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The great potential on the Brazilian market

A study of different types of acquisition strategies on the Brazilian market

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Abstract

Title	The great potential on the Brazilian market A study of different types of acquisition strategies on the Brazilian market
Subject	Bachelor thesis in Business Studies, 15 credits
Authors	Rebecka Sjöberg & My Sjölander
Supervisor	Maria Smolander
Semester	Spring Semester 2019
Background	Emerging economies is more fragile for global actions than developed markets, and they struggle to keep the economic growth consistent. Brazil, as an emerging economy, has one of the higher growth in the world, but the country has had some difficulties during the last years and foreign direct investments have decreased. Most foreign direct investments activities tend to go north-to-north, and the most common investment strategy is acquisition and the success is related to the type of activity and industry.
Purpose	The purpose of this thesis is to investigate what type of cross-border acquisitions companies choose to be involved in and which financial factors have the greatest impact, when entering the Brazilian market.
Theory	The theoretical framework consists of theories related to acquisition strategies to answer formulated purpose. Following theories have been used as an analytical tool in the thesis: merger and acquisition waves, horisontal, vertical and conglomerate strategies and information asymmetry.
Method	This study is based on a mixed method design with inductive and deductive approach. Statistical data have been gathered together with four semi-structured interviews to gain data about ingoing acquisitions in Brazil. The statistical data have been gathered from the database Zephyr.
Conclusion	To summarize the conclusions, ingoing cross-border acquisitions in Brazil follow a wave-like pattern that is mostly depending on horisontal acquisitions, were the financial factors that have the greatest impact is information, taxation, labor and laws.
Keywords	<i>Acquisition, strategy, cross-border, internationalisation, Brazil, financial aspects, horisontal, vertical, conglomerate, industry, information asymmetry</i>

Definition of terms

In this chapter, some terms that will be used in the thesis will be defined to explain the definitions that will be used.

- Information asymmetry** Information asymmetry occurs when one part possesses more information and knowledge than the other one. The opposite of this is symmetry, which means that the target and the acquirer possesses the same amount of information (The Economist 2016).
- Developed and developing country** The definitions of developed and developing countries are based on United Nations classifications. The classification is based on economic status and is measured by per capita gross national income (GNI) were developed countries represent countries with a higher GNI, and developing represents countries with a lower GNI (United Nations Development Programme n.d. d.).
- Emerging country** Represents a country in economic transition and have a higher growth and economic development compared to developing countries (The economist 2017).
- Horisontal acquisitions** Horisontal acquisitions is an integration strategy that combines two companies from the same industry that compete in the same business (Gaughan 2011).
- Vertical acquisitions** Vertical acquisitions is an integration strategy that combines two companies with a buyer-and-seller relationship. The acquirer can either buy its suppliers or distributors in vertical activities (Gaughan 2011).
- Conglomerate acquisitions** Conglomerate acquisitions is an integration strategy that combines two different companies from different industries, that are producing unrelated products that are neither substitutes or complements (Gaughan 2011).

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1. Introduction

In this chapter, an introduction to the background of the topic of cross-border acquisitions in Brazil will be presented. Based on this, research questions have been formulated and will be presented at the end of this chapter.

1.1. Background

The world is an unequal place. Some countries have it better than others, in aspects such as economy and equality. One way to attempt to tackle these problems is by trying to unite countries together with a geopolitical cooperation (Collins 2015). The goal is to make countries work in harmony to reduce inequalities that exist between developed and developing countries (see explanation in *Definition of terms*). This is often explained as globalisation, a word that is heavily used as a way of explaining how the world could become a more equal place (Collins 2015). Globalisation have generated some positive effects. It has helped to force economic growth by facilitating networks that favors global trade. Looking at the economic growth there are some indications of it being a source for spreading equality, democracy and human rights across the world (Säkerhetspolitik 2013).

Due to indifference, United Nations have formulated goals to reach a sustainable development. These goals are stated as an attempt to reduce inequalities and injustices in the world, promoting peace and justice, eliminating extreme poverty and to solve the climate crisis (United Nations Development Programme n.d. a.). One of the goals, that is interesting for this study aims to reduce inequality within and among countries. It looks at how economic development could reduce poverty in less developed countries. It also focuses on how foreign investments from developed countries could help to reduce inequality within the developing countries (United Nations Development Programme n.d. b.). This can also be related to how a global partnership will ease sustainable development, by implementing trading systems and custom regulations (United Nations Development Programme n.d. c.).

As argued before, globalisation can in many cases be seen as the savior that will bind the world together and make the world more equal. But this process is more complex than one might think (Collins 2015). During the last two decades, economies all over the world have been more interconnected, but in the last years we have seen more and more of an anti-globalisation process (Irwin 2018). After the financial crisis in 2008, many countries have been rethinking assumptions about globalisation (Rachman 2009). Protectionism is growing stronger, and both banks and financial institutions are focusing more on domestic markets instead of international platforms, and the globalisation goes into reverse. This might lead to consequences for emerging economies (see explanation in *Definition of terms*) due to decoupling and desolation on the international capital market. Financial protectionism is mostly affected by political pressure. Many banks have lost capital credit and are now retreating on their home markets since they have been saved by national taxpayers. The political leaders put pressure on banks to lend at home instead of abroad (Rachman 2009).

Furthermore, differences exist between emerging and developing markets, although both of them could be defined by similar variables (The economist 2017). They are both defined by a lower income level, and a less mature capital market. But what separates emerging from developing markets is a rapid economic growth, price- and market volatility and lastly a higher-than-average return to investors (Amadeo 2019). By defining a market as emerging, it sends out signals to investors that the market is growing and that investments could be beneficial (The Economist 2017). But there is one issue, emerging markets struggle to keep economic growth more consistent, and that is one of the reasons why they do not become fully developed (The Economist 2017).

Emerging economies are determined not to be dependent by western countries, and therefore some emerging economies have created different unions and one of those is BRICS. BRICS-countries are blaming the West for the financial crisis in 2008 and are questioning the American and European-focused financial structure (The New York Times 2014). BRICS want to have a greater impact within financial forums (Tatlow 2013) and on the global economic order (The New York Times 2014). Several emerging economies want to impose their domestic policies to change the global relationships, but many plans have failed and countries are turning inward. They feel forgotten and are building smaller networks (El-Erian 2017). For example, several countries in South America have created a trade union called UNASUR to reduce quotas and custom duties, but due to protectionism some countries are now leaving the union (Utrikespolitiska Institutet 2018).

Unions, such as BRICS, are also questioning conditions imposed by international organizations such as The World Bank or International Monetary Fund (The New York Times 2014). The World Bank is managed by The United States and IMF is dominated by European countries, developing countries are being left outside. IMF admits that they have forced developing countries to open up their markets, something that can increase the financial risk (BBC 2015).

The uniqueness of BRICS is an interesting antithesis to other geopolitical formations. This group, that works for changes in the financial system, is in the end more of a political cooperation (Wen & Zhaoyu 2017). Among these members, Brazil is the most difficult one to do business in, according to the World Bank (Doing Business 2018). This is based on key areas that set the scene for interactions between businesses and governments. The governments and policymakers are the ones that determine the ease of facilitation. Doing Business (2018) looked at the economic relevance of business regulations but also elements of the financial infrastructure, for example financial services such as credits and how the protection is for minority investors. One of Brazil's biggest issues is cross-border trade, where high transportation cost can become a greater barrier than high tariffs (Doing Business 2018).

Brazil is one of the fastest growing economies and this together with being a part of BRICS, makes it susceptible to a lot of risks. Being a part of a union could be troublesome, it could mean that the country loses some of its political and foreign independence (Kuepper 2018), something that investors need to take in to account before making an investment decision

(Kuepper 2018). Foreign investors should be interested in entering Brazil because of the size of the domestic market, the access to natural resources and Brazil's economy seem to be less vulnerable to global crisis than other emerging markets. Despite this, the amount of foreign direct investments has decreased in the last years (Groupe Société Générale 2019). One explanation for this might be the increased level of protectionism that has been mentioned earlier (CNBC 2019), financial obligations and legal aspects that may affect business operations (The Wall Street Journal 2014). In an attempt to make it easier for investors, Brazil have signed a bilateral agreement to protect foreign investments. The government is also trying to work against corruption and make it easier for foreign investors by removing trade barriers on the market (Groupe Société Générale 2019). Multinational corporations are taking advantage of growth opportunities in Brazil, but a volatile economic and political environment may affect economic development (Nettesheim & Khanna 2016). An emerging market, such as Brazil, is more fragile for global actions and geopolitical cooperations than developed markets. Geopolitical decisions that seem small for developed countries could cause great impact in emerging economies (CNBC 2019). These markets have a tendency to have higher risk than markets in industrialized countries (Agliardi, Agliardi, Pinar, Stengos & Topaloglou 2012).

One of the main risk aspects on the Brazilian market is the political risk (Xinhuanet 2018). In recent years there have been scandals of corruption and the political landscape have been characterised by an uncertainty. This have affected the attraction of Brazil from an international investors perspective in a negative way (Colitt 2019). Besides this, the country is in an economic regression and this year president Bolsonaro made a statement claiming that a new Brazil is in the horizon. The country, that is one of the larger economies in the world, will start a process of becoming more open to trade and foreign investments (Colitt 2019). This is a reformation that have been demanded by investors, making it clear that the investors have been unsatisfied with present regulations (Adghirni & Lim 2019). This demonstrates the political uncertainties that the country faces and lead us to the complexity of how it might affect the investment prospect from foreign investors.

1.2. Problem discussion

The political uncertainty that is within a country's political landscape will in the end affect the investment strategies and outcomes (Boddewyn & Brewer; Holburn & Zelner 2010, see Lee 2010). The political aspects play an important role during the decision-making process and when choosing particular country to invest in. When companies are investing in a foreign country the political risk is one of the most important determinants to examine (Bekaert, Harvey, Lundblad & Seigel 2014; Harms 2002). Companies usually invest in countries with a higher political uncertainty than in their home country. Another aspect is that investors from countries with a lower level of corruption are often choosing to invest in countries with a higher level of corruption, because these countries natural resource base and higher market potential (Xie, Reddy & Liang 2017).

Boso, Debrah & Amankwah-Amoah (2018) claims that it is more important to take into account the political uncertainty in emerging markets compared to developed markets, something that affect the Brazilian market. Some of the contributing political aspects depend on institutional differences and market barriers (Magnani & Zucchella 2019), and the political risks and economic policies plays an important role in cross-border deals (Boateng, Du, Wang & Ahmmad 2017).

Companies seek to expand their business internationally for different reasons. When a company chooses to expand, they can do so by taking on different approaches and strategies (Casson & da Silva Lopes 2013). A company can choose to grow by doing a foreign direct investment, which means that the growth comes from a greenfield investment, joint venture and by merger or acquisition. Beside this, there are other methods that can be used and some of the common strategies are export, franchising and licensing (Reddy, Xie & Agrawal 2015). However, using merger and acquisition as an entry strategy has become the most common way for companies to expand (Reddy, Xie & Agrawal 2015).

Globalisation has made it possible for companies from different countries to participate in cross-border mergers and acquisitions, but most of them goes north-north leaving the developing markets unexplored (Alfaro & Charlton 2009). Despite this, different economies seem to follow the same patterns when it comes to merger and acquisition waves. These waves are affected by trends on the global market (Mariana 2012). The primary motive behind mergers and acquisitions changed in 2009, as a response to globalisation and the competition that came with it. Companies sought out targets that would complement their companies and make it more durable on the market (Sui & Dumitrescu-Peculea 2016). Before companies chose to enter a new market, they need a strategy that can cope with the uncertainty that the market prevails (Vahlne, Hamberg & Schweizer 2017, see Magnani & Zucchella 2019).

Boso, Debrah and Amankwah-Amoah (2018) concluded that when entering an emerging market, it has to be done in a different way compared to a developed market. Since a cross-border investment is characterised by decisions being made in uncertainty (Korsgaard, Berglund, Thrane & Blenker 2016, see Magnani & Zucchella 2019), by gathering the right information about the market and planning ahead, the uncertainty can be decreased (Baker, Miner & Eesley 2003; Mintzberg 1973; Porter 1985, see Magnani & Zuchella 2019).

1.2.1. Cross-border acquisitions

As mentioned in previous part, there are different ways of entering a new market and when comparing mergers and acquisitions to other foreign direct investments, it seems to be the riskiest entry mode on a market that have a high political risk (Lee, Biglaiser & Staats 2014). Both greenfield investments and joint ventures are less affected by the environment that a high-risk market might have. Another aspect to mergers and acquisitions, is the way that the market accepts the entry strategy. This strategy can be perceived as threatening, were an international company comes in and starts to take over the market (Lee, Biglaiser & Staats 2014). This gives the entry mode a new aspect that has to be considered when doing a cross-border deal. Lee,

Biglaiser and Staats (2014) concluded that mergers and acquisitions is the entry mode of choice for a market that is considered to be stable.

In the last decade, merger and acquisition activities have had an important role when it comes to the global economy. The amount of merger and acquisition deals increases, and there is a phenomenon of international acquisitions being more successful than international mergers (Ahammad & Glaister 2013). Acquisitions stand for the majority of foreign direct investments globally (Herger & McCorrison 2016) and therefore it is an interesting subject to look further into. When comparing different research, there is a complexity in understanding the different factors that might affect acquisitions since mergers and acquisitions in many cases is studied as one single entry mode and not as two separates. Since acquisitions is a common entry mode for an emerging market (Zhu & Jog 2012), there is a need for understanding the choice of strategy and the factors that might affect the deal.

One reason why companies are involved in cross-border acquisition activities is to create profit (Casson & da Silva Lopes 2013). Cross-border acquisitions are motivated by international factors and the main reasons why companies are acquiring businesses on emerging markets are the same as for national acquisitions, synergetic reasons (Francis, Hasan & Sun 2008; Erel, Liao & Weisbach 2012), and increasing the value of the company (Erel, Liao & Weisbach 2012). The odds of one company acquiring another company will be lower if the location of the countries have a high geographical distance (Francis, Hasan & Sun 2008; Erel, Liao & Weisbach 2012) and if the economic development in the country is low (Erel, Liao & Weisbach 2012).

Cross-border acquisitions could create opportunities for both the acquirer and the target company (Skitsko & Huzenko 2017). However, Weber, Teerikangas, Rouzies & Tarba (2014, see Christofi, Leonidou & Vrontis 2017) and many other researchers came to the conclusion that acquisitions in many cases are unsuccessful. Acquisitions fails to survive due to volatile environments and changing markets (Casson & da Silva Lopes 2013; Zhu & Jog 2012), and many companies have not taken into account the risk aspect in the target country (Skitsko & Huzenko 2017; Casson & da Silva Lopes 2013).

When it comes to cross-border acquisitions, it is difficult to stay away from the impact of cultural distances. The risks of doing an acquisition is not only connected to the market itself, but also to the integration phase as well as cultural aspects and Skitsko and Huzenko (2017) concluded that cultural differences are one of the major risks when doing a cross-border acquisition. Companies does not only have to take into account the two national cultures but also the differences in the corporate cultures of the target company and the acquirer (Ahammad & Glaister 2013; Hofstede, Hofstede & Minkov 2011). If this aspect is overseen it could have a negative effect, and the financial and strategic goals of the acquisition might not be fulfilled (Marks 1997). The ability of the acquirer to convey their goals is crucial, and if the target company is unable to see the underlying reason for a decision, it could harm the aim of the acquisition (Marks 1997; Hofstede, Hofstede & Minkov 2011). This is a supplement to the argument that cross-border acquisitions consist a higher risk than domestic.

1.2.2. Financial aspects

When companies chose to be involved in acquisitions, one of the bigger aspects of this process is different financial aspects. Some of these are financing, liquidity and the ability to pay off debt (Zhiqun Ai 2001, see Sui & Dumitrescu-Peculea 2016). Companies ability to handle these aspects could affect their ability to perform due diligence and to create a turnover (Sui & Dumitrescu-Peculea 2016). Cross-border acquisitions are affected by these aspects during the before-, under- and after implementation phase. Before the acquisition, it is important for companies to have a well-developed implementation strategy and build a functioning financial system to decrease asymmetric information (Sui & Dumitrescu-Peculea 2016).

Other financial aspects in cross-border deals is governmental regulations (Casson & da Silva Lopes 2013; Skitsko & Huzenko 2017), especially governmental policies in the target country (Casson & da Silva Lopes 2013). Governmental policies can affect the effectiveness of the activity. Another important aspect is taxes, something that affect acquisition activities (Skitsko & Huzenko 2017). Even if these last aspects are something that the companies cannot control, it can affect the acquisition in itself.

As previously discussed, it is obvious that entering a foreign market is risky and many studies argue that high-risk markets should be avoided (Skitsko & Huzenko 2017). Some factors are difficult for companies to manage but they could learn to handle some of the financial aspects (Skitsko & Huzenko 2017; Casson & da Silva Lopes 2013). By implementing the right strategies, these companies tend to manage financial aspects. One reason why companies succeed is because they have the firm-specific competency that is needed to find the right strategies and the right places to invest in (Casson & da Silva Lopes 2013).

There is a shortage of studies that investigate cross-border acquisitions in Brazil and why companies choose to enter the Brazilian market. The main focus in the scholar communities has been on more developed markets and acquisitions that goes north-north. The effect of this is that emerging countries, such as Brazil that have a high growth-level and lots of opportunities, are forgotten.

1.3. Statement of the problem

Past research has shown that cross-border acquisitions is susceptible to a higher risk level than domestic acquisitions and that financial aspects play an important role when choosing acquisition as an entry strategy. Different types of strategies have not been studied in the same extent in emerging markets, especially in Brazil, which makes it interesting to examine.

1.4. Research questions

To answer the purpose, following research question have been formulated:

- In what ways does different types of cross-border acquisitions follow different patterns on the Brazilian market, and how are they connected to different industries?

Following sub questions have been created to answer the main question:

- In what way does cross-border acquisitions follow different patterns?
- Which one of horizontal, vertical and conglomerate¹ strategy is most common in cross-border acquisitions?
- How does information and financial aspects affect cross-border acquisitions?
- How are different types of acquisition activities divided after different industries?

1.5. Purpose

The purpose of this thesis is to investigate what type of cross-border acquisitions companies choose to be involved in and which financial factors have the greatest impact, when entering the Brazilian market.

1.6. Delimitation

This thesis is based on a mixed method design (see chapter 3. *Method*) and have two delimitations, one for the quantitative part and one for the qualitative part. In the quantitative part, the study is delimited to ingoing cross-border acquisitions in Brazil for the time period of 1997-01-01 to 2018-12-31. However, in the qualitative part of the research the delimitation is based on the time period of 2013-01-01 to 2018-12-31, and the companies are located in the city of São Paulo at the time of the acquisition. No delimitation has been made according to industry.

