75% on ROA and +461% on Net Income.

It follows the case of PSA & Opel, where the latter brand joined the similar-quality group, composed by Peugeot, Citroën, and DS Automobiles (this latter as the highest level brand). The deal allowed the combined company to become one of the most important European OEM, thanks to the accomplishment of a strong cost synergy plan. Indeed, the COGS level was expected to decrease by € 1.1 billions and actually reached the result € 1.3 B, while the SG&A Margin went from 9.57% to 8.66%.

At the end, pre-post performances recorded +59% on Market Capitalization, +32% on ROA and +33% on Net Income.

The last successful case is the Volkswagen AG & Porsche one, involving the acquisition of a luxury-brand made by a lower, but still high-quality holding, having the goal to make Porsche cars as the group leaders, on top of sports vehicles. Although the *Diesel-gate* scandal (previously anticipated) the transaction fulfilled expectations and Porsche exploded among years. Interestingly, besides the 2015 scandal, pre-post deal performances recognized +55% on Market Capitalization, while -60% on ROA and -8.9% on Net Income reflect related consequences. Still revenue synergies (€ 221 billions) were met, reaching the level of € 231 billions and an actual pre-post change of almost the 45%.

Conversely, the unsuccessful case studies occurred among a higher-quality brands and lower-quality ones.

Thus, the Daimler-Benz & Chrysler deal brought together two heavily different organizations: the former proud of its prestige and excellent European cars, the latter who relied on mid-level vehicles, which though provide high success in the U.S market especially. Managerial and organizational gap soon become clear and the market share of Chrysler fell at its historical minimum.

In a nutshell, pre-post performances recorded -37% on Market Capitalization, -103% on ROA and -82% on Net Income.

The second case entails the blending of the Volvo car brand into the Premium Automotive Group (PAG), composed by all higher-quality name, such as Aston Martin, Jaguar and Land Rover. The inferiority of Volvo, in terms of market price, could be detected for example by the level of sales of the group, in which the Volvo brand only accounted for the 63%. Although the Revenue and Net Income Changes do not seem to be unfavorable, the specific Volvo analysis actually depicts a scenario that hardly justifies the high price paid. Volvo sales, budgeted to double, poorly increased and the mismatch among brands led the profitability to decrease, only helped by the financial services business unit.

At the end, pre-post performances recognized -34% on Market Capitalization, -86% on ROA and -4% on Net Income.

Hence, after previous discussions, it is possible to conclude with the formulation of the first hypothesis

Hypothesis 1 : in the Automotive industry, the deal success is affected by the related quality of vehicles provided to the market by companies. Specifically, similar-quality entities or lower-quality brands buying higher-quality targets perform better than transactions among opposite parties.

Reasons behind may lay on the strong commitment of "inferior" acquirors towards "superior" targets, in terms of both the intended industrial plan coming from the deal and the effective implementation of the integration approach.

Specifically, the acquiring parties seem to be more interested in preserving the high value and reputation just bought, trying to learn and exploit competences in premium segments and achieve mutual benefits.

The critical financial conditions and risk of Bankruptcy of parties

Interestingly, when looking at successful deals, it is possible to underline another point in common. Specifically, in those cases all three targets were involved in a critical financial condition before the deal, characterized by a high level of debt either for past failed project or for small profitability performance.

Indeed, Chrysler was concretely saved by the Fiat Group after the Chapter 11 in 2009, Opel accounted for € 19 billions of losses since 1999 under the guide of General Motors and Porsche shrunk among its almost € 10 billions of debt after the 2008 crisis, attempting to buy Volkswagen.

Conversely, this feature does not apply in the unsuccessful cases, since both Chrysler and Ford were actually in healthy conditions before the deal.

Hence, in conjunction with the first hypothesis, it is possible to conceive a second one:

Hypothesis 2 : in the Automotive industry the critical financial condition of targets is a key driver for the successful takeover of committed lower-quality acquiror.

Reasons behind may lay on the market timing of lower-quality acquirors buying high-quality targets at a relative low price and so exploiting the inefficiency of the company to negotiate a more convenient proposal. Thus, this consideration sustains the concept of the Market for Corporate Control, and binds it with the commitment of "inferior" acquirors cradling the high value bought.

3.4 The Technology industry

3.4.1 Dell & EMC

TABLE 3.11: Dell & EMC performance metrics

Metrics	Pre	E	Post	Insights
Revenues (€B)	79.9	90	94.4	In 2018 the Revenues Change was huge, set at +14% and the success was confirmed by important commissions, such as being the primary General Motors' IT infrastructure supplier.
EBIT Margin	8.6%		11.4%	Cost synergies could be depicted looking at COGS Margin, decreased from 69% to 66.8%
R&D Margin	5.5%		5.6%	The company mainly committed in high innovation projects, keeping always high the level of R&D Margin. Indeed, in 2020 Dell only accounted for almost 2800 patents released(+13% of 2019), ranking 12th in the world.
Net Income (€B)	3.66		6.13	The Net Income Margin itself went from 4.58% to 6.50%
EBITDA/T.Ass.	9.0%		13.1%	
ROE	(53.46%)		55.75%	
ROA	(2.50%)		2.89%	
EPS (€/s)	-	3.7	4.7	
Market Cap (€B)	33.71		54.88	After the merger, Dell Technologies became world's number one seller of storage systems, number two market position with respect to servers and number three position with respect to PCs.

Deal completion	2016
Compensation	€ 58 billions ($ 66 B), among which the issue of 0.111 VMware Inc tracking shares [2] per EMC share.
Acquiror	Dell Incorporation was one of the major worldwide PC maker and provider of enterprise servers and small data storage systems. Besides, it was a private company, after exiting the market in 2013 with one of the largest LBO in history.

[2] In a nutshell, *tracking stocks* are shares issued by a company which pay a dividend that is determined by the performance of only a certain portion of the entire company itself, namely a segment or business unit. In the Dell case study, VMware was actually the division used to track performances.

Target	EMC in those years was the market largest IT provider of storage platform development services, especially for enterprise solutions, and offered both physical and cloud-based storage centers. The firm was structured as a conglomerate of different independent companies in which EMC had ownership. VMware was one affiliated public entity, for sure the most profitable one.
Analysis period	2016 -2020
Deal purpose	The main scope of the acquisition was to place the new formed company, named *Dell Technologies*, as an essential infrastructure one, able to exploit the faster-growing and lucrative market for data management and storage for businesses, creating both cost and revenues synergies relying on digital transformation and hybrid-cloud competences.
Occurrence	Since the deal completion the company has ridden the wave of smart devices, connectivity and new tech solutions, that together put foundations on data management infrastructures. Alongside the crucial advisory from Deloitte, the specific Value Creation Integration Office (VCIO)focused on innovation promotion and strategic planning, defining a value prioritization framework and its related milestones [3]. Data in Table 3.11 underline this success.

