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## **Abstract**

In this paper we searched for the causes of critical events in Norwegian-Brazilian business relationships. Critical events were investigated through an explorative research design in dyadic business-to-business case studies. The theoretical definition of critical events and governance mechanisms is based on previous literature, and the empirical part consists of a combined approach using interviews to elaborate questionnaires. Data collection took place in Rio de Janeiro, over a period of five weeks. In total three dyads (business relationships between two firms) were investigated. In the first dyad, the average results showed significantly different perceptions among the parts, where the Brazilian side rated the cause of critical events as a result of lack of formal governance, and the Norwegian side as a lack of informal governance. In the second and third dyad, the parts agreed on lack of formal governance as the main cause of critical events. The correlation analysis showed that governance level appears not to be related to importance of critical events on the Norwegian companies. While on the Brazilian companies, events caused by formal governance mechanisms are associated with a higher level of importance, therefore partially confirming previous studies.

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## 1 Introduction

There is a strong connection between Norway and Brazil, going all the way back to the 19<sup>th</sup> century when trade of coffee and codfish was dominant. Due to the recent oil findings along the Brazilian coast, the relationship between these two countries has been reinforced. Norway is now one of the ten largest investors in Brazil, with more than 100 companies installed in the country and that is mainly due to the oil industry (Innovasjon Norge, 2017).

Working with individuals and ideas from different cultures is a complex task, and when poorly managed, simple events between individuals could lead to a conflict and potentially offend everyone involved. In order to protect themselves in a conflicting situation, firms tend to rely on governance mechanisms. On one side there are formal mechanisms, such as contracts, that can be a safeguard against opportunistic behavior. Another solution is to develop trust and understanding for the parties involved, also referred to as informal governance mechanisms. This type of safeguard takes longer time to develop and requires the partners to invest in the relationship. Several authors consider governance mechanisms to be related to the cause, and possible solution to conflicts between organizations (Vaaland & Håkansson, 2003; Yang, Gao, Li, Shen, & Zheng, 2017).

One way to understand a business relationship between two companies from different cultures is to explore the perceived differences among the parties regarding the origins of conflict. Does one party consider conflicting events to be inherently caused by a lack of trust and informal interactions, while the other party solely relies on contracts? Or do the parties agree on the causes of a conflict?

The theme of inter-organizational conflict has been explored by several authors in the latest years. Conflicts are considered to be a result of critical events that may be connected with each other in the past, present and future and together influence the development of a relationship (Hedaa & Tornroos, 2008; Tidström & Hagberg-Andersson, 2012). Exploring the origins of conflict can be an important tool for understanding a business relationship, and for designing the appropriate governance structure between partners.

It takes time to learn how business is done in another country. Before entering a new market, companies should study the characteristics of it and then compare it to their own culture and country's standards. The key is to find a balance between formal and informal mechanisms, based on the parties' expectations.

The focus of this study is to find the perceptual distances between the parties in a business relationship regarding the origins of conflict. This will be done by taking a step down into the critical events that preceded the conflict, and identifying the origin of an event as a result of weakness in formal or informal mechanisms. This study aims to provide a better understanding of governance issues in relationships between Norwegian and Brazilian firms, and hopefully be a step into improving business relationships between these two countries.

## **1.1 Main terms**

Terms such as “relationships”, “dyads” and “networks” are widely used in academic discussion of business practice and have become increasingly important in the conversations between managers (Haakansson & Ford, 2002). One matter that is specifically important for studying business relationships is “critical events”. When handled poorly, these events can lead to conflicts, and possible dissolution of a dyad. In the next three sections there will be a short definition of the terms mentioned above, which builds the base for the research conducted in this thesis.

