THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

AZERBAIJAN STATE UNIVERCITY OF ECONOMICS

INTERNATIONAL GRADUATE AND DOCTORATE CENTER

MASTER DISSERTATION

ON THE TOPIC

“THE IMPACT OF M&A ON INNOVATION”

Karimli Laman Ali

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Xülasə

Tədqiqatın aktuallığı: Tədqiqat mövzusunun aktuallığı 21-ci əsrin firmalarının ən başlıca strateji prioritetləri arasında olan dinamik əlaqələrə dair yeni anlayışlar təmin edir: texnoloji yenilik və birləşmə və satınalma siyasəti.

Tədqiqatın məqsəd və vəzifələri: Aparılan tədqiqatın ən başlıca məqsədi dəyişən və inkişaf edən iqtisadi mühitdə trend olan birləşmə və satınalma əməliyyatlarının hazırki vəziyyətdə şirkətlərin əsas hədəflərindən olan innovasiyaya necə təsir elədiyini öyrənməkdir.

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Tədqiqatın nəticələri: Bu keyfiyyət analizi nəticəsində innovasiyaya xüsusilə istinad edərək, birləşmə və satınalmaların mövcud senaridə innovasiya konsepsiyası ilə əlaqənin bir görünüşünü təmin edir. İnnovativ əməliyyatlar ilə birləşmə və satınalma əməliyyatlarının əlaqələri təşkilatların fəaliyyət sahəsindən asılı olaraq dəyişir.

Nəticələrin elmi-praktiki əhəmiyyəti: Birləşmə və satınalmaların innovasiya ilə əlaqəsini tapmaq gələcəkdə, fəaliyyət sahəsindən asılı olaraq şirkətlərin bu sahədə inkişafına və iqtisadiyyatın güclənməsinə kömək edə bilər.

Açar sözlər: innovasiya, birləşmə və satınalmalar, intellektual kapital

LIST OF ACRONYMS

M&A	Merger and acquisition
R&D	Research and development
IP	Intellectual capital
EU	European Union
USA	United States of America
CAAR	Cumulative Average Abnormal Returns
EMH	Effective Markets Hypothesis
CVC	Corporate Venture Capital

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INTRODUCTION

M&A activities in the US and Europe that began to increase in the 1980s; these concepts have been among the subjects which are frequently studied and frequently attracted attention in marketing literature in the following years. Some of the most important reasons for enterprises to realize merger and acquisition activities are growth, strengthening and opening to international markets. As a result, it can be said that enterprises can develop their competitiveness in both national and global markets.

In many countries of the world, the negative environment created by the global economic crisis is continuing, while in some countries there is a limited economic recovery; In addition to the economic growth, we are in a period where mergers and acquisitions begin to shine in the world economy in terms of portfolio and direct investments. Of course, while the circumstance of the process of such a rise in mergers and acquisitions; it is inevitable to see its influence on many fields.

The increasing competition with globalization makes the struggle for survival of the companies and being able to survive for companies is dependent on the ability of a number of strategic decisions to be implemented at the right time and in the right way. At this point, strategic management skills come to the fore. There are different studies in the literature regarding the definition of competitiveness. In one of these studies, competitiveness is discussed in two aspects. These are perspectives, micro (business and industry) and macro (country). In the micro approach, the competition between the domestic enterprises and the effects of this competition on the national / international market are examined, while the macro approach focuses on the position of the country in international competition. The managers of the new economy will have the opportunity to save themselves from the global competition by developing their ability to keep their visions wide, adopting a modern management approach and adapting to the constantly renewed norms and trends of the business world. As the result of such kind challenging environment, they felt obliged to establish various partnerships and to make strategic alliances in time.

In this study, mergers and acquisitions were examined within the framework of these strategic collaborations. Businesses can have many advantages such as being able to enter new markets easily by means of merger and acquisition, increasing their technological power, decreasing their costs thanks to economies of scale, increasing their product and service quality, having more talented managers and offering more product / service types to their customers.

In addition, it has been observed that the company and export performance can be increased and competitive power can be achieved through innovation activities. At this point, the innovation performance of the enterprises that have realized the merger and / or purchase transactions; the question of how it affects firm performance, export performance and competitiveness. In this respect, the effect of the innovation performance of firms that have carried out merger and / or acquisition activities on a national or international scale on the performance, export performance and competitiveness of the firms was investigated. The relationships and the effects of the related variables were examined and the inferences were made based on the findings. These implications can be said to be beneficial for professionals working in the sector as well as academic studies.

On the other hand, management problems are encountered in mergers and acquisitions. Research shows that mergers do not yield the expected results, and many fail. The most important of these problems, cultural differences and cultural integration problems have been examined. Each enterprise has its own corporate culture and after the merger, the enterprises face significant problems in terms of cultural integration. Because the corporate culture affects every issue within the enterprise management, from the behavior of employees in the workplace to the way of doing business, from the perception of senior management to the events experienced. It is unlikely that a merger or acquisition that did not provide cultural integration would be successful.

CHAPTER 1. INTERNATIONAL MERGERS AND ACQUISITIONS AS A STRATEGY FOR THE GROWTH AND INTERNATIONALIZATION OF COMPANIES

1.1. Theoretical framework for mergers and acquisitions

In mergers, the merged firms will become a new legal entity, while in the acquisitions one of the enterprises will take control of the assets of another enterprise. In addition, the ownership of the purchased company ends on the firm and the acquired business depends on the purchasing company. Purchased business assets, money and identity while the firm purchased will lose all assets and debts.

The difference between mergers and acquisitions comes not from the economic aspect of transactions, but from legal grounds. In other words, mergers and acquisitions serve the same goals, although there are two different concepts. In this context, we can explain the reasons of mergers and acquisitions under the same headings as below.

1.1.1. Globalization

Globalization refers to the increase of international social, economic, military, political, cross-border and cultural mutual relations in scale, scope, diversity, speed and dimension and homogenization worldwide. The globalization of markets and industries has been one fourth of most important changes in the last twenty year's world economy. Several factors have devote to the emergence of globalization, including the removal of multilateral and regional trade barriers, the reduction of international trade and communication costs, global integration of financial markets and reforms. While globalization of an industry provides opportunities for increased sales and profits, it also poses significant threats to globally scale up scale and scope economies to compete effectively with other global competitors. Therefore, the effects of globalization can be classified into two main categories: global market opportunities and global market threats. Increases in trade, investment and market potential, and easy access to resources as global market opportunities, uncertainty level and increase in quantity and level of competition are called global market threats. Whether it is an opportunity or a threat, the phenomenon of globalization has brought about serious changes in the way businesses operate and choose. In this context, the expansion of the market to reach the world dimension, acceleration of transportation and communication, rapid and continuous development of technology, changes in consumer behaviour, shortening of product life curves, direct the increase in foreign investments, the integration of the production processes of the enterprises on a global scale, the acceleration of global consumption in parallel with the increase in global production,., etc. Factors affect enterprises in various ways. Businesses are constantly in search and change in order to adapt to new situations created by changing environmental conditions and to increase their competitive advantages. Otherwise, either the system will force them to change or be unable to compete against the market. The existence of the phenomenon of globalization, the development of technology, the emergence of new fields of activity, reveals the need to revise themselves in their businesses. In recent pasts, an rising trend in the world in the merger of new problems brought by globalization, developing a common strategy, expanding the product line and distribution network, making the research and development process more effective, cost control has played a role in many factors such as (Hayri and KOÇER 2010).

1.1.2. Growth

The result to be achieved through mergers, acquisitions or joint ventures; it is not unified to buy and do joint business; to grow, maintain the situation or provide competitive advantage. Strategies are directed towards the lie ultimate goal or result meek and no business engages in merging and buying Strata. It makes mergers and acquisitions to grow, to maintain the situation or to compete (Ulgen & Mirze, 2007).

Businesses need to maintain their current situation in the market, to secure and adapt to the future, and to be flexible, effective and fast growing. Without of such qualities, it is almost impossible to be competitive in today's global economy

(Lee and Kim 2011). A basic rule in business; “Growing or dying”. Through growth, companies will take the market from their competitors, obtain economic profits and provide profits to shareholders (Sherman and Hart 2006).There are different reasons for the company's growth and development. The size gives confidence to the customer about the power of the company. Profit, cost, income and prestige are other possible reasons for growth.

Development of strategies based on growth has gained more importance in order to sustain the lives of enterprises, increase their market shares and adapt to the innovations in our era of rapid change. Growth can be realized in two ways as internal and external growth. In general, internal growth is carried out within the enterprise by the establishment of a new factory or by increasing the marketing and distribution capacity. This type of growth is also known as the main growth of the enterprise. Internal growth arises by selling more products and services to existing customers, selling products to new customers, or selling products at high prices. Because of this growth, capacity increase, increase in employment and turnover increase (Campbell, Stonehouse, & Houston, 2002). External growth is called an expansion of a business by merging or acquiring it with another enterprise (Lajoux, 2005). It is not accessable for an enterprise to grow with its own means. For this reason, it accomplishes external growth by merging with other enterprises, or by acquiring or taking over it. External growth strategies such as mergers, acquisitions, acquisitions and company divisions are considered important mechanisms that help enterprises in the use of new technology in terms of product growth and size, rapid growth in customer centric growth, competition reduction, empowerment and dimension, and the use of new technologies in terms of people and processes.

1.1.3. Synergy

Another most common reasons for mergers is the synergy with the merger process. It is possible the concept of synergy can be characterize as the fact that several factors, which may contribute to a common result, can produce a stronger effect than the sum of the effects that each of these factors may exhibit individually (Oztunalı, 2008: 17). The benefit of merging businesses creates more value than the sum of the benefits provided by each business before the merger. The synergy effect is seen in two main areas as activity and financial.

Operating synergies emerge as a profit margin resulting from production and operating expenses per unit of goods and services. In particular, the size of fixed costs in manufacturing firms, depending on the degree of capacity utilization, affects the unit production cost. There are two sources of value increase, which is expected to come with activity synergy. They are economies of scale and economies of scope. Economies of scale originate entirely from the size of the activities of an enterprise and occur with a decrease in costs as production increases. In general, economics of scale comes from two sources. The first source is based on a large amount of production possibilities, so that the overhead capacity of the constant general cost is spread to the added units, allowing a reduction in the average cost. The second source of economies of scale arises from the capacity increase of the production unit.

Scope economies take place in the case that the average cost of joint production is less than the average costs generated by the production of two separate firms. These economies are the result of production opportunities or the common use of inputs. Since the production of several different products is cheaper than being produced separately in different enterprises, the cost advantage in the enterprise is realized. In other words, common production often reduces unit costs. If the total cost of production decreases when the two products are produced separately, the scope economies are in question. On the contrary, if the total cost of production is high when the two products are produced together, they have negative scope economies. Financial synergies consist of a decrease in the cost of capital. One way to achieve this is to reduce the systematic risk of the investment portfolio by investing in unrelated firms. In another way, increasing the size of the enterprise allows him to use cheaper capital.

This synergy is due to the decrease in the cost of capital of the firm due to improvement in financial structure, decrease in financial risk, and increase in equity profitability due to benefiting from financial leverage. Can be attributed to various factors.