3.4.2 The eBay journey

eBay & PayPal

Deal completion	2002
Compensation	€ 1.32 billions ($ 1.486 B) in a stock swap transaction, with eBay proposing 0.39 common shares per each PayPal one
Acquiror	eBay was one of the major provider of online commercial businesses in the Internet and Catalog Retailing sector. The company offered, as it is now, an e-commerce platform for the free commercial exchange of both new and second hand products, that individuals (or other organizations themselves) could directly sell. Hence, it allowed the connectivity among buyers and sellers relying on profits from advertising and little fees on transactions.
Target	PayPal Incorporation was positioned in the market as a provider of web-based payment services.
Analysis period	2002 -2004
Deal purpose	To allow eBay providing their communities a new tool that would have encouraged people in finalizing negotiations with perfect strangers, having flexibility and data protection as its core competences.

[3]Deloitte Web Article: "Dell, EMC, and Deloitte create the next tech icon. A technology M&A case study" by Lukas L. Hoebarth and John Powers - https://www2.deloitte.com/us/en/pages/mergers-and-acquisitions/articles/technology-m-and-a-case-study.html

Occurrence As shown in Table 3.14, the case entails several reasons to be considered a successful one. Although it could seem controversial, an additional confirmation comes from the later PayPal spin-off, dated back in 2015. The two companies, in effect, decided to separate so to better concentrate in the pursuing of personal growth, while focusing on profit enhancement independently. Some professionals could see this split-up as a signal of a negative cooperation, but for what concerns past anticipated topics, it is just a confirmation of the perfect target selection back in 2002. PayPal has grown with eBay as well as the digital payment did. Thus, with this movement eBay anticipated an incoming huge trend.

TABLE 3.14: eBay & PayPal performance metrics

Metrics	**Pre**	**E**	**Post**	**Insights**
Revenues (€B)	0.75		3.27	The Average Revenue Change set almost at 39%.
EBIT Margin	18.75%		35.11%	
Net Income (€B)	0.09		0.83	Part of outcomes achieved came from the traditional business operation run by eBay, that year after year was increasing its market share. However, the initial expectation from the complementarity with PayPal were accomplished and most of revenue or market capitalization rising could be attributable to the matching among their two core competences.
EBITDA/T.Ass.	15.3%		18.9%	
ROE	5.80%		11.36%	
ROA	7.40%		13.39%	
EPS (€/s)	0.2	0.35	0.38	
Market Cap (€B)	7.80		32.77	The eBay share price change performed about +295%.

eBay & Skype

TABLE 3.15: eBay & Skype performance metrics

Metrics	Pre	Post	Insights
Revenues (€B)	3.27	8.73	The revenue increment mainly comes from the traditional e-commerce business.
EBIT Margin	35.11%	29.25%	
Net Income (€B)	0.83	2.07	The compensation method allowed to issue low debt (low interest expenses) and to use moderate internal financing.
EBITDA/T.Ass.	18.9%	7.30%	
ROE	11.36%	14.05%	
ROA	13.39%	19.21%	
Market Cap (€B)	32.77	12.85	The failure find confirmation in this metric, with a (61%) change. In a nutshell, no one wanted to start a face-to-face dialogue with strangers and the reasons for the acquisition simply disappeared.

Deal completion	2005
Compensation	€ 3.56 billions ($ 4.28 B) in cash, among which the issuance of 32.8 millions common shares valued at € 1.29 billions ($ 1.56 B).
Acquiror	eBay
Target	Skype Technologies, a Luxembourg-based developer of prepackaged software
Analysis period	2005 - 2009
Deal purpose	Skype was surfing the Internet voice communications market and initially the deal had the scope to enhance the smart and customer-oriented usage of the eBay e-commerce platform, while allowing clients to negotiate and solve problems directly through a video or traditional call thanks to an implemented, exclusive and specific in-house tool (provided by Skype).
Occurrence	Very few users actually practiced with Skype, as the vast majority preferred the indirect email exchange to manage and finalize their deals. In a nutshell, no one wanted to start a face-to-face dialogue with strangers and the reasons for the acquisition simply disappeared. Although metrics in Table 3.15 seem to be associated to a good investment, it is necessary to underline that data mainly come from the traditional e-commerce business. At the end, in late 2009 eBay decided to sell the 65% of stake to a group of investors, among with the Private Equity Silver Lake, with eBay earning only about € 1.6 billions.

3.4.3 The Microsoft recap

Microsoft & Danger

TABLE 3.17: Microsoft & Danger performance metrics

Metrics	Pre	E	Post	Insights
Revenues (€B)	55.77		71.83	The revenue increment is not correlated with the $ 500 M paid and the plan that the acquisition entailed. Reasons for the investment soon disappeared and the traditional business led the profitability.
EBIT Margin	45.75%		41.61%	
Net Income (€B)	16.22		23.16	
EBITDA/T.Ass.	30.71%		30.72%	
ROE	39.51%		44.84%	
ROA	21.19%		23.77%	
EPS (€/s)	1.6	2.9	2.7	
Market Cap (€B)	276.43		217.77	Microsoft soon removed the Kin from the market, since the increasing competition from Apple and Android-based smartphones was eroding all market share, leaving Microsoft with just 20,000 unit sold after the launch.

Deal completion	2008
Compensation	€ 350 millions ($ 500 M) in cash
Acquiror	Microsoft
Target	Danger Incorporation, at that time a developer of mobile internet software and the maker of the popular Sidekick cell phone
Analysis period	2008 - 2011
Deal purpose	Expectations were put on the potential synergy derived from simultaneous control over the hardware and software side, just like Apple was doing. The plan was mainly focused on the Kin, the new "social" smartphone with full slide-out keyboard offered to the market, that heavily relied on social add-ons and related features.

Occurrence	Nothing went as budgeted. Microsoft soon removed the Kin from the market, since the increasing competition from Apple and Android-based smartphones was eroding all market share. Analysts attribute to the failure both the mismanagement of complementarity and wrong strategic choices. Indeed, Microsoft already had its own Windows Mobile Operating System (OS) and the company faced the noise of app developers in choosing among a new Microsoft OS, plus all the other dominant ones, such as Android, iOS and Symbian. At the end, the phone did not offer real innovations and attractive specification, bringing to the final disposal of the project in 2011. In the analysis of data in Table 3.17 it has to be recognized the difference in parties' size and revenues. Indeed, Microsoft was far wider than Danger and the impact of the latter on profitability/financial metrics would have partially changed the scenario.

Microsoft & Nokia

Deal completion	2014
Compensation	€ 5.46 billions ($ 7.2 B) in a 100% cash transaction
Acquiror	Microsoft
Target	The Finnish target Nokia-Devices & Services Bus, belonging to the parent group Nokia Oyj
Analysis period	2013 -2015
Deal purpose	Microsoft insisted in the expansion towards the mobile phone market, while achieving footholds on both the hardware and software side and trying to limit the steadily growth of Apple and Samsung.
Occurrence	The acquisition was actually a desperate solution aimed at overcoming partnership limitations and at bringing all activities under a single organization, but it became soon clear that the deal was mainly moved by the CEO overconfidence. Specifically, the latter was sustained by the large Microsoft cash/financing availability, which did not stop him from making risky decision: a scenario that scholars associate with the *Free Cash Flow Problem* [4]. Following the tragic Windows Phone market share of only 2.2% worldwide and after several costly layoff plans, in middle 2016 Microsoft publicly announced the decision to write off almost the entire portion of assets acquired, in a goodwill impairment of about $ 6.2 billions, and to sell the Nokia division to HMD Global and Foxconn Technology for only almost $ 350 millions.