1.7. Our perspective

A majority of the research that is made about acquisitions is directed towards the United States and Europe. This geographical bias could lead to misconceptions and wrongful generalisations about the acquisition process when adapting it to an emerging economy (Christofi, Leonidou & Vrontis 2017). With this thesis, we hope to bring knowledge about different aspects of entry strategies on a market that is not as explored. It might seem easy to write a thesis about a foreign market, but Hofstede, Hofstede & Minkov (2011) talked about the importance of acknowledging cultural distance between different parties. Therefore, it is important to bring awareness of the fact that the thesis is written by writers that do not share the same cultural background as the respondents, it is also written about a market that were not familiar to us. To make this cultural gap smaller and to generate more knowledge about the market itself, we went to Brazil with the purpose of getting to know the culture and the market that we were writing about. By doing so, we hoped to minimize the risk of creating a thesis that were written with solely a western view.

¹ See explanation of horizontal, vertical and conglomerate acquisitions in *Definition of terms*.

2. Theory

In this chapter, different theories that affect the subject of the thesis will be discussed. The theories are divided after following three themes: Merger and acquisition waves, horizontal, vertical and conglomerate strategies and asymmetric information.

2.1. Merger and acquisition waves

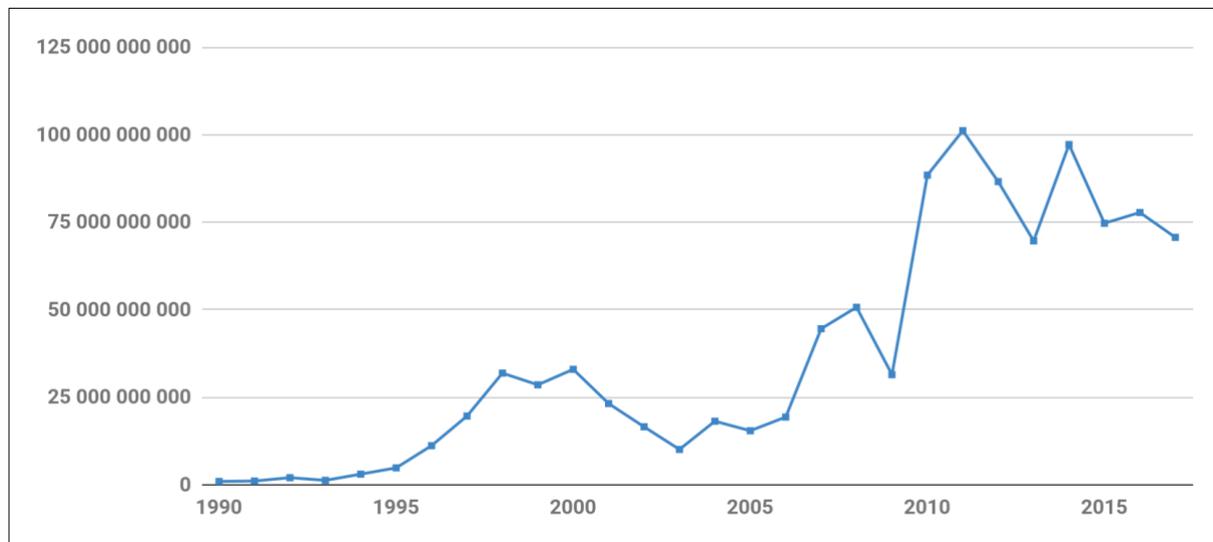
The globalisation have made merger and acquisition waves larger and countries all over the world can participate in this kind of activity. The number of cross-border mergers and acquisitions have increased as globalisation have become a normal part of doing business (Mariana 2012). Mariana (2012) concluded that merger and acquisition waves in different economies follow similar patterns because of globalisation. In total, there have been six merger and acquisition waves since 1890 (Alexandridis, Mavrovitis & Travlos 2011; Mariana 2012).

Acquisition and merger waves have been driven by different factors, something that can be explained by looking at the latest waves:

- The third wave occurred between 1965 - 1969 (Mariana 2012; Shleifer & Vishny 2003) and during this period it was common to target companies from different industries, and a trend of diversification occurred. This led to more conglomerate deals compared to horizontal (Shleifer & Vishny 1991; 2003). Besides that, it was more common with stock payments during this wave, and the stock market valuation was high (Shleifer & Vishny 2003).
- The fourth wave occurred between 1981 - 1989 (Mariana 2012; Shleifer & Vishny 2003). This wave was characterised by cash payment instead of stocks (Shleifer and Vishny 1991; Shleifer & Vishny 2003) and during this wave the stock market valuations were lower compared to the wave before (Shleifer & Vishny 2003). During this time, it was a reversed trend to earlier period, and companies sought for specialization rather than diversification which led to more horizontal deals (Shleifer & Vishny 1991).
- The fifth wave occurred approximately between 1993 - 2000 (Alexandridis, Mavrovitis & Travlos 2011; Mariana 2012; Shleifer & Vishny 2003) and this wave was affected by similar factors as the third wave. During this wave, it was common with stock payments rather than cash (Shleifer & Vishny 2003) and the stock market valuation were once again high, something that stimulated the wave (Alexandridis, Mavrovitis & Travlos 2011; Shleifer & Vishny 2003). Unlike the third wave, it was more common with mergers and acquisitions between similar companies (Shleifer & Vishny 2003). This can be connected to horizontal acquisitions.
- The sixth wave occurred between 2003 - 2007 (Alexandridis, Mavrovitis & Travlos 2011; Mariana 2012). This wave was driven by a high availability of liquidity and acquirers tended to be less overvalued, compared to the target companies. This led to a reduction in equity financed activities and an increase in cash financing (Alexandridis, Mavrovitis & Travlos 2011).

As mentioned above, merger and acquisition waves follows similar patterns in all countries (Mariana 2012). By looking at statistics from The World Bank (see *Chart 1*), we can see that Brazil had a wave that started in 1993 (see *Chart 1*). Previous research also states that the global wave also started in 1993, which is known as the fifth wave (Alexandridis, Mavrovitis & Travlos 2011; Mariana 2012; Shleifer & Vishny 2003).

Chart 1: Foreign direct investment, net inflows (USD)



Source: The World Bank: World Development Indicators Database

The number of cross-border mergers and acquisitions have changed during time (Herger & McCorrision 2016), and there is a connection between merger and acquisition activities and turbulence on the financial market, making the capital market becoming more volatile when the number of activities decreases. This kind of turbulence on the finance market appears when the economy is in regression (Mariana 2012). During the 1990s the number of merger and acquisition activities increased rapidly, and in the end of the 1990s the number of deals were more than doubled compared to the beginning of the decennium (Herger & McCorrision 2016). Around the year of 2000 and 2007 the wave-like patterns had its peaks (Herger & McCorrision 2016; Mariana 2012; Alexandridis, Mavrovitis & Travlos 2011), and after these years the waves decreases due to the bursting of the internet bubble and the starting point of the global financial crisis (Alexandridis, Mavrovitis & Travlos 2011; Herger & McCorrision 2016). The merger and acquisition waves can be divided after horisontal, vertical and conglomerate deals, were different types of activities are common at different years (Herger & McCorrision 2016; Shleifer & Vishny 2003). Conglomerate activities have had a great influence during the last years. This means that conglomerate deals contribute more to each merger and acquisition wave compared to horisontal or vertical (Herger & McCorrision 2016). More about the different types of activities will be presented in chapter 2.2. *Horisontal, vertical and conglomerate strategies.*

Hypothesis 1: Conglomerate acquisitions is the contributing factor in acquisition waves.

It is important to mention some of the problems that lies within the scholarly community when it comes to finding explanations to why merger and acquisition waves occur (Harford 2005; Mariana 2012). Depending on what type of view the researchers have they will find different causes for the waves, something that can be problematic and might be misleading. There are two different perspectives that researchers usually apply, the neoclassical and the behavioral view.

The neoclassical view looks at how an industry shock can generate a cluster reaction, leading up to a merger and acquisition wave. This shock can find its caused in technological, regulator or economic factors (Harford 2005; Mariana 2012). The behavioral view on the other hand look at market timing and the way of maximizing profit by using overvalued stocks to buy assets in low valued firms (Harford 2005; Mariana 2012). At the same time, Shleifer and Vishny (1991; 2003) found that neoclassical and behavioral factors might have affected different waves. This can be problematic when studying different theories in merger and acquisition waves since different researchers have applied different views and have studied different time periods. This study will not apply any of the perspectives, but it is important to take into account that waves can be studied from different views.

2.2. Horisontal, vertical and conglomerate strategies

One way to reduce the risk level in internationalisation processes is by identifying which type of merger and acquisition strategy that has the highest possibility to succeed (Rozen-Bakher 2018). The reasons for cross-border mergers and acquisitions varies, and it can depend on industry or firm-specific factors (Rozen-Bakher 2018; Vasconcellos & Kish 1996), for example synergy effects and market size (Erel, Liao & Weisbach 2012; Vasconcellos & Kish 1996). Besides this, the odds of two companies merging will increase if the companies are located nearby. The closer the countries are located to each other, the higher odds that the companies are going through with an acquisition. If the geographical distance instead is considered to be big, the likelihood of companies merging will decrease and costs is being increased. In addition to this, it is more common that the acquirer belongs to a developed country and have a higher economic development than the target country (Erel, Liao & Weisbach 2012).

By understanding the role of horisontal, vertical and conglomerate activities, companies can predict the risk of failure. If the target and the acquirer tries to predict outcomes of the activity, the chances of success increases (Rozen-Bakher 2018). Earlier studies have focused more on acquisitions in developed countries (Alfaro & Charlton 2009; Herger & McCorrison 2016; Rozen-Bakher 2018), but with another approach it could make this area more unique and interesting and the way we would like to perform an investigation of the subject is to examine acquisitions depending on industries in an emerging market.

Most foreign direct investment deals tend to be of horisontal character, even if vertical integration is more common than one may think (Alfaro & Charlton 2009). Earlier studies have indicated different results between horisontal, vertical and conglomerate activities, and depending on choice of variable there will be different outcomes (Alfaro & Charlton 2009;

Herger & McCorrison 2016). Different types of activities are driven by different variables (Alfaro & Charlton 2009; Herger & McCorrison 2016; Vasconcellos & Kish 1996), where the horizontal acquisitions are driven by market size and not by price differences, contrary to vertical acquisitions (Herger & McCorrison 2016). Conglomerate acquisitions seem to respond strongly to another international variable, which is valuation differences. This is something that does not seem to affect neither horizontal or vertical cross-border acquisitions as much (Herger & McCorrison 2016). Besides this, all cross-border deals are affected by taxation since corporate taxes in especially the target country have an impact in foreign deals (Erel, Liao & Weisbach 2012).

Conglomerate acquisitions have become more important during the last decades and it seem to be more common than first thought when it comes to cross-border acquisitions (Herger & McCorrison 2016). Because of the integration process, conglomerate acquisitions seem to be less complicated compared to horizontal and vertical (Rozen-Bakher 2018). Cross-border acquisitions that is made by a conglomerate strategy is more volatile than horizontal and vertical strategies, and it is associated with wrongful valuations in the financial market (Herger & McCorrison 2016). The targets pre-performances are important for this process and the success of the deal (Rozen-Bakher 2018).

Hypothesis 2a: Conglomerate acquisitions have become more common in cross-border acquisitions.

Herger and McCorrison (2016) found that horizontal, vertical or conglomerate acquisitions correlates with different market factors. When merging two companies from the same industry there is a high risk for duplicated jobs which opens up for potential to reduce costs, but it can also lead to a more complicated integration process (Rozen-Bakher 2018). When it comes to vertical cross-border deals factors such as labor cost seem to affect more than it would in a horizontal deals (Herger & McCorrison 2016) and there is a great chance of profitability in vertical because of the efficiency (Rozen-Bakher 2018). In conglomerate activities, the risk for duplicated jobs are lower and therefore the cost reduction could be lower than in horizontal. The integration process on the other hand will be less complicated in conglomerate activities (Rozen-Bakher 2018). The spread between the different types of acquisitions can fluctuate though, and the motivation behind the choice of acquisitions type can vary between different companies (Rozen-Bakher 2018).

Hypothesis 2b: The spread between horizontal, vertical and conglomerate activities will vary depending on industry.

Herger and McCorrison (2016), Rozen-Bakher (2018) and Alfaro and Charlton (2009) used Standard Industry Classification (SIC) as a method for examining industry type for different companies. This method has been criticized among scientists, something that will be discussed in chapter 3.10. *Method criticism.*

2.3. Information asymmetry

Johanson and Vahlne (2003) raise the importance of both learning about the operations as well as making a commitment to the business when entering a new international market. One of the main issues in cross-border deals is the lack of knowledge and the uncertainty that it prevails. Getting this knowledge is a complicated process and it takes time and commitment (Johanson & Vahlne 2003). Market knowledge in domestic deals can often rely on basic experiences of individuals, organizations and markets, while foreign deals usually have no basic knowledge from the beginning. Companies in cross-border deals have to gain market knowledge successively during the internationalisation process (Johanson & Vahlne 1977). Although market knowledge is essential, the amount of information can still affect cross-border deals. The amount of information between the target and the acquirer can appear as information symmetry or asymmetry (see explanation in *Definition of terms*), but in this chapter only asymmetry will be presented due to its importance in cross-border deals.

A consequence of information asymmetry is that acquirers tend to bid more aggressively during a merger and acquisition wave and are generally paying a higher price to buy the target company during this period (Cheng, Li & Tong 2016). The acquirers tend to miscalculate the information asymmetry or miscalculate synergic effects, which leads to overbidding. In non-merger and acquisition wave periods, the price that acquirers are willing to pay drop, something the investors usually respond positively to (Cheng, Li & Tong 2016).

According to Cheng, Li and Tong (2016), are target companies often priced after the level of information asymmetry. Targets with a high information asymmetry² are given a lower price valuation before the acquisitions compared to targets with a low information asymmetry. In other words, there is evidence for a positive relationship between the bid and the information asymmetry according to Cheng, Li and Tong (2016). One way for acquirers to minimize the effects of information asymmetry is by choosing to be involved with smaller companies. While target companies with a high information asymmetry tend to be involved in larger acquisitions (Borochin, Ghosh & Huang 2019). Larger companies usually have access to more information than smaller companies, which lead to a higher level of information asymmetry (Borochin, Ghosh & Huang 2019). Acquirer with more sources of information may be triggered to use this advantage and underprice the target company in bargaining deals. The target will in other words be priced to a lower level by the acquirer compared to market investors (Cheng, Li & Tong 2016).

Studies have shown that companies can use acquisitions as a strategy to diversify their activities. They can use this type of strategy by getting involved with a company from a different industry, meaning that the acquirer and the target have different main activities (Borochin, Ghosh & Huang 2019). It is common in acquisitions between companies from different industries that acquirers choose to be involved with targets with a low information asymmetry. Target companies with a higher information asymmetry tend to be involved with

² Targets with a high information asymmetry share less information compared to the acquirer.

companies from the same industry instead and there is a lower likelihood of acquisitions between companies from different industries (Borochin, Ghosh & Huang 2019).

The company with a higher information asymmetry in a deal is in a weaker bargaining position compared to their counterparts, according to Borochin, Ghosh and Huang (2019). Companies with a high level of information asymmetry are more likely to become targets, while companies with a lower level of information asymmetry are more likely to become acquirers (Borochin, Ghosh & Huang 2019). Borochin, Ghosh and Huang (2019) studied domestic deals for US-companies, we want to examine if this is applicable on cross-border deals as well and therefore following hypothesis are formulated:

Hypothesis 3: The target companies have a higher information asymmetry than the acquirer in cross-border deals.

3. Method

In this section, the method used for the thesis will be presented in ten different subchapters. The first chapters describe the method of choice, data gathering and sampling. This is followed by course of action, analysis method and response analysis. The last chapters discuss ethics and the quality of the research in terms of validity, reliability and source and method criticism.

3.1. Methodology

Due to the purpose of this research the method has been based on a mixed method research. The cause of this were because it enables a deeper and more thoroughly investigation of the subject (Tashakkori & Teddlie 2010). An important aspect of mixed method research is the formulation of the research questions, the research questions were formulated in a way that they had to be answered by either a quantitative and qualitative method (Tashakkori & Teddlie 2010).

By using a mixed method, the study has been both deductive and inductive (Teddlie & Tashakkori 2009). The inductive approach has been used as a method to collect data from the usage of both quantitative and qualitative methods (Teddlie & Tashakkori 2009; Creswell & Creswell 2018), in terms of quantitative statistical data and qualitative interviews. The collected data was then categorized into broad themes. The patterns that appeared from the data were then used to draw conclusions. The deductive approach has been used to test the theories and verify or falsify them. By defining variables from the theories, the researchers have been able to measure them by using statistical data (Creswell & Creswell 2018). By combining these two approaches, the analysis had the ability to be both broad and grounded (Teddlie & Tashakkori 2009; Olsson & Sörensen 2011).

The design of this research has been based on a parallel mixed design, meaning that the quantitative and qualitative parts of the study is done parallel to each other (Tashakkori & Teddlie 2010; Creswell & Creswell 2018; Creswell & Plano Clark 2011). The different strands of the design were executed in a relatively independent manner (Creswell & Creswell 2018; Teddlie & Tashakkori 2009; Creswell & Plano Clark 2011) but with a purpose to answer different aspects of the same research question (Tashakkori & Teddlie 2010). The data have been collected at roughly the same time (Creswell & Creswell 2018) and it have been collected independently.

3.2. Data gathering

3.2.1. Quantitative methods for collection of data

The statistical data was used to examine cross-border acquisitions on the Brazilian market. The quantitative part has been based on measurements on different aspects (Edling & Hedström 2003) and the statistical results were used to generalize a larger amount of companies (Denscombe 2018), gathered from the database Zephyr. All statistical results have been based on secondary data.

The database Zephyr provides information about domestic and international acquisitions and covers deals from all around the world. The database contains financial information and statements from companies from all types of industries (Zephyr n.d.), and could therefore provide information for the time period that our study aims to look at, 1997 - 2018. The choice of time period was motivated by the globalisation's impact on acquisitions (Mariana 2012; Herger & McCorristion 2016) and the fact that the number of cross-border acquisitions increased in the end of 1990s (Herger & McCorristion 2016). The database is somewhat limited in how far back it can go, but it is not interesting to go further back than the period that Zephyr can provide. Zephyr have been the source for both the sampling selection as well as quantitative data gathering. The data have been gathered to study following variables: (1) quantity (2) industry-type, by looking at SIC-codes and (2) inflows, where we will assume that deal value for ingoing acquisitions represents inflows.

3.2.2. Qualitative methods for collection of data

The qualitative data was used as a complement to the quantitative results to get a deeper understanding of the subject, which was done by analysing the qualitative results in terms of interviews (Creswell & Creswell 2018).