1.1.4. Diversification

One of the possible reasons for mergers and acquisitions is diversification. A firm in a sector or business with a stagnant or low growth rate may want to diversification of business by investing in primary sectors that are more profitable with faster growth and growth potential. Nevertheless, a motivation to diversify is to reduce the impact of seasonal and economic fluctuations that have an impact on the company's sales and profits. In the face of seasonal and / or economic fluctuations, the merger of the two firms, whose activities are negative and positively correlated, decreases the degree of the united company being affected by these fluctuations. In general, terms, the reasons to choose the diversification of the enterprises can be listed as follows: Increasing the value of the stock of the enterprise, increasing the growth rate of the enterprise, achieving better utilization of the funds obtained from internal investments, increasing income and stabilizing it, and increasing profitability and efficiency.

1.1.5. Tax Advantages

A profitable company, in the case of merger with a company with the possibility of deducting future profits due to accumulated losses, due to the loss reduction, tax laws and the amount of time provided to stay within the limit, this loss can use to reduce the tax liability arising from its own profit.

1.1.6. Other Causes

In some cases, business executives can perform mergers and acquisitions due to psychological factors such as obtaining greater power and self-proving without relying on economic and rational foundations. In this context, one of the other reasons for mergers and acquisitions is the Arrogance Hypothesis (Hubris

Hypothesis) proposed by Richard Roll. According to the theory of arrogance, excessive trust, pride and arrogance can lead to over-evaluation of the target company with synergistic gains on some decision-makers.

According to Roll, the arrogant are self-righteous and over-confident. For these people, the target company is a prey to be seized regardless of the cost. According to the hypothesis of arrogance, a high premium can be paid to the target company, while this target enriches the shareholders of the corporation and causes the loss of wealth of the shareholders of the corporation that conquered it.

1.2. The encounter of mergers and acquisitions on the growth of the firm value

(Shah and Arora 2014) Aimed to determine the actual effect of 37 mergers and acquisitions in the Asia-Pacific region during the period of May 2013 - September 2013 on the share price of the target and the acquirer companies. In the study, the event study methodology was used in which the Cumulative Average Abnormal Returns (CAARs) of share prices of target and acquirer companies in different event windows were analysed. A sample analysis was performed by comparing the pre-announcement and post-return yields of the share prices of the target and acquirer companies in the ± 2-day event window. In all event windows, it is understood that the target company produces a positive CAAR whose stock price changes significantly from zero, but unlike the target companies, it is understood that the takeover companies do not provide a statistically significant CAAR in all event windows. It is stated that the target companies are significantly larger than the returns on the announcement day, and the sudden market reaction to the announcements is strong.

(Liargovas and Repousis 2010) Examined the impact of mergers and acquisitions in the banking sector in Greece on sector performance. As a result of the study using the case study methodology, the semi-strong form Piy of the Effective Markets Hypothesis (EMH) for the Athens Stock Exchange was rejected. In the period before the merger and acquisition were announced, the stakeholders gained a significant amount of positive cumulative average abnormal returns. In addition, the results show that, after public disclosure of horizontal and diversified bank mergers and acquisitions, positive cumulative average abnormal returns are obtained. General results of research, bank shows that mergers and acquisitions do not create wealth for the acquiring companies. Furthermore, the operational performance of the Greek Banking Sector was tried to be explained by using twenty different financial ratios and it was concluded that the operational performance did not improve after mergers and acquisitions. Moeller and Zhu (2016) examined the short-term effects of cross-border mergers and acquisitions of publicly traded companies in the United Kingdom from 2012 to early 2016. In the windows of four different time periods, the results obtained by using the case study analysis; It has been shown that the mergers and acquisitions of Chinese takeover companies have achieved significant positive abnormal returns on the first day following the announcement date, but these positive returns disappear over time. In addition, when the case study is applied in sub-sectors, the findings are; it was concluded that Chinese buyers and other business sector agreements in the real estate sector provided positive abnormal returns, but the abnormal returns in the financial sector were negative. In the regression analysis, the effect of five of the characteristics of the related agreement on the performance was found to be significant. The results show that the target structure (public / private) and absolute transaction size are the most influential factors on short-term performance of Chinese buyer companies. In the UK, the private sector and / or small-scale target companies perform the merger; it was concluded that large-scale and / or public sector companies had higher than normal returns.

(Sehgal, Banerjee and Deisting 2012) Examined whether merger and acquisition post announcements and financing methods affect share returns. In the 2005-2009 period, using the standard case study methodology in the countries of BRICKS (Brazil, Russia, India, China, South Korea and South Africa), five of the six sample countries were found to have abnormal returns before significant announcement. Given the structure of the markets in question, it was not surprising that a suspicion of infiltration of information before the announcement was awakened. In three of the BIRCKS markets (India, South Korea and China), there was a significant negative return after the announcement, while in the South African case strong positive abnormal returns were observed. For the majority of the markets in the sample, the half-strong efficiency assumption is not assured. Because of the study, the merger and acquisition announcements did not change the trading volume and pricing efficiency of the share certificates; it was concluded that the mergers funded by equities contributed to the valuation and cash-finance mergers caused depreciation in the short term. The work is very important for shareholders, global fund managers and financial regulators. In addition to institutional restructuring, the research also contributes to the market efficiency literature, especially in emerging markets.

According to (Bower 2001), acquisitions happen for five reasons: to accommodate overcapacity through consolidation in an exceedingly business; to roll up competitions in geographically divided industries; to extent into original and new product or markets; as a substitute for research and development (R&D); and to use industry boundaries; by investment an industry. The final 3 of reasons in the focal point that the acquisitions of the another firm could be a strategic tool to accelerate innovation by giving connection to original and/or new product and deed resources, technologies as an consequence as knowledge (Shuen, Feiler and Teece 2014).

As a business owner, you are continually in search of but you will grow your business. You want to form additional cash and serve a much bigger consumer base. The matter is distinctive the best as a result of grow your business, and doing therefore at a quick pace.

Mergers and Acquisitions (M&A) are glorious on the grounds that grow the business whereas not having to attend years for the mercantilism and sales strategy to pay off. When you had like immediate growth for your business, this might be the best risk for you that offer the instant result. The primary goal of an organization interested in a merger or acquisition is to secure an opportunity which can either bring home the bacon the target of growth or provide a section of growth which will developed the product/service line terribly market that is presently not served by the company. The motivation behind this inquiry is that the following combination of product, key people, as well as existing pipeline will alter the business to regulate in new markets and supply new selections to their existing market.

Pursuing mergers and acquisitions does not come back whereas not challenges. Combining two businesses lands up in many new issues that did not exist before. This take into account: operating an organization with a presence in multiple markets, a much bigger and lots of varied consumer base, lots of sophisticated product and services portfolio, a high level of people and operational quality. In the same time, another issue is that the value reduction goals can conflict among revenue growth operations.

The objection of constructing a merger and acquisition took illustrates why deals indicate specifically to change growth fail to yield the required growth objective. Those mergers and acquisitions is also a real path to growth, the selection to form the deal is simply the first of the various alternatives, which can have an impact on its ability to realize success. This causes you to surprise if a merger and acquisition will work for your business. Therefore, you want to understand the odds of succeeding and on the assumption that the challenges are undoubtedly definitely worth the efforts.

Whenever you are undecided relating to the benefits of a merger and acquisition, contribute are many good reasons for growing that business through that growth methodology.

With the Reagan administration in 1980, a brand new era began within the U.S. in the name of mergers and acquisitions. Reagan administration, that adopted the school of thought approach, untangled legal barriers and restrictions on mergers and acquisitions, accumulated international competition, as well as developments in finance techniques junction rectifier to accumulated mergers and acquisition within the U.S. since 1981. One among the primary implementations of the Ministry of Justice during this amount was the reduction of the anti-trust case that the government has administrated for IBM for nearly ten years.

1.3. The main motives of merger and acquisitions, and their role in improving the competitiveness of companies.

In this category, an attempt is made to develop a original approach to explaining the reasons and motives for corporate mergers and acquisitions based on a critical understanding of existing points of view. One of the first dee studies of the motivation of mergers and acquisitions carried out by consulting firm Arthur D.Little, which in 1978 identified such basic motives mergers and acquisitions:

Increase the size of activities to get synergistic effects;

Business diversification through the new products launch and entry into the new markets;

Expanding with the market share;

Strategic regrouping below the impact of changes in legislation and technology the undervalued assets;

Tax benefits;

Existing business strategy

The desire of organization managers to say themselves through the commission of enormous and prospering transactions;

Later studies of the well-known auditing company KPMG showed slightly different goals of companies that conducted mergers and acquisitions. According the report of (KPMG, 2016), in 2016 the primary reason for acquisitions company or fund intent to initiate.

37% of corporations declared the necessity to enter into the business in new lines;

37% corporations must expand costume designer base

36% prioritized access to markets that new geographic areas;

34% thought-about acquire new technologies and intellectual properties;

20% money acquirer searching for the profitable operations;

13% responding to activist investors;

Seven% corporation's intent defend the competition. (KPMG 2016)

At the same time, 22% of companies did not name specific circumstances that prompted them to carry out mergers and acquisitions. As you can see, in the second case, the list of motives for mergers and acquisitions is significantly narrowed, and some motives are not deciphered at all, which makes the conducted studies difficult to match and confuses the understanding of the motivation of these processes. There is every reason to believe that many companies making decisions on mergers and acquisitions do not always realize or hide real motives. Therefore, the establishment of motives for mergers and acquisitions based only on the analysis of the practical experience of individual companies inevitably has a selective, fragmented nature and does not provide sufficient objective information.

According to (Riley, 2012), who has an approach taken by Johnson & Scholes, divide the reasons of the transactions of merger and acquisition into three main motives:

Financial motives

All mergers and acquisitions have monetary motives - each is intended to realize a sufficient rate of return for the risk, which have been taken, and investment. However, there are circumstances wherever the underlying motive for the dealing is money instead of strategic. In several words, the financial returns are most significant, which drive the deal.

However, there may be specific reasons for the emergence of economic motives. As an example, money potency is that the first reason. This will be an example of a way to increase revenue by making an additional fascinating and effective portfolio, combining each the combined assets, charter capital, revenues of the unified or non-inheritable corporations or meeting their obligations, and so on. Reducing the tax burden may be another fiscal motivation for merging and acquiring. "Mergers before the 1980s were strongly motivated by tax advantages. The reason is that at the time when an acquisition premium was paid above the values at which a company's depreciable assets were recorded in tax accounts, the acquired assets could benefit of higher depreciation charges, protecting the acquirer from tax liabilities." (Motis 2007)

Until reforms were adopted, effort companies making such acquisition might unremarkably escape immediate capital gains taxation. Such tax edges had a significant role in many merger transactions, but not crucial enough to figure out whether or not or not merger would or would not occur. In spite of the actual fact that in current years there's a tax rule that differentiates the liabilities of tax in line with the accounting technique by that the acquisition is registered. "Often little companies cannot borrow at competitive interest rates because of liquidity constraints or to uneven data within the external capital market. Since an oversized - thirteen - corporation has higher access to the skin capital market that a little one, the merger is claimed to be motivated by the likelihood of borrowing additional cheaply than separate units." (Motis, 2007)

As mentioned on top of, the charge per unit is deeply necessary for corporations that have unified and bought, particularly for tiny businesses' targets specialize in this fashion. Thanks to there have less risk than on individual basis units of the businesses.