[4] In a nutshell, the *Free Cash Flow Problem* is a managerial issues bringing to over-investment or wrong investment choices, since a wasteful spending is more likely when managers have more cash at hand.

TABLE 3.20: Microsoft & Nokia performance metrics

Metrics	Pre	Post	Insights
Revenues (€B)	82.36	92.77	Although increasing the Revenue Change in the operating years after the acquisition was the worst after several ones of relative good performance. In 2015 it was about 2.8%, while the average of the precedent five years was 8.3%.
EBIT Margin	36.56%	30.14%	
R&D Margin	13.2%	12.9%	The failed strategy has proxies in the R&D Margin too, that after an acquisition of this type at least should remain stable.
Net Income (€B)	22.33	21.40	
EBITDA/T.Ass.	23.2%	19.7%	
ROE	30.09%	14.36%	
ROA	16.58%	7.03%	
Market Cap (€B)	287.69	354.39	Typically this metric depicts the failure or success of a deal, so this scenario could seem quite abnormal. However, it is important both to underline the steadily increment of Microsoft Revenues coming from traditional business divisions and to remark the position of Satya Nadella as the new CEO of the company in 2014. He was quite adverse to the Nokia deal, initiated by his predecessor, and in 2016 the market perceived its succession, the later divestiture and a new announced acquisition as a positive indicator. Indeed in 2014 Market Cap was € 343 B, in 2015 € 354 B and in 2016 (the year of the divestiture) € 399 B.

Microsoft & LinkedIn

Deal completion	2016
Compensation	€ 23.6 billions ($ 26.6 B) in a 100% cash deal (with an almost 49.5% premium (Janjua, 2016))
Acquiror	Microsoft
Target	LinkedIn
Analysis period	2016 -2020

Deal purpose	The deal reflected the clear intention of Nadella (Microsoft CEO) to change the growth strategy path, abandoning the mobile phone market and concentrating on the core division of the company, namely the business productivity one and its related products/services offered to the market. Although being mainly sustained by the issue of new debt, the transaction did not stimulate the change in the company credit rating by Standard & Poor, that confirmed its AAA level. Expectation were indeed high even if the LinkedIn revenue level was quite low when compared with the Microsoft totality (almost 4%). However, the debt allowed to exploit tax savings and still the Microsoft Net Financial Position was enviable, with almost $ 105 B in cash and several liquid assets at disposal (McBride, 2016). The main expected synergy was among LinkedIn data and Microsoft softwares, getting footholds in digital lives of customers, that daily used both companies' products.
Occurrence	The deal was a real astonishing success with both companies growing together and sharing common goals. Under the guide of Microsoft , LinkedIn has become an improved products, much more than a simple social network. People actually spend more time surfing the platform, and more time means more data, advertising for recruiters, and so more revenue. Actually, it is not only the goal of enhancing customers' productivity which justifies the high price paid. Indeed, LinkedIn had access to a huge amount of data about individuals and companies, that could have been used to offer Microsoft the opportunity to enhance competences in data analytics, Artificial Intelligence and Machine Learning, while challenging potential cloud software competitors (McBride, 2016). Behind the handsome success it lies a strong commitment in allowing LinkedIn to operate as an independent company, which "simply" shares common goals. While working separately, the two organizations managed projects of complementarity, such as matching with Outlook, integrating LinkedIn Sales Navigator with both Dynamics 365 and Microsoft's Azure cloud. To conclude, an interesting consideration could be depicted by looking at external scenarios supporting the deal success. The economy, in effect, has played an important role showing the unemployment rate in the United States at its lowest level in fifty years, and recruiters constantly looking for talented resources accordingly (Erlichman, 2019).

TABLE 3.22: Microsoft & LinkedIn performance metrics

Metrics	Pre	E	Post	Insights
Revenues (€B)	94.10		155.55	The Microsoft Average Revenue Change was equal to 10.46%.
LinkedIn Rev (€B)	2.3		8.8	LinkedIn reached 690 million users in 2020 (starting from 450 M in 2016).
PBP sales		31.5	46.4	"Productivity and Business Processes" division, in which LinkedIn was incorporated. Between 2012 and 2015 the change was -1.82%, while among 2016-2020 about 104%.
EBIT Margin	30.86%		45.70%	LinkedIn became the second Leading Social media for B2B clients behind Facebook, and the shares of marketers using LinkedIn for marketing purposes in U.S. increased from 46.4% in 2017 to 49.6% in 2020.
R&D Margin	13.00%		13.44%	
Net Income (€B)	24.10		52.77	The importance of LinkedIn for Microsoft could be depicted also by the revenues Margin upon Microsoft ones, that went from 4% to 5.6% in 2020.
EBITDA/T.Ass.	18.38%		22.4%	
ROE	27.01%		40.14%	
ROA	11.16%		15.06%	
Market Cap (€B)	399.35		1540.77	

3.4.4 Facebook & Instagram

Deal completion	2012
Compensation	€ 764 millions ($ 1 B) distributed in a 30% cash and a 70% stock swap of estimated 23 millions of Facebook common shares
Acquiror	Facebook
Target	Instagram
Analysis period	2012 -2017
Deal purpose	Expectations centered on the exploitation of photo sharing features in both social-network.

Occurrence It is important to underline how the strategy towards complementarity and synergies has changed among years. In 2012, social-medias had not the importance that, instead, affects them now and initially investors were concern about how Facebook would have been able to gain returns from this investment. What is certain is that Instagram has grown alongside with Facebook and the surrounding world. Someone could say that actually these big characters themselves directed techs towards the future. Data in Table 3.24 remark the success in every metrics. What was initially a simple image software services, is currently a colossus of the social-media, marketing, e-commerce and data analytics. To conclude, most impressive is the estimation from Bloomberg Intelligence about the potential intrinsic value of Instagram that, if ran as an independent company, would have a Market Capitalization of almost $ 100 billions (Walton, 2021).

TABLE 3.24: Facebook & Instagram performance metrics

Metrics	**Pre**	**Post**	**Insights**
Revenues (€B)	3.71	40.65	The Average Revenue Change was 49.2%
Instagram users (M)	30	1000	When it was acquired Instagram counted just fifteen employees, became over 700 all around the world in 2020.
EBIT Margin	44.4%	49.7%	Cost synergies could be depicted looking at the level of COGS Margin, that substantially decreased from 23.8% in 2012 to 13.4% in 2017.
R&D Margin	9.9%	19.9%	A major role was played by R&D expenses allocated by Facebook in trying to predict and make its own way towards the future of globalization.
Net Income (€B)	1.32	18.20	
EBITDA/T.Ass.	23.2%	19.7%	
ROE	22.9%	27.2%	
ROA	21.5%	24.4%	
Market Cap (€B)	63.16	512.8	Nowadays, Facebook and Instagram are the first and second leading social medial used by marketers worldwide in 2021, having Facebook the 93% of respondents and Instagram the 78%, and this is true both for B2B and B2C marketers.