Open-ended interviews are often preferable in cross-cultural situations and could lead to a deeper understanding (Teddle & Tashakkori 2009). In this study, open-ended interviews have been done with a semi-structured approach. This approach allows some flexibility and is being structured at the same time. By combining these two aspects the possibility of collecting relevant data increased (Gillham & Jamison Gromark 2008). There were some basic components that was included in the interviews. First the interviewers introduced themselves and the purpose of the study (Creswell & Creswell 2018) and then the interviews was done by asking most of the questions in an open-ended manor. The qualitative data could be coded into broad themes (Kvale & Brinkmann 2014; Creswell & Creswell 2018), which was done by dividing the interviews after following themes: cross-border, financial aspects and financial information. To cover all themes, keywords were formulated. Following keywords have been used: country profile, market knowledge, financial risk, positive and negative aspects, type of acquisition, industry, importance of information, amount of information between parties, share and receive information, bargaining position. By using keywords, the analyzing process was facilitated and this helped the researchers to acknowledge patterns and making conclusion (Creswell & Creswell 2018). The follow-up questions were acting as clarification or in some cases to fill in informational gaps (Creswell & Creswell 2018).

In an attempt to make the interviews convenient and easy-going the respondents got the chance to choose location for where the interview was going to take place, but everyone was asked to do in-person interviews. In cases where the respondents asked, Skype-interviews were done by video or voice-call. A decision was also made to make each interview with one person at the time, to decrease the risk of respondents not answering the questions or being truthful (Gillham & Jamison Gromark 2008).

3.3. Sampling

The topic of this research is complex and therefore a mixed method sampling technique was required. Sampling techniques in a mixed method includes both probability and purposive sampling strategies (Teddlie & Tashakkori 2009) to answer the formulated research questions. The probability sample was used to gather a larger amount of data (Teddlie & Tashakkori 2009) were the years of 1997 - 2018 have been studied to examine acquisition wave patterns during this period as well as finding the starting point for the last wave. The last wave-like pattern has been used as a motive for the selection for the qualitative part in the purposive sampling which have examined a shorter period of time and thereby a smaller amount of companies (Teddlie & Tashakkori 2009).

The sampling was collected in two larger steps where the first sample is called long-term sample and was based on ingoing acquisitions in Brazil, characterised by cross-border activities. A few criteria have been stated when gathering samples from Zephyr Database. Following criteria have been imposed: (1) the target is located in Brazil, (2) the acquirer is a foreign company (3) the acquisition is completed and confirmed and (4) the acquisition where finalized during the years of 1997-01-01 and 2018-12-31. Based on this, we got the first selection which have been used in the quantitative part. The quantitative sampling is representative (Denscombe 2018) since it accounts for the whole population based on data gathered from Zephyr. Based on the representative sampling, future conclusions can be applied to the whole population in the quantitative part (Denscombe 2018). This long-term sampling acted as a starting point and further on motivated the time period for the next step in the selection. From the long-term sampling, we generated a short-term sampling.

The second sample is called short-term sample and have been used in the qualitative part. This sample were motivated by the last acquisition wave-like pattern that started in 2013, as presented in chapter 2.1. *Merger and acquisition waves*. This sampling was motivated by geographical closeness since the researchers wanted to have the opportunity to do physical interviews. Only companies located in São Paulo have been contacted. Besides this a goal-oriented sampling have been applied to find relevant respondents for the study. By strategically choose respondents with the right knowledge the research questions could be answered (Creswell & Creswell 2018). Respondents that have been part of the acquisition process, either for the target or acquirer side, have been included in the sample to find relevant respondents.

3.4. Course of action

3.4.1. Quantitative method

3.4.1.1. Classification horisontal, vertical and conglomerate acquisition

To examine which type of activity that was the most common in different industries the acquisitions was classified in three different parts: horisontal, vertical and conglomerate. The classification was done by dividing each acquisition into one of the different types, using United States Standard Industry Classification-codes (from now on denoted as SIC).

Earlier studies have applied SIC-codes as a method for examining vertical, horizontal and conglomerate activities (Herger & McCorriston 2016; Alfaro & Charlton 2009; Rozen-Bakher 2018). SIC-code was used to determine detailed industry information (Alfaro & Charlton 2009) through a four-level classification system. The first level is called divisions which were divided after broad groups from A - J. The following groups were divided after more detailed categories which were coded after two, three and four-digit groups (United States Department of Labor n.d.). The SIC-codes was based on the acquirers and the target classification before the acquisition took place. The study has been based on the first primary two-digit level to classify horizontal, vertical and conglomerate.

The SIC-codes are denoted by $Acquirer = SIC_{\alpha}$ and $Target = SIC_{\tau}$ to provide a system to classify linkages between the companies. In those cases when $SIC_{\alpha} = SIC_{\tau}$, the activity was horizontal. When $SIC_{\alpha} \neq SIC_{\tau}$, the activity was vertical (Herger & McCorriston 2016) or conglomerate. By using a similar classification system as Rozen-Bakher (2018), but adapted to the US SIC structure (United States Department of Labor n.d.), following system have been used:

- (1) Horizontal acquisitions were measured on a two-digit level, meaning that the first two levels in the SIC-codes should be the same for both the acquirer and the target company. Example, both SIC-codes are categorized in division *A Agriculture, Forestry and Fishing* and the major group *01 Agricultural Production Crops*.
- (2) Vertical acquisitions were measured on a one-digit level where the acquirer and the target company belong to the same division, but not the same major group. Example, both the acquirer and the target companies belongs to the division *A Agriculture, Forestry and Fishing*, but the acquirer belongs to the major group *01 Agricultural Production Crops* and the target belong to the major group *02 Agriculture production livestock and animal specialties*.
- (3) Conglomerate acquisitions were measured on a two-digit level based on the acquirer and the targets dissimilarities, were the acquirer and the target companies belong to different divisions and different major groups. Example, the acquirer belongs to the division *A Agriculture, Forestry and Fishing* and the major group *01 Agricultural Production Crops* while the target belongs to the division *B Mining* and the major group *10 Metal Mining*.

Companies with multiple SIC-codes were classified according to their primary SIC-codes. If the companies had multiple primary codes, they were classified after the eventual connection, meaning that if one of the SIC-codes were within the same industry the acquisition was classified as horizontal or vertical, depending on how many digits they had in common. This was done according to the classification system above.

3.4.1.2. Correlation and regression

To be able to measure ingoing cross-border acquisition waves in relation to horizontal, vertical and conglomerate deals, correlation and regression have been studied (Denscombe 2018).

There are different ways to look at the relation between two variables and this study applied Pearson's correlation coefficient r to measure the strength between ingoing cross-border acquisitions and horisontal, vertical and conglomerate waves (Denscombe 2018). Following equation was used (Körner & Wahlgren 2015):

$$r_{X,Y} = \frac{\Sigma(X-\underline{X})(Y-\underline{Y})}{\sqrt{\Sigma(X-\underline{X})^2 \Sigma(Y-\underline{Y})^2}}$$

Since the Pearson correlation coefficient only looked at the statistical relationship, it could not verify or falsify if the changes in one variable were caused by the changes in the other (Edling & Hedström 2003). To strengthen the analysis further, statistical causality has been studied between the independent and dependent variable, something that was done by a regression analysis (Knoke, Bohrnstedt & Mee 2002; Watsham & Parramore 1997). The regression has been calculated using the least square method. The regression coefficient was analysed in linear regression using following formula (Watsham & Parramore 1997; Seltman 2018):

$$(Y) = \beta X + a$$

A t-test have also been performed to examine the significance between different variables. The test that have been performed is a two-tailed test since variables from different samples have been studied (Denscombe 2018). In this study, the results have been considered statistically significant with a probability of at least 95 percent.

3.4.2. Qualitative method

A few weeks before the actual interviews the respondents were contacted by email. All email addresses that were mentioned in the database received an email and for those companies who did not have an available address, complimentary emails were sent out to reach out to all companies. Due to a low response frequency, only four interviews were held out of the 567 companies in the sample.

As already mentioned, a few days before the interviews the *Interview guide* (see *Appendix 3*) was sent to the respondents to make sure that they had proper time to prepare for the interview. The *Interview guide* contained examples of questions that could have been asked, to make sure the respondents understood what type of questions that could appear. This guide was sent out because some of the respondents asked what kind of questions they should prepare for, and a decision was made to send the guide to all respondents to make sure that they could all prepare equally. By doing this, it could to some extent accommodate for the language barriers, since the interview was in English.

Two of the interviews were done during a meeting at the respondents workplace and two of the interviews were done via Skype by the request from the respondents. In *Table 1* there are an overview of all the interviews. All interviews were recorded by audiotaping to help the researchers remember the content of interview after. After the interviews, a transcription of the

record will be done. In case of potential problems with the recording equipment interview notes will be written during the interviews by one of the two researchers (Creswell & Creswell 2018). The person that was not writing were in charge of the interview and guided the respondents according to themes from the *Interview guide*, while the person who is taking notes asked follow-up questions where needed. These follow-up questions were used as a way to gather more information or to make sure that the researchers and the respondents understood each other (Creswell & Creswell 2018).

Table 1: Information about the interviews

Respondent	Title	Company	Place	Date & Time	Time
Respondent A	Business developer manager	Company A	São Paulo, Brazil Voice call Skype	2019-04-12 08:00	27 minutes
Respondent B	Manager commercial and marketing	Company B	São Paulo, Brazil In their office	2019-04-16 14:00	50 minutes
Respondent C	Chief executive officer / Manager operations	Company B	São Paulo, Brazil In their office	2019-04-16 15:00	47 minutes
Respondent D	Management consultant	Company C	São Paulo, Brazil Video call Skype	2019-04-18 17:00	50 minutes

Table 1 gives a short summary of each interview. The estimated time in the table does not account for the time before and after audiotaping started. The interviewers spent time to build a relationship with the respondents by having a conversation beforehand both in person at the time of the interview as well as previous email. Something that was important because of cultural differences (Hofstede, Hofstede & Minkov 2011).

The qualitative analysis has been categorized after the themes from the interviews. Here the most relevant parts from the interviews have been analysed. Qualitative analysis has been used to measure positive and negative opinions, how often the respondents mention certain keywords and what types of words are most relevant (Denscombe 2018).

3.5. Method for mixed method analysis

The data analysis is divided into different parts where the quantitative data were analysed from statistical results and the qualitative data has been categorized in broad themes as mentioned earlier (Creswell & Creswell 2018). To create a more integrated analysis, the quantitative and

qualitative parts were analysed together. By merging quantitative and qualitative data the interpretation process has been facilitated (Lieber & Weisner 2010; Creswell & Creswell 2018; Creswell & Plano Clark 2011). The interpretation has been done in chapter 6. *Analysis* where the results from the two parts will be compared.

3.6. Response analysis

When analysing the results there is a need to take into account the response frequency and how much data and information that was available (Olsson & Sörensen 2011). If the responses from the non-respondents would have been included in the study, the results might have changed (Creswell & Creswell 2018). Since the research was done with a parallel mixed design and therefore consists of both quantitative and qualitative strands, different aspects have affected different parts of the response analysis (Olsson & Sörensen 2011).

The quantitative part has been studied from different aspects, were some of them have been affected by losses. The classification of horisontal, vertical and conglomerate deals have a loss of 15 companies, due to missing SIC-codes. Inflows for the acquisitions have a loss of 1022 companies of 1673 in total. There were no losses when it came to classification of horisontal, vertical and horisontal deals in terms of measuring the quantity, neither when it came to industry type for the target companies.

In the qualitative strand of the research, the loss accounts for 564 companies, out of the 567 companies. This is caused by either geographically reasons or because some of them could not be reached, due to bankruptcy or no available information. The research was affected by an external loss due to respondents that did not want to be a part of the study (Olsson & Sörensen 2011) and some of the interviews were cancelled at the last minute. Of 149 reachable companies, three of them participated. The big loss can be explained by both language barriers and difficulties when reaching out to relevant respondents. The qualitative part was not affected by an internal loss since all interviews covered all of the themes (Olsson & Sörensen 2011).

Table 2: Summary of losses

	Quantitative				Qualitative
	Waves	SIC-code	Inflows	Industry	Interviews
Sampling	1673	1673	1673	1673	567 ³
Losses	-	15	1022	-	564
TOTAL	1673	1658	651	1673	3

Table 2 presents a summary of the losses in the study and the total number of companies that are included in the data.

³ Of 567 companies, 149 were contacted due to logistical limitations.

3.7. Ethics

The researchers had to deal with ethical issues that could have appeared during the research. When the companies were contacted, the researchers made sure that the respondents knew that it was students doing a research (Gillham & Jamison Gromark 2008). To minimize ethical dilemmas a document called “*Agreement of participation*” (see *Appendix 1*) have been formulated and handed out during the interviews to inform the respondents about the purpose of the study, that they would have anonymity and that the interview was completely optional. The respondents also got a verbal explanation in the beginning of the interview, which gave them a chance to ask questions and made sure they understood the meaning of the participation (Olsson & Sörensen 2011). In the case of Skype-interviews, the respondents only got a verbal explanation and were asked if the material from the interview could be used in the study.

To protect the integrity of the research, the respondents and involved companies (Israel & Hay 2006, see Creswell & Creswell 2018) are anonymous. Because of the new GDPR-act, a document was formulated to confirm that each respondent approved the use of the information that have been revealed in the interviews and that they approved that the interviews were recorded (Gillham & Jamison Gromark 2008; Olsson & Sörensen 2011). This was done as a way of protecting the integrity of the respondents and making sure that Swedish laws were applied (Gillham & Jamison Gromark 2008).

To minimize the risk of misconceptions, a summary from the interviews was sent out to the respondents by email for them to confirm. The summary was based on the transcriptions and notes from the interviews.

3.8. Quality framework

Evaluating the quality of a research can be complicated and there is a lack of standards for evaluating mixed method research (Teddlie & Tashakkori 2009). Scientists disagree on which terms are correct to use in mixed method (Creswell & Plano Clark 2011; Teddlie & Tashakkori 2009), so to ease the quality analysis, the researchers chose to evaluate the validity and reliability in the study for both the quantitative and qualitative parts, something that Denscombe (2018) claims are two of the most accepted terms.

3.8.1. Validity

The validity in studies aims to look at the generalisability of the results, for both the quantitative and qualitative parts. The generalisability in the quantitative part of the study is high due to a large amount of data, since a long time-period in the long-term sample have been selected (Denscombe 2018; Creswell & Plano Clark 2011). In this sampling, all industries have been included which makes it easier to generalize the results, and therefore the results can be applicable to different sectors on the Brazilian market. The results are not applicable to other emerging markets, something that this paper does not aim to study. The generalisability in the qualitative part is low due to a small number of respondents, something that decreases the validity in the study.

The companies in the quantitative and qualitative parts have been selected from the same sampling selection, which increased the validity of the study. This will also make the analyzing process easier since the two parts have been analysed together (Creswell & Plano Clark 2011). By using this type of analysis method, the comparison between quantitative and qualitative data have been easier. But it is also important to take into account, that the study was affected by losses (Olsson & Sörensen 2011), which is mentioned in the chapter 3.6. *Response Analysis*.

By imposing earlier established theories when it comes to study industries, the validity increases (Denscombe 2018). A lot of earlier studies (Herger & McCorristion 2016; Alfaro & Charlton 2009) have used SIC-codes as a way of calculating horizontal, vertical and conglomerate acquisitions, and therefore we choose to impose the same method in this study.

The qualitative sampling included a smaller amount of companies compared to the quantitative data, which makes the validity lower. The qualitative data can be interpreted subjectively (Creswell & Plano Clark 2011) and therefore both researchers were involved in all interviews and in the analysing process (Creswell & Creswell 2018). This gave both researchers the chance to interpret, which increased the quality of transferability (Denscombe 2018). The interviews were also done one-by-one to make sure the respondents not were affected by their coworkers' opinions, something that can be sensitive in cultures like the Brazilian (Hofstede, Hofstede & Minkov 2011).

3.8.2. Reliability

The reliability of the study is an important aspect since it aims to look at how reliable the results are (Creswell & Creswell 2018). Because of the sampling selection, this study has a relatively high reliability. The sampling was based on a representative selection, but something that could affect the reliability in a negative way was the losses in the study, as well as the risk of incorrect numbers when calculating inflows, since some of the provided values are approximated. Since all the data has been handled manually, the human factor must be mentioned as something that could affect the reliability of the study. The reliability can be tested by making a test-retest, as a way to strengthen the research (Denscombe 2018; Creswell & Plano Clark 2011). In this case, a deliberate decision was made not to do a test-retest. We found that the strength in the sampling made a test-retest unnecessary (Denscombe 2018; Creswell & Plano Clark 2011). The long-term sampling is based on a long time-period, 1997 - 2018, and as the number of cross-border deals increased in the late 1990s (Herger & McCorriston 2016) it would not give a fair comparison if a test-retest was performed in the years before that.

Due to the representative sampling for the quantitative strand the inter-observer reliability is perceived as high (Denscombe 2018). If this study would be repeated, by different researchers, it would probably give the same result if they used the same criteria for sampling (Denscombe 2018; Creswell & Creswell 2018). But when it comes to inter-observer reliability within the qualitative part, it will be lower due to the subjective interpretation from the researchers' perspective (Creswell & Plano Clark 2011). To improve this, the possibility for reconnecting with the respondents have been an option. By sending the respondents a summary of the interviews some of the possible misconceptions can be calculated for and be corrected with the

help of the respondents. This step is extra important in our case since the study is also affected by cultural differences, something that needs to be considered.

There is another aspect to the cultural barriers that needs to be taken into account and that is how the culture behind the researchers have affected the interpretation and analysis (Hofstede, Hofstede & Minkov 2011; Dahler-Larsen 2018; Kvale & Brinkmann 2014). To completely disregard this issue is not a possibility or even reasonable, but it could be handled by trying to learn and get to know the cultures in Brazil (Hofstede, Hofstede & Minkov 2011).

3.9. Source criticism

The literature consists of primary and secondary sources gathered from academic articles and educational textbooks, something that could be evaluated (Creswell & Creswell 2018). Primary sources have been preferred in the study, and to increase the credibility a complimentary source have been used when needed. By using complementary sources the literature can be compared with each other. The secondary sources have especially been used to develop the content from primary sources further. It was also preferred to use newer literature, but sometimes older sources where needed to find more reliable, primary information.

Interviews can be interpreted subjectively (Creswell & Plano Clark 2011; Creswell & Creswell 2018) and the number of interviews performed can have a crucial impact. Even if only four interviews were held, a lot of answers from the interviews were repeated two times or more, but to reach complete saturation we believe that a few more interviews would have been necessary. This is something that might have affected the study's credibility negatively. Something else that could have affected the quality of the interviews were language barriers since neither the respondents or the researchers have English as native language. But at the same time, the respondents were selected after the competence, since they had the experiences that was needed for this study. This made the respondents answers more reliable.