Apax Partners acquired Tommy Hilfiger or Blackstone Group bought Center Parks, Legoland Parks etc. is good example for financial motivation in M&A transaction.

Managerial motives

Mergers and acquisition may be served by managerial self-interest in different reasonable factors.

Management might have personal egos to fulfil. At intervals the tactic they're going to be tempted to seek the ways in which to over-value company’s share price, else have wish to expand management and completely different capabilities that aren't at intervals the strategic match of the company. There are management’s rational and irrational explanations to move at intervals the deal.

Either it would be a glance for growth via organic growth chance or following the trend from its competitors, they are going to do therefore on survive.

Strategic motives

As a rule, strategic motives processes can normally be the simply understanding and most of transactions they are the foremost compelling and crucial. As a matter of reality, in most times largest merger and bought dealing in past events happened for the rationale that expected sturdy ways. These ways have the power to want noticeable advantage with competitors, or to supply the new product to the market etc. However, draw to attention to the innovative accomplishment is primary leading strategic motive push the business to merger or acquire.

For example, Google bought Motorola Mobility in 2011 in regards to control and/or to access wide range of patents and other supporting technological achievements. Another example, for this kind of motive is to WM Morrison which northern-based supermarket chain was given to ahead to acquire Safeway rival grocer. For the purpose of increase the market share and feat economies of scale to increase competitiveness. It is also possible to extend such kind of examples.

1.4. Dynamics and development trends of the global market of mergers and acquisitions.

In 2018, according to Deloitte's report on mergers and acquisitions, let us look at the trends in this process. Gathered information from over a total of more than 1000 companies revealed the merger and acquisitions expectations in close to 12 months. Concerns about an economy as well as valuation appear to become diminishing like respondents report the expected acceleration of M&As activity in 2018. For so many corporations, private equity firms, at the same time, deal flow is poised to make increase and/or deals likely will be more. What do the M&As landscape look like if, we trek into the next of year? According Deloitte "The state of the deal M&A trends 2018", results of survey provide some other perspective which can help you that understand landscape as well as what lies ahead.

"Targeting technology is a big driver

Acquiring technology assets (20 percent of corporate respondents) now tops the list of drivers for mergers and acquisitions—followed by expanding customer bases (19 percent), adding products and services (16 percent), and strengthening digital strategy (12 percent)."

(Deloitte LLP, 2018)

As technology is an integral part of our lives, in recent years, technology has become the new trend of mergers and acquisitions like many other transactions of the companies. According to Deloitte's report, the purpose of obtaining new technology tools is a driver that triggers merger and acquisition transactions.

"New tools become critical

Sixty-three percent of respondents are using new M&A technology tools, not just spreadsheets, for reporting and integration—to help 'make deals work.'" (Deloitte LLP, 2018)

"Expectations for big deals are big

Ninety-seven percent of respondents predict deal size will hold steady or increase in the year ahead. Compared to their smaller counterparts, large firms (+$1 billion in revenue) are more confident they will engage in bigger deals." (Deloitte LLP, 2018)

As is known, the biggest motivation of M&A transaction is the growth value of the companies. This is also the case that large portion of the companies' expectations (according report – 97%) which include in the survey of preparation of report are in the same direction.

Company investments, of course, have an important place in the company's daily business. The company shareholders can look at the business's ROI over the time and in the same time at industry data to see where the organization's return on investment ratio lies.

"Few fall short on ROI

Only 11 percent of respondents say ROI from deals is less than expected—virtually unchanged from the previous year." (Deloitte LLP, 2018)

According to report of Deloitte, only 11 percent of companies predict that there is no increase in the rate of ROI ratio or is below the expectation, which is not the large portion. This is the result that M&A transaction can fulfil and upgrade investment and profitability.

Other two motives according to the report are divestitures and convergence continues.

"Divestitures stay steady

Seventy percent of respondents plan to divest businesses next year—driven by financing needs and strategy shifts." (Deloitte LLP, 2018)

"Convergence continues

Which industries are expected to experience convergence? Life sciences & health care, technology, and financial services—with a strong bias toward vertical integration."   (Deloitte LLP, 2018)

CHAPTER 2. M&A ACTIVITIES WITH THE INNOVATIVE APROACH

2.1. Top deals in worldwide M&A

In the appendix 1. table show that there are top 50 merger and acquisition transactions in the worldwide. Table demonstrates years M&A procedures officially happened, acquired companies, target companies, which acquired company, bought these, and transaction value in both us dollar and euro currencies. This data is taken from IMAA institute, which is the global leading think tank for merger and acquisition transactions.

Table show us that the biggest merger and acquisition happened in 1999 by that Vodafone Air Touch PLC acquired Mannesmann AG in approximately 203 billion dollars. Briefly analysis this transaction: Mannesmann AG is a German joint-stock company based in Düsseldorf, Germany. Prior to its acquisition by Vodafone and Salzgitter AG, there were shares in the DAX of the famous German stock exchange until 2000. On 13 November 1999, Vodafone Air Touch announced that the takeover transaction happened with German engineering and telecommunications group Mannesmann AG, on the basis with an exchange of shares between two organizations.

“The merger of the two entities reduces the number of competing firms by one and at the same time, increases the industrial concentration. In theory, a reduction in number of firms competing reduces supply whilst increasing prices of the good, which is deemed harmful to consumers. “Essays, UK. (November 2018).

2.2. Strategic fit: unrelated and related M&A

In literature one finds that many categorizations of the M&As in these terms of their ‘relatedness’ in which usually may be stepped back to the original scheme of classification of the USA Federal Trade Commission (Montgomery and Wilson, 1986). M&A deal in horizontal include firms that are closely linked as to products or the services which they to produce, i.e. both firms operate in same product-market. Vertical the M&As include companies which had an existing or potential buyer-seller relationship main to the M&A. Unrelated or conglomerate M&As include essentially firms which are unrelated in the terms of the product-markets relationship in which firms are operating and/or of which M&As are portion of a strategy widely diversifying.

A substantial portion of literature means to the suggestion that in general conglomerate the M&A is less successful compare vertically and horizontally related M&A. As represent by (Datta 1991) there are studies determine little and/or no evidence of such kind of relationship. On theoretical area, different that, the idea which a strategic fit of firms, in terms of the relatedness of product-market in which organizations are operating and remains appealing. Obviously, M&A which related can be expected to profit from scale and scope economies that should be generate too synergic benefits than in case of the unrelated M&As of firms that had no different relationship to each than become one overarching system parts of corporate control.

2.3. Which are the main studies and research articles in the literature that links M&A innovation?

Has the new paradigms of open innovation been extensively connected to the activities of M&A?

The firm's growth is indicated by students, specialists and policymakers. This collectively of the strategic levers for the enhancing innovative capability as well as sustaining a competitive advantage. Generally, the acquisitions of the business is fastest and therefore the handiest strategy for the business growth. That operation will bring many benefits, together with a more robust propensity for the innovation in term of each method and products. For method innovation, a sale will facilitate to realize economies of scale, at the same time scope by reducing the common value of production and making synergies between the complementary assets.

For product and a number of other innovation, a sale will foster new business model and build access to the analysis and innovation and permitting it to access the new technologies this cause a quicker introduction to the market. Consistent with (Bower 2001), the acquisitions occur for 5 reasons: to handle overcapacity through consolidation an exceedingly in the mature business; to build up competitions in industries that geographically fragmented; to scope into new product either markets; at the same time that a substitute for R&D; and to use industry boundaries; by finance an industry. The last 3 of reasons highlight which the acquisitions of the another organization could be a tool in the strategic way to accelerate innovative activities by giving access to new product and exploit resources, technologies and knowledge. More significantly, getting technological ability and developing technical capabilities are progressively necessary motives in acquisition. The relationship between innovation and M&A has received attention from each apply and world. However, proof with the relationships between extraordinary company group action and innovations is contentious. Generally, this studies show that M&A will increase the amount of innovation, which a high level of the innovation before merger and acquisition will increase the chance that a corporation can participate in a massive merger and acquisitions.

Specifically, some students offer proof that a sale has the positive impact on a firm's originality. As an example, the acquisition of a firm is viewed because the absorption of the non-inheritable firm's knowledge domain (Katila 2001). What is more, such a method will expand the acquirer's knowledge domain and increase its innovative output by the scale providing economies and scope in analysis as well as, by enhancing acquirer's potential for ingenious recombination (Bresciani and Ferraris 2016), (Fleming 2009).

Conversely, alternative research paper that acquisition will had negative effects on the firm's originality. Especially, mergers and acquisitions include managerial problems, integration issues and cost of transaction (Giudice and Maggioni 2014), (Zollo and Singh 2004). Some scientist, like (Katila 2001), have found that technological acquisitions enhance innovation performance, whereas non-technological acquisitions do not have an important impact on consequent important impact on consequent innovation output. Surely, the acquisition's success not only depends on the complementarities of the organization but also the innovative approach at the same time on the companies' cultures.

Above all, innovative activities with a company traditionally are forced by internal capabilities and activities and by external pressure and the factors of the markets.

Competitive advantage and success depends on the ability of a firm to build, integrate and reconfigure firm's external and internal resource which to address quickly changing environment.

2.3.1. Theoretical backgrounds

In a count of seminal addition to the literature, the M&As are seen as an crucial element in overall strategy of organizations to respond to uncertainty with the economies at large, uncertainly with the particular industries, or else uncertainly in the repeated transactions' context within other firms (Pfeffer 1972), (Sutton 1980). The absorption of least parts of companies' environment by the means M&As is one of the alternative which firms have whenever organization attempt to reduce the uncertainty, make increase their control over firms' environment as an alternative reduce their dependency with the this environment.

According to (Pfeffer 1972) that absorption of the other firms by the means of M&As that one may respond to the uncertainty can happen through either integration of other firms section in which a firm is already diversification or operating, into the another sector because of the firms had become dependent on that existing environment. Researching M&A from the more sector –specific perspective, MacDonald (1985) and Link (1998) arrive in somewhat similar conclusions like those that M&A is seen as a mechanism to improve control over environment of firms in rapidly changing, industries, R&D intensive.

However, improving control over the new or the current environment of the organization cannot taken as itself goal. The searches for new and/or rewarding opportunities have to be part of that process of absorption of the company's environment. As consequence, in order for a firm to be successful, objective of the increasing integration and control by the means of M&A, ultimately, have to lead to improve the performance. In the context of the organizations operating R&D intensive environment, high-tech, improved performance, which implies this integration by, indicates of M&A deals have to support the continuous research for the new technological capabilities. In research, paper it is expected that, as a condition M&As are successful, they able to firms to further develop exploratory learning and improve new skills so like to make increase the technological performance of the firms.

In different word, M&As for benefit of the combination like such seem hardly instrumental for the organizations that intend to improve control over the environment, increase their technological skills at the same time raise their technological performance. Contemporary contributions by (Motis 2007) argue this diversification; the increase-diversified scope of organization like such may result in reducing R&D inputs and reducing technological outputs. With some suggestions in literature reviews (Bower, Not All M&As Are Alike and That Matters 2001), (Fleming 2009) purposed that that one way may be successful. In which not only in establishing the M&As, either in new environment or in current environment, however, also to generate expected results, M&A is contingent upon both 'organizational fit' and 'strategic fit' which enable M&A's partners to collaborate in the future activities. This is implied that in one way to achieve effects of synergetic through M&A, the strategic fit through product, market, and technological relatedness or complementarities of firms have to supplemented by the organizational fit in which organizational structure of the merging firms appears to with match. That effective control over the parts of environment by the means of M&As which at the same time leads to increase performance is expected to make dependency on that organizational and strategic correspondence of the organization involved.