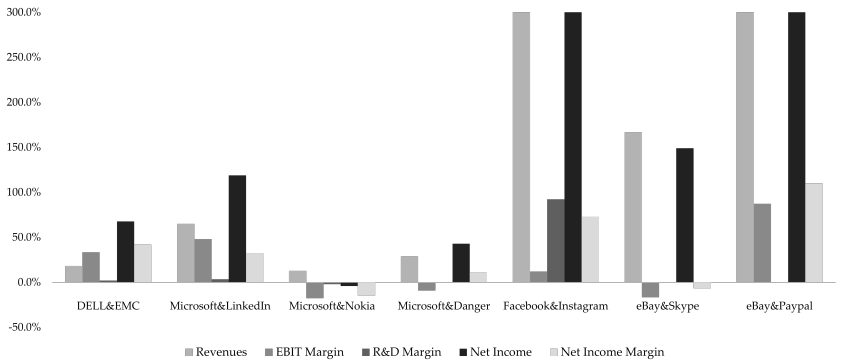

FIGURE 3.3: Technology - Case comparison on profitability metric changes pre-post deal

3.4.5 Final observations about Tech M&As and the role of Private Equity

Once presented all case studies and their main indexes, as done for the automotive industry, it is possible to depict the failure or success of each deal, while looking at levels of change Pre-Post merger of both financial and economic performance metrics. Here, Figure 3.3 and 3.4 introduce to these brief numbers, but the reader could refer to data in Table 26, 27 and in Figure 8 in the Appendix for a deeper assessment.

Intuitively, also in this industry, all successful deals do present bars in the upper zone of the graph (so a positive change), while the failed ones either drop down or remain stable.

Differences in the actual levels of change depend on the type of companies merging (size and sector), as well as the general context in which the deal was placed. For example, the Dell case (a successful one) shows profitability changes always positive, but lower when compared to the other good deals. This is because, before the deal, Dell was a private company and performances were hidden by the non-obligatory nature of disclosure. Thus, data on pre-merge are actually referred to those of the acquisition year itself.

Another thing that could be depicted lies in the behavior of some metrics, such as Net Income Change and Market Capitalization Change, that for successful cases show larger shift than automotive deal ones. Here, potential reason deals with the higher frenzy and propensity by the market in evaluating growth opportunities in tech-related businesses.

In conclusion, the deal analysis has led to the formulation of two observations, having two different main topic. On one side, since the technology industry actually entails several connotations and businesses, the first hypothesis deals with the relative nature of entities acquired and the specialized sector in which successful deals took place.

On the other side, the analysis has tried to confirm what previously shown and a deeper observation of market expectations has introduced an interesting insight about a general acquisition behavior in tech affairs.

Specifically, it is not only the market in a broad sense which follows this behavior, but also the movement of a specific type of investor towards personal activities in tech businesses.

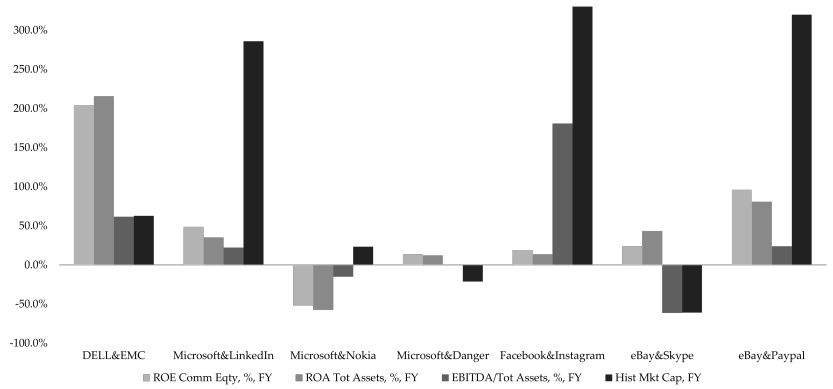

FIGURE 3.4: Technology - Case comparison on financial metric changes pre-post deal

Successful tech deals entail data management and cloud computing

While looking at the the major tech deals in recent years, it seems clear that technology innovations have been focused on two main themes: connectivity and data analytics, supported by cloud computing. Although it could seem commonplace to say that data are crucial, actually this trend was anything but trivial to predict even few years ago. Indeed, we have recently enter a new transition stage with the Information Technology business taking the lead. Smart connected devices and applications will bring to new information node, exploitable for better analytics. Data management and control will be the backbone for the new digital world and all actors in the its value chain will be crucial ones, relying on both data analytics and data infrastructure as core competences for the next basis of competitive advantages. No one would have regarded Instagram as a multi-business platform in 2012, maybe Facebook neither. But now it accounts for a marketplace, a pictures/information sharing application and a data center which is steadily exploited to sell insights at the highest price. Valued almost 100 billions USD, Instagram has allowed Facebook to register a +712% Market Capitalization Change and a +180% of its EBITDA/Assets accordingly.

The similar LinkedIn transaction has allowed Microsoft to enhance the productivity services offered from its traditional products (Office etc.) and to enhance the profitability of both the market for "professional" data, sold to recruiters, and of the social-network itself.

Interestingly, among its long number of transactions incurred into, only the LinkedIn case seems an astonishing success for Microsoft. The Danger and Nokia deals were aimed at entering the market for mobile-phones, actually a sector already consolidated and in which Microsoft was suffering for a lack of competences. The choice, indeed, immediately showed obstacles, hardly solvable having a weak strategy combined to the poorly performing targets chosen.

The Dell case, instead, looks at data from another perspective, namely the infrastructure service one. It recognized the path change towards a digitally connected world and has tried to position itself as a leading actor for the cloud-computing provider of storage systems and infrastructures. The strategy allowed to reach a Market Capitalization

Change of almost + 63% and an EBITDA/Assets of +62%.

The eBay journey itself allows to depict and confirm the past observation. The failed Skype deal had the purpose to create customers' behavior and tastes, while proposing them a complementary add-on for video-call during their transactions. Conversely, the real complementarity that did work was the payment system one, which allowed customers to share in the eBay platform also their desired payment method, while relying in the secure service offered by PayPal. Once more, a smart and connected solution.

Hence, we are increasingly projected towards a future fueled by data: they constitute a precious value for organizations, which must know how to convert them into useful information, and here the Digital Transformation is necessary to be ready to seize every opportunity.

In a recent interview proposed by Forbes to the Vice President and General Manager of Dell Technologies Italy [5], it has been underlined how it is important to refer to a *data era*: all companies are working to make their products/services *data driven*, in order to boost outcomes and enhance customers' satisfaction.

Thus, data are now the most valuable asset for every firm, provided that they are quickly transformed into real information. That is why companies are increasingly investing in Artificial Intelligence and Machine Learning, in order to be able to analyze huge masses of data and extract insights from infinite non-obvious correlations. But also the anomalies detection and the fight with cyber attacks, play a crucial role.