### **1.1.1 Business Relationships**

Ford, Gadde, Håkansson, and Snehota (2003, p. 38) define a business relationship as a pattern of interactions and mutual conditioning of behaviors over time between a company and a customer, a supplier or another organization. Time is an important feature to study when looking at business to business relationships. The current behavior of a relationship may be explained by both past interactions and the expectations for future interactions (Ibid.). Inter-organizational relationships are collaborative exchanges, which include strategic alliances, joint ventures, buyer–supplier agreements, licensing, co- branding, franchising, cross-sector partnerships, networks, trade associations, and consortia (Lumineau, Eckerd, & Handley, 2015). Inter-organizational relationships and corresponding episodes of conflict may be dyadic or network-based involving three or more parties. Dyads are business relationships between two firms, and a group of dyads forms a dyadic network (Larson, 1992).

Business relationships have become a must for companies that want to stay competitive in today's markets, where they can perform more effectively by working together and adding a set of functions that were previously performed within the firm (Haakansson, Anderson, & Johanson, 1994).

One very important concept when studying business relationships is the concept of a business network. A business network is a set of two or more connected relationships between firms which also include the dyadic relationships (Ibid.). From a network perspective, several authors have studied conflict within dyads between firms in different countries (Tidström, 2009). Another conflict study within a business network setting is the one by Vaaland and Håkansson (2003), where the authors discuss conflict as a series of conflict events, and suggest that conflict should be analyzed in relation to the degree of governance formalization.

### **1.1.2 Conflict as a sequence of critical events**

Within business relationships, scholars use different concepts to name the interactions that happen between firms over time, such as episodes (Pondy, 1967) and moments (Medlin, 2004). This study uses the term events, which has been previously mentioned by several authors (Hedaa, Törnroos, Whipp, Adam, & Sabelis, 2002; Tidström & Hagberg-Andersson, 2012). Conflicts are a result of critical events that may be connected with each other in the past, present and future and together influence the development of a relationship (Tidström & Hagberg-Andersson, 2012).

The definition of event used in this paper is the one by Tidström and Hagberg-Andersson (2012, p. 334), which define an event as “a temporary specific happening that is perceived by human actors in organizations”. This definition seems to be the most appropriate for this study as it is not limited to the act of an occurring event, but it also considers the way it is perceived by the individuals in the organization. Critical events are simply the underlying events leading up to the conflict. Dyadic relationships between firms are of great interest to study business- to- business relationships (Haakansson et al., 1994), and several authors studied the influence that critical events have in the development of a dyadic relationship (Vaaland, 2002).

### **1.1.3 Governance mechanisms**

A key element to business relationships is governance mechanisms, acting as safeguards to minimize exposure to opportunism and control inter-firm exchange (Wathne & Heide, 2000).

Governance mechanisms are as defined by Vaaland (2002, p. 43) “institutional tools, values and ideals applied to effect good order and value creation in a business relationship”. Governance mechanisms can be either relational-based, here referred to as informal, or contract-based, here referred to as formal (Vaaland, 2002). In connection to relationship, it can be said that governance mechanisms may be connected to both the cause, and the solution to critical events. These can be related to the cause of critical events, when a weakness in a mechanism leads to a friction between the parties involved. For example, a lack of specification in a contract led to unbalanced expectations among the parties involved in a project. Studying the differences in perceptions regarding underlying causes of an event helps understanding which type of weakness in governance is more occurring, and which type is more important for the parts involved. Once these perceptual distances are mapped, it will be easier to design an appropriate governance system for balancing the needs of the parties in a dyadic relationship.

## 1.2 Research questions

The importance of managing conflict in inter-organizational relationships has been recognized by scholars since Pondy (1967) published the work “*Organizational conflict: Concepts and models*”. Even though there are many insightful studies on the subject, there are still unfilled gaps in this field that need to be further explored. For example, several studies about buyer and supplier conflicts focus on the negative aspect of conflict, and only a few studies see a well-managed conflict as leverage for both parts in a dyad (Yang et al., 2017). Several academics agree that the first aspect that needs to be identified when studying organizational conflict are the origins of conflict, or what makes a conflict become what it is (Lumineau et al., 2015; Vaaland, 2002; Yang et al., 2017). Conflicts can be caused by a weakness in what some call “control mechanisms”, hereafter referred to as “governance mechanisms”. Governance mechanisms can be either formal (contract-based) or informal (trust-based) (Vaaland, 2002). In this study we want to explore conflict in dyadic business relationships by looking at the origins of conflict, whether they are formal (caused by a weakness in formal mechanisms) or informal (caused by a weakness in informal mechanisms). Another aspect that makes this study special is the fact that the dyads are between Norwegian and Brazilian companies. This combination of markets adds a new perspective to the current inter-organizational conflict studies.