That is it will be discussed important elements the organizational and strategic fit which necessary to elevated the technological performance of organizations in a high-technique environment, separately. It was reconstructed those elements of the organizational and strategic fit from the literature review where that issues are analysed in broader context of general performance of the M&As. For the success of synergetic these conditions, M&As are analysed in the terms of the strategic fit related to the degree of the existing product markets, relatedness of M&A, technological correspondence of the M&A as well as their organizational fit. These different kind of elements of this fit between firms cover current markets of business, their current and future-oriented activities with technology and similarity in the organizational structure.

2.3.2. M&A-based strategic lessons

As seen within the Schneider electrical case study, M&A boost each R&D intensity and profitableness over time, however the temporal arrangement of those effects incoming and also the size of their impact varies in line with the talent of integration by the folks concerned. At the 2 and 5 year post-M&A points, the study states that inflated R&D intensity ought to have manifested, whereas a resulting elevate in profit ought to seem when 5 years. Crucial strategy lessons that emerge for management, therefore, are that they must keep front of mind the development of the lagged boosting result on profitableness that M&A has. By understating this, managers will save themselves from feeling enlightened, by not expecting these desired effects to be immediate. This information arms them with a strategic perspective that is less seemingly to cloud their judgement than the pressure of expecting to deliver straightaway-elevated profit figures. However, quickly the side profit work depends on the speed and success of the combination of the two businesses, like however the cultural work is mixed along from associate degree worker expertise perspective. The identical is true for permitting part of patience for the worth of integrated R&D to figure through. From a policy and market competition angle, just body the world organization Merger management Authority permits associate degree M&D to happen once it is not wrongfully anti-competitive, nonetheless the act of the merger still suggests that a challenger has been neutralized and off from the company's in operation landscape. At the identical time, its data is integrated with the ex-competitor's current business to fuel future growth and potency.

Managers creating themselves alert to the facility of information integration skills, and who invest in the increasing their skills during this space, position themselves most powerfully to become an additional valuable strategic plus to their company. Merger policies would possibly so encourage this sort of mentor-led coaching and skills development for management, as a technique to accelerate the booming integration of the incoming business. This can be as the result of, behind the scenes, creation of knowledge and translation is what subtly and much powers side R&D performance and profitableness in a very company post-acquisition.

2.4. R&D in the scope of innovation and its link with M&A

Overall the influence of merger and acquisition on the R&D and innovation is examined at aggregate level conclude the evidence, finding those at level of R&D process both the market and technological relationship between acquirer and target firms helpful to make dimensions to identify this effects. Using the information it is obvious that M&As deal demonstrate that technology relationship between the M&A partners is directly affects input and business structure of research and development process.

The principle of this paper was to study how M&A affect R&D intensity, since innovation is seen as highly relevant in today's rapidly changing markets. Studies have displayed a pattern where large corporations want to become more innovative but at the same time rarely engage in early-stage scientific research. Looking at the research question of this thesis; what effect M&A activity have on firms R&D intensity? One can say that the answer is sprawling and due to lack of statistically significant results, no clear conclusion can be drawn. There are some factors who points towards that M&A activity have a positive impact on firms R&D intensity and some who does not. As previously mentioned, most of the regression coefficients show insignificant results and the reason might be case that the data collected for this thesis vary a lot and the size of the data set. In theory, there are many incentives to engage in M&A but there is no clear theory about how it affects R&D intensity. Our findings in this thesis are similar to previous studies, which also points towards both positive and negative directions when referring to M&A activity and its impact on R&D intensity. The literature review made in this thesis display a diversity of both positive and negative relationship between M&A activity and R&D. For future research, we suggest that numbers of patents are taken into account from both a pre- and post-merger point of view. This would probably give a more evident picture of the reality. It could also be interesting to investigate both the Swedish high-tech and biotech industry together and see how the results differ.

(Ahlfvengren and Blomqivist 2017)

This paper has the relationship with several strands of theoretical and empirical fiction. The Several studies deal with question whether FDI in the general is the complement and a supernumerary for domestic production, the employment and investment in the tangible and intangible assets (see e.g. Desai et al. 2009 and the literature cited therein). In incomplete the financial markets overall these investments of the firms might be limited via financial resources, henceforward investing overseas might lead to reduction of the domestic investment projects that would then be undertaken.

Similarly, market seeking FDI could substitute for domestic distributes and production and issue seeking FDI may return together with a shift of bound production stages. Contrary, FDI could complement domestic actions through productivity enhancements or extra investment opportunities. Complementarities can be particularly pronounced if target marketplaces of FDI cannot be helped via exports or if bound production stages cannot productively be integrated into firm´s production method on the native market. The consequences of cross-border acquisitions - and people of FDI generally - on domestic R&D can be quite completely different from tangible speculation activities. Thanks to economies of the scale and scope in R&D, company teams typically concentrate their R&D activities near their headquarters and their corporate productivity unit. Just in case of issue seeking FDI it's well potential that corporations shift associate upstream the production unit and tangible capital the abroad however not their R&D activities. Trade theoretical replicas that incorporate heterogeneous corporations use the mix of transportation prices and unsuccessful costs to clarify why - at intervals industries - some firms export, others interact in FDI and a few corporations operate exclusively within the domestic market. Solely recently, theoretical contributions have begun to analyse the determinants of various modes of FDI like Greenfield reserves and cross-border M&As; for this look at this research paper (Head and Ries 2008), (Stiebale 2012).

According these models, companies interact in Greenfield FDI thanks to variations in production prices across countries or to take advantage of existing firm-specific company assets of the investment firm. seven In distinction, cross-border M&As; are rather undertaken to realize access to complementary firm specific assets at target companies (Stiebale 2012), non-mobile abilities and country specific assets or are motivated by market power. (Stiebale 2012) Conjointly argue that companies partaking in cross-border M&As; are less economical than firms that interact in Greenfield FDI. because the motives across marketplace entry modes appear to be quite totally different, the incentives to achieve R&D reception or abroad may be totally different for companies partaking in cross-border M&As; associated to firms that assume Greenfield investments. Further, M&As; may need stronger effects domestic activity as they typically involve the combination of recent processes and technologies, whereas Greenfield FDI typically contains a duplication or a relocation of sure production processes. Inside the commercial organization fiction, the most motives for M&As; are the conclusion of potency gains through abusing economies of scale or scope (Cassiman, Colombo and Veugelers 2005) and the strengthening of the market power. The potency of R&D once associate M&A may be higher as duplicated R&D activities might be cut.

Reducing competition in the product market for mergers may reduce incentives for R&D activities. (Grimpe and Hussinger 2008) Was found that purchases are generally aimed at undermining competition in technology markets. M&As is unlikely to result in cost savings activities. It may also lead to organizational complexity and prefer organizational structures with higher financial controls, which may mean lower R&D intensity. This argument can be particularly important for cross-border agreements due to differences in the corporate culture. In addition, increased financial the leverage due to an M&A may lead to the removal of R&D projects. However, there may be an indirect impact in opposite direction. M&As generally increases market power, which allows a company to expand its innovation into a larger quantity of production and reduces the risk of competitors spreading. (Cassiman, Colombo and Veugelers 2005) Argue that the impact of M& As on R&D in the unified organization depends on the technological and market-related relationship between the acquiring and the target. They argue that M&As has led to a general decline in R&D activities among rival companies, with unified organizations predicting the opposite of what is the technologically complementary.

Interestingly, (Cassiman, Colombo and Veugelers 2005) determine that technological relations are an important cross-border but not native M&As. This shows that there is empirical evidence that impact 4 may be quite different from domestic gains, according to the fact that cross-border purchases towards R&D after capitalized purchasing targets show decreasing capital expenditure. If the person is interested in the cross-border gains, it is a very important question whether the R&D activities are centralized or not. Sanna-Randaccio and Veugelers (2007) analyse the decision to centralize R&D within the multinational group of companies in a theoretical model. They argue that the centralization of R&D prevents the results of R&D efforts from being appropriately prevented from disseminating information to foreign competitors in the host country. However, they argue that the decision to centralize R&D does not depend on host country characteristics, such as the level of information capital and product market competition.

The centralization of R&D can also avoid coordination costs and allow a multinational enterprise to benefit from economies of scale in R&D. (Giudice and Maggioni 2014) suggest that investment incentives are based on cross-border M&As motivations and that market power is generally lower if it is the driving force behind an acquisition. From a theoretical point of view, there are a number of reasons to expect a decrease in the purchase of firms or an increase in innovation activities after a foreign purchase. Therefore, the question can finally be answered only experimentally (2005) and Wagner (2006) found that multinational enterprises, as well as exporters, had a higher R&D intensity and produced more information on R&D expenditures and some other control variables than other firms. Similarly, Castellani and Zanfei (2007) find that multinational enterprises show a higher tendency for innovation and innovation than for exporters and firms operating only in the domestic market.

None of these studies makes a distinction between Greenfield investments and cross-border M&As. Moreover, the foreign direct investment and innovation relations, different foreign market entry modes and the intense and intense margin of foreign direct investment do not address different approaches between different locations. Bertrand and Zuniga (2006) found that cross-border M&As is a priority over an industry average in R&D. Empirical models, industrial zone, industrial zone, industrial zone, industrial zone, industrial zone. A few empirical work deals with cross-border acquisitions and company-level activities. In addition, studies at the current firm level focus on the impact of innovation activities on target firms. Loaf et al. (2006) currently predicts foreign acquisitions according to foreign ownership and shows that it is located in the center of Northern Europe. The results of the acquisition were very different from those of foreign firms with innovation input, innovation output and productivity. In the meantime, since Greenfield companies with foreign capital companies may be very different from the acquired firms, it has been explained how the results are reflected in places where foreign gains are obtained. Researcher plans to focus on the increase in R&D spending in France's global market. Accordingly, some paper place cross-border acquisitions as a world leader in innovation activities at German target companies.

Current empirical studies that analyse the impact of cross-border gains on innovation activities are limited to evidence of impact on target firms. As far as I know, no empirical work examines the impact of cross-border gains on the innovation activities of the buyer at the firm level. This article aims to fill this gap. Empirical strategy in the empirical analysis, two main problems must be addressed. First, structural zeros emerge because many companies report zero R&D expenditure. Second, it may be due to several studies empirically analyse the difference between foreign capital and domestic capital companies. It is found that foreign-owned firms in the UK were foreign ownership and R&D with analyses the differences in innovation and profitability of domestic and foreign firms but does not address the impact of foreign ownership directly on innovation. The effect of R&D on foreign earnings or the fact that unreacted factors affecting R&D may also be associated with a foreign gain. Therefore, to assess the impact of international gains on the buyer's innovation, a model is considered that takes into account both structural zeros and endogenity.