Alongside this direct data analysis, it does join the role of a modern multi-cloud IT infrastructure, fundamental to become a data-driven company, and here the value proposed by companies, like Dell Technologies.

Hence, once introduced previous observations, it is now possible to advance the first hypothesis for the technology industry.

Hypothesis 1 : targets with core competences in the data management and control value chain are associated with a higher probability of deal success, since their specific nature allows to exploit the intrinsic competitive advantage coming from data, in a world increasingly focused on connectivity.

To conclude, the importance of data ownership in tech affairs has steadily asserted, since Digital Transformation, IT, Artificial Intelligence and Machine Learning nowadays invade the majority of sectors and are strongly based on data management and analytics. It is the era of a technology not based on drastic end product physical innovations, but on the way to manage and possess data. Confirmations comes from researches and studies conducted during these years, such us the one by Bloomberg (Tae, 2021) and related to the Microsoft dominance in the tech industry. The company, indeed, is likely expected to overcome Apple as the number one firm in term of Market Capitalization and the reason lies in the freely exploitation of its principal business, namely softwares and services relying on data traveling over the internet, away from severe supply-chain obstacles which, instead, affect Apple itself.

[5] Forbes Web Article: "A tu per tu con il general manager di Dell Technologies Italia: "Vi spiego perché stiamo entrando nell'era dei dati""

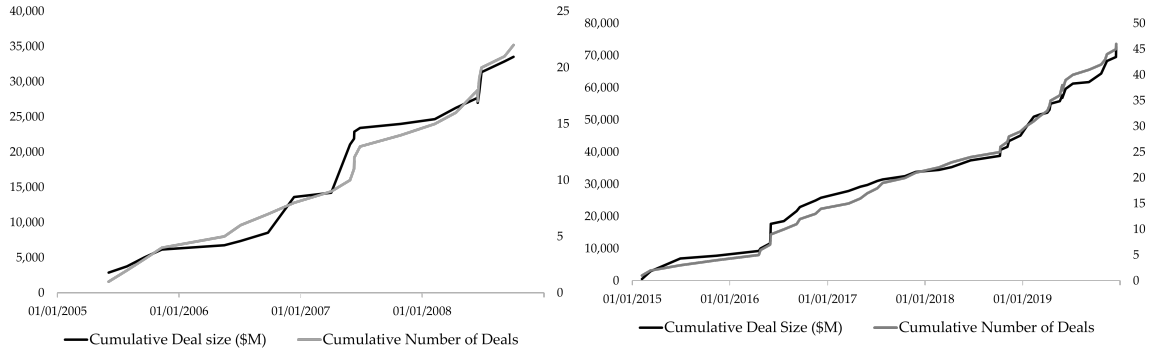

FIGURE 3.5: PEs - Tech investment trend (2004-2008) vs (2015-2019)

More interestingly, these last two articles from Bloomberg and Forbes, which remarks the importance of data for companies (such as Microsoft and Dell), has been found on Instagram, by mean of a "simple" scroll on the Homepage.

The role of PEs to understand where successful deals could be placed

This discussions aims at confirming the first hypothesis previously introduced, while observing M&A operations carried out by Private Equity Funds. Given their intrinsic purpose (namely the investment business) Private Equity Funds have the capacity to predict market expectation, market behavior, trend and customer tastes. Their goal is to invest in low risky businesses, make them grow and after several years make profit also with the exit option. Interestingly, as reported by a recent survey from Deloitte [6], the trend and percentage of non-tech buyers in the TMT (Technology Media & Telecommunications) transactions has been increased since 2015, reaching the level of about 57%. As suggested by (Martin, 2020), PEs have something more than strategic companies when talking about investment evaluation: given the lower pressure from the market, when comparing performances of own investments, they are able to consider not the liquidity invested as a metric of comparison, but the real intrinsic value and capacity of assets acquired.

While looking at Refinitiv data, the 2004-2008 wave was the PE one, with about the 20% of deal value coming from these type of financial bidders. Subsequently, since 2009 the value has been set and stable to about 10%, but in recent years (starting from 2017) has been severely grown. PEs started to invest in the tech industry too, specifically in the Internet Software and Services sectors.

The assessment has focused on transactions with a countervalue higher than € 500 millions while concentrating on the past two known M&A waves, namely among the periods 2004-2008 and 2015-2019. It has turned out that tech investments coming from PEs have increased by about 172%, going from 21 deals to 57, at the expense of sector that in the 2004-2008 wave were, instead, highly profitable, such as healthcare, constructions and hotel businesses (Figure 3.6).

In 2004-2008 the percentage of tech acquisition by value was the 4.1%, while in the 2015-2019 wave it reached 11.2%, with a total change of almost € 39 Billions. In the Figure

[6] Deloitte Web Article: "Dealing with M&A for technology companies"

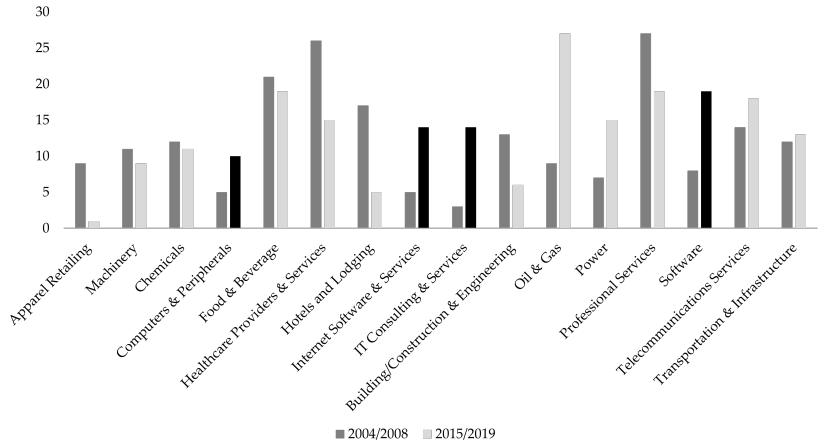

FIGURE 3.6: PEs - Investment segments: a comparison among the 2004-2008 wave and the 2015-2019 one

3.6 it is possible to notice the transaction trend comparison among 2004-2008 and 2015-2019. Marked in black there are the specific investments concerning IT, Software and Computers businesses (namely the ones selected to refer to the technology industry and data control affairs). Together with the Oil and Gas sector, these last ones show the best change in terms of number of investments and deal value.

Hypothesis 2 : Private Equity Funds activities are reliable indicators to infer where industry trends are positioning and where successful deals would likely take place.

Hence, it could be declared that PEs perceived the importance to invest in a new profitable markets, namely the one of softwares, data, and cloud-computing.

Scholars usually suggest to analyze activities and strategies of the main players in a specific market in order to predict where innovation would be placed. For example, if the goal is to understand how the automotive industry will move towards electric vehicles, analysts should be look to best companies and leaders in the sector, such as the Volkswagen or the BMW Group. Similarly, here a finial conclusion could be depicted: to understand where M&A deals will offer most successful operation, PEs are a reliable source of evidence for a positive trend.