The research questions in this thesis are:

Table 1- Research questions

|   |
|---|
| 1) Once the parties of the dyad have accessed critical events, to what extent do the different parties associate conflict with formal vs. informal governance mechanisms?   |
| 2) Is there a difference between which governance mechanisms the parties perceive as important? <ul style="list-style-type: none"><li>• 2.1) On the Norwegian side, how does the perceived governance level relate to the perceived importance level?</li><li>• 2.2) On the Brazilian side, how does the perceived governance level relate to the perceived importance level?</li></ul> |

The first research question is related to the parties' perception of governance mechanisms, where both the Brazilian and the Norwegian part of the dyad are supposed to make assessments of conflict events related to governance mechanisms. For example, if an event is given a 7 in a 7- point scale, this event is considered to be originated from a weakness in a formal mechanism. A rating of 1 on another event would imply that the origin of the event stems from a weakness in an informal mechanism. It is important to emphasize that the assessment on this research is only related to the origins of conflict. In other words, this research does not imply that a conflict caused by a weakness in formal mechanisms can only be fixed by improvements in the contract.

The second research question relates to how the parties see the importance of events related to governance mechanisms. The aim of this question is to see whether there is a pattern of certain governance mechanisms being related to higher importance. Based on previous research, events related to formal mechanisms are usually related to higher levels of importance (Vaaland, 2002). One aspect that makes this question unique, is that what is being compared is not only the seller and buyer aspect, but also the perceptions of the Norwegian and the Brazilian side of the dyad.

### 1.3 Thesis Structure

Due to the explorative nature of this research, the structure of this thesis is somewhat complex. Therefore, an illustration as shown in Figure 1 will make it easier to visualize the stages of the research and how they relate to the main problem.