The main potential of mergers and acquisitions research and development innovation and boots profit:

Integrating bolt-on growth in the Europe;

Whether a merger and acquisition (M&A) of a company could be a risk value taking is a question constantly moon-faced and debated by the each investors and business house owners. Yet the UK, Federal Republic of Germany and France are home to the very best variety of M&As in Europe. An enquiry paper by (Fernandez 2018) explored whether or not M&A serve to extend the profitableness and analysis and development intensity of a corporation. The dynamics between M&A; R&D innovation and profitableness are compute from a sample of 562 M&A; taken from world organization Merger management Authority knowledge between 2004 and 2012.

The study conjointly uses an M&A case study and knowledge source from the European R&D database of investor. Pushing ahead the larger market impact as a technique to fuel growth in a very corporation among its sector exploitation M&A could be a complicated endeavour in the midst of several variables to wrestle with in addition as removing a challenger, the potency edges of M&A embody the flexibility to share resources, making economies of scale, and also the choice to reorganizing the combined ones. Inconsistent conclusions from previous analysis reveal a scarcity of accord on whether or not ending associate degree, M&A really will increase or damages profitableness and R&D innovation activity. Among this context, this study focuses on these two unresolved questions:

1. Does M&A increase the R&D intensity?
2. Does M&A increase the profitableness?

The findings of the study, foremost in reference to R&D intensity, are that M&As have the result of skyrocketing R&D intensity within the short term and the future - that's, at each 2 and 5 years when the M&A happens. The ensuing boost of R&D performance will vary in line with, for instance, however well the two firms are integrated following the M&A. Secondly, in addition as M&As; completely touching innovation performance, they were conjointly found by the study to spice up profitableness. Seeing this side profitableness come back through, however, needs some patience, because the study finds that 5 years are needed to pass when the M&A for the new profit to fireplace up the record. A company's size conjointly plays a job here, since innovation performance is considerably additional important on profits in smaller firms than in larger ones. Across the corporate size gamut, though, on an extended term read M&As, deliver a positive and material impact on profits.

2.5. The role of M&A activities in the innovative market

Innovation considered as a key element of a wide range of competitiveness as organizational structures, processes, products and services in an enterprise. Entrepreneur uses technology as a competitive tool through innovation and technological competition shows itself as the driving force of growth. Innovation considered as one of the key elements of growth strategies to enter new markets, increase the existing market share and provide competitive advantage to the enterprise. Therefore, innovation is an indispensable element of corporate strategies for various purposes such as implementing more efficient production processes, performing better. Innovation serves as a strategic guide in trying to ensure a sustainable competitive advantage to overcome the problems they face.

In recent years, rapid advancement has been begun in terms of innovative development. In particular, it is important to note the innovations in the field of technology. Technological improvement provides breakthrough in robotics, cognitive computing, especially in Artificial intelligent and in the other fields. Attempts by companies to gain innovative advantage, along with the pressure of rapidly developing technology, clear the way to fuel competition in the global market. Because of increasing the barriers between traditional and innovative commodities and services, companies are pushing for a strategy for collaborate, innovate, and make a new market offered area such as a Healthtech, Fintech, and the others.

Developing corporative risk take as a main competency to permit the organizations to invest in new magnification opportunities. The M&A strategy as a dedicated innovation take aim at and it is on its way to achieving technology, capability and new source.

Deloitte analysis demonstrate that businesses are using the M&A transactions as strategic expedients capturing the disruptive growth opportunities with innovation. There had been a continuing and sharp development in deals of M&A accomplished near principal purpose of technologies or acquiring capabilities crosswise main categories of disruptive innovation like as Robotics, Fintech, Artificial Intelligence, and others.

While companies of technology repeatedly lead way, several different sectors, such as telecoms, consumer organizations, financial services and other service sector, also become the active makers deal.

"Globally, companies spent $291 billion in 2016 on disruptive innovation-related M&A deals, a fourfold increase over the $72 billion spent in 2012. The main segments were IoT, Digital and Social. In the IoT segment $86 billion worth of deals were announced and in the Digital and Social segment around $46 billion worth were announced." (Deloitte M&A Index, 2007)

In fact, according to Deloitte's report, achieving innovative growth along with M&A strategy encompasses digital and technological areas.

Internet of Things

Internet of Things also called IoT is about the making connected products and digitally enabled intelligent. The falling costs of main the proliferation and infrastructure of enterprise and consumer applications of user have proven the catalyst.

"In 2015-16, companies announced $86 billion worth of M&A deals in this segment." (Deloitte LLP 2017) That includes the major investments like as acquisition of Softbank ARM Holdings such a key part of their growth strategy with IoT. There is at the same time surge in the deals from non-technology sector, such as manufacturing, telecoms, and consumer companies. In the manner that, Elster was acquired by Honeywell and noticeably since later has launched their industrial IoT-ready data management and gas measurement solutions.

Robotics

Significant progresses in original materials, battery power and computing along with the rapid development in both consumer and industrial applications is stimulating investments in the robotics. These kind of investments series from drones and industrial automation to the service process automation.

"The robotics segment received nearly $7 billion worth of M&A investments, ten times more than the $700 million corporate venture investments in this segment." (Deloitte LLP 2017) M&A dominated by industrials and technology. Significant deals are included Cruise Automation was acquired by General Motor which to accelerate the progress of autonomous the vehicle technology.

Cognitive technologies and Artificial Intelligence

The advances confluence in algorithms of deep-learn, cognitive computing and technologies of chip manufacturing have encouraged investments in Artificial Intelligence is on the revolution cusp in the applications in both the enterprise and consumer segments. Investment with cognitive technologies and AI includes recognition technologies, cognitive computing, machine learning and advanced chip manufacturing.

“There were $3.1 billion worth of M&A deals in the years 2015 and 2016 in this segment, dominated by acquisitions from the technology sector.” (Deloitte LLP 2017) These kinds of investments included deals like as Magic Pony was acquired by Twitter for to bolster their capabilities of machine-learn for the visual processing.

Social and Digital

The industries’ digitization is leading to the progress of cross-channel social and digital corporate models and investments in the new segments for example user-generated, agri-tech, Ad-tech and content corporate models.

“In the last two years nearly 500 M&A deals were done and $46 billion invested in this segment, primarily by the technology, media and consumer business and services sectors.” (Deloitte LLP 2017). This kind of M&A deals included that the acquisition of Beme by CNN, a social application that the delivers content of user-generated. At the same time, Telenor’s acquisition of Tapad, which a US based marketing and advertising technology start-up.

Cognitive Analytics and Big Data

Businesses have been investing seriously to harness potential of the Big Data analytics and in recent times, cognitive analytics, by way of massive capabilities of the big data processing and advances in the sensing applications that provide practical business applications and insights.

“Since 2015 around $6.5 billion worth of M&A deals have been done in this segment, dominated by the technology sector.” (Deloitte LLP 2017) These include M&A for example eBay’s acquisition of Sales-Predict, which an Israeli start-up uses big data and cognitive analytics for to predict sales conversion and customer buying behavior.

Fintech

The extensive range of opportunities accessed by Fintech means that there has been remarkable development in the investments from non-financial service sectors such as retail, software and telecoms.

“Since 2015 around $7.1 billion worth of M&A deals have been done in this segment.” (Deloitte LLP 2017) These include Amazon acquired Emvantage Payments26, offers that solutions of payment across a digital channels range.

In 2018, all over the world; Aside from the problems and uncertainties in fields of global economy security, and pohe litics, together with the various political and economic actions of the US, the economies of all countries, especially the developing countries, were adversely affected by the FED's continued interest rate hike process.

It is pleased to share with you the seventeenth of the “EY Mergers and Acquisitions Report”, which is widely accepted by all market players and is widely used as a reference in this year, when the number of transactions in the world has decreased while the number of transactions has decreased.

Synergies in mergers / acquisitions (benefits from combining the capabilities of two companies) may be impressive. Companies can really get necessary technology, qualified personnel, infrastructure as well as additional features in marketing, distribution and sales. As an example of a successful merging transaction can be pharmaceutical company Pharm standard. In August2006 Pharm, standard OJSC bought Masterlek, which, in fact, owned the original preparations Arbidol, Flucostat and Amiksin.

As a result, I have faced a few articles and research paper on this subject or related or similar point. A lot of them came up with an empirical approach, and some of them did a work of qualitative method. Some researchers came to result that the mergers and acquisitions influence the innovation in the positive way, especially in the technological areas. Others think that there are no relationship or there are negative impact from M&A to innovation.

However, how can researcher come up to these conclusions? For understanding the relationship between mergers and acquisitions policies and innovations, the best way is to look at the purchasing IP (intellectual property such as patents, trade secrets, etc.) after this kind of transactions.

Here is some examples for to make strong argument for the asseveration that companies intent to transactions of merger or acquisition for flued the innovation activities. The one of the biggest acquisition in the worldwide in recent year is Google decided to buy Motorola Mobility. CEO of Google Larry Page talked about that acquisition: “Motorola's total commitment to Android in mobile devices is one of many reasons that there is a natural fit between our two companies. Together, we will create amazing user experiences that supercharge the entire Android ecosystem for the benefit of consumers, partners and developers everywhere.” (Page, 2011)

Page said in the blog post announcing the deal, “Our acquisition of Motorola will increase competition by strengthening Google’s patent portfolio, which will enable us to better protect Android from anti-competitive threats from Microsoft, Apple and other companies.” (Hardy, 2011)

From Dusseldorf Institute for Competition Economics Justus Haycap and Joel Stiebale concluded, “mergers can indeed not only have a negative impact on the merged firms’ innovation activities, but also on rivals” (Justus Haucap, 2016). This discussed paper select the data especially from pharmaceutical industry. Researchers crosschecked mergers or acquisitions transactions that happened between 1998-2016 with patent purchased data before and after these kind of transactions. Of course, this information is few for decision-making. They found that takeover, merger, patenting and R&D expenditures reduction in the merged or acquired entity and among non-merging or non-acquired rivals.

2.5.1. Identifying core intellectual capital

When the history and development process of the definitions related to innovation are examined, it is seen that different expressions are revealed. Becker and Whisler Innovation define an idea as being used by one of the organizations with similar goals for the first time. According to Downs and Mohr, innovation is the practice that brings differences to an organization. Industrial innovation is defined as the scope of design, production, management and commercial activities carried out by Freeman for the first time in the process of marketing a new or improved product. Innovation is broad, as organizational structures, processes, products and services in a business it is considered as the main element of competitiveness spread over an area. Entrepreneur uses technology as a competitive tool through innovation and technological competition shows itself as the driving force of growth. Innovation which indicator usually be intellectual capital is considered as one of the key elements of growth strategies to enter new markets, increase the existing market share and provide competitive advantage to the enterprise. Therefore, innovation is an indispensable element of corporate strategies for various purposes such as implementing more efficient production processes, performing better. Innovation serves as a strategic guide in trying to ensure a sustainable competitive advantage to overcome the problems they face. According to Damanpour, innovation is a tool that an organization uses to change its output, structure or processes in order to make the adaptation process easier.