3.4.6 A comparison among the automotive and tech industry performance metrics

The previous assessments have focused on the formulation of hypothesis when considering the single scenario of a specific industry, namely the automotive and tech one. Besides, further observations could be depicted while comparing performance metrics on pre-post change in both industries. The analysis has resulted in three main considerations:

- **Absolute performance metrics**: it has been anticipated that an effective analysis of performances, able to lead to the final conclusion about the "successful" label, is commonly limited by the complex scenario around the deal itself, its true strategies and outcomes behind the transaction. As earlier shown, the Volkswagen case study is an example of these limitations: even if regarded as a successful one, metrics introduced present some significant negative values. Hence, to find reliable reasons behind these levels, it is necessary to run a deeper investigation and find true motivations for values that, actually, let us think about a failure. Nevertheless, while looking at previous graph on pre-post performance changes, it is possible to recognize that three parameters properly depict the success or the washout of a deal. It is the case of the Market Capitalization, EBITDA/Tot.Asset and the EBIT Margin changes. Indeed, whenever the deal is considered a prosperous one, these metrics position in the upper part of the graph, showing a positive answer to the deal itself, otherwise the level of change drops down. The only exception is the Microsoft & Nokia case study (unsuccessful), where the only Market Capitalization shift is positive and equal to 23.3%. However, in the previous deal description it has been underlined the true motivation for this controversial positive change, namely the new CEO appointment and the announcement of the LinkedIn takeover on the same year. Notice that, it is in any case a much lower change than the other Market Cap shifts introduced for the other deals in the tech industry, underlying the significant effect of the failed Nokia investment.

- **The R&D role**: though R&D expenses are beneficial in both industries (given the intuitive exploitation of innovation for additional revenues increment), they seems to provide higher benefits to tech industry companies, rather than the automotive ones. Looking at data on deals analyzed, in the automotive industry the average R&D Margin Change is 7.4% and the associated average Revenue Change is 34.3%. Things significantly change in tech M&As where the equal R&D value is set at 24.2% of shift, associated to an average Revenue Change of 230%. Hence, the former industry is affected by higher average R&D Margin Change and, at the same time, changes on Revenue and Net Income follow accordingly. Actually, the reason lies in the effective significance of R&D expenses in technology affairs, as depicted by the traditional level of R&D Margin, that among these deals has resulted in a value of 12.8% on average, while 4.0% in the automotive industry.

- **Synergies**: following the previous observation, successful deals in the tech industry are characterized by much higher Revenue Changes than the automotive ones, followed by a similar Market Capitalization Change trend. Hence, it seems that revenue synergies are tougher to obtain in the automotive industry. The FCA case

provides a reliable example since, although being a successful deal, managers had to rethink the sales target during the effective integration phase, and to shift the revenue enhancement to a cost reduction approach. Companies in tech industry could exploit the power of innovation and technology to boost revenues even if relying on small tool, products and complementary ones. From this point of view the automotive sector is limited by the necessary integration of physical asset, production lines and distribution services. All aspect that partially disappears in tech products/services, where obstacles in the supply and value chain management substantially decrease.

Conclusions

At the and of the paper, the reader should have a clearer contextualization of the M&A world, a better idea about its magnitude and depth, smaller and most relevant features and a general picture of the state-of-the-art presented by scholars and professionals across years. That is the scope of the first chapter.

The second one, instead, has introduced to the main topic of the paper, namely the importance of some deal features able to associate relative operations to the *successful* or *unsuccessful* labels. Hence, relying on past literature results, common obstacles have been described. Among them it has been underlined how target selection, price evaluation and integration strategy are all dominating aspects. Indeed, issues in these areas likely lead to the failure in meeting expected performances by acquirors. At the end, Key Success Factors, as well as methods to achieve them, have been depicted.

The third chapter marks the transition to an analytical approach with the introduction and assessment of twelve case studies about M&A deals, distributed among 1999 and 2017 and concentrated in two different industries, namely the automotive and technology one.

At this point, the chapter scope has become twofold. On one side, the description of past deals has aimed at finding concrete evidences and links among the theory and practice, literature vis-a-vis real transactions.

On the other side, the analysis has focused on the detection of preliminary correlations among selected successful case studies and the subsequent development of innovative hypothesis. Specifically, in the automotive industry, as a success likelihood proxies it has been underlined both the beneficial role of targets' critical financial conditions and the salutary correlation among lower-level bidders acquiring higher-level targets.

In the tech industry, instead, successful deals roam around data control and related complementary services along their value chain. Specifically, among years it has become increasingly rooted the importance of data ownership in tech affairs, since Digital Transformation, IT, Artificial Intelligence and Machine Learning invade every kind of business operations, and strongly rely on data management and exploitation. It is the era of smart devices and connectivity. Data flows are the principal characters in this technological transition phase. So, among the cases analyzed, those in which the target had core competences around big data control and/or management were successful ones.

This considerations open the road to the the hypothesis declaring that the place in which the majority of successful operations will likely be placed in future waves is, actually, the market for data analysis and control.

Successful acquirors of case studies that understood it before the incoming trend have actually achieved astonishing results.

Moreover, this hypothesis is sustained by another interesting assessment about the Private Equity Funds activities in the market for corporate control.

The analysis has showed how these type of investors, that by definition focus on secure profitable companies and that have a M&A failure rate much lower than strategic bidders, have enhanced their interest towards softwares and IT consultancy businesses, almost doubling their investment projects, if compared to ten years ago.

Nevertheless, it is necessary to underline how these empirical conclusions are without limitations. Correlations that have been found have not a clear statistical foundation, even because the small sample size would have resulted in poor outcomes. So, the hypothesis formulation is inevitably affected by this scenario.

However, the scope of the paper was exactly the one to conclude with a set of potential and reliable hypothesis (sustained by a panel of case study assessments) and open the road for further statistical inference starting from it.

Appendix

In this section there will be introduced all principal data found and elaborated during the development of the paper. These involve metric about deal performances discussed along the paper, while motivations for their specific choice are better described in Chapter 3.

As anticipated, the majority of data come from the Eikon Database provided by Refinitiv, where *term sheets* of deals, related income statements or financial publications were available. Other external sources have been consulted and all references are properly depicted in the bibliography section.

Specifically, information are divided among the two industries analyzed, namely the automotive and the technology one. A first numerical table will be shown, followed by a graphical representation aiming at providing a clearer picture about differences among successful and failed deals assessed.