The statistical material was gathered from the database Zephyr. Zephyr is managed by Bureau Van Dijk, a specialist in private company data. Zephyr consists of researchers in global merger and acquisition deals and the database provides international, standardized data (Bureau Van Dijk n.d.) which eased the analysis process and made the comparisons more reliable. Since our statistical data completely relied on the financial information from the database, it has been assumed that all information was correct since they use crawlers to gather as much information as possible. Zephyr provides their sources for each deal information which made the database even more reliable, since we got access to the primary sources. Another consideration that had to be taken into account was Zephyrs use of SIC-codes. Zephyr uses US SIC-codes, which is not international standardized, and therefore the data could be less reliable when it comes to international deals. Another aspect that might have affected the quality of the data is exchange from one currency to another, due to conversion of different currencies that have been transferred to US dollar in Zephyr database.

3.10. Method criticism

Both quantitative and qualitative methods have their limitations and challenges that needs to be considered and by using mixed method some of these limitations have been reduced (Creswell & Creswell 2018). But choosing mixed method does not mean that all limitations can be excluded and with this method new challenges arise as a result of the complexity that doing two studies side by side (Creswell & Creswell 2018; Teddlie & Tashakkori 2009). One of the biggest issues were because of the complexity of knowing how to handle all the data that needs to be considered, collected and analysed (Creswell & Creswell 2018). Both quantitative and qualitative data is different and is supposed to be analysed and merged together in a coherent and understandable analysis (Creswell & Creswell 2018; Teddlie & Tashakkori 2009). Since different strands provided different types of information this could (Creswell & Creswell 2018) lead to some problems with convergent or divergent results, creating more limitations to the method if these situations cannot be handled (Creswell & Creswell 2018).

In this research, the sampling size for the quantitative and qualitative parts differed from each other and according to Creswell and Creswell (2018) some researchers argue that this could provide some issues, with the motivation that an equal sampling size could generate a higher quality in the comparison of the data. But at the same time, other researchers argue for different sampling sizes as not being a problem since the purpose of using mixed method and including both quantitative and qualitative parts is to generate different levels of depth and broadness to the study (Creswell & Creswell 2018).

Previous research has studied acquisition waves after wave and non-wave periods between the time period of 1890 - 2007 (Mariana 2012; Alexandridis, Mavrovitis & Travlos 2011). The quantitative data in this study will focus on acquisition wave patterns rather than wave periods and non-wave periods, due to the complexity of defining acquisitions after wave periods. This can affect the quality of the analysis of acquisitions waves. Besides this, waves have been studied with the same approach as previous research.

It can be problematic to study horisontal, vertical and conglomerate acquisitions since different theories have divided the types of activities differently. Some scientist chooses to only use two terms (Rozen-Bakher 2018), while others used three (Herger & McCorrison 2016; Alfaro & Charlton 2009) or four, which could lead to misunderstandings when it comes to the use of SIC as a method. And even if SIC is a common method to use (Herger & McCorrison 2016; Alfaro & Charlton 2009; Rozen-Bakher 2018), it has been criticised. It can be challenging to use SIC-codes as a way to determine the relationship between companies since larger companies often are active in more than one industry (Herger & McCorrison 2016), and therefore they have multiple SIC-codes. But since the database Zephyr provides multiple SIC-codes for larger companies, this will not affect the study. Worth mentioning though is that companies with multiple codes, that have one SIC-code in common, have been classified as horisontal or vertical depending on how many digits they have in common, something that could lead to misclassification. A decision was made to only study primary codes, since it represent a greater part of the acquisition.

Another problematic aspect of studying country- or industry data for multinational companies (Herger & McCorriston 2016; Alfaro & Charlton 2009), were the use of SIC-codes at a two-digit level. Important aspects of patterns could be missed and according to Alfaro and Charlton (2009) some vertical foreign direct investments can be misclassified as horizontal when studying industries at a two-digit level. The reason for the misclassification depend on: acquiring companies are vertical integrating the target company in developed markets but they are assumed to be horizontal because most vertical foreign direct investment is north-north. The differences between acquirer and target companies are small even in vertical integration and are thereby classified as horizontal while vertical integration can be misclassified at two-digit level because targets are supplying goods that are proximate to the acquirer's production which can appear to be identical. To minimize the risk of misclassification between acquirer and target company, the integration should have been studied at a four-digit level instead (Alfaro & Charlton 2009).

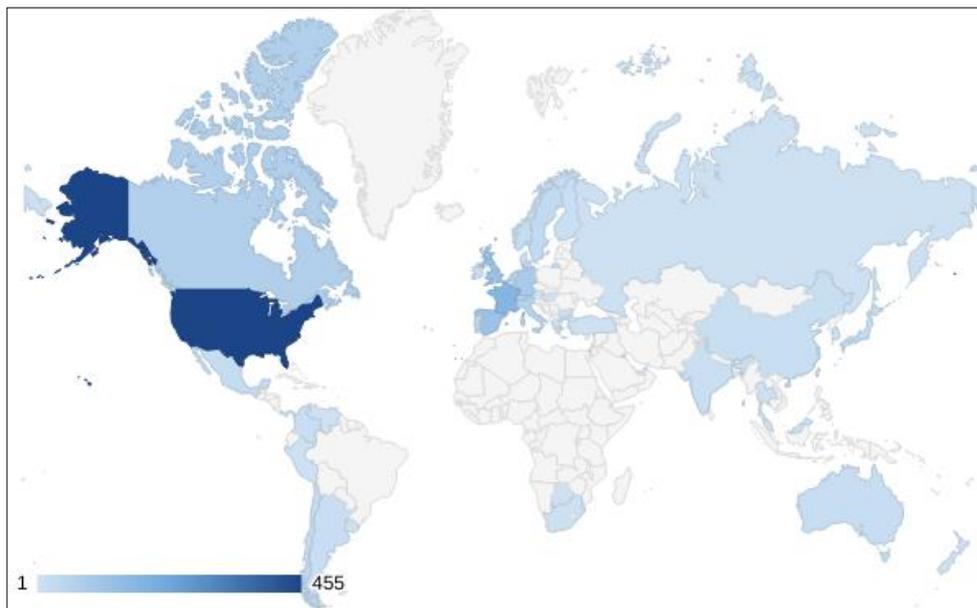
4. Empirical data

In this chapter, the data will be presented in two sections, where the first one is the data collected from the quantitative strand and last section is the data from the qualitative strand.

4.1. Quantitative data

4.1.1. Country coverage

Chart 2: Country coverage 1997 - 2018⁴



The quantitative empiricism consists of data from 50 countries in total as presented in *Chart 2*. These countries are representing the acquirer companies in the acquisition deals. Following acquirer countries are included in the chart, the number of companies are mentioned in parentheses: Argentina (15), Australia (20), Austria (6), Belgium (19), Bermuda (18), Botswana (1), Bulgaria (19), Canada (70), Cayman Islands (3), Chile (26), China (17), Colombia (12), Denmark (11), Finland (13), France (174), Germany (88), Greece (1), Hong Kong (6), Hungary (2), India (12), Ireland (17), Israel (9), Italy (59), Japan (26), Kuwait (1), Luxembourg (19), Malaysia (3), Mexico (22), Netherlands (48), New Zealand (3), Norway (23), Panama (1), Peru (2), Portugal (41), Republic of Korea (3), Russian Federation (4), Singapore (12), South Africa (4), Spain (119), Sweden (30), Switzerland (52), Taiwan (5), Thailand (1), Turkey (1), United Arab Emirates (2), United Kingdom (126), United States of America (455), Uruguay (5), Venezuela (1), Virgin Islands British (4), and mixed⁵ (42).

⁴ The countries that are represented in the sampling have been coloured in the chart above, where the deals range from 1 - 455. Countries with no colour are not included in the sample.

⁵ The target was acquired by two or more countries.

4.1.2. Pattern of acquisition waves

Chart 3: Pattern of acquisition waves 1997 – 2018

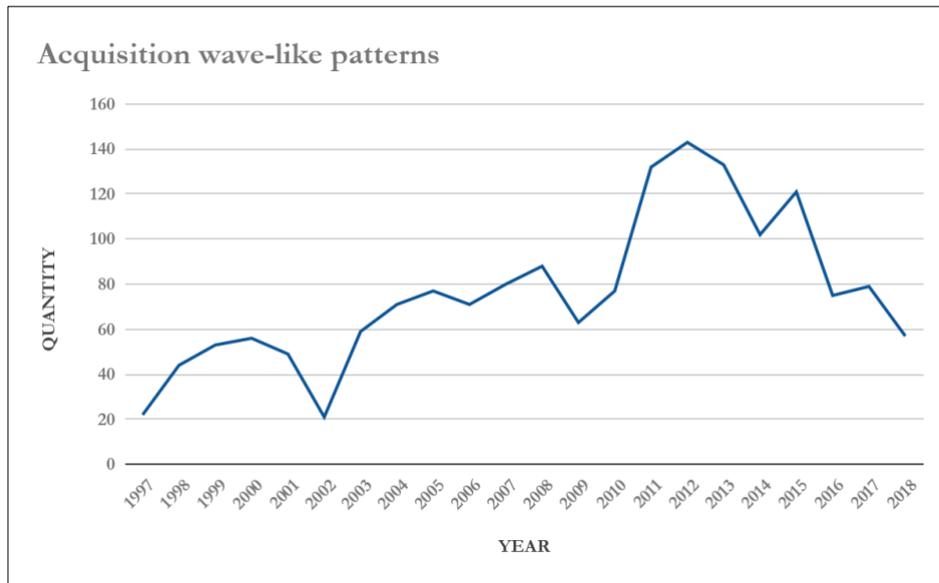
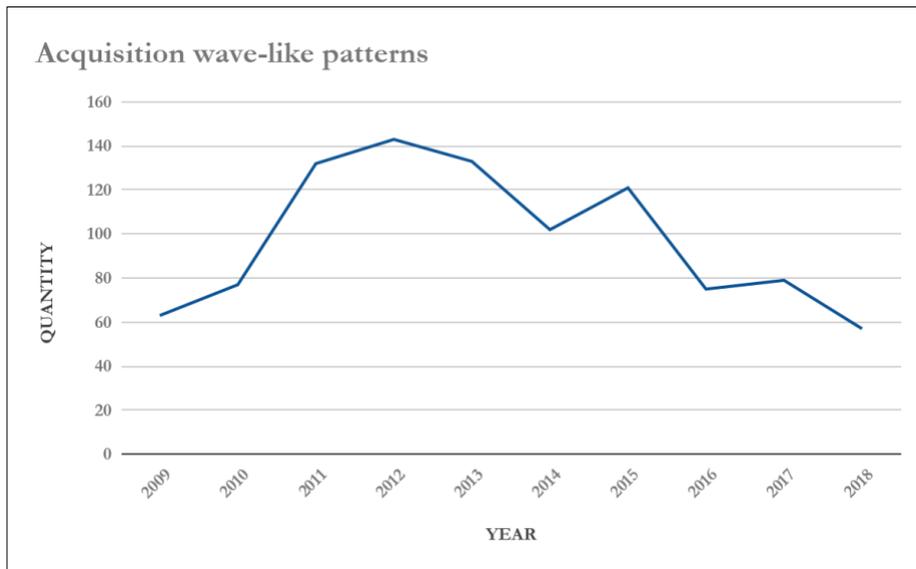


Table 3: Total quantity of acquisitions

Year	Quantity
1997	22
1998	44
1999	53
2000	56
2001	49
2002	21
2003	59
2004	71
2005	77
2006	71
2007	80
2008	88
2009	63
2010	77
2011	132
2012	143
2013	133
2014	102
2015	121
2016	75
2017	79
2018	57
TOTAL	1673

Chart 3 give an explanation of how ingoing acquisitions to Brazil have changed during the years of 1997 - 2018. The quantity of ingoing acquisitions has changed in wave-like patterns, during the entire sample period (see Chart 3 and Table 3). The first period in this sample began around 1997, it is not clear if this is the starting point of the wave but it peaked in 2000 and had its lowest point in 2002, where the next wave-like pattern seems to have started. This second wave seem to range from 2002 and continued to increase until it peaked in 2005, just to have a small decrease in 2006. From 2006 an additional increase occurs and reached a peak in 2008, the following year the amount of deals decreases. In 2009 the next big wave-like pattern seems to have started and made its peak in 2012, where it then decreases until 2014. For the rest of the sampling period the amount of acquisitions decreases, with one exception in 2015. The chart also visualizes how the amount of acquisitions not only change in these mentioned wave-like patterns, but also that the lowest point of each wave increases with the years, to some extent. To give a clearer image of this Table 3 show the quantity of ingoing acquisitions to Brazil, for each year. Chart 4 will be more focused on the latest wave-like pattern.

Chart 4: Pattern of acquisition waves 2009 - 2018



As mentioned above, one of the latest wave-like patterns began in 2009 and in *Chart 4* this period is zoomed in to make it clearer. This period started in 2009 and had its peak in 2012 and thereafter it decreased until year 2014. Then the wave had another small peak in 2015, although this one was lower than the one in 2012. After this, the quantity of ingoing acquisitions continued its overall decrease but with a small increase in 2017, with four acquisitions. These numbers are presented in *Table 3*.

4.1.3. Pattern of horizontal, vertical and conglomerate waves

Chart 5: Horizontal, vertical and conglomerate acquisitions 1997 - 2018

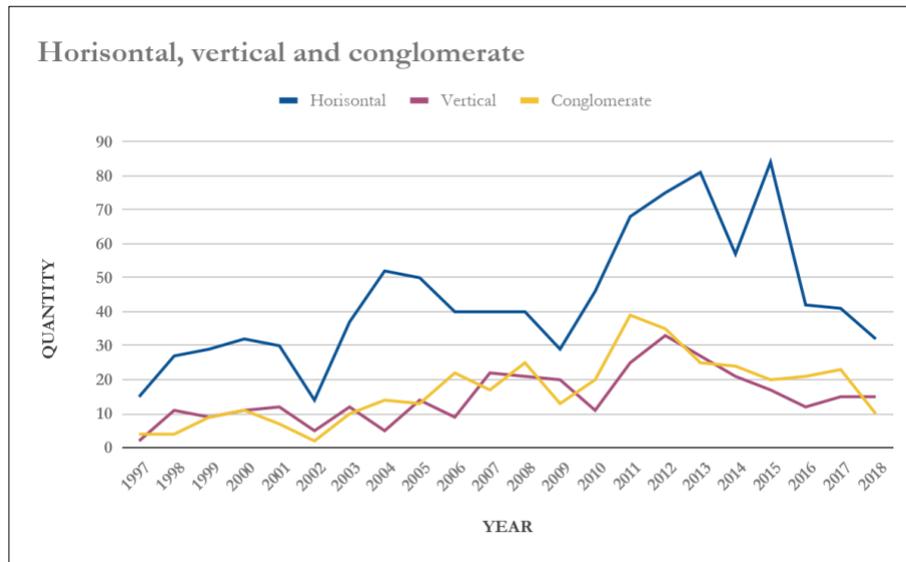


Table 4: The spread of acquisition types

Year	H ⁶	V ⁷	C ⁸
1997	15	2	4
1998	27	11	4
1999	29	9	9
2000	32	11	11
2001	30	12	7
2002	14	5	2
2003	37	12	10
2004	52	5	14
2005	50	14	13
2006	40	9	22
2007	40	22	17
2008	40	21	25
2009	29	20	13
2010	46	11	20
2011	68	25	39
2012	75	33	35
2013	81	27	25
2014	57	21	24
2015	84	17	20
2016	42	12	21
2017	41	15	23
2018	32	15	10
TOTAL	961	329	368

In *Chart 5*, horizontal, vertical and conglomerate acquisitions are compared to each other. Here it is possible to see how each type of acquisition have changed during the time period 1997 - 2018. The horizontal strategy are more frequent compared to vertical and conglomerate strategies, when it comes to ingoing acquisitions to Brazil. This chart is based on the values from *Table 4*, which make it clearer to see how frequent horizontal deals are compared to vertical and conglomerate. Horizontal deals stand for a total of 961 deals while vertical and conglomerate stand for 326 and 368 each. *Chart 5* shows that horizontal deals follow wave-like patterns with periods that look similar to a wave. These periods are 1997 - 2002, 2002 - 2009, 2009 - 2014 and 2014 - 2018. The wave-like patterns for vertical deals are not as clear as the horizontal deals. Small wave-like patterns occur for vertical deals in 1997 - 1999 and 1999 - 2002, and in 2002 - 2006 the amount of vertical deals have two small wave-like patterns. In 2006 the next wave-like pattern begins and ends in 2010, where the next wave-like pattern begins and keeps going until it reaches its lowest point in 2016. The conglomerate deals have similar patterns to the vertical deals. The first point that is similar to a wave starts in 1997 and ends in 2002, just so the next one could start. In 2005, the amount of conglomerate deals decreases (see *Table 4*) and increases the year after that. In 2007, it seems as one wave-like pattern ends and another began and kept going until 2009. This wave-like pattern kept going until 2015. The years of 2015 - 2018 represent the last wave-like pattern for the conglomerate acquisitions. The vertical and conglomerate acquisitions

⁶ H = Horizontal

⁷ V = Vertical

⁸ C = Conglomerate

are intertwined with each other during the entire sampling period but shows a few interesting points when they are each other's opposites. In 1998 conglomerate deals are low and in this time the vertical deals had an increase in quantity of deals. But in 2004 and 2006 the opposite situation occurred. Vertical deals had a decrease while the conglomerate deals had an increase in quantity.

Chart 6: Horizontal, vertical and conglomerate acquisitions 2009 - 2018

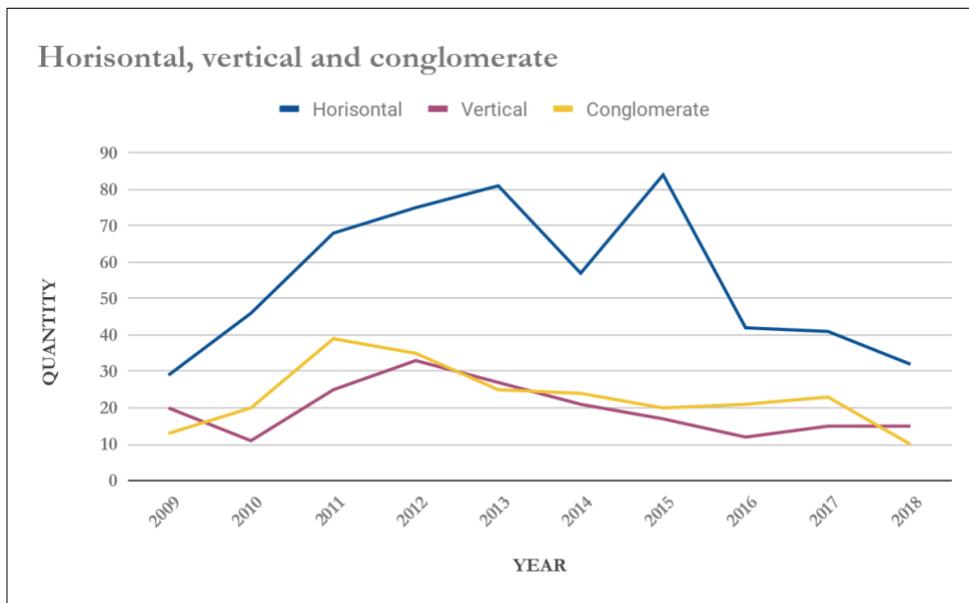


Chart 6 shows a close up on the time period 2009 - 2018. When looking at the line that shows the horizontal behavior in terms of quantity, it is the two most recent wave-like behaviors. The horizontal deals are still the most frequent strategy of choice (see *Table 4*). When looking at the line that represents horizontal quantity, it has two peaks, with the first one in 2013 and the second on in 2015. The peak in 2015 had a few more deals than the peak in 2013. When it comes to the patterns of vertical and conglomerate deals they are intertwined, but the conglomerate deals generally lie higher than the amount of vertical deals.