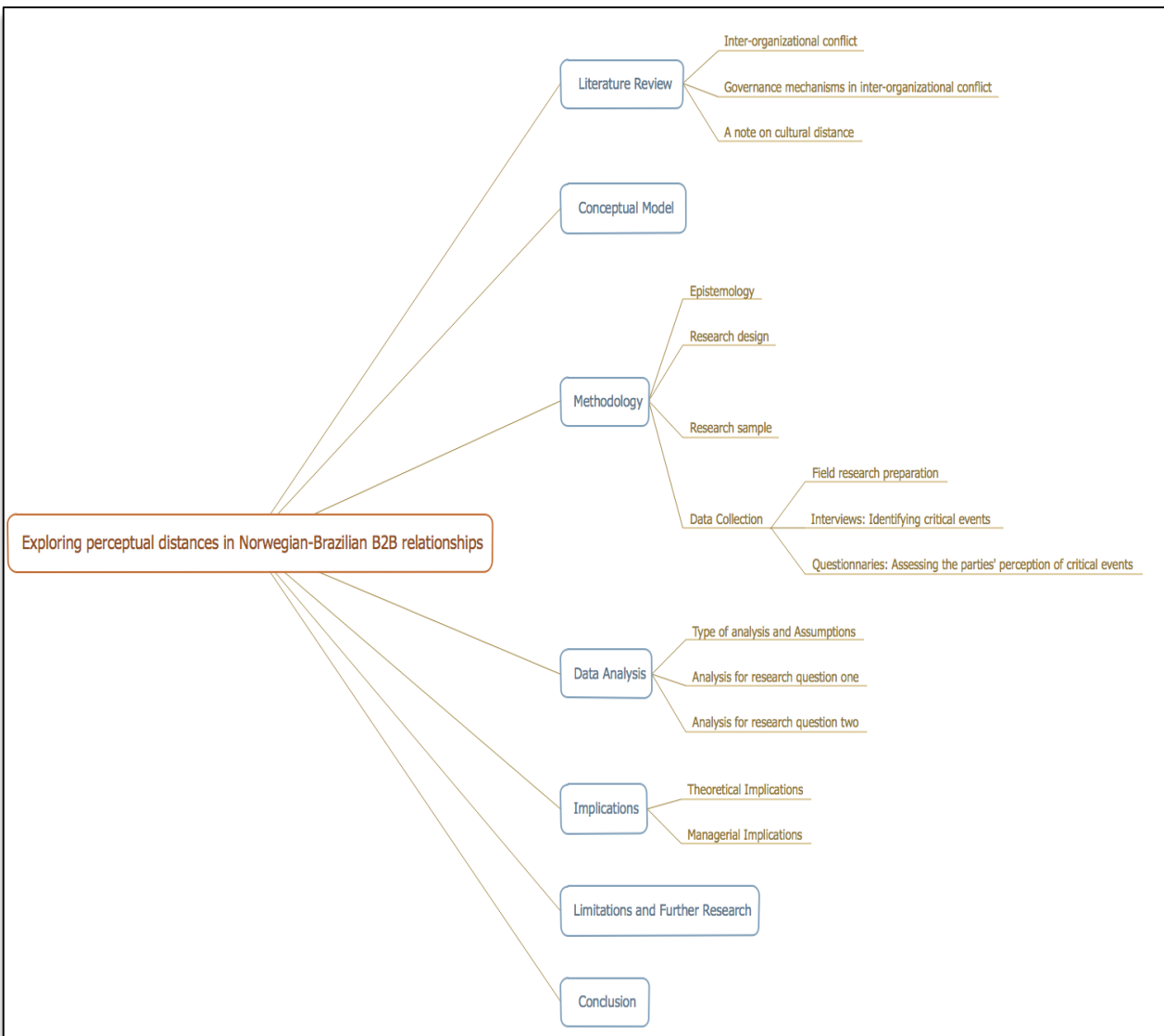


Figure 1- Thesis Structure

## 2 Literature Review

### 2.1 Inter-organizational conflict

Inter-organizational conflict is a sequence of interconnected episodes which can be both functional and/or dysfunctional and that are intimately tied up with the organization (Pondy, 1967). To understand a conflict, it is therefore necessary to understand the underlying episodes leading up to the conflict, hereby referred to as critical events. Based on this definition, the review on inter-organizational conflict will contain three topics: *How does conflict emerge?*, *Differentiating between functional and dysfunctional conflict*, and *What does conflict leads to?*

#### 2.1.1 How does conflict emerge?

A conflict does not always start as a catastrophe and it does not emerge solely from the outside of the dyad. A conflict is simply a result of several interconnected critical events with different levels of impact on the inter-organizational relationship, straining from within the bilateral relationship (Pondy, 1967). Conflict can also arise from difference sources, such as power differentials, competition over scarce resources, negative interdependence between work units, cultural distance, or ambiguity over responsibility or jurisdiction (Panteli & Sockalingam, 2005; Yang et al., 2017).

In psychology, conflict is defined as a result of incompatible actions between individuals, groups or nations, and defined as inter-personal conflict (Deutsch, 1969). Similarly, in business, a conflict is a result of interconnected events that have an effect on the relationship, and defined as inter-organizational conflict. These events may over time reduce the level of trust between the parties, making the parties value the relationship less and less, and lead to a dysfunctional conflict (Cheng & Sheu, 2012). Seen from a value-based relationship perspective, trading in the relationship becomes increasingly costly when trust is no longer a factor contributing to a lowering of the trading cost (Ibid). This is based on the belief that relationship costs, potential risk of conflict and need for contractual safeguards are reduced by relational closeness, stimulated by inter-organizational trust (Thorgren & Wincent, 2011).