TABLE 25: Automotive - Performance metrics and level of change pre-post deal

	Pre-deal	**Post-deal**	**Performance change**
Revenue			
Fiat & Chrysler (€ billions)	78.00	115.40	47.9%
Daimler-Benz & Chrysler (€ billions)	117.57	136.40	16.0%
Ford & Volvo ($ billions)	118.02	147.13	24.7%
PSA Group & Opel (€ billions)	54.03	74.73	38.3%
Volkswagen AG & Porsche (€ billions)	159.34	230.68	44.8%
EBIT Margin			
Fiat & Chrysler	4.1%	6.31%	53.9%
Daimler & Chrysler	5.30%	4.80%	(23%)
Ford & Volvo	5.50%	(0.22%)	(104%)
PSA & Opel	4.71%	6.25%	32.6%
Volkswagen AG & Porsche	5.97%	5.99%	0.3%
R&D Margin			
Fiat & Chrysler	2.57%	2.60%	1.2%
Daimler & Chrysler	5.1%	4.08%	(20.0%)
Ford & Volvo	4.91%	5.03%	2.3%
PSA & Opel	2.02%	2.82%	39.5%
Volkswagen AG & Porsche	5.00%	5.80%	14.0%
Net Income			
Fiat & Chrysler (€ billions)	0.9	5.05	461.1%
Daimler & Chrysler	4.82	0.87	(82.0%)
Ford & Volvo	4.05	3.89	(3.7%)
PSA & Opel	1.74	3.20	84.0%
Volkswagen AG & Porsche	21.71	11.35	(47.4%)
Return on Equity			
Fiat & Chrysler	7.60%	14.83%	95.1%
Daimler & Chrysler	26.16%	(1.20%)	(104.6%)
Ford & Volvo	78.54%	21.89%	(72.1%)
PSA & Opel	13.20%	17.70%	34.1%
Volkswagen AG & Porsche	29.77%	11.09%	(62.7%)
Return on Assets			
Fiat & Chrysler	2.02%	3.52%	74.5%
Daimler & Chrysler	6.60%	(0.21%)	(103.2%)
Ford & Volvo	8.33%	1.14%	(86.3%)
PSA & Opel	5.00%	6.60%	132.0%
Volkswagen AG & Porsche	6.97%	2.76%	(60.5%)
EBITDA/Assets			
Fiat & Chrysler	9.00%	13.07%	45.2%
Daimler & Chrysler	8.05%	8.45%	5.0%
Ford & Volvo	7.26%	5.66%	(22.0%)
PSA & Opel	10.90%	12.80%	17.4%
Volkswagen AG & Porsche	9.53%	9.71%	1.8%
Market Capitalization			
Fiat & Chrysler (€ billions)	3.45	18.09	423.4%
Daimler & Chrysler	59.08	37.47	(36.6%)
Ford & Volvo	40.22	26.05	(34.1%)
PSA & Opel	12.30	19.50	58.5%
Volkswagen AG & Porsche (€ billions)	53.85	83.44	54.9%

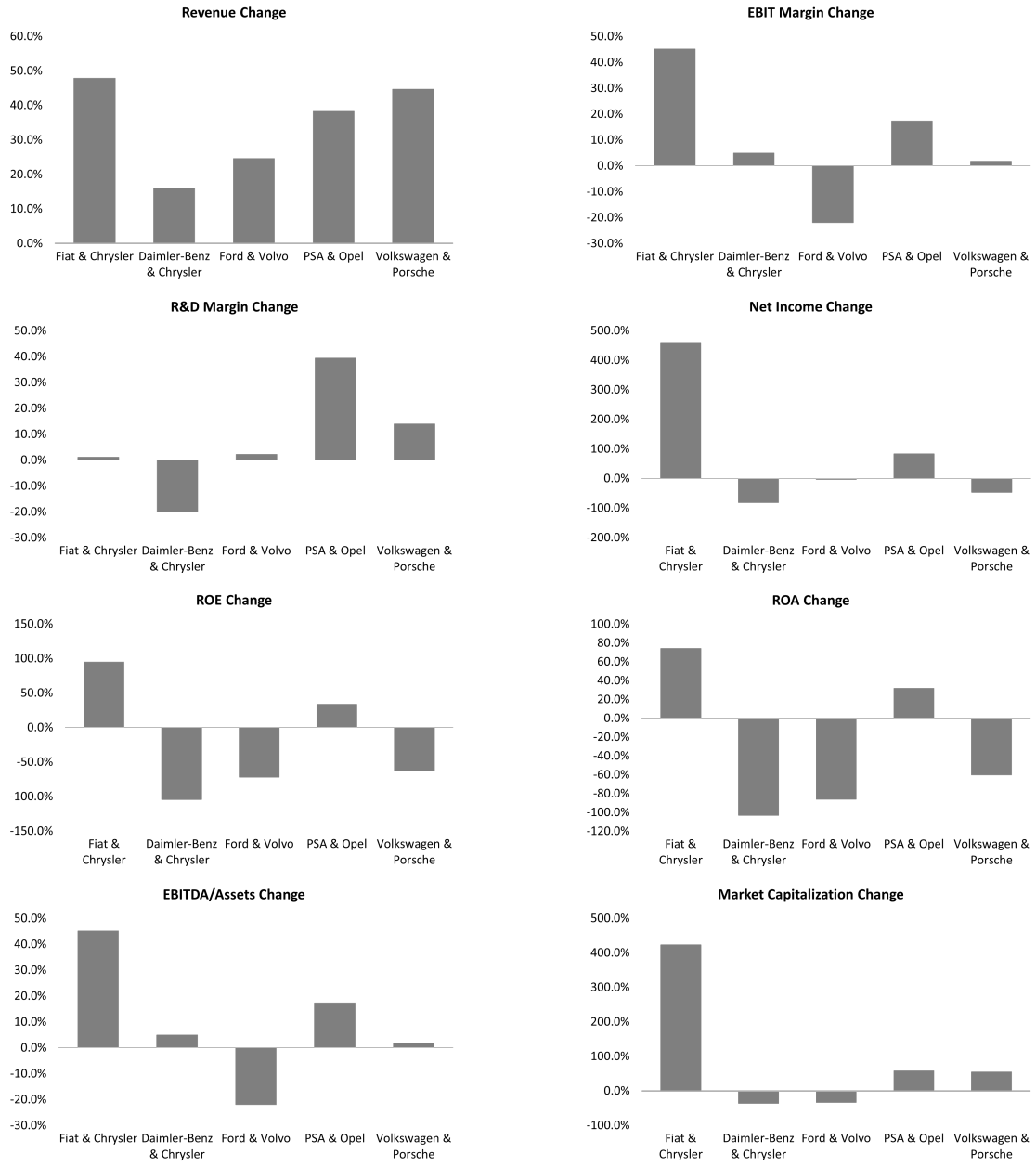

FIGURE 7: Automotive - Performance change pre-post deal

TABLE 26: Technology - Performance metrics and level of change pre-post deal - p.1