4.1.4. Inflows for different types of acquisitions

Chart 7: Inflows for different types of acquisitions

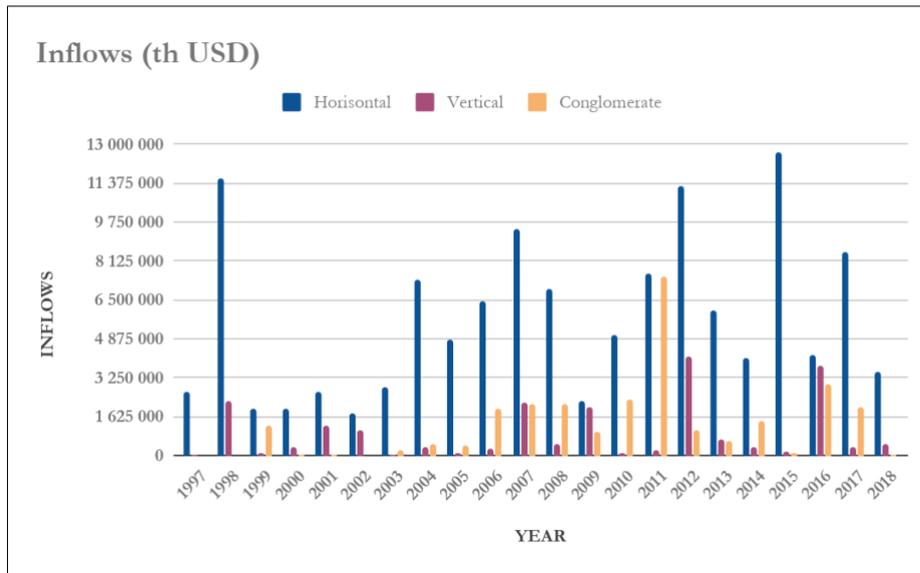


Table 5: Inflows for all acquisitions

Year	Inflows (th USD)
1997	2 687 469
1998	13 884 016
1999	3 368 428
2000	2 340 501
2001	3 965 391
2002	2 833 880
2003	3 130 660
2004	8 217 779
2005	5 372 818
2006	8 727 439
2007	13 877 411
2008	9 583 739
2009	5 329 958
2010	7 395 925
2011	15 372 028
2012	16 491 865
2013	7 312 798
2014	5 895 462
2015	12 966 346
2016	10 939 831
2017	10 838 005
2018	3 980 858
TOTAL	174 512 607

Chart 7 and Appendix 4 is presenting inflows for horizontal, vertical and conglomerate acquisitions for the time period 1997 - 2018, while Table 5 present the total inflows for horizontal, vertical and conglomerate acquisitions together. Chart 7 shows a comparison between the different types of activities were horizontal represents a majority of the deals, and have the highest amount of inflows each year. This can also be seen in Appendix 4 that shows that horizontal stand for more than half of all ingoing inflows. Chart 7 together with Appendix 4 shows that the highest yearly inflow for horizontal acquisitions were at 1998, 2012 and 2015. The chart also shows that during 2011, conglomerate acquisitions had a peak, while vertical deals had its peaks in 2012 and 2016. Appendix 4 also shows that conglomerate stands for a higher amount of ingoing inflows compared to vertical, even if the difference is minimal. Table 5 shows that the total inflows had its peak at 1998, 2007, 2011 - 2012 and 2015.

4.1.5. Industry spread

Chart 8: Industry spread

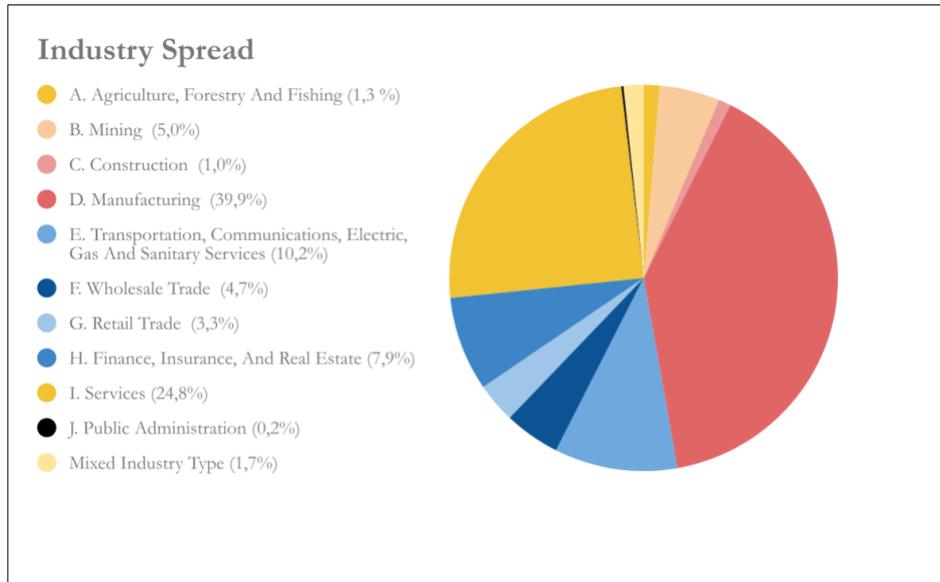


Table 6: Quantity of deals per division

Division	Quantity
A	22
B	84
C	17
D	667
E	171
F	78
G	56
H	132
I	415
J	3
Mixed	28
TOTAL	1673

In *Chart 8* and *Table 6* is the industry spread presented for all target companies, based on primary SIC-codes. The industry spread is divided after ten divisions based on different industry types. Division represents a summary at a one-digit level, while major group represent a two-digit level. To see the spread of industries divided after major group see *Appendix 5*. Horizontal, vertical and conglomerate deals have been studied at a two-digit level, but have in above chart and table been presented at a one-digit level to ease the interpretation of the data. *Chart 8* present industry spread after percentage share for the target companies, were *D Manufacturing* and *I Services* together represent a majority. These two groups represent 64,7 percent of the industry spread. The chart also shows that the least common industry groups are *J Public Administration* and *C Construction*, that together represents 1,2 percent. *J Public Administration* and *C Construction* represents a smaller number of major groups compared to *D Manufacturing* and *I Services* though, which can be seen in *Appendix 5*. *Table 6* shows the quantity of deals per division by looking at the industry that the target company is active in. This table is used as a compliment to *Chart 8* to clarify how many companies are active in each industry. The number of companies active in *D Manufacturing* and *I Services* is in total 1082 of 1673, while the number of companies active in *J Public Administration* and *C Construction* is 20. Mixed industry type in *Chart 8* and *Table 6* represent the deals where the target company was active in multiple industries, and is therefore not included in any divisions.

4.2. Qualitative data

Since all respondents in the qualitative are anonymous we will refer to them as respondent A, B, C and D. Each interview is presented in *Table 1*. All respondents have in one way or another been part of an acquisition process from the sample. Respondent A works for a large company that is active in multiple countries around the world. In the Brazilian section of this company, about four to five cross-border deals have been made in total and respondent A have

participated in some of these. Respondent B and C works at a family owned accounting firm, that is in the process to become a professional company. They help companies during the integration phase and help to support with taxes, financial statements and to make sure that everything is up to date. They helped during one of acquisitions in the sample and therefore they had more knowledge about the acquisition than the target company. Respondent D works for an international company that acquired a company in Brazil. This new company later did a turnaround process and came to acquirer another small company in Brazil, which is included in the sample. This respondent worked as consultant and were responsible for the due diligence process. All acquisitions in the qualitative sample appeared during following years: the acquisition that respondent A took part of were at 2018, while the acquisitions that respondent B, C, and D took part of were at 2017. This part will be divided after different themes to ease the reading of the chapter.

4.2.1. The importance of integration

All respondents talked about the importance of having an integration strategy and planning ahead, and to build a strategy for the future. They meant that it is important to analyse what is behind the deals to account for eventual problems, but also look into what the future might hold in the market. By having a strategy, it simplifies to plan how to react to future happenings that might occur. In other words, the respondents meant that the companies need to have a strategy during the integration to ease the process, both to account for problems and to take advantage of market opportunities.

But even if companies plan ahead, problems can still appear. When it comes to the actual implementation process, both respondent A and D saw some complications when trying to implement the acquirers' business culture into the targets company culture. By doing so, cultural barriers could create issues and some of the synergies is not possible to implement, according to respondent A. Respondent A said that synergy effects are one of the main reasons for the company in acquisitions deals.

Among respondents A, B and D, it seemed to be most common in an acquisition that the companies belong to the same industry. Respondent B, that helped during an acquisition process between two similar companies, makes a statement⁹ to explain this, and mean that the companies have:

“to get connected somehow, even if they are complement of each other, but they are always related”
- Respondent B

Respondent D, were also involved in an acquisition that were within the same industry and respondent A confirms that acquisitions within the same industry is the most common for the company and is mostly related to the core business. But lately their company are trying to enter a new market and are therefore acquiring companies from a different industry. This respondent talked about the possible challenges that might arise from acquiring a business from a different

⁹ To ease the reading process, repeats made by the respondents have been excluded from the quotes.

industry compared to the same industry. Respondent C meant that different businesses needs to worry more or less about the risks and according to respondent A, a deal that is within the same industry does not demand the same amount of maintenance and analysis since *“it is our day by day so it’s much easier for us to understand this kind of business”* and in the case of going outside their own core industry they hire external consultant to gain market- and client knowledge.

Communication is an important thing to consider to ease the integration process, according to respondent B, C and D. While respondents B and C talked about the aspect of how you can communicate and the importance of being clear in *“how we communicate”* (Respondent B) and trying to understand the other person, this could help the integration process. Respondent D raised the issue of having to be too clear in the communication with the acquired company, which in the case of this acquisition made the process more inefficient than needed since a lot of effort goes to making sure that acquired company understands the new business plan and the best way for them to grow, and they as acquirer’s *“[...] had to put a lot of effort trying to show them [...] the new process [...]”*. In this particular case, respondent D thought that the process got extra complicated due to the lack of financial information.

4.2.2. Information sharing

All respondents talked about the importance of information, and they meant that the information sharing between the acquirer and the target companies are an important part. The respondents have different experiences though, where respondent B that helped another company during their acquisition process, meant that no information asymmetry existed between target, acquirer and the accounting firm that respondent B represented, while respondent D said that as an acquirer they did not receive all financial information (like financial statements, sales and liabilities) that were needed. Respondent D meant that the acquirer that were a big professional company, had all financial information available and could easily share the information, while the target that were a small family company did not have all information available due to the lack of a functioning structure. Respondent D said that Brazil has a lot of family companies, and they tend to be uncomfortable with sharing information to people outside the company, something that made the acquisition process complicated. This can be explained by the following quote:

“I think the first thing is providing information, we had to buy a company without having information about the financial statements but not like financial statements, we didn't, we didn't even know the sales, we didn't even know the costs of offering the services that we are buying. So information, it what's a huge issue” - Respondent D

Both respondent A and D argues that it is more important for the acquirer in a deal to receive information rather than the target company, even if both parties have to share information. They meant that the acquirer needs more financial information about the target company, and respondent A specify and says that both parties need to share their commitments with compliance and corruption laws and their ethical statements. Respondent A argues that even if an information asymmetry might exist, is the bargaining position not affected by information

since it is considered to be mandatory to share information. But even if it is mandatory to share information, can it be difficult to gather all information that is needed to cover the risks according to respondent A. Respondent D on the other hand add that it is more expected of the acquirer than the target to share financial information.

Respondent A, B and C thinks that it is important to analyse financial statements before an acquisition and meant that it is important to understand the financial information in an acquisition process. The three respondents mean that problems can be avoided by analyzing the financial statements beforehand, something that can be explained by the following quote:

"[...] it's very important to understand the financials and go in to details to analyse what is behind the deal because of course if you analyse only the balance sheet of a company but if you do not understand what's behind them you could acquiring some problem for the future." - Respondent A

Respondent D on the other hand argues against this and mean that the targets financial statements is not important, since numbers always can be changed. The important part was the technique the targeted company could contribute with, and that the target's product matched the demand on the Brazilian market. As long as a demand existed, the acquisition would be successful according to respondent D. This can be explained in the following quote:

"We didn't look a lot to their financial statements because we could be able to change it and if we have demand it was supposed to be a good acquisition because the other things could be developed."
- Respondent D

But on the other hand, respondent A argues that in case an information asymmetry exists between the target and the acquirer, and therefore all necessary financial information cannot be analysed, the acquirer company can create mechanism *"to mitigate our risks"* (Respondent A), by lowering the price for the deal.

4.2.3. Domestic versus cross-border deals

When it comes to cross-border deals, all respondents agreed that there are different risk aspects that needs to be considered compared to when doing domestic deals. In a cross-border deal there could be issues with market knowledge and cultural differences, but when it comes to this all respondents have different views on the aspects and think that this might affect the deal in different ways.

To be able to make a cross-border deal, it is important with knowledge about the other market. This is something that all respondents agreed upon. But they are divided when it comes to how they are looking at market knowledge and exactly what role it might play in a cross-border acquisitions. Respondent C and D talked about how not having the same knowledge about the other market can cause issues. Respondent C raises the issue of not knowing the market, which makes it difficult to plan and avoid future problems that might appear by saying that *"You cannot see all the things that you have to prepare before to start with the business"* (Respondent C). Respondent D saw it from a more problematic view and talked about not having the right knowledge can cause for issues and that companies might have to use specialist

to be able to understand the other market. This respondent also talked about that market knowledge might help to make the due diligence process shorter in cross-border deals.

As said before all respondents agreed that knowledge is important but respondent A and B on the other hand had a different reasoning than the other respondents. They viewed this as a way to be able to learn from the other companies. Respondent B looks at it in a way that knowledge and education can ease the process while respondent A sees it as a chance to evaluate their own business and learn from the companies that are being acquired.

“[...] take benefit of their knowledge and try to implement that knowledge in our company, the culture and things related to that. So I guess that the positive side of an acquisition is this one, that you could improve your current view.” - Respondent A

When talking about cross-border deals it is difficult to not mention the subject of culture and possible differences. All respondents talked about cultures but in different aspects. Respondent A talked more about business culture in the implementation phase while respondents B, C and D acknowledge cultural differences across the borders. Respondents C and D saw that cultural differences could affect when working cross-borders, but in different ways. Respondent C talked about the importance of trying to understand the other company and that it takes more effort because of possible language barriers, not understanding the other company could cause issues in the long run.

“The costs it came from the culture I guess because sometimes you have to take too long to understand their points so I keep my attention on this. The other parts we can organize inside.” - Respondent C

That cultural differences takes effort is something that respondent D agrees with but not because of the language but the inefficiencies that comes from having to learn how to act and behave in different cultures, this is something that can be challenging. Respondent B on the other hand agrees with the other two that there is a cultural difference but could not support the views of respondents C and D in it being inefficient this person thinks that it does not affect the business process.

“[...] you have the opportunity to get in touch with people with different cultures. You have the opportunity to know a little bit more of it.” - Respondent B

4.2.4. Where do most problems arise?

4.2.4.1. Taxation

All respondents said that problems can arise in cross-border acquisitions and that there are several risk factors to take into account in cross-border deals. Respondent A, B and C said that one of the most important risk factors on the Brazilian market is taxation, since the taxes can be complicated to handle, according to mentioned respondents. The three respondents meant that taxes in Brazil are high, and respondent B and C said that it can be complicated especially for foreign companies to handle this. They say that this can make foreign companies are afraid of entering the Brazilian market. Respondent C also mentioned that there are a lot of paperwork

around taxation, and some companies need help from specialists to handle the taxes. Taxation rules can change from different states and cities, and it can be complicated to calculate the taxes, something that respondent C explains in the following quote:

“[...] sometimes it doesn’t make sense. Because for example, in Brazil you have more than three kinds of ways to calculate the tax on the revenues, two kinds of ways to calculate the taxes on the profit.” - Respondent C

4.2.4.2. Labor

Another important risk factor in cross-border acquisitions is labor-issues, something that respondent A, C and D talked about. Respondent A mentioned that labor can be an issue in terms of taxation, and states that: *“[...] most of the time the risk are related to tax and labor issues.”*

Respondent C on the other hand said that it is rather the labor rules that is the problem, and that it can be complicated for companies to handle the Brazilian rules when it comes to labor-questions. Respondent C also talked about labor issue in terms of difficulty in finding workforce with the right qualifications, something that respondent D agrees on. Respondent D meant that it is easy and cheap to find employees, but not with the right knowledge. Finding professional workforce with the right education is difficult even when offering a high salary. This can be explained in the following quotes:

“[...] another challenge is the workforce, as we are not developed we do not have a lots of education here so it is very hard to find professionals workforce [...]” - Respondent D

4.2.4.3. Governmental questions

Another aspect to handle when doing business on the Brazilian market is governmental questions, something that all respondents agreed on. All respondents talked about the complexity with the Brazilian law, something that can be explained through a quote by respondent C, that says that the Brazilian law can be complicated to handle *“and sometimes it doesn’t make sense”*. Respondent D meant that the law can be inefficient while respondent B and C says that it can be complicated to handle the law, which respondent B talks about in the following quote:

“[...] because we have all the laws here and it is not functioning so I hope someday they get more simpler [...]” - Respondent B

Other governmental questions to take into account is, according to respondent A, corruption and the laws around it. Respondent A mentioned that corruption laws is important to consider in all acquisition deals. Respondent B and C on the other hand talked about the political structure as a governmental issue, and respondent B mean that the political instability affect the growth of the country, this can be explained in the following quote:

“[...] it's a weird country, we use to say that when politics go to sleep, that's where Brazil gets its growth.” - Respondent B

Besides problems that can arise due to taxation, labor and governmental aspects, respondent C and D mentioned other aspects. Respondent C talked about the importance for foreign companies to understand import and export rules when entering the Brazilian market, while respondent D talks about logistical issues. Respondent D means that transportation in Brazil is expensive and complicated to handle, something can be explained by the following quote:

“We as are not developed we have a lots of logistical problems so it is so hard in Brazil to carry a product or something from one city to another, it is expensive and it is not easy, it is complex. So this is a challenge about coming to Brazil.” – Respondent D

4.2.5. The great potential of the Brazilian market

All though all of the respondents acknowledged the difficulties on the Brazilian market they also saw the great potential that market provide. All respondent talked about the future potential on the Brazilian market, and believed that there are a lot of possibilities for companies that want to develop themselves on the market. This can be explained through some quotes by the respondents: “[...] *It’s easy to enjoy the market.*” (Respondent C), *“I think that we have potential in this market”* (Respondent D) and *“We are a big country for big population, we have a lot of space to grow here.”* (Respondent D). In the last quote respondent D talked about the impact of the market size in Brazil, meaning that the big population creates a lot of opportunities on the market. Respondent D connect this to different industries and said that different industries have more or less chance to succeed on the market, but in general there are a huge potential which leads to that most companies do not have to expand internationally since they can grow on the Brazilian market. However, an interesting point was made by Respondent D, together with Respondent B and C, who stated that many of the family owned companies in Brazil do not necessarily have growth as main focus. A lot of family owned businesses focuses on their current business operations instead of trying to grow.