There are several sorts of business relationships, each with its own variant of conflict. Co-branding alliances may yield role conflict, emerging from incompatibility among role expectations of two or more individuals (Hopkinson, 2001), whereas companies engaging in innovation alliances risk creating conflict by acting opportunistic or being a victim of opportunistic behavior (Cheng & Sheu, 2012). In buyer-supplier relationships conflict can also derive from competition between the parties involved (Tidström, 2009).

Pondy (1967, p. 319) argues that “conflict generates pressures to reduce conflict, but chronic conflict persists and is endured under certain conditions, and consciously created and managed by the politically astute administrator”. A conflict may not be exclusively bad or good, but must be evaluated in terms of organizational and individual functions and dysfunctions (Ibid.)

### **2.1.2 Differentiating between functional and dysfunctional conflict**

Conflict is often associated with unhealthy behavior, such as acting with distrust, aggression and hostility, forming barriers to protect their own individual goals, during the decision-making process (Cheng & Sheu, 2012). These types of conflicts are by many referred to as dysfunctional, underlining the harmful consequences of their occurrence (Ibid.). Dysfunctional conflict involves interactions that are harmful to quality of strategy and performance of the inter-organizational dyad (Mo, Booth, & Wang, 2012).

On the other end of the specter, there are functional conflicts, or conflicts that have a positive outcome (Deutsch, 1969). If the disagreements are focused and task-oriented on judgmental differences about how to achieve common objectives, the conflict becomes functional. Open-minded contesting of the diverse perspectives is in general superior to the individual perspectives alone (Skarmeas, 2006). A functional conflict can reduce the likelihood of destructive conflict, and lead to greater satisfaction among the exchange partners. Functional conflict is a resource for the relationship, which makes the relationship both efficient and well-functioning (Tidström, 2009). A relationship with a high conflict level can also promote knowledge sharing between the parts, which will lead to the creation of new knowledge (Panteli & Sockalingam, 2005). With this as a basis, it is assumed that assessing if the conflict is functional or dysfunctional is post hoc, and dependent on the conflict outcome (Balabanis, 1998).



### 2.1.3 What does conflict lead to?

The direction or outcome of the conflict is dependent upon the organizations participating in the relationship. As with inter-personal relationships, inter-organizational relationships are dependent upon the participants and their ability to tackle a conflict. The bad reputation of conflict has been supported by conflict researchers, sometimes confounding competition and conflict. This type of research suggests that the outcome of the conflict is determined by the type of conflict, rather than the way it is managed (Tjosvold, 2008). Recent research shows that the outcome is often determined by the way the organizations approach the conflict, and state that a collaborative approach may lead to a better outcome for the relationship than a competitive (Tidström, 2009; Tjosvold, 2008). A collaborative and open-minded approach may not only affect the current decision that sparked the conflict, but also the way of resolving future conflicts (Wong & Tjosvold, 2010).

The different outcomes of conflict can also be viewed as presented by Gadde and Haakansson (1993). As shown in Figure 2, one axis indicates the degree of collaboration, while the other indicates the degree of conflict. As an example a “well-developed” relationship can be characterized by being able to maintain a high level of conflict, and at the same time a high level of collaboration.

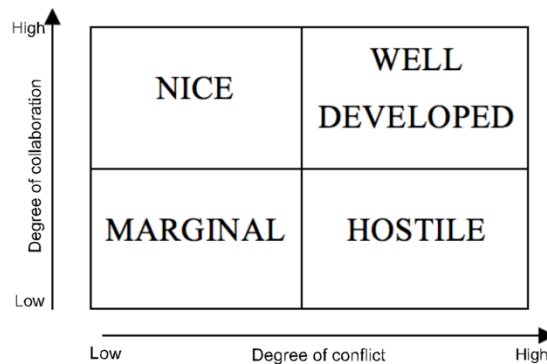


Figure 2- Conflict related to collaboration adapted from Gadde and Haakansson (1993, p. 75)

Constructive conflict could lead to a solution where every part feels like a winner, focusing on achieving success together, instead of one party wanting to come out better than the other. It is however important to emphasize that even though a collaborative approach as a result of a good

relationship makes it easier to negotiate deals, this approach does not eliminate transaction cost (Wong & Tjosvold, 2010).