The companies that operate on both national and international scale will have a competitive advantage with similar production facilities and technologies, and will be realized through innovation, product and service, business and production processes and marketing activities. Thus, by introducing a positive value through innovation, changing consumer needs can be answered. Porter stated that companies have a competitive advantage with innovation. He underlined the need for approaching innovation from a broad perspective, including both new technologies and new ways of doing business. Innovation was the first defined by economist J. Schumpeter as the driving force of development. According to Schumpeter, innovation; the introduction of a new feature of a product or existing product that consumers are not yet aware of, launching a new production method, entering a new market, discovering new sources of supply, having an industry's new organization and at the heart of economic development. In addition to new product development, it includes a new form of organization and the formation of new markets. The relationship between performance, innovation and competition is widely discussed in the literature with the neoclassical economic theory and the Schumpeterian view. The neoclassical theory predicts that innovation will emerge in competitive markets, and Schumpeterian vision will emerge in more and more limp competitive markets.

Innovation performance is evaluated as a result of qualitative and quantitative measurements. Qualitative measurements; whether the enterprises participate in an innovation activity (research and experimental development, market preparation and education) questions, quantitative measurements; expenditure on innovation activities.

Businesses see innovation as an option in order to continue their activities uninterruptedly and improve their performance in the national and international markets where intense competition is experienced as a result of globalization. In last twenty years, it is considerable that there has been an increase in studies investigating the impact of innovation on performance. These studies can be divided into three groups according to their purposes.

2.5.2. The power of information

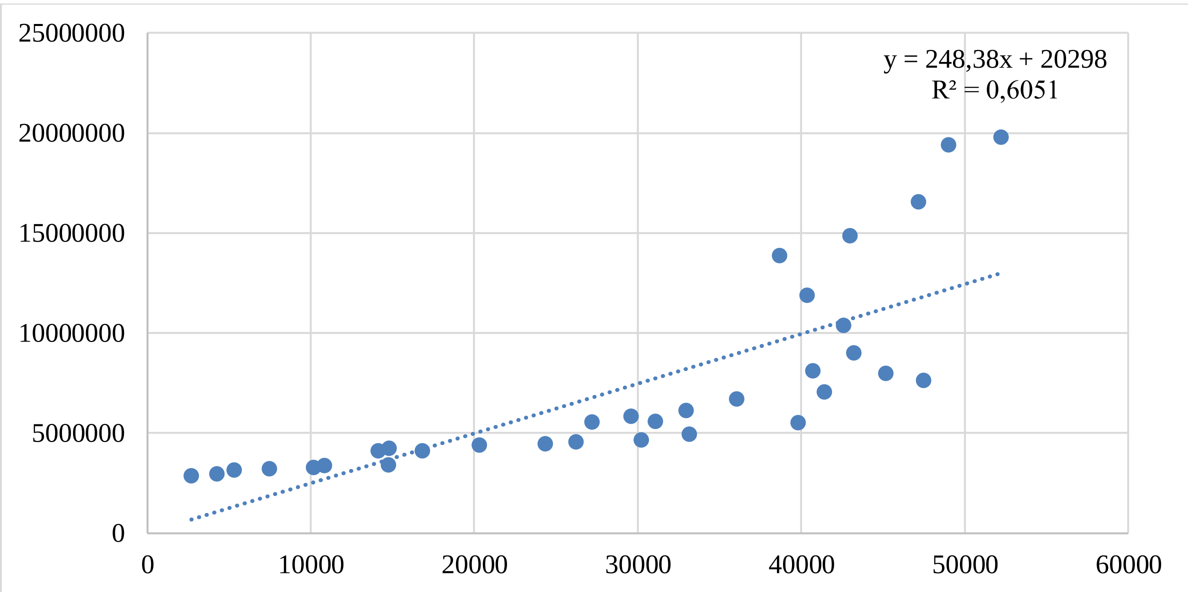
One below the radiolocation refined operational secret rising from the study is that data creation and the effective knowledge transfer are massive keys to success within the M&A arena. Drilling down into mechanics of the real price M&As; will deliver, that becomes clear that robust execution behaviour and skills of leaders and/or workers in desegregation the knowledge acquisition into the business are powerful drivers of inflated R&D intensity. The flexibility to like an expert integrate knowledge could be a growth engine talent that extremely revered within the marketplace for human capital. Because of the transformational effect, that people who can assimilate knowledge to make price are capable of the extent of this sort of integration ability among a corporation will account for the varied timescales between firms for R&D price to figure through. Already written knowledge is transferred within the sort term 2 year amount, however it's the additional ethereal inexplicit knowledge that takes an extended term of 5 years to transfer between people.

Schneider Electric's case study of acquisition of Invensys are employed as associate degree example, which backs up that study's results. This merger came about in 2013, once electrical trade leader Schneider electrical took over Britain organization Invensys as the way of boosting its industrial automation strategy.

R&D defrayal and intensity grew within the initial year when acquisition and continuing to grow in subsequent years. Profitableness born by eleven. Five percent straightaway when the merger, on the other hand resumed associate degree upward mechanical phenomenon when this era, showing associate degree overall positive influence of the M&A on profitableness.

2.6. The negative and positive effects of M&A on the innovation

Figure 1. M&A effects on the patent number



Source: author's calculation

A simple way to clamp regression coefficients is to interpret them with the linear slopes. The plot of fitted line illustrates that by graphing the conjunction between a mergers and acquisition activities and patent numbers in discussed period around the worldwide. The graph and the numeric output display info from the same model. At the same time, height coefficient in this regression equation is 248.38. This coefficient represents if merger and acquisition transaction increases by one, the average patent number increases by 248.38.

Table 1. Regression output from excel between M&A and patents

Regression Statistics	
Multiple R	0.777852978
R Square	0.605055255
Adjusted R Square	0.592315102
Standard Error	3031504.292

Source: author's calculation

The regression line on this graph is visually displays the same knowledge. If it will be move to right along with x-axis by one, the line increases by 248.38.

Hypothesis 0. Mergers and acquisition activities have positive effect on the innovation.

Hypothesis 1. Mergers and acquisition activities have negative effect on the innovation.

Table 2. Regression analysis of two variables

Dependent Variable: Y_DEPENDENT_PATENT_NUMBER
Method: Least Squares
Date: 06/05/19 Time: 10:30
Sample: 1985 2017
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20298.08	1176323.	0.017256	0.9863
X_INDEPENDENT_M_A_NUMBER	248.3757	36.04117	6.891443	0.0000

R-squared	0.605055	Mean dependent var	7265335.
Adjusted R-squared	0.592315	S.D. dependent var	4747838.
S.E. of regression	3031504.	Akaike info criterion	32.74571
Sum squared resid	2.85E+14	Schwarz criterion	32.83641
Log likelihood	-538.3042	Hannan-Quinn criter.	32.77622
F-statistic	47.49199	Durbin-Watson stat	0.124536
Prob(F-statistic)	0.000000		

Source: author's calculation in EViews

In the simple liner regression analysis, there are used 33 observation. The correlation coefficient, **Multiple R in regression output** is 0.778 approximately. This result is near to one, tells us there are positive relationship between dependent and independent variables.

R^2, the coefficient of determination tells that approximately 60% point fall on the regression line, in the other words, 60% of the values fit the model.

In this simple linear regression model p-value greater than 5% or confidence level greater than 95% we not reject H0 hypothesis.

2.6.1. Variables

The dependent variables in the simple liner regression model above, is patent number with country by country from 1985 to 2017. This data taken from The World Bank data statistics from https://data.worldbank.org/ and https://imaa-institute.org.

Independent variables in this data analysis is the merger and acquisition number worldwide from 1985 to 2017.

In below table there are been demonstrate correlation between M&A and patent which represents innovation.

Table 3. Correlation between M&A and innovation

Covariance Analysis: Ordinary
Date: 06/05/19 Time: 10:28
Sample: 1985 2017
Included observations: 33

Correlation t-Statistic	Y_DEPEND...	X_INDEPEN...	YEARS
Y_DEPENDENT_P...	1.000000 -----		
X_INDEPENDENT...	0.777853 6.891443	1.000000 -----	
YEARS	0.881873 10.41401	0.956811 18.32501	1.000000 -----

Source: author's calculation from EViews

CHAPTER 3. FUTURE CONCEPTUALİZATİON OF M&A İN THE CONTEXT OF INNOVATİON

3.1. The cross-border acquisitions

The breakdown of technology has forced all world companies to change and transform. Companies that have to invest in themselves have made the global M&A market reach trillion dollars volumes. KPMG's global M&A market has been the pulse of the research results were announced. According to the report, the US played the leading role in the top 100 global mergers and acquisitions.

KPMG Merger and Procurement Consultancy Leader Hande Shenova evaluated the report on the global M&A market prepared by KPMG. Shenova added that from the 100 US companies 54 companies were the targetable acquired company in the 100 biggest transactions and 39 of them were the buyer. Cross-sectoral mergers and acquisitions peaked in 16, while the cross-border M&A market across the globe reached 1 trillion $ 136.5 billion. Time Warner was acquired in $ 85.4 billion by AT&T was the biggest purchase of 2016, 'she said.

Shenova stated that the wait-and-see policy of the old is no longer a sustainable strategy for many companies. 'The breakdown of technology is seen almost everywhere in the world. This situation led companies to understand that they need to invest in them again, to change business models and even to make some radical changes'. Shenova said, as companies move towards other sectors to expand their capacities or competencies, the number of inter-sectoral mergers and acquisitions is increasing. The inter-sectoral transactions accounted for 50 percent of all transactions with 18 thousand 660 transactions in 36 thousand 815 transactions, she said.

Cross-border transactions amounted to $ 136.5 billion.

Shenova added that it would be exciting to follow the effects of the growing discourse on key cross-border mergers and acquisitions in key markets in the coming period and added that 'we do not think because investors generally prefer to go beyond their existing geography or competencies'. Cross-border mergers and acquisitions remained almost the same between 28 percent and 30 percent over the last 5 years. The total value of completed cross-border transactions reached the highest level since 2009 and reached 1 trillion 136.5 billion dollars. These figures represent 42 percent of the total value of transactions worldwide. In 2017, money will go to transform business models.

Shenova pointed out that 'inter-sectoral transactions accounted for a large part of the total transactions in 2016, and this rate rose to 50 percent in 2011 from 46 percent. In an environment where companies prefer to expand their business models in other markets, we can say that in 2017 money will go to such investments'. 'The average value of cross-sector mergers and acquisitions seems much lower than the average value of cross-border transactions. Could it be because inter-sectoral transactions are tactical for purposes contrary to strategic acquisitions? What other differences between cross-border and cross-sectoral transactions can explain this? China is the dominant player, and 11 of the 25 most important inter-sectoral transactions have Chinese buyers. More than approximately, half of these transactions were carried out in China. When we look at the purchase targets, we see that China is still at the forefront with the US. Seven of the 25 inter-sectoral transactions were targeted by these two countries'.

M&A will remain critical for companies:

Shenova says that mergers and acquisitions will continue to be critical for companies seeking change, and companies need a much faster and radical transformation than they can achieve organically. The CEOs are aware of this. "Moreover, we expect this to be a long-term trend that will lead the world's leading companies rather than a short-term reaction. In 2017, together with increasing profitability and growing company balance sheets, the merger and acquisition capacity in the market is expected to increase by 11 percent. An exciting journey awaits us in 2017, where we will continue to help our customers achieve a successful balance between opportunities and risks in a rapidly changing environment."

The capacity in the Asia Pacific region will increase.