Respondent D mentioned that since Brazil is a less developed market, some problems can arise and it can be expensive for companies to expand their business on the market. But on the other hand, both respondent B and D argued that being less developed creates opportunities and they mean that Brazil holds a positive future. The respondents said that the growth of Brazil leads to potential for companies to develop and expand their business. This can be explained by the following quotes:

“I believe in Brazil, I think in four years it will be much better than we had before.” - Respondent B

“We are a non-developing country so I think we have more opportunities than developed countries, once people are starting to develop here and are starting to seek new services and products that in other countries are already offered and already had growth.” - Respondent D

5. Results

In this chapter, the results from both the quantitative and qualitative strand will be presented, separately. The results are based on the empirical data that was presented in the previous chapter. In the quantitative data, the relationship between two variables is presented and when it comes to the qualitative data a few insights from the interviews is summarized.

5.1. Quantitative results

5.1.1. Horizontal, vertical and conglomerate acquisitions connected to total quantity of acquisitions

When comparing the patterns of acquisition waves that consist of the total quantity of deals (see *Chart 3*) with the patterns of horizontal, vertical and conglomerate waves (see *Chart 5*) there are some similarities between the two charts, but also lots of dissimilarities. The data for the total amount of acquisitions (see *Table 3*) presents six wave-like acquisition patterns, these have been divided into different periods: 1997 - 2002, 2002 - 2006, 2006 - 2009, 2009 - 2014, 2014 - 2016 and 2016 - 2018. However, these periods are not always consistent with the wave-like patterns of the horizontal, vertical and conglomerate deals.

The general patterns of acquisition waves in *Chart 3* is to a great extent followed by the horizontal wave-like patterns in *Chart 5*. The big difference between the two are that horizontal deals did not reach a peak in 2008, and therefore prolonged the wave-like pattern with one year making it last between 2002 - 2009. As already mentioned, the quantity in the acquisition waves (see *Table 3*) had a small increase in 2017 and then decreased the following year, creating a small wave-like pattern at the end of the sampling period, something that did occur for the horizontal deals. For the horizontal deals, the wave-like pattern continued throughout the time period 2014 - 2018.

When comparing the total quantity of acquisitions wave-like patterns from *Chart 3* with the vertical wave-like patterns presented in *Chart 5*, the difference is greater than in the previous case. Just as in the acquisition waves, there are a wave on the rise in 1997, but the difference here is that the vertical deals peaks in 1998 and then decreases making the wave-like pattern end in 1999. Because of this, the vertical deals have two smaller waves-like patterns in the same period that the total quantity acquisitions have one wave-like pattern. Between 2002 and 2006 the same thing occurs, where the vertical deals have two wave-like patterns while quantity of acquisition has only one wave-like pattern. For the years of 2006 - 2010, vertical deals show a wave-like pattern and this period appears to be one year longer than the wave-pattern for quantity of acquisitions. Unlike the total quantity of acquisition, the vertical wave-like pattern range from 2010 - 2016 and then increases in 2017, a period where the total quantity of acquisitions decreased.

Lastly there should be a comparison between the total quantity of acquisitions (see *Chart 3*) and conglomerate wave-like patterns (see *Chart 5*). The first wave-like pattern began in 1997

and as with total quantity of acquisitions it continued until 2002. In the time of 2002 - 2009 about three waves-like patterns occurred for conglomerate deals and this relates to two wave-like patterns for the total quantity of acquisitions. The second to last wave-like pattern for conglomerate deals ranged between 2009 - 2015 and continued for one year longer than the wave-like pattern for the total quantity of acquisition. Conglomerate deals have a small increase in 2016 and peaked in 2017, creating a small wave-like pattern between 2015 - 2018.

5.1.2. Total quantity connected to total inflows

Table 7: Peaks and lower values for total quantity and inflows

	Total quantity	Horisontal inflows	Vertical inflows	Conglomerate inflows
Peaks	2000, 2008, 2012, 2015	1998, 2007, 2012, 2015	1998, 2007, 2012, 2016	1999, 2007, 2011, 2016
Lower values	1997, 2002, 2009, 2014, 2018	1997, 2002, 2009, 2014, 2018	1997, 2003, 2010, 2015, 2017	1997/1998, 2002, 2009, 2015, 2018

The total quantity of acquisitions (see *Table 3*) is connected to inflows for the total sample (see *Table 5*). When it comes to the total quantity of acquisitions, the highest peaks in the beginning of the sample occurred in 2000 and 2008, while the peaks for total inflows occurred before the total quantity, in 1998 and 2007 (see *Table 3* and *Table 5*). For the later part of the sampling, both the total quantity and total inflows had its peaks in 2012 and 2015. When it comes to the lowest values for total quantity and total inflows, the two variables follow each other in following years: 1997, 2009, 2014 and 2018. Besides this, total quantity had one of its lower values during 2002, and total inflows have low values at 2000.

The inflows for horisontal, vertical and conglomerate acquisitions (see *Chart 7* and *Appendix 4*) is connected to total quantity (see *Chart 3* and *Table 3*) to measure the impact of different types of acquisitions. Horisontal inflows had its peaks at the same time as total quantity for the years of 2012 and 2015. Besides this, horisontal inflows had its peaks at 1998 and 2007, while total quantity had its peaks at 2000 and 2008. The lowest values for horisontal inflows matches the lowest values for the total quantity at the years of: 1997, 2002, 2009, 2014, 2016 and 2018. This means that horisontal inflows matches the total quantity in all years.

For vertical inflows, the peaks occurred at the years of 1998, 2007, 2012 and 2015 (see *Chart 7* and *Appendix 4*). The only year that were the same as for total quantity, were the year of 2012, otherwise the total quantity (see *Chart 3* and *Table 3*) had its peaks right before or after the vertical inflows. The lowest values for vertical inflows occurred at the same time as total quantity in 1997, otherwise vertical inflows had its peak one year after the total quantity. The vertical inflows peaked in following years: 2003, 2010 and 2015. The last lower value for vertical inflows were 2017, which were one year before total quantity.

The conglomerate inflows did not have any of its peaks at the same time as total quantity. The peaks for conglomerate inflows were 1999, 2007, 2011 and 2016 (see *Chart 7* and *Appendix*

4). The lower values for conglomerate deals occurred at the same time as total quantity for the following years: 1997/1998, 2002, 2009 and 2018. Besides this, conglomerate deals had one peak at 2015 while total quantity had a peak at 2014 (see *Chart 3* and *Table 3*).

5.1.3. Industry spread connected to type of acquisition

*Table 8: Industry spread in relation to quantity of horizontal, vertical and conglomerate acquisitions*¹⁰

Division	Major Group	Description	Horizontal	Vertical	Conglomerate
A	01 - 09	Agriculture, Forestry, And Fishing	5	-	15
B	10 - 14	Mining	65	1	17
C	15 - 17	Construction	9	2	6
D	20 - 39	Manufacturing	407	172	83
E	40 - 49	Transportation, Communications, Electric, Gas And Sanitary Services	98	16	56
F	50 - 51	Wholesale Trade	24	6	48
G	52 - 59	Retail Trade	31	4	21
H	60 - 67	Finance, Insurance, And Real Estate	67	43	21
I	70 - 89	Services	236	83	94
J	91 - 99	Public Administration	-	-	-
		TOTAL	942	327	361

Table 8 presents a summary of industry spread connected to the number of horizontal, vertical and conglomerate acquisitions. The industry spread is presented after divisions, a more detailed summary is presented in *Appendix 6* where major group is connected to the number of horizontal, vertical and conglomerate acquisitions. The data in the table does not include mixed industry type that is presented in *Chart 8* since acquisitions with multiple industry-classification cannot be classified after specific types of acquisitions. The losses from the number of horizontal, vertical and conglomerate deals are neither included in the data. *Table 8* shows that horizontal, vertical and conglomerate deals is most common in *D Manufacturing* and *I Services*, where the most common major group is *73 Business services* according to *Appendix 6*. *Appendix 6* also shows that besides major group 73, horizontal is most common in group: *28 Chemicals and allied products* and *20 Food and kindred products*, vertical is most common in: *87 Engineering, accounting, research, management, and related services* and *35 Industrial and commercial machinery and computer equipment*, and conglomerate is most common in: *49 Electric, gas and sanitary services*, *50 Wholesale trade, durable goods* and *87 Engineering, accounting research, management, and related services*.

¹⁰ Horizontal, vertical and conglomerate acquisitions are presented after the quantity, where darker blue represents a larger part of the sampling and lighter blue is represents a smaller part of the sampling.

The least common divisions for horizontal acquisitions are the divisions *Agriculture, Forestry, And Fishing* and *Construction*. For vertical acquisitions is the least common groups are *Agriculture, Forestry, And Fishing* and *Mining*, and for conglomerate acquisitions is the least common groups are *Agriculture, Forestry, And Fishing* and *Construction*. Mentioned divisions are besides *Public Administration* for all types of acquisitions, since none of the groups have any acquisitions represented in this division.

5.1.4. Mean value and median

Table 9: Mean value and median for total quantity and inflows

		Number of deals	Inflows (th USD)
Horizontal	Mean Value	47	5 716 662
	Median	40	4 925 894
Vertical	Mean Value	15	947 977
	Median	13	355 331
Conglomerate	Mean Value	17	1 267 752
	Median	16	812 422
Total	Mean Value	76	7 932 391
	Median	73	7 354 361

Table 9 presents the mean value and median for the number of deals and inflows for horizontal, vertical and conglomerate acquisitions, and for the total number of deals and the total inflows for all summarized deals together. All values are presented with round offs. The table shows that horizontal deals have the highest mean value and median, both when it comes to number of deals and inflows. Conglomerate deals have a higher mean value and median than vertical, both in number of deals and inflows. Conglomerate and vertical deals have more similar values to each other though, compared to horizontal that have much higher values than the other two categories. For all deals the mean value is higher than the median, both in the calculations for number of deals and inflows.

5.2. Qualitative results

Table 10: Summary of insights from the interviews

Themes	Insights from the interviews	Respondents
The importance of integration	It is important to plan ahead and implement an integration strategy.	All respondents
	The implementation process can be complicated in terms of adapting the business cultures.	A & D
	It is more common that two companies from the same industry are integrating with each other.	A, B & D
Information sharing	Information sharing between the acquirer and the target company is an important part.	All respondents
	It is more important for the acquirer to receive information rather than the target company.	A & D
	It is important to analyse financial statements before the acquisition.	A, B & C
Cross-border deals	Different risk aspects appear in cross-border acquisitions.	All respondents
	Knowledge is an important aspect in cross-border deals.	All respondents
Where do most problem arise?	One of the bigger risk aspects in cross-border deals is taxation.	A, B & C
	Labor is an important risk aspect on the Brazilian market to take into account.	A, C & D
	It is difficult to find qualified workforce.	C & D
	It can be complex to handle governmental questions, especially the Brazilian laws.	All respondents
The great potential of the Brazilian market	The Brazilian market has a great potential.	All respondents
	Being less developed creates opportunities for companies to expand.	B & D

Table 10 shows a summary of the interviews with the respondents and are connecting the responses from different respondents, creating some insights from the data. The table shows which respondents agrees on each insight. Based on the main themes from the interviews (cross-border, financial aspects and financial market), new themes were founded through similar keywords used by the respondents. These themes are *The importance of integration*, *Information sharing*, *Cross-border deals and cultural differences*, *Where do most of the problems arise?* and lastly *The great potential of the Brazilian market*.

The most important insights from this are the ones where all respondents agreed upon. They all saw the importance in planning ahead and to implement an integration strategy for the deals but also the importance of information sharing between the acquirer and the target. When looking at cross-border deals they all agreed that the risk aspects are different compared to when doing a domestic deal and that knowledge and cultural differences might have an effect on the process itself. They talk about the Brazilian market as something that can be very complex, especially when it comes to governmental questions, but despite this they all see the potential that the market provides.

6. Analysis

The analysis consists of two parts and is based on empirical data, where the first part presents correlation and regression analysis for the quantitative sample. In the second part an analysis of the integration process, pattern of cross-border acquisitions, horizontal, vertical and conglomerate strategies and financial information will be presented, and the quantitative and qualitative data have been integrated with each other. All results have been linked to previous research and an analysis of hypotheses will be presented.

6.1. Analysis: Correlation and regression

6.1.1. Horizontal acquisitions

Chart 9: Regression between quantity of horizontal acquisitions and total quantity

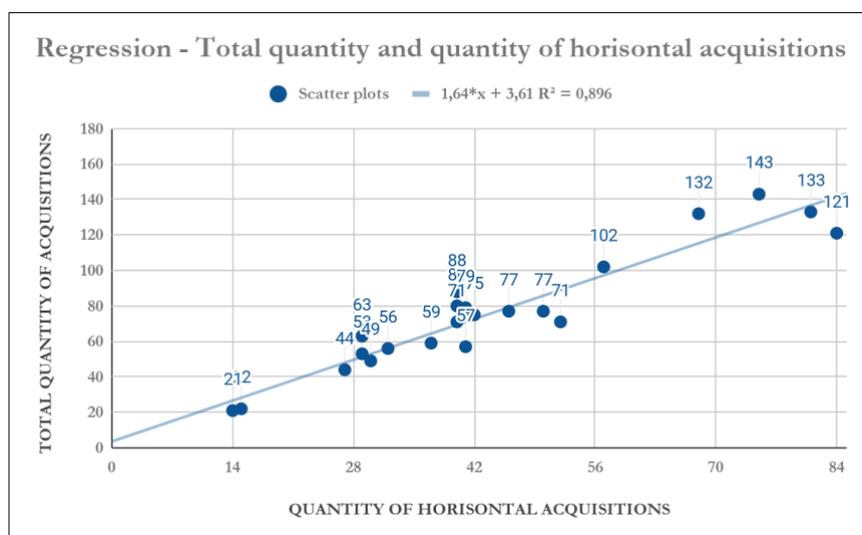


Chart 9 shows the correlation and regression between quantity of horizontal acquisitions and total quantity. The correlation is close to 94,7 percent (see Table 11), meaning that the statistical relationship is positive and the strength is considered to be high. In the case of regression (see Chart 9), it has a value of 0,896, which indicates that 89,6 percent of the total quantity of acquisitions are explained by horizontal acquisitions. When measuring the significance, the data shows that significance exists and this is presented in Table 11.

Chart 10: Regression between horizontal inflows and total quantity of acquisitions

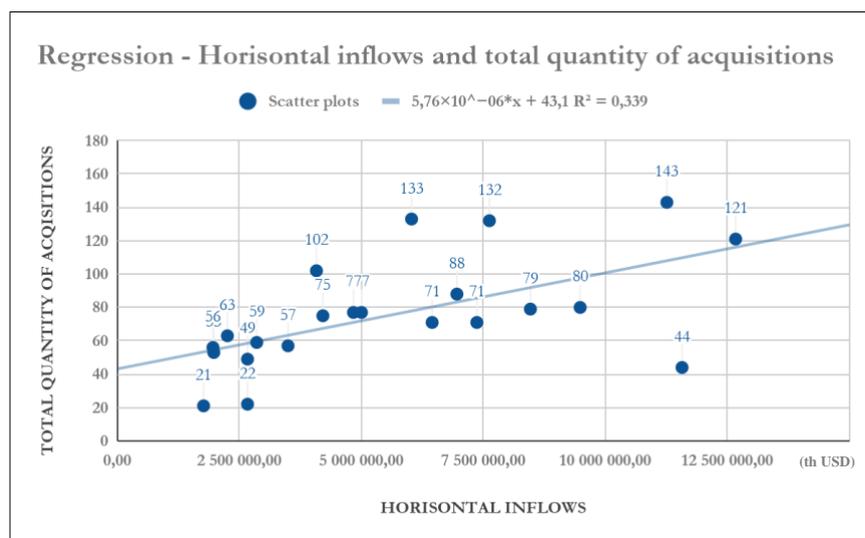
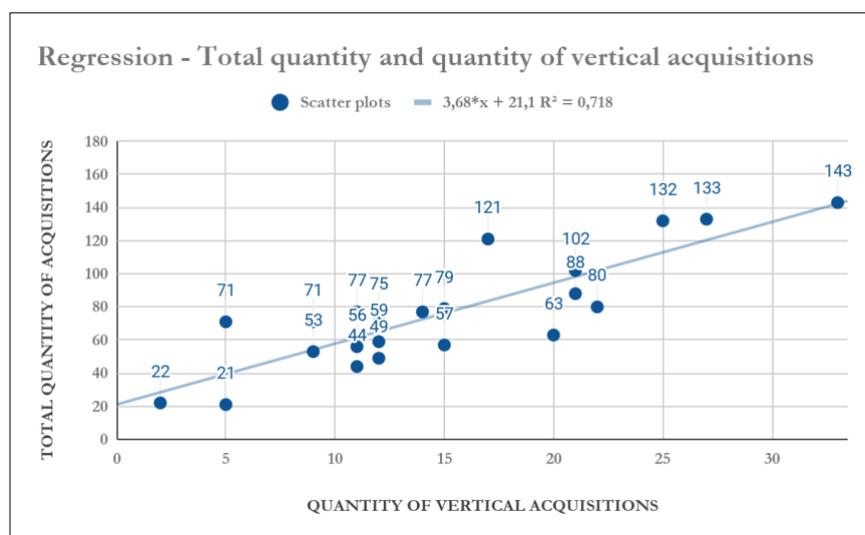


Chart 10 shows the correlation and regression between horizontal inflows and total quantity. The correlation is approximately 58,2 percent (see Table 12). This means that the correlation is positive, and the statistical relationship is strong between the two variables. The regression analysis shows that only some of the acquisitions can be explained by inflows from horizontal deals, meaning that the total quantity is partly dependent by horizontal inflows. As seen in the chart, the regression is 0,339 meaning that 33,9 percent of the horizontal inflows can explain the total quantity of acquisitions. For this chart significance occurs, which is expressed in Table 12.