As a final note on the tie between a conflict and the organizations involved the relationship, it is worth stating that also the relationship can vary due to different levels of continuity and involvement. A short summarization of the different relationships is shown in table 2, displaying that variations in continuity and involvement will affect the relationships characteristics.

*Table 2- Conflict in relation to continuity and involvement adapted from Ford et al. (2003, p. 105)*

|                 | Low involvement   | High involvement  |
|-----------------|---|---|
| High continuity | <p><b>1. Long-term, arm’s length relationships:</b> Continuity allows routinization. Low involvement makes change of supplier easy</p>          | <p><b>2. Long-term, intense relationship:</b> Efficiency improvement through adaptations leads to cost and revenue benefits over time</p> |
| Low continuity  | <p><b>3. Short-term, arms-length relationships:</b> Increasing efficiency from price pressure, requiring low continuity and low involvement</p> | <p><b>4. Short-term, intense relationship:</b> Appropriate for buying complex systems and equipment bought infrequently</p>               |

Category 1 display relationships with long term orientation, where involvement is low, making the relationships less intense, in the table referred to as “long-term, arm’s length relationships”. These relationships are easily replaceable, therefore keeping a good relationship with the buyer is essential for the supplier company (Ford et al., 2003).

In category 2 the relationships have a high level of both continuity and involvement. High continuity implies long-term orientation. The high level of involvement will give the relationship a more intense nature. These are the relationships that have major opportunities for improvement over time regarding cost reductions and revenue benefits (Ibid.).

The two last categories are relationships with a low level of continuity. Category 3 has this trait in combination with a low level of involvement making it a “short-term a, arms-length relationship”. These are the relationships where purchases are isolated transactions (Ibid.).

Category 4 is “short-term, intense relationship”. This category contains relationships with a low level of continuity and a high level of involvement. This is the typical purchase, in some cases for complex projects, that require a huge investment. To handle these purchases, companies develop temporary arrangements that require a high level of interaction among the parts (Ibid.).

## **2.2 Governance Mechanisms in inter-organizational conflict**

According to resource dependency theory, an organization’s environment is inherently unstable, making it necessary to develop governance mechanisms to deal with it (Handfield, 1993). In recent literature, there are several understandings and descriptions of what these governance mechanisms are. Therefore, the aim of this review on governance mechanisms is to define the type of governance mechanisms used on this research, and the models that can be used to explore the role of these in inter-organizational conflict.

### **2.2.1 Types of governance mechanisms**

Traditionally, governance mechanisms have been seen from two theoretical perspectives: a relational perspective and a contractual perspective, which several authors refer to as informal and formal mechanisms (Poppo & Zenger, 2002; Vaaland, 2002).

The informal perspective focuses on relational governance as a mechanism in which inter-organizational relationships are based on acceptable behavior between exchange partners (Lumineau & Henderson, 2012). Conflicts that arise from weakness in informal governance mechanisms are related to the social dimension (Vaaland, 2002). They can indicate a lack of cultural awareness or previous experience with the other parties. Informal conflicts are seen as a natural part of the relationship, and can be solved by establishing better communication and trust between the parties (Ibid.). If informal governance is well established within a dyad it may in fact keep conflicts from occurring. In this scenario, introducing formal governance may at worst be counter-productive and at best lead to unnecessary expenses, as it may undermine trust, rather than discourage opportunistic behavior (Poppo & Zenger, 2002).

When looking at asset specificity it is easy to believe that the best safeguard would be introducing more contracts or contracts that have a higher level of specificity. On the contrary Zhou, Poppo, and Yang (2008), when studying the Chinese market found no connection between contract and asset specificity, for neither local nor foreign firms. When complex exchanges characterized by uncertainty and high levels of specialized asset occur, managers did increasingly seem to rely on personal-based, relational ties.