	Pre-deal	**Post-deal**	**Performance change**
Revenue ($ billions)			
DELL & EMC	79.93	94.39	18.1%
Microsoft & LinkedIn	94.31	155.55	65.00%
Microsoft & Nokia	82.36	92.77	12.6%
Microsoft & Danger	55.77	71.83	28.8%
Facebook & Instagram	3.71	40.65	996%
eBay & Skype	3.27	8.73	167%
eBay & Paypal	0.75	3.27	337%
EBIT Margin			
DELL & EMC	8.58%	11.44%	33.4%
Microsoft & LinkedIn	30.86%	45.70%	48.10%
Microsoft & Nokia	36.56%	30.14%	(17.60%)
Microsoft & Danger	45.75%	41.61%	(9.00%)
Facebook & Instagram	44.40%	49.70%	11.9%
eBay & Skype	35.11%	29.25%	(16.70%)
eBay & Paypal	18.75%	35.11%	87.2%
R&D Margin			
DELL & EMC	5.50%	5.60%	1.90%
Microsoft & LinkedIn	12.9%	13.44%	3.4%
Microsoft & Nokia	13.23%	13.47%	(2.10%)
Microsoft & Danger	-	-	-
Facebook & Instagram	9.90%	19.10%	92.30%
eBay & Skype	-	-	-
eBay & Paypal	-	-	-
Net Income ($ billions)			
DELL & EMC	3.66	6.13	67.60%
Microsoft & LinkedIn	24.10	52.77	119%
Microsoft & Nokia	22.33	21.40	(4.20%)
Microsoft & Danger	16.22	23.16	42.80%
Facebook & Instagram	1.32	18.20	1281%
eBay & Skype	0.83	2.07	149.10%
eBay & Paypal	0.09	0.83	817.10%
Return on Equity			
DELL & EMC	(53.46%)	55.76%	204.30%
Microsoft & LinkedIn	27.01%	40.14%	48.6%
Microsoft & Nokia	30.09%	14.36%	(52.30%)
Microsoft & Danger	39.51%	44.84%	13.50%
Facebook & Instagram	22.90%	27.20%	18.90%
eBay & Skype	11.36%	14.05%	23.70%
eBay & Paypal	5.80%	11.36%	95.90%
Return on Assets			
DELL & EMC	(2.50%)	2.89%	215.60%
Microsoft & LinkedIn	11.16%	15.06%	35%
Microsoft & Nokia	16.58%	7.03%	(57.60%)
Microsoft & Danger	21.19%	23.77%	12.20%
Facebook & Instagram	21.50%	24.40%	13.50%
eBay & Skype	13.39%	19.21%	43.50%
eBay & Paypal	7.40%	13.39%	80.80%

TABLE 27: Technology - Performance metrics and level of change pre-post deal - p.2

	Pre-deal	**Post-deal**	**Performance change**
EBITDA/Assets			
DELL & EMC	5.92%	9.57%	61.5%
Microsoft & LinkedIn	18.38%	22.43%	22.1%
Microsoft & Nokia	23.15%	19.68%	(15.00%)
Microsoft & Danger	30.71%	30.72%	0.03%
Facebook & Instagram	11.10%	31.30%	180.60%
eBay & Skype	18.95%	7.30%	(61.50%)
eBay & Paypal	15.30%	18.95%	23.90%
Market Capitalization ($ billions)			
DELL & EMC	33.72	54.89	62.80%
Microsoft & LinkedIn	399.353	1540.77	334.80%
Microsoft & Nokia	287.70	354.39	23.20%
Microsoft & Danger	276.43	217.77	(21.20%)
Facebook & Instagram	63.16	512.80	711.90%
eBay & Skype	32.77	12.85	(60.8%)
eBay & Paypal	7.80	32.77	319.8%

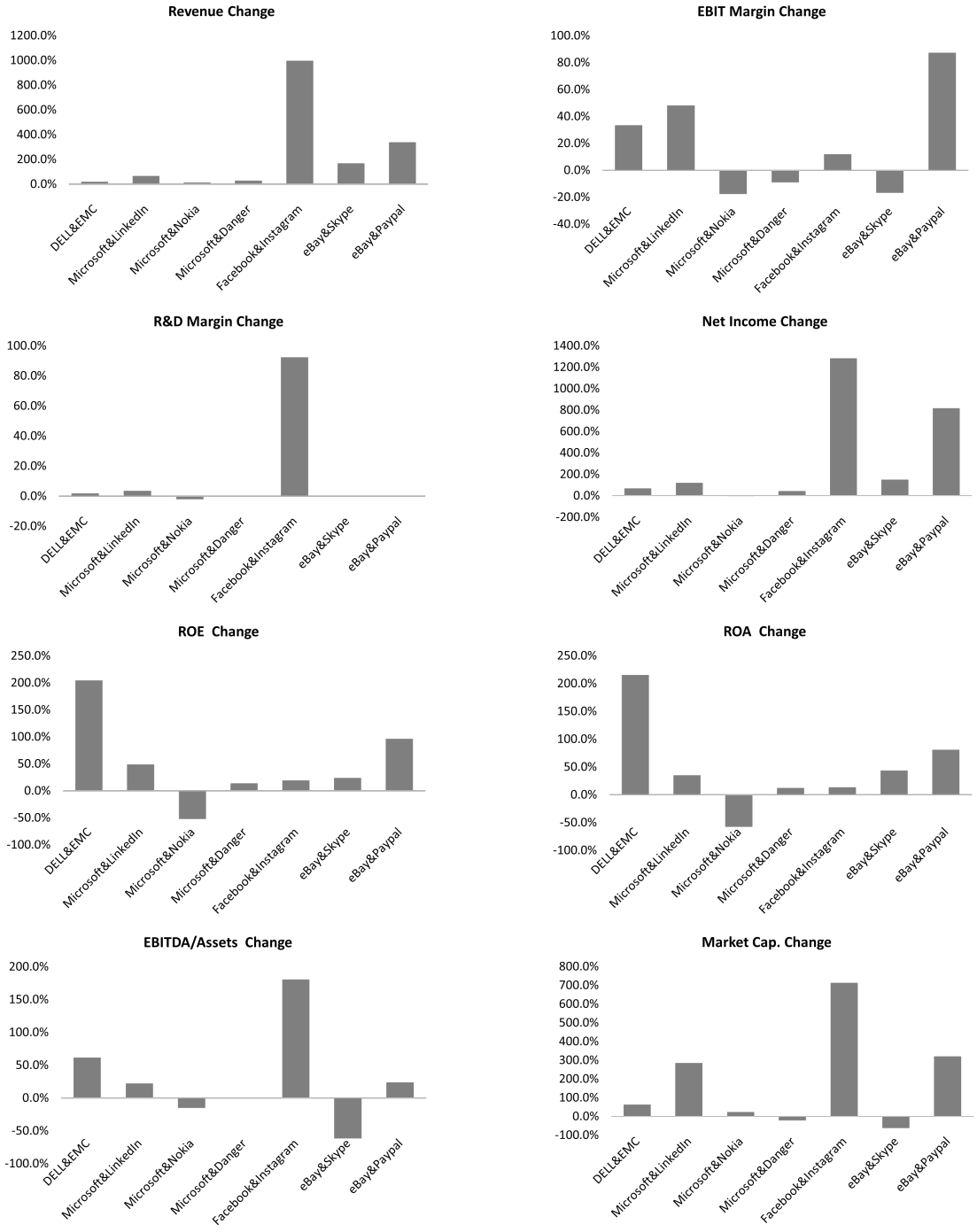

FIGURE 8: Technology - Performance change pre-post deal

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