6.1.2. Vertical acquisitions

Chart 11: Regression between quantity of vertical acquisitions and total quantity



In Chart 11, the correlation between the quantity of vertical acquisitions and the total quantity is presented as well as the regression line for the two variables. The correlation is positive and reaches approximately 84,7 percent, concluding that the statistical relationship between the two different variables is strong. However, this value is weaker than for the relationship between the total quantity and quantity of horizontal acquisitions. The value for regression indicates a

strong relationship as well, were about 71,8 percent of the total quantity is explained by vertical acquisitions. Just like in the case of correlation, this value is weaker than for horizontal acquisitions. Even in this case significance occurs (see *Table 11*).

Chart 12: Regression between vertical inflows and total quantity of acquisitions

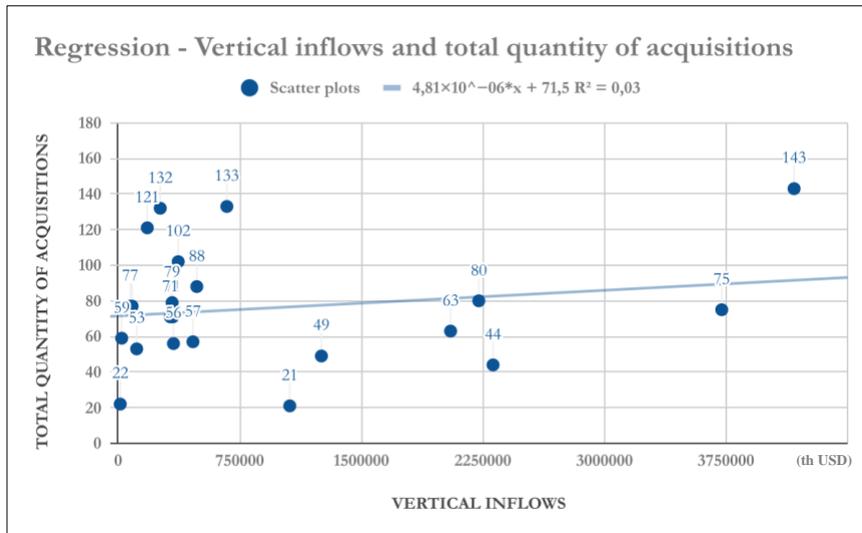
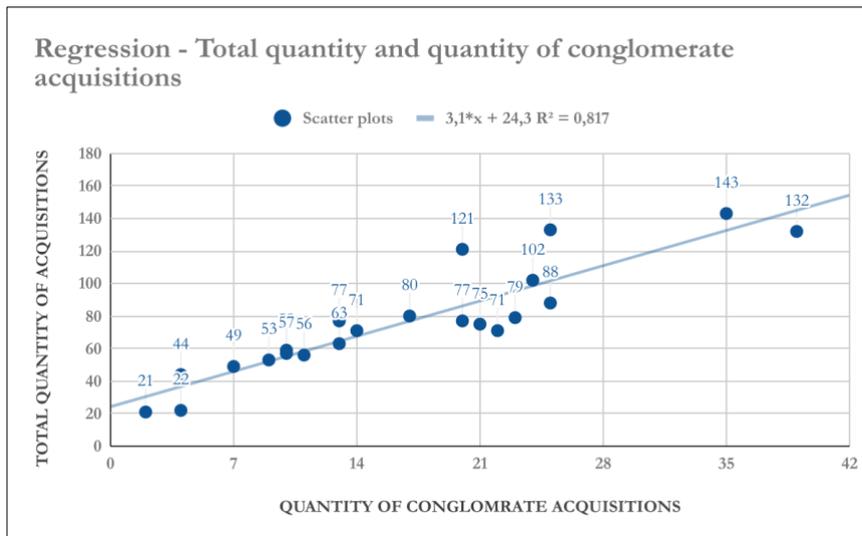


Chart 12 shows the correlation and regression between vertical inflows and total quantity. The correlation is approximately 17,4 percent (see *Table 12*), meaning that the correlation is positive. The statistical relationship between the two variables is considered as weak though, since it is close to 0 were no statistical relation appears. The strength of the correlation between vertical inflows and total quantity is weaker than the correlation between horizontal inflows and total quantity.

Chart 12 shows that the explanatory ability of vertical inflows in relation to total quantity is weak. This can be explained by the regression value of 0,030, meaning that only 3 percent of the total quantity can be explained by vertical inflows. The regression value is weaker for vertical inflows compared to horizontal inflows, meaning that the total quantity is more dependent of horizontal inflows than vertical. Significance occurs in this chart as well, which is expressed in *Table 12*.

6.1.3. Conglomerate acquisitions

Chart 13: Regression between quantity of conglomerate acquisitions and total quantity



In *Chart 13*, the correlation and regression between the two variables quantity of conglomerate acquisitions and total quantity is presented. The relationship between these variables is strong with a positive association to each other. The correlation is 90,4 percent (see *Table 11*), which is stronger than the relationship between total quantity and quantity of vertical acquisitions but weaker than in the case with horizontal acquisitions, that have the strongest relationship with total quantity.

The regression between total quantity and conglomerate acquisitions, is considered to be strong (see *Chart 13*) and demonstrates a strong causality between the two variables where the total quantity of acquisitions can be explained to 81,7 percent by conglomerate acquisitions. This value is stronger than the regression for vertical acquisitions but lower compared to horizontal acquisitions. Even in this case, significance exists (see *Table 11*).

Chart 14: Regression between conglomerate inflows and total quantity of acquisitions¹¹

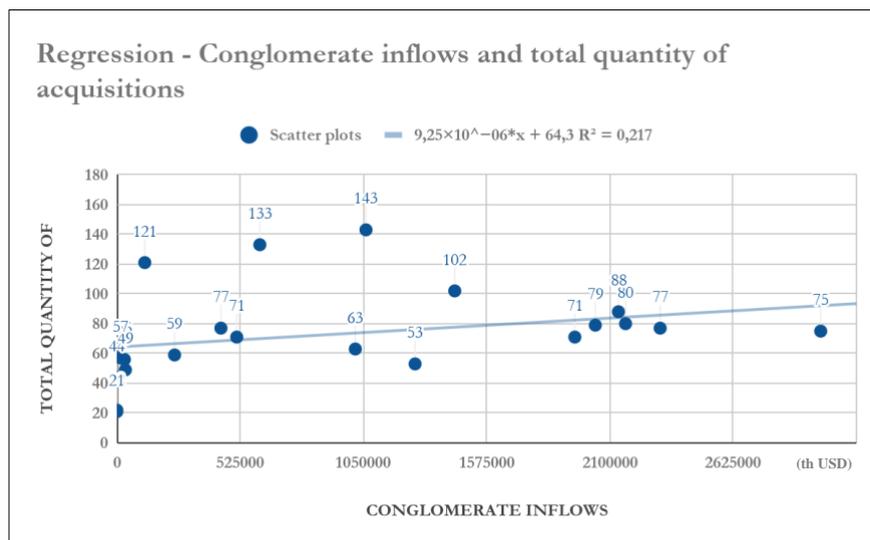


Chart 14 shows the correlation and regression between conglomerate inflows and total quantity. The correlation between these two variables is approximately 46,6 percent. This indicates that the correlation is positive even if the statistical relationship is quite weak. The strength of the correlation between conglomerate inflows and total quantity is weaker than the correlation for horizontal inflows, but it is stronger than the correlation for vertical inflows.

This chart presents a slightly positive sloping trendline, where the regression value is 0,217. The linear relationship shows that the total quantity is depended by conglomerate inflows to 21,7 percent which implicate that 21,7 percent of the acquisitions can be expressed by conglomerate inflows. Significance occurs in this chart as well, just like above measurements. The regression value for conglomerate inflows is lower than for horizontal inflows, which means that horizontal inflows affect the total quantity more than conglomerate inflows. The regression value is higher than for vertical inflows though, which implies that the total quantity is more dependent by conglomerate than vertical inflows, even if horizontal inflows have the greatest impact.

¹¹ One of the scatter plots lies outside of the chart, but this was necessary for making the different scatter plots distinguishable. The mentioned scatter plot is from year 2011 with an inflow of 7 485 165th USD compared to the total number of deals for that year, which was 132 completed acquisitions.

6.1.4. Summary

The correlation and regression have been summarized to ease the comparison of the different types of acquisitions. The summary is presented in the following tables:

Table 11: Correlation and regression between quantity of horisontal, vertical and conglomerate acquisitions and total quantity

		Quantity
Horisontal	Pearson Correlation	0,9467304007
	Regression	0,8962984517
	Significance (2-tailed) ¹²	0,0003371586876
	N ¹³	970
Vertical	Pearson Correlation	0,8472874
	Regression	0,7178959516
	Significance (2-tailed)	0,0000000001590398992
	N	329
Conglomerate	Pearson Correlation	0,9037948655
	Regression	0,8168451588
	Significance (2-tailed)	0,0000000005103360749
	N	368

Table 11 presents the correlation and regression between the quantity of horisontal, vertical or conglomerate acquisitions and the total quantity for the entire sample selection, which have been described above. The results from all t-test have been presented to ease the comparisons and get an understanding of trustworthiness in the measurements.

¹² The t-tests measure the significance level, which in this case is under 5 percent for all measurements (see 3.4.1.2. *Correlation and regression*).

¹³ N = quantity

Table 12: Correlation and regression between inflows of horizontal, vertical and conglomerate acquisitions and total quantity

	Inflows	
Horizontal	Pearson Correlation	0,5819196078
	Regression	0,3386304299
	Significance (2-tailed)	0,0000000005886720774
	N	402
Vertical	Pearson Correlation	0,1737680475
	Regression	0,03019533435
	Significance (2-tailed)	0,000616450751
	N	103
Conglomerate	Pearson Correlation	0,4661946849
	Regression	0,2173374842
	Significance (2-tailed)	0,000971570532
	N	140

Table 12 contains calculation of the correlation and regression between the inflows from horizontal, vertical and conglomerate acquisitions and the total quantity of the entire sample selection, which already have been analysed. To get an understanding of the trustworthiness of the correlation, all t-tests have been summarized as well.

6.2. Analysis: comparison with previous research and analysis of hypotheses

6.2.1. Integration process

The likelihood of one company acquiring another company increases if the companies are located nearby each other (Erel, Liao & Weisbach 2012), according to the theory. This can be connected to the quantitative data, since *Chart 2* shows that some of the acquirers belongs to Latin American countries. But the United States is overrepresented in the sampling, and it can be discussed whether or not the country is considered to be nearby or not. But when calculating the total quantity of South- and North American acquirers, less than half of the companies belongs to these continents. This means that the data does not agree with previous research, since most companies belongs to countries that is considered to have a high geographical distance. The data does not show any evidence that geographical distance have any impact in cross-border deals in other words.

According to Rozen-Bakher (2018), companies can predict the risk of failure in the implementation process by understanding the role of different types of strategies, and by predicting the outcomes of acquisitions. This can be connected to the qualitative data where the respondents mention that in the pre-stage of the acquisition, the involved companies have implemented integration strategies to minimize the risks. Risk aspects that can appear during acquisitions are often linked to financial aspects, in terms of taxation, labor or governmental issues. Taxation can be an issue in Brazil since it can be complicated to handle administrative

tasks around taxation, and many companies need to use professional help to be able to deal with the taxation laws. This can especially be an issue for foreign companies, which could be linked to cross-border deals since foreign companies can be scared of entering the Brazilian market. This can be connected to the theoretical framework that states that taxes affect cross-border deals (Erel, Liao & Weisbach 2012). Labor rules can also affect cross-border acquisitions since Brazilian labor rules can be complicated to handle. Besides this, companies experience difficulties when finding workforce with the right competency. The qualitative data states that Brazil offers a lot of workforce to a low price, but finding employees with the competency that is needed is considered to be difficult. This could affect cross-border deals in a negative way. Another financial aspect that the qualitative data focuses on is governmental questions, where the qualitative data states that the Brazilian law can be difficult for companies to handle. The law itself can be inefficient and complex. In addition to this, logistical issues that might appear due to difficulties around transportation between different places needs to be considered. All of this could affect ingoing cross-border deals since foreign companies can experience difficulties when doing business on the Brazilian market in terms of financial aspects. But by implementing the right type of strategies, the companies have tried to calculate for future problems and plan how to react to different outcomes. By implementing strategies in this way, Rozen-Bakher (2018) means that the chance of success increases.

6.2.2. Patterns of cross-border acquisitions

As already mentioned in chapter 3.10 *Method criticism*, acquisitions will be analysed after patterns of waves rather than wave periods and non-wave periods. The quantitative data shows that the first acquisition wave-like pattern appeared between 1997 - 2002, and the wave had its peak at 2000. This can be connected to the data from The World Bank, that had its peak at the same time (see *Chart 1*). This can be explained by the burst of the internet bubble (Alexandridis, Mavrovitis & Travlos 2011; Herger & McCorristion 2016).

The sixth wave, that previous researchers have written about, started in 2003 and peaked in 2007, according Alexandridis, Mavrovitis and Travlos (2011) and Mariana (2012). The quantitative data in this study indicates that the wave-like pattern began in 2002 and reached its peaks in 2005 and 2008, this differ slightly from previous research. But the wave-like pattern from the total quantity of acquisitions is similar to the theoretical framework (Alexandridis, Mavrovitis & Travlos 2011; Mariana 2012). At the end of the 2000s, the merger and acquisition wave began its downfall. Some researchers (Alexandridis, Mavrovitis & Travlos 2011; Herger & McCorristion 2016) explained this by claiming that the decrease could be explained by what turned out to be the global financial crisis. With this in mind, it could explain the decrease in the acquisition wave in Brazil, since the national wave-like pattern corresponds to the global wave, as mentioned above.

Due to lack of more recent research about acquisition waves, there is no possibility to make a connection between theories and eventual outcomes for the time after the sixth wave, a time period that represents a large part of the sampling in this study. The data shows that Brazil has had a seventh acquisition wave that started in 2009 and continued until 2018.

The theory suggests that horizontal, vertical and conglomerate strategies will be more or less common depending on different acquisition waves (Herger & McCorrison 2016; Shleifer & Vishny 2003). The quantitative data do not correspond with this theory, since the data indicate that horizontal acquisitions is the most common strategy in all wave patterns. However, the frequency of vertical and conglomerate deals has changed during the years which indicates that the theory should not be seen as completely falsified.

Shleifer and Vishny (2003) and Herger and McCorrison (2016) concluded that conglomerate acquisitions have increased its influence in the waves, which is true to the quantitative data where it is shown that the quantity of conglomerate acquisitions have increased during the last years (see *Table 4*). The quantitative data shows that the quantity of conglomerate acquisitions increased in the end of 1990s, which is in line with Shleifer and Vishny (2003), and it also increased in 2000s which agrees with Herger and McCorrison (2016) study.

One of the hypothesis (1), predicts that conglomerate acquisitions is the contributing factor in acquisition waves and this can be linked to the regression analysis. The regression analysis shows that cross-border acquisitions in Brazil mostly depends on horizontal inflows (see *Table 12*). Conglomerate inflows are the second variable that affects the quantity of acquisitions, while vertical inflows are the variable that affect the quantity of acquisitions the least. This can also be seen in *Chart 7*, which shows that when comparing inflows from different years, horizontal inflows are consistently higher than inflows from vertical and conglomerate deals. This is coherent with mean value and median (see *Table 9*) which agrees with the data from *Chart 7*. The mean value and median for horizontal acquisitions is higher than for vertical and conglomerate acquisitions, stating that this type of acquisition has a higher inflow. This concludes that the hypothesis is falsified, since horizontal inflows affect the acquisition waves more than conglomerate inflows.

Even if the hypothesis is falsified it is also worth mentioning that according to previous researchers (Harford 2005; Mariana 2012; Shleifer & Vishny 1991; 2003), when different variables is used to measure the waves different results will be generated. This could possibly be used as an argument towards why the results in this study do not correspond with the theory. Previous research has focused on mergers and acquisitions, while this study only focuses on ingoing cross-border acquisition, which could explain why different results appears for conglomerate acquisitions. Something that also could affect the falsification of the hypothesis.

6.2.3. Horizontal, vertical and conglomerate strategies

Alfaro and Charlton (2009) concludes in their study that most activities tend to be of horizontal character, something that the empirical data agrees on. As mentioned earlier, the qualitative data states that it is most common with horizontal acquisitions in Brazil, since the acquirer and the target usually belongs to the same industry. The quantitative data also agrees on this, and *Table 4* shows that a majority of all acquisitions is horizontal, which also can be seen in the regression analysis (see *Table 11*). The regression analysis shows that the number of cross-border acquisitions is first of all dependent by horizontal deals, secondly by conglomerate deals and lastly by vertical deals. This means that the amount of horizontal, vertical and conglomerate

acquisitions is unequal, something that previous research also have concluded (Alfaro & Charlton 2009; Herger & McCorristion 2016).

According to previous research, conglomerate acquisitions have become more and more common in cross-border deals during the last years (Herger & McCorristion 2016). This is something both the quantitative and qualitative data disagrees on when studying 2010s, since the number of conglomerate acquisitions have decreased during the last years (see *Table 4*) and the respondents experienced that horisontal deals were more common in Brazil. According to Rozen-Bakher (2018) conglomerate acquisitions is less complicated due to its integration process, but this does not seem to have led to an upturn for cross-border acquisitions in Brazil. The decrease of conglomerate acquisitions could instead be explained by Herger and McCorristions (2016) conclusion, that meant that conglomerate deals is more volatile compared to horisontal and vertical deals. All of this leads to hypothesis 2a, that predicts that conglomerate acquisitions have become more common in cross-border acquisitions. This hypothesis is verified when looking at the whole time-period of the research, but it also worth mentioning that the number of conglomerate acquisitions have been decreasing in the last years (see *Table 4*).

Previous research has shown that the reason why companies do cross-border acquisitions varies, it can depend on the industry the company is active in or firm-specific factors, for example market size and synergy effects (Erel, Liao & Weisbach 2012; Rozen-Bakher 2018; Vasconcellos & Kish 1996). This can be linked to the qualitative data that agrees with previous researches and states that for some companies, synergy effects are one of the main reasons why companies do acquisitions. Market size is also an important factor since the size of the Brazilian market leads to lots of potential for acquisitions, according to the data. Worth adding to this though, is that all companies in Brazil do not have growth as main focus. A lot of family owned companies focus on their present operations and do not see growth as necessary to survive. The theoretical background also states that horisontal acquisitions are more driven by market size compared to vertical and conglomerate (Herger & McCorristion 2016). This is something both the quantitative and qualitative data cover. The qualitative data states that among those respondents that considered market size as an important part of the acquisitions, the companies had gone through horisontal acquisitions. The quantitative data states that most acquisitions in Brazil is horisontal (see *Table 4*). This also verifies Herger and McCorristions (2016) statement.