The formal mechanisms are contracts or legal structures established to coordinate a relationship, represented ex-ante as a contract and ex-post as control. Formal mechanisms, such as a contract, provide mutually agreed standards of behavior, which prevents partners from seeking exclusive individual gains, and in that way promotes more confidence in the partnership (Zhang & Zhou, 2013). Another quality of formal mechanisms, is that business partners tend to be more cooperating activities when they feel that they have an adequate level of control over the actions of their partners (Yu, Liao, & Lin, 2006). Conflicts related to formal mechanisms can arise from a lack of specifications in the contract, for example the roles and responsibilities of the partners are not clearly defined, or the legal and economic penalties of not fulfilling a partner's expectations are not specified (Burkert et al., 2012).

### **2.2.2 Governance mechanisms influence in international business relationships**

Many firms have faced challenges as they work to build collaborative relationships with their local partners. As an example, Yu et al. (2006) found that in China, formal governance mechanisms are necessary to facilitate cooperation between foreign manufacturing firms and local suppliers. Additionally, trust, can also lead suppliers to make transaction-specific investments. If the relationship is not a one-time deal, trust may lessen the usage of formal governance mechanisms in transaction-specific investments.

Burkert et al. (2012) suggest that international business relationships between buyers and suppliers in business-to-business markets do not differ fundamentally from those in domestic ones. In their view the challenge is to understand the variance in customer reactions to the use of certain governance mechanisms. Both Vaaland and Håkansson (2003) and Burkert et al. (2012) stress the fact that managers need to identify the difference in importance of certain governance mechanisms in relationships and find elements in which true differences exist. This ability to identify

importance in governance mechanisms will create decision variables for defining customer-oriented interaction strategies (Burkert et al., 2012).

### 2.2.3 The governance zone grid

In order to analyze the parties' perceptions of governance mechanisms in a dyadic relationship Vaaland (2002) suggested a governance zone grid. In this grid the dyads were placed in one of the quadrants according to their level of agreement or disagreement regarding the origins of conflict. The grid consists of two unbalanced zones, one mutual informal, and one mutual formal zone. The unbalanced zones are identified by the parts in the dyad disagreeing on cause of conflict, in relation to governance mechanisms. Mutual zones refer to areas where both sides agree upon cause of critical event, making it easier to restore a collaborative environment. It is assumed that for the unbalanced zones there is a higher risk for dysfunctional conflict, as the parts disagree on the cause of critical events. Figure 3 shows an adaption of Vaaland's model, where buyer and seller were substituted by Brazil and Norway, in the model that will be used for discussing the results of this research.

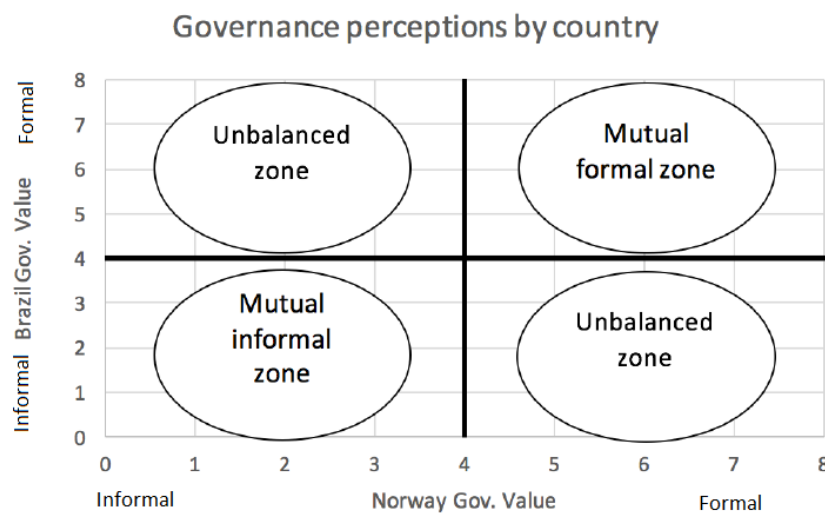


Figure 3- Governance zone grid adapted from Vaaland (2002, p. 113)

As any literature, Vaaland (2002) has its weaknesses. The author himself recognized that the validation of the constructs is weak, and need improvements. Having said that, this work has also been transferred into a research article in the following year (Vaaland & Håkansson, 2003), and several scholars have used it as a reference. For these reasons, and for the purposes of the research

conducted in this paper the governance zone grid (Figure 3) is well fitting and will be taken further into the discussion. But firstly, the issue of the construct validation will be discussed in the next section.