Shenova, the region with the highest increase in forecasted appetite with 17 percent of Latin America, and almost the only reason is the increasing market values of companies. In terms of estimated capacity, the prominent region is Asia Pacific with 21 percent. In 2016, buyers from the Asia Pacific region were active, and Chinese, Hong Kong and Singaporean companies signed three of every five major transactions. (International 2017)

3.1. Partners' Relatedness and Innovation Outcomes

As the previous survey would indicate, the M&A context has been a productive ground about advancement. That notwithstanding, there stay numerous potential course of further research that have both theoretical and functional ramifications.

Generally, constrained research has embraced a social community viewpoint to explore M&A regarding advancement. However, being gained may speak to section into another system for the objective. Then again, the obtaining may give the central firm access to the system ties of the procured firm. How does this dynamic influence the dimension and nature of resulting advancement exercises of the both firm? Under what conditions may such changes be valuable or end up in an extra wellspring of disturbance? Essentially, constrained research has embraced an institutional point of view for investigation M&A with regards to development. Institutional hypothesis proposes that associations emulate rehearses embraced by others in the endeavour to secure authenticity. How does such authenticity looking for conduct influence the development results of the merger? At the point when gained target organizations face another reference gathering, structure an institutional hypothesis viewpoint one may expect this may incite the organizations to adjust the arrangement of practices utilized in the obtained firm. However, this makes a riddle since regularly, the impetus rousing the procurement might be to get the objective's skills, however such change of the objective's arrangement of imaginative schedules may undermine the estimation of the merger.

Another zone of potential research that has been underemphasized is the domain of key securing. In innovation settings, organizations are in some cases obtained to close down their advancements and diminish rivalry. Analysing post-merger innovation directions to consider such conceivable outcomes would enthusiasm from both vital and arrangement viewpoints. On the other hand, now and again firms gain other firm, to a great extent to block contenders from obtaining those organizations' advances. The rationale and suitability of such vital acquisitions is yet not very much explained nor are they even archived in detail. A third sort of key procurement is the obtaining of little firms as alternative despite a questionable innovation condition. Since innovation can advance along various directions, the ex-ante prospects of a specific innovation direction might be misty. To protect themselves firms may secure different firms that are seeking after various innovative ways. In such cases, assessing the achievement of the acquisitions through post-securing development yield might deceive. Understanding the possibilities under which such choice procurement are proper stays to be illuminated.

Further, albeit surviving exploration has demonstrated that organizations participate in acquisitions to improve their development execution, it has just limitedly been perceived that there is a high heterogeneity regarding the particular advancement objectives a firm might need to seek after. For example, a few firms forcefully focus on the quest for radical leap forward developments, while others center on expanding the recurrence of new item dispatches, regardless of whether this infers discharging gradual innovations.

3.1.1. System effect of M&A

Earlier research on procurement overall has accentuated that the relatedness between the acquirer and the objective fundamentally decides the presentation of the whole task (Singh and Montgomery, 1987). About mechanical acquisitions, in spite of the way those acquisitions are frequently viewed as a method of expansion, moderate degrees of relatedness improve development execution (Ahuja and Katila, 2001), because of the way that relatedness prompts higher absorptive limit (Cohen and Levinthal, 1990). Numerous examinations research this issue by taking a gander at how this impact changes for various elements of relatedness. (Cassiman, Colombo and Veugelers 2005) Make a refinement among similitude and complementarity of innovative fields will in general diminish their R&D exertion and excuse the R&D procedure after the M&A contrasted with the instance of reciprocal mechanical fields. In same examination, they additionally explore showcase relatedness to see how aggressive elements influence the interest in R&D. Their outcomes recommend that previous opponents that participate in a merger be less inclined to grow their R&D exertion contrasted with non-rival firms.

Taking a more extensive viewpoint on the issue one could likewise consider the more extensive or foundational impact of mergers. Moderately little research has analysed these, despite the fact that their substantive results might be noteworthy. Two such expansive zones for thought, however plainly numerous other orderly impacts could likewise be contemplated are distinguished. Research on mergers and acquisitions designs demonstrate that M&A regularly happen in waves, with countless in a given area being compacted into a brief timeframe. An interesting inquiry that at that point emerges is the manner by which such merger waves impact advancement results.

Since a merger wave prompts noteworthy solidification in a segment of the economy, at any rate two perhaps differentiating impacts on ensuing development execution can be distinguished. To start with, expanding combination could empower economies of scale and subsequently cultivate advancement. On the other hand, the expanded union may prompt less autonomous lines of research being upheld inside the business. Given that the best way to development is commonly vague ex risk, a decrease in the assortment of methodologies may prompt diminished advancement. Industry focus may likewise result in a decreased motivating force for firms to be imaginative in any case. Which of these two impacts plays out and is more grounded under which situation is not clear, and is an objective for research endeavours. For example, it could be considered that the scale advantages of size upgrade inventive profitability however brought down imaginative quality. The experience of the United States pharmaceutical industry, which has seen monstrous union in the look for scale, yet has likewise observed a consequent deficiency of leap forward imaginative gives in any event episodic help to such a hypothesis.

In the vein of orderly reasoning, another examination opportunity lies in downplaying the transformative impacts of mergers on given parts of the economy. In numerous parts of the economy, progressively last get together of items is finished by umber constructing agents (for example Boeing, GM, GE), that unite the assembling and innovation endeavours of numerous part makers. A procurement occasion on account of any of these umber constructing agents can then impacts the fortunes of a considerable lot of different firms that are a piece of the central constructing agents' system. Earlier research on procurement is treated as a stun to a leaving get together of components. Translating the components acquisitions as a discussion to think about system development. Preceding the securing the people are bound to different people in the current association. That association is liable to a stun when the mergers happen and existing system attaches are presently open to change. How new system ties structure and how old ones affected after the merger can enable us to reveal much about how interpersonal organizations develop. A similar standard can be utilized in contemplating the advancement of procedures, societies, and action frameworks and even the efficiency and fulfilment of people.

To finish up, while much work has been done concerning merger and acquisitions in the inventive setting, much stays to be done in facilitating the comprehension of this significant mechanical marvel.

3.1.2. The importance of issues

Understanding the innovation of implications of M&A is crucial for each theoretical, sensible reasons. in theory, M&A represents a vital arena for advance of our understanding of many important structure problems together with however not restricted to organizational boundaries and their effects; organizational of building capabilities; the consequences of shocks organizational routines; and market domination through management of technology. This illustrative and short list suggests that in extra being relevant for developing theoretical understanding of the development itself, M&A may give helpful context for developing and testing arguments for every of the most theoretical views usually employed in strategy analysis (transactions price economics science, capabilities and resource-based views, organic process economic science, and structure-conduct performance kind industrial economic science approaches).

From the social control viewpoint, terribly important company resources are usually invested with within the M&A for innovation-oriented goals starting from deed companies for the building capabilities and filling out of product lines to provide associate exit choice for venture capitalists to legitimize their investments. Understanding effectiveness of each investment is more matter of interest from every social control and policy views.

3.2. Conceptualization of M&A within the context of innovation

A simple abstraction will serve to represent mechanisms underlying M&A within the innovation context. Innovations generated by a corporation are a product of the organization's information. Recognizing this, in terribly elemental term we will represent of the organization's knowledge base as a collection, with in individual elements of data or factor far-famed by the organization being the weather of this set (Ahuja and Katila, 2001). This abstraction makes it doable to recast many dimensions of M&A analysis into easy in set-theoretic arguments. For example, merger of 2 companies will be thought of the union of two knowledge-bases; the connectedness of two organizations in the terms of their technology will recast because the overlap between of their knowledge-bases; even absolutely the and relative magnitude of data resources available to every organization will be captured victimization in cardinal numbers of the first knowledge-bases; and also the resultant incorporated knowledge-base. This approximation will then be accustomed yield testable predictions regarding numerous dimensions of mergers. If it becomes doable to spot these information parts through empirical observation (e.g. by victimization of patents or individual scientists as parts of this set) validation and testing of arguments is additionally doable, a method followed by many researchers e.g. Ahuja and Katila,2001; Puranam and Shrikanth, 2017).

Future of Finance

Technologies of disruptive innovation with crypto-currencies to robotics and predictive analytics, are transforming financial services. That is creating new opportunities for additional sectors, such as technology, telecoms, and retail services, to invest and acquire in the start-ups of Fintech and developing novel cross-sector offerings.

Future of Consumers

The innovations' confluence in the cognitive technologies, social and media-oriented, data analytics and digital business models is redefining organizations' appointment with consumers. That is creating new chances for the sectors such as finance, health, technology and others. Organizations are using the M&A deal and venturing to commercialize and explore these kind of opportunities.

Future of Health

The digital technologies are established to revolutionize healthcare in future and in process that allow for the new marketplaces and business models that to emerge at intersection of consumers, health and technology. Consequently, these sectors such as retail, consumer products, insurance and others are spending M&A deals and CVC for to invest in the innovative start-ups.

Future of Manufacturing

With the technological breakthroughs like as advanced materials and additive manufacturing, combination with changes in the supply chains' economics and the consumer demand, are enabling manufacturing sector to undertake transformation not seen meanwhile the days of the revolution of industrial. Businesses are using the deal such venturing strategically and M&A to capture new opportunities and transform themselves.

Future of Mobility

Technological improvements are transforming the international auto industry. Individual mobility start to redefine. This improvement has strong implications for telecoms, health, insurers, payment providers, energy companies and more. At the same time, a new ecosystem is rising at the automotive and other sectors' cusp. Businesses are using CVC and M&A to grow offerings of the new market besides tap into full potential and progressive of these shifts.

3.3. Relationship between M&A and innovation: Innovation because the outcome of M&A

The substantial set of studies has centred on investigation whether or not and the way partaking in a buying deal could result in higher innovation. This issue attracted quite some interest because of, despite the very fact, that many acquirers expressly determine innovation as their final goal and a few studies do report as the positive impact of partaking in acquisitions in the innovation outcome of companies, other studies show the other impact. As an example, very studies report in a negative relationship between acquisition intensity and the rate of internal innovation, thanks to the very fact that, acquisitions need time and a spotlight for in depth preparation, negotiation, and integration activities concerned within the method. A negative impact at innovation may also be the results of managers overestimating in their ability to manage a non-inheritable business. (Cassiman, Colombo and Veugelers 2005) Emphasize several common of pitfalls that lead acquisitions to own unsatisfying result for exploit companies. (Dodgson, Gann and Phillips 2010)

Merger and Acquisition process is complicated procedure with its deep reflect on innovations, so sometimes companies outsource consultancy services to address issues arising during this process. Usually, they ask audit and consultancy companies to implement after-acquisition services.

To sell, to buy, build a partnership structure, to finance a company or to address company problems. In what matters, business today is under pressure as never before to produce better and longer results for its stakeholders. For example, KPMG issued below text for after-acquisition services:

The KPMG Merger and Acquisition Consultancy team helps you make the right decision at the right time, allowing you to think beyond the primary challenges of thinking about an investment as an investor and creating opportunities for and triggering strategic change.

Combining our deep industry knowledge, superior analytical tools and a global perspective with our local expertise to achieve the results you want, we help you easily find your way in complex and multi-part processes.