The qualitative data also states that different industries have more or less chance to succeed with acquisitions. This means that some industries have more reason to expand internationally compared to other industries that have great opportunities to grow on the Brazilian market. The growth-opportunities are dependent by the demand on the market. This verifies the previous research as mentioned above, that meant that the reason for cross-border acquisitions depend on industry (Erel, Liao & Weisbach 2012; Rozen-Bakher 2018; Vasconcellos & Kish 1996). The industry type can also be linked to the spread between horisontal, vertical and conglomerate deals. The quantitative data shows that horisontal, vertical and conglomerate

acquisitions are most common in the main groups¹⁴ manufacturing and service-industry. When studying the main groups in a more detailed level though, the data shows that the different types of acquisitions are common in different industry groups (see *Table 8* and *Appendix 6*). The same thing occurs in a reversed situation when comparing the least common acquisition strategy depending on industry. Horizontal, vertical and conglomerate acquisitions are the least common within the same main groups. However, when studying these main groups on a more detailed level the data shows that the different acquisition strategies have different industry groups where the acquisition type is the least common. This can be linked to hypothesis 2b, that predicted that the spread of horizontal, vertical and conglomerate activities will vary depending on the industry. This hypothesis can be verified, since horizontal, vertical and conglomerate acquisitions do not have the same industry spread, even if similarities exist.

6.2.4. Financial information

Johanson and Vahlne (2003) mentions that during an internationalisation process it is important to gather knowledge before a cross-border deal, something that can take time and be complicated. According to the qualitative data, all respondents consider information sharing as an important part in the pre-stage of the acquisition and mean that both the target and the acquirer need to share information, which agrees with the theory. The data also states that depending on the deal, the process have been more or less complicated. Some respondents have experienced more problems during the acquisition in terms of information sharing between the concerned parties, especially for financial information, and that it was a long process to proceed with. This means that the previous research can partly be verified, even if some of the qualitative data argue against this. The previous research also states that companies in cross-border deals tend to not have basic knowledge in the beginning of the process (Johanson & Vahlne 1977), something that the qualitative data partly confirms. Some of the respondents said that the acquirer did not have enough knowledge about the target company before the deal, since all necessary financial information were not provided. This problem could have been avoided by learning more about the other party before the deal, and it is especially important for the acquirer to learn about the target, something that the qualitative data also states. This can be connected to Johanson and Vahlne's (2003) conclusion, that it is important to learn about the operations in cross-border deals.

The qualitative data shows that information asymmetry sometimes exists, since the target and the acquirer did not have the same amount of information in all deals that were studied. The acquisitions that were studied appeared during the seventh wave, as discussed in chapter 6.2.2. *Patterns of cross-border acquisitions*. This can be linked to the theoretical framework, that claims that during an acquisition-wave period there is a high risk that acquirers miscalculate the information asymmetry (Cheng, Li & Tong 2016). This is verified in the empirical data since the acquisitions appeared during the last wave-period and were affected by information asymmetry.

¹⁴ In the *Results*, the first level of industry types is denoted as *Divisions*, and the second level is denoted as *Major groups*.

Cheng, Li and Tong (2016) also talks about how target companies are priced after the level of information asymmetry. They claim that if the target has a high information asymmetry, the acquirers offer a lower price compared to if information symmetry between the two parties had existed. This leads to target companies being underpriced compared to market price (Cheng, Li & Tong 2016). This is mentioned in the qualitative data, that states that if information asymmetry exists, the acquirer lower their price to compensate and mitigate the risks in the deal. This means that the theory can be verified. The theory also mentions that acquirers try to mitigate the risks by being involved with smaller companies, to minimize the information asymmetry (Borochin, Ghosh & Huang 2019). This can be linked to the empirical data as well, since some of the acquirers in the qualitative part bought smaller companies, which gave them financial advantage and made it easier for the companies to improve financial performances. Besides this, the larger companies tended to have access to more financial information compared to the target firms, according to the data. This can also verify Borochin, Ghosh and Huang's (2019) conclusion, that says that larger companies have access to more information than smaller companies, something that leads to information asymmetry between acquirer and target. All of this leads down to hypothesis 3, that predicts that target companies have a higher information asymmetry than the acquirer in cross-border deals. This hypothesis is verified according to the empirical data.

The previous research also claims that when information asymmetry exists between the target and the acquirer, the companies tend to be involved with companies from the same industry (Borochin, Ghosh & Huang 2019). The gathered data in this study shows that companies that in the qualitative data experienced information asymmetry, are in the quantitative part classified as horizontal acquisitions. This makes it possible to verify the theory since the data shows a connection between the amount of information, and the choice of acquisition type.

Borochin, Ghosh and Huang (2019) concludes that companies with a higher information asymmetry have a weaker bargaining position compared to the other part. This is falsified by the qualitative part since the data states that the bargaining position is not affected by the level of information. It is important to mention though, that the part about information advantage is gathered through interviews and could therefore lead to misleading results.

To summarize this chapter, the Brazilian market prevails some difficulties, with one explanation being that it is considered to be a less developed market. Being less developed could create issues since it could be expensive to expand a business into such market, as well as the market is perceived as being uncertain. Johanson and Vahlne (2003) mentions that uncertainty is as a factor that could affect the possibility of an acquisition, since it takes a lot of effort to get the right knowledge about the market. However, the qualitative data states that being less developed do not always have to be seen as an issue since it could create opportunities. The growth in Brazil have led to lots of potential for companies to develop and expand their business and as mentioned earlier, market size increases the amount of acquisitions since a larger market can create more opportunities. In conclusion, the Brazilian market holds a lot of potential as long as the acquirer knows what the market desires.

7. Conclusion

In this chapter findings from the analysis will be summarized and presented to answer formulated research questions and the purpose of the study.

Following conclusions have been drawn to answer formulated purpose:

- This study shows no support for geographical distance as a contributing factor in cross-border acquisitions in Brazil. Acquirers in ingoing deals are spread all over the world, were the most country is the United States.
- Cross-border acquisitions in Brazil follow different wave-like patterns and evidence have been found that shows that the waves for ingoing acquisitions in Brazil matches the waves for horisontal, vertical and conglomerate strategies. The study also shows that a seventh acquisition wave occurred between 2009 - 2018 on the Brazilian market. This wave represents ingoing acquisitions.
- The strategy that contributes the most to the wave periods for cross-border acquisitions in Brazil are horisontal acquisitions, both in terms of quantity and inflows. The second most contributing strategy are conglomerate acquisitions followed by vertical acquisitions, which is concluded from regression analyses.
- The industry spread between horisontal, vertical and conglomerate strategies differs from each other since the different types of activities are common in different industry groups, even if some similarities exists.
- When it comes to cross-border acquisitions, the target and the acquirer usually have no information about the other part in the pre-stage of the acquisition. The study shows that the target tends to have a higher information asymmetry compared to the acquirer, which in some cases leads to targets being underpriced. In cases when information asymmetry exists, the acquirer tends to buy smaller companies from the same industry, which have been classified as horisontal acquisitions.
- The financial aspects that affect foreign companies the most on the Brazilian market is taxation, labor and laws. Taxation and laws can be complicated in terms of administrative work and ineffective governmental regulations, while labor can be an issue due to a complex jurisdiction. These aspects can be seen as risk factors that companies on the market need to take into account.

To summarize the conclusions, ingoing cross-border acquisitions in Brazil follow a wave-like pattern that is mostly depending on horisontal acquisitions, were the financial factors that have the greatest impact is information, taxation, labor and laws.

8. Further discussion

In this chapter subjects that have not already been discussed will be presented as well as reflections that have been made by the researchers during the study. Suggestions to further research will also be mentioned.

The researchers in this study saw a lack of studies in English of acquisitions on the Brazilian market and found it interesting to examine ingoing activities on the market as a way to lighten the Brazilian perspective. Many studies have focused more on developed markets and do not include the emerging market perspective. A country such as Brazil, that have one of the fastest growing economies and hold lots of potential for multinational companies, could contribute with knowledge and insights that developed markets does not provide. Since the Brazilian market have had a high development rate, maybe other countries could learn from Brazil.

Since the Brazilian market is complex but also experience a high growth level it would be interesting to investigate if the same method, when applied on another emerging market, would generate the same results. The researchers also find it important to raise the question about what type of market holds the future potential. More developed areas are often seen as potential targets for investments, but maybe less developed areas hold greater potential. This is something that future research could examine more.

By doing this research, one of the main evidence is that a seventh acquisition wave have occurred on the Brazilian market. This time period has not been studied before in that great extent, in terms of acquisition waves, which would make it an interesting subject for future researchers to investigate further. It could also be interesting to examine if the seventh wave also occurred on a global level.

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Appendix 1 - Agreement of participation



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Agreement of Participation

About this research

We are two international business students from Sweden and we are doing a research in cross-border acquisitions in São Paulo. We are studying financial risks in ingoing acquisitions and are investigating possibilities and challenges on the Brazilian market.

About the interview

- The interview is completely anonymous
- The results from the interview will only be used in our bachelor thesis
- Personal data will be saved until the thesis have been published
- The interview is optional and you can choose to cancel the interview at anytime or refuse to answer the questions

Thank you for your participation!

If you agree, please sign here:

Signature:.....Date:.....

Printed name:.....

Signature writers:

Writers Signature:.....Writers Signature:.....

Printed name: My Sjölander

Rebecka Sjöberg

Appendix 2 - E-mail sent to all presumptive respondents

Dear all,

We are two international business students from Sweden and we are doing a research in cross-border acquisitions in São Paulo. We are writing to you in interest of your company's profile. We founded that your company have been part of an acquisition and would love to hear more about this.

We are studying financial risks in ingoing acquisitions and are investigating possibilities and challenges on the Brazilian market. We are interested in doing an interview with you about your experiences. The interview will take approximately 1 hour and is completely anonymous. Please let us know if you are interested in doing an interview and we will get back to you with more information. We would appreciate all help!

If you are not the right person please forward this to appropriate contact.

Thank you for your time. We are looking forward to hear from you!

Yours sincerely,

Rebecka Sjöberg & My Sjölander

Appendix 3 - Interview guide



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Interview Guide

The interview will be based on your experiences during the acquisition process and the following questions are formulated as a guideline for the interview. The questions will be divided into different themes, and these are the main questions:

Cross-border acquisition

- Why did your company choose to go through with a cross-border deal?
- As far as you know, was it common with cross-border acquisitions in Brazil during the time of the deal?
- How much knowledge did your company have about the market that the acquirer came from, before the acquisition?
- How important was financial knowledge about the other market?

Financial aspects

- Which financial aspects would you say had the greatest impact on the deal?
- Is there any particular financial risk that you would say was more important because it was a cross-border deal?
- What were the positive and negative financial aspects of the deal?

Financial information

- Did you experience that one of the companies had more financial information than the other one?
- Due to the potential information gap did you have a higher or lower bargaining position?
- Did you feel that it was more expected of you to share or receive information during this process?

If there is something else you feel is important, do not be afraid to add it during the interview. Thank you for your participation!

Appendix 4 - Inflows for horizontal, vertical and conglomerate acquisitions

Year	Horizontal	Vertical	Conglomerate	TOTAL
1997	2 675 268,52	12 200,00	-	2 687 468,52
1998	11 571 335,75	2 312 680,48	-	13 884 016,23
1999	1 984 345,11	113 656,71	1 270 425,92	3 368 427,74
2000	1 967 860,24	340 640,43	32 000,00	2 340 500,67
2001	2 675 344,59	1 253 659,16	36 387,01	3 965 390,76
2002	1 775 387,53	1 058 440,00	52,72	2 833 880,25
2003	2 863 609,50	21 161,39	245 889,01	3 130 659,90
2004	7 370 264,03	336 819,74	510 695,03	8 217 778,80
2005	4 844 217,66	85 226,53	443 373,53	5 372 817,72
2006	6 455 060,63	321 416,79	1 950 961,23	8 727 438,65
2007	9 485 651,11	2 224 622,30	2 167 137,19	13 877 410,60
2008	6 962 229,17	484 653,17	2 136 857,05	9 583 739,39
2009	2 263 512,79	2 050 684,27	1 015 761,09	5 329 958,15
2010	5 007 571,05	73 760,56	2 314 593,35	7 395 924,96
2011	7 627 779,00	259 083,31	7 485 165,23	15 372 027,54
2012	11 260 498,48	4 170 221,43	1 061 145,48	16 491 865,39
2013	6 033 536,48	670 178,97	609 082,12	7 312 797,57
2014	4 086 010,89	370 021,52	1 439 429,22	5 895 461,63
2015	12 668 179,90	179 195,64	118 970,30	12 966 345,84
2016	4 217 657,32	3 723 803,92	2 998 369,76	10 939 831,00
2017	8 467 256,33	332 446,53	2 038 301,72	10 838 004,58
2018	3 503 989,45	460 923,15	15 945,89	3 980 858,49
TOTAL	125 766 565,53	20 855 496,00	27 890 542,85	174 512 604,38

Appendix 5 - Industry spread major group

Division	Major Group	US SIC code (target)	Number of deals
A	1	Agricultural production-crops	13
	2	Agricultural production-livestock and animal specialities	1
	7	Agricultural services	4
	8	Forestry	4
B	10	Metal mining	44
	13	Oil and gas extraction	19
	14	Mining and quarrying of nonmetallic minerals, except fuels	21
C	15	Building construction-general contractors and operative builders	3
	16	Heavy construction other than building construction-contractors	10
	17	Construction-special trade contractors	4
D	20	Food and kindred products	107
	21	Tobacco products	1
	22	Textile mill products	9
	23	Apparel and other finished products made from fabrics and similar materials	16
	24	Lumber and wood products, except furniture	6
	25	Furniture and fixtures	1
	26	Paper and allied products	49
	27	Printing, publishing and allied industries	13
	28	Chemicals and allied products	138
	29	Petroleum refining and related industries	5
	30	Rubber and miscellaneous plastics products	26
	32	Stone, clay, glass and concrete products	20
	33	Primary metal industries	40
	34	Fabricated metal products, except machinery and transportation equipment	28
	35	Industrial and commercial machinery and computer equipment	79
	36	Electronic and other electrical equipment and components, except computer equipment	51
	37	Transportation equipment	34
	38	Measuring, analyzing and controlling instruments; photographic, medical and optical goods; watches and clocks	39
	39	Miscellaneous manufacturing industries	5
E	41	Local and suburban transit and interurban highway passenger transportation	4
	42	Motor freight transportation and warehousing	13

	43	United States postal service	1
	44	Water transportation	17
	45	Transportation by air	4
	46	Pipelines, except natural gas	1
	47	Transportation services	16
	48	Communications	51
	49	Electric, gas and sanitary services	64
F	50	Wholesale trade, durable goods	48
	51	Wholesale trade, nondurable goods	30
G	52	Building materials, hardware, garden supply, and mobile home dealers	4
	54	Food stores	23
	55	Automotive dealers and gasoline service stations	5
	56	Apparel and accessory stores	2
	57	Home furniture, furnishings, and equipment stores	4
	58	Eating and drinking places	4
	59	Miscellaneous retail	14
H	60	Depository institutions	25
	61	Non-depository credit institutions	10
	62	Security and commodity brokers, dealers, exchanges and services	32
	63	Insurance carriers	23
	64	Insurance agents, brokers, and service	8
	65	Real estate	8
	67	Holding and other investment offices	26
I	70	Hotels, rooming houses, camps, and other lodging places	9
	72	Personal services	7
	73	Business services	222
	75	Automotive repair, services, and parking	6
	76	Miscellaneous repair services	6
	78	Motion pictures	3
	79	Amusement and recreation services	1
	80	Health services	10
	82	Educational services	18
	83	Social services	2
	86	Membership organizations	1
	87	Engineering, accounting, research, management, and related services	110

	89	Miscellaneous Services	20
J	99	Nonclassifiable Establishments	3
		Mixed Industry Type	28
		TOTAL	1 673

Appendix 6 - Industry spread major group - horisontal, vertical and conglomerate acquisitions

Division	Major Group	US SIC code (target)	Horisontal	Vertical	Conglomerate
A	1	Agricultural production-crops	3		8
	2	Agricultural production-livestock and animal specialities			1
	7	Agricultural services	2		2
	8	Forestry			4
B	10	Metal mining	41		3
	13	Oil and gas extraction	11		8
	14	Mining and quarrying of nonmetallic minerals, except fuels	13	1	6
C	15	Building construction-general contractors and operative builders	2	1	
	16	Heavy construction other than building construction-contractors	5	1	4
	17	Construction-special trade contractors	2		2
D	20	Food and kindred products	83	12	13
	21	Tobacco products	1		
	22	Textile mill products	1	6	2
	23	Apparel and other finished products made from fabrics and similar materials	3	13	
	24	Lumber and wood products, except furniture	3	2	1
	25	Furniture and fixtures	1		
	26	Paper and allied products	29	15	5
	27	Printing, publishing and allied industries	8	1	3
	28	Chemicals and allied products	98	17	21
	29	Petroleum refining and related industries	2	3	
	30	Rubber and miscellaneous plastics products	9	14	2
	32	Stone, clay, glass and concrete products	16	4	2
	33	Primary metal industries	19	12	7
	34	Fabricated metal products, except machinery and transportation equipment	14	12	1
	35	Industrial and commercial machinery and computer equipment	50	21	7
	36	Electronic and other electrical equipment and components, except computer equipment	31	12	7
	37	Transportation equipment	17	11	7

	38	Measuring, analyzing and controlling instruments; photographic, medical and optical goods; watches and clocks	20	14	5
	39	Miscellaneous manufacturing industries	2	3	
E	41	Local and suburban transit and interurban highway passenger transportation	1		3
	42	Motor freight transportation and warehousing	6	4	4
	43	United States postal service		1	
	44	Water transportation	12	3	2
	45	Transportation by air	3		
	46	Pipelines, except natural gas			1
	47	Transportation services	9	5	2
	48	Communications	36	2	12
	49	Electric, gas and sanitary services	31	1	32
F	50	Wholesale trade, durable goods	18		30
	51	Wholesale trade, nondurable goods	6	6	18
G	52	Building materials, hardware, garden supply, and mobile home dealers		2	2
	54	Food stores	19		3
	55	Automotive dealers and gasoline service stations	4		2
	56	Apparel and accessory stores			2
	57	Home furniture, furnishings, and equipment stores		1	3
	58	Eating and drinking places	2	1	1
	59	Miscellaneous retail	6		8
H	60	Depository institutions	20	1	3
	61	Non-depository credit institutions	1	4	5
	62	Security and commodity brokers, dealers, exchanges and services	11	19	3
	63	Insurance carriers	12	10	
	64	Insurance agents, brokers, and service	6		2
	65	Real estate	5	2	1
	67	Holding and other investment offices	12	7	7
I	70	Hotels, rooming houses, camps, and other lodging places	6		3
	72	Personal services	4	3	
	73	Business services	136	38	47
	75	Automotive repair, services, and parking	4		2
	76	Miscellaneous repair services		1	5

	78	Motion pictures	2	1	
	79	Amusement and recreation services	1		
	80	Health services	5	2	3
	82	Educational services	16	1	1
	83	Social services		1	1
	86	Membership organizations	1		
	87	Engineering, accounting, research, management, and related services	56	23	30
	89	Miscellaneous Services	5	13	2
J	99	Nonclassifiable Establishments			
		TOTAL	942	327	361