#### 2.2.4 Validity of the governance constructs

Construct validity refers to the importance of successful operationalization of constructs (Vaaland, 2002). Performing a construct validation to formal and informal governance mechanisms would be very ambitious, due to the fact that there should be a correct set of measures in order to operationalize the constructs, and also a significant number of respondents to the construct survey. Instead, a very detailed search on governance mechanisms related articles was performed, in order to find whether the construct had been validated in a similar study situation.

The search started off with articles that cite the work of Vaaland in complex projects, which gave 77 articles. Secondly, key words such as “governance mechanisms” and “formal governance”, were used to search among these articles. The words “construct validity” put together gave as a result 21 articles, out of the 77. The search then continued by going through these 21 articles, to look for titles related to industrial network and conflict. That is how the article “*Different roles on control mechanisms*” (Yang et al., 2017) was discovered.

In this article, the context is how control mechanisms affect conflict between buyers and suppliers. In the first page of the article the authors refer to Vaaland and Håkansson (2003) where they say “control mechanisms such as contracts and trust can clarify the phenomenon of conflict management, as they indicate the origin of conflict”. In addition to that, Vaaland (2002, p. 44) states that “...I embrace both authority and incentive mechanisms into a construct labeled formal governance mechanisms. The trust based mechanism I label informal governance mechanism”. For these reasons, it was assumed that what Yang et al. (2017) call as trust and contracts, can be interpreted as what Vaaland and Håkansson (2003) refer to as informal and formal governance mechanisms. Table 3 shows a comparison of the variables used to operationalize the terms “contract” and “trust” taken from Yang et al. (2017, p. 7), and Vaaland and Håkansson (2003, p. 136) description of attributes that can be used to operationalize “formal” and “informal” governance mechanisms

Table 3- Comparison of governance terms between Yang et al. (2017) and Vaaland and Håkansson (2003)

| Control mechanisms<br>Yang et. al (2017)  | Governance mechanisms<br>Vaaland and Håkansson (2003)  |
|---|--|
| <p><b>Contract:</b></p> <ul style="list-style-type: none"> <li>• We are actually bounded by formal contract (or agreements).</li> <li>• Our relationship with this supplier is governed by explicitly described and clearly written contract terms.</li> <li>• We have formal agreements that detail the obligations and rights of both parties.</li> <li>• The contract with this supplier includes everything in detail that we think important.</li> </ul> | <p><b>Formal mechanisms:</b></p> <ul style="list-style-type: none"> <li>• Control mechanisms are sanction-driven, power-related and use of authority.</li> <li>• Managerial ideal is compliance awareness, comprehensive, planning, structural.</li> <li>• Conflict starts from lack of formal precision.</li> <li>• Communication is functional, prescriptive, and formal following procedures, normative.</li> </ul> |
| <p><b>Trust:</b></p> <ul style="list-style-type: none"> <li>• We believe that the supplier is competent to keep the promise they make to our firm.</li> <li>• Though the circumstances change, we believe that this supplier is ready and willing to offer us assistance and support.</li> <li>• This supplier can understand the difficult that we encountered when we share our problems with them.</li> </ul>  | <p><b>Informal governance:</b></p> <ul style="list-style-type: none"> <li>• Control mechanisms are cooperative and trust-based.</li> <li>• Managerial ideal is trust, flexibility and lack of planning, processual.</li> <li>• Conflict starts with lack of informal interaction and flexibility.</li> <li>• Communication is informal, cross-functional, open, complex and social.</li> </ul>                         |

As observed in Table 3, there is a lot of similarities between the contents of “contract” and “formal governance” and also between “trust” and “informal governance”. Yang et al. (2017) has checked the reliability and validity of the terms contracts and trust, using a confirmatory