With our integrated team of experts, we work in parallel to the purchasing cycle to help you create, secure and sustain value. KPMG offers long-term collaborations with its quality and reliability experience, as well as holistic services that can meet every need during the process from the strategy phase to the actual results.

In the area of Merger and Acquisition Consultancy, we offer our customers seven different solutions:

1) Our receiving side inspection services support our customers in all the critical stages of a procurement process, from the agreement strategy to the realization of benefit.

2) Our vendor-side inspection services help our clients maximize shareholder value through active portfolio management and successful disposal.

We offer three different solutions for customer troubleshooting:

3) Our Improvement Management solutions help our clients' identification, stabilize and reduce operational costs.

4) Our Financial restructuring solutions.

5) Our debt restructuring solutions support the bankruptcy process.

6) Our funding solutions handle capital structure processes with a strategic approach in order to increase the value through effective communication with stakeholders, lenders and other related parties.

7) Our partnership solutions advise customers to establish new joint ventures or associations, and as a true business partner throughout the lifecycle of these joint ventures and associations, customers are supported by trust since the establishment of companies.

PwC issued below text:

The PwC Post-Merger Services and Operational Solutions Team ensures that mergers and acquisitions end in value, creating value for the buyer, by focusing on key considerations and focusing on details. We save time and money to our customers by putting tools and techniques that are proven successful in past projects into operation. As a result, opportunities and risks are clearly identified and the steps that need to be taken quickly and effectively are determined. In this way, our customer can concentrate on their activities as soon as possible.

PwC's Merger and Acquisition Service covers the following topics:

The due diligence prior to the merger provides buyers and sellers with a consistent view of business activities (e.g., related to finance function, supply chain, production and / or commercial activities).

The buyer's concerns are quickly evaluated and an integrated plan for the first 100 days is prepared, and the control of the purchased company is addressed. Thus, the realization of the process accelerates and the risk of loss of workflow is minimized.

The detailed action plan is developed, implemented and the change is accelerated in order to realize the expected value from the purchase.

The overall evaluation after the merger / purchase is made 6 to 12 months after the completion of the purchase and the plan of how to achieve the desired targets before the merger / purchase is issued.

Deloitte offers below-mentioned services:

Our teams demonstrate a comprehensive approach to support a wide range of issues from the first day's immediate needs to longer-term plans after mergers, acquisitions, divisions or other restructuring in terms of tax and accounting. Our services include tax strategies, implementation of the planned tax structure, and ensuring compliance with tax legislation, simplification of tax structure, ensuring harmonization of the accounting practices of the group, combining the tax process, system and personnel.

We work with the accounting and tax management of the company and determine tax issues related to the gains that are intended to arise as the result of the merger.

Alpha Investment provides following text for M&A services:

Sales Consultant

Vendor companies are often not successful in achieving maximum gains for the businesses involved in the sale. One of the most meaningful reasons for this is the company is not adequately prepared for the sales project.

M&A Analysis studies for the vendor side are made more early than before contact with potential buyers at the very beginning of the sales process. One of the most important contributions of Alfa Investment in the process is the analysis of all critical issues that may arise during the purchasing process from a potential buyer's eye and any issues that may affect the outcome.

The potential purchaser will use these issues as negotiation during the negotiation process, and it is aimed to identify and implement corrective actions without any potential problems. At the end of the said process, Alfa Investment creates a value and benefit to the Company with a successful bid.

About the M&A transaction on Seller Side

• All risks and advantages of your company will be analysed through the eyes of a potential buyer

• This controlled process management will maximize the bids of potential buyers

• Managing the process will prevent potential buyers from wasting time with unnecessary questions and answers

• The correct use of the process and time will be provided to prepare complete and accurate information sets.

• Provide clear and most importantly a neutral report on the company to be sold

• These preparations will assist in the success of the negotiation and in the subsequent preparation of the share purchase agreement.

In the consultation of the seller, Alfa Investment provides the following services:

• Preparing and analysing information room on behalf of seller

• Preparing an information set with potential questions and analyses of potential investors

• Identify potential risks and develop solutions

• Provides a psychological support service that will keep the attention and attention of the management during this exhausting process.

• Helping the legal group not only in the financial sense but also in establishing the partnership agreement and tax matters.

Consultant Party Consultancy

In the process of mergers or acquisitions, the main objective is to determine the critical issues by examining the information of the target company. To be purchased in the most detail, and to make a common language by melting the buyer and seller side in the same pot by making financial, commercial, operational and strategic analyses related to the said company.

Our expertise and know-how in the merger or acquisition process determine the appropriate scope by considering your company's needs and expectations, and by analysing our technical analyses, we also prepare the mathematical models of the target company by determining opportunities, risks and weaknesses and making them available for all possible analyses.

In the process of mergers or acquisitions, it is not only limited to financial analysis, but also makes financial analyses after it has understood well in the target of company and sector and sector. This method will lead to a thorough determination of financial details as well as commercial details.

In addition to the issues related to negotiation in our analysis and studies, the issues to taken into consideration in the share purchase agreement and the company to be purchased in the target are focused on the issues that will help create the highest possible value within the company that will improve the future performance.

In order for a merger and acquisition projects to complete successfully, it is very important that experts working with consultants with different expertise such as technical consultants and legal advisers work harmonically. As Alfa Investment, we have a high level of experience with this coordination

CONCLUSIONS

In research paper, I start by carefully analysing the universe of to select a short list of companies for whom acquisition of our client's technology and IP would represent "strategic value" in the form of significant competitive advantage. Concurrently, determined that M&A transaction increasing year by year, opportunity. That kind of transaction events help firms to make growth, diversify their business, to make synergy in global economic marker, to expand geographically and so on.

Innovation is also new and following trends. In recent years that companies desire and to make effort to get innovation in competitive marker. Innovation is determined by mostly intellectual property, which is include patent prices, copyrights and trademarks.

For link and the impact of M&A on the innovation, I examined and analysed mature literatures. For a colourful literature it seemed that, this impact level depend of the business main operating level. In high-technique business mostly merger and acquisition transaction affect in the positive way. For pharmacology, companies are also same. Because this kind of business always to work with R&D transaction.

At the same time, in this research paper, it is used simple liner regression model. Which give us that in general; M&A have the positive effect on the innovation.

METHODS

For this study, I used qualitative approach and panel data analysis. The qualitative method permits a flexible and literature approach for M&A affects the innovation.

For this research paper, essentially secondary sources are used due to obtain information. Additionally, during the preparedness of this diploma work, in essence, the literature review was analysis, Azerbaijani, Russian and English books, related laws, research papers and websites were checked. In over and above, news published at the outset of concern and in related websites has been examined.

In panel data analysis, I take approximately 20 years M&A data from the World Bank open date base and 20 years patent number from the IMAA website. For data, analysis used simple liner regression model, which M&A is independent and innovation is the dependent variable.

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Apendix1.

Table 4. Top 50 M&A transaction worldwide

Rank	Date	Acquirer Comp. Name	Target Comp. Name	Value (bil. USD)	Value (bil. EUR)
1	1999	Vodafone Air Touch PLC	Mannesmann AG	202.78	204.792
2	2000	America Online Inc.	Time Warner	164.74	160.713
3	2013	Verizon Communications Inc.	Verizon Wireless Inc.	130.29	100.460
4	2007	Spin out	Philip Morris Intl Inc.	107.64	68.0778
5	2015	Anheuser-Busch Imbed SA/NV	SABMiller PLC	101.47	92.2719
6	2007	RFS Holdings BV	ABN-AMRO Holding NV	98.189	71.2951
7	1999	Pfizer Inc.	Warner-Lambert Co	89.555	85.3070
8	2017	Walt Disney Co	21st Century Fox Inc.	84.197	72.5020
9	2016	AT&T Inc.	Time Warner Inc.	79.406	72.9427
10	2019	Bristol-Myers Squibb Co	Celgene Corp	79.376	69.6776
11	1998	Exxon Corp	Mobil Corp	78.945	68.3572
12	2000	Glaxo Welcome PLC	SmithKline Beecham PLC	75.960	74.8973
13	2004	Royal Dutch Petroleum Co	Shell Transport & Trading Co	74.558	58.4912
14	2006	AT&T Inc.	BellSouth Corp	72.670	60.1781
15	1998	Travelers Group Inc.	Citicorp	72.55	67.2457
16	2001	Comcast Corp	AT&T Broadband & Internet Sacs	72.041	85.0946
17	2018	Cigna Corp	Express Scripts Holding Co	69.770	56.2118
18	2015	Royal Dutch Shell PLC	BG Group PLC	69.445	64.4033

19	2014	Actavis PLC	Allergan Inc.	68.445	49.616
20	2017	CVS Health Corp	Aetna Inc.	67.8228	58.185
21	2009	Pfizer Inc.	Wyeth	67.285	51.877
22	2015	Dell Inc.	EMC Corp	65.9997	51.387
23	1998	SBC Communications Inc.	Ameritech Corp	62.5925	56.487
24	2015	The Dow Chemical Co	DuPont	62.1410	56.380
25	1998	NationsBank Corp,Charlotte,NC	BankAmerica Corp	61.6334	56.6743
26	2006	Gas de France SA	Suez SA	60.8564	44.6383
27	1999	Vodafone Group PLC	Air Touch Communications Inc.	60.2868	51.650
28	2004	Sanofi-Synthelabo SA	Aventis SA	60.243	49.9899
29	2018	Takeda Pharmaceutical Co Ltd	Shire PLC	60.1165	50.4333
30	2000	Shareholders	Nortel Networks Corp	59.9735	65.5091
31	2002	Pfizer Inc.	Pharmacia Corp	59.5150	60.0191
32	2010	Preferred Shareholders	American International Group	58.9771	43.271
33	2004	JPMorgan Chase & Co	Banc One Corp,Chicago,IL	58.6631	45.931
34	2016	Bayer AG	Monsanto Co	56.598044	49.7496
35	1999	Qwest Common Intl Inc.	US WEST Inc.	56.307028	52.7961
36	2015	Charter Communications Inc.	Time Warner Cable Inc.	55.637581	51.1253
37	2011	Shareholders	Abbott Laboratories-Research	55.513051	40.3524
38	2009	Vehicle Act Holdings LLC	General Motors-Cert Assets	55.279546	39.054
39	2005	Procter & Gamble Co	Gillette Co	54.906	41.9762

40	1998	AT&T Corp	Tele-Communications Inc.	53.592	48.786
41	1998	Bell Atlantic Corp	GTE Corp	53.414	48.199
42	2008	Inbred NV	Anheuser-Busch Cos Inc.	52.177	39.727
43	2007	Shareholders	Kraft Foods Inc.	51.004	39.981
44	1999	Total Fine SA	Elf Aquitaine	50.070	48.325
45	1999	AT&T Corp	Media One Group Inc.	49.2788	45.305
46	2003	Bank of America Corp	FleetBoston Financial Corpsman	49.260	41.803
47	2014	Shareholders	PayPal Holdings Inc.	49.163	36.287
48	2016	British American Tobacco PLC	Reynolds American Inc.	49.0536	45.060
49	2008	Bank of America Corp	Merrill Lynch & Co Inc.	48.7661	34.063
50	1998	British Petroleum Co PLC	Amoco Corp	48.1740	43.529

Source: The International IMAA Membership,
https://imaa-institute.org/mergers-and-acquisitions-statistics/ (2018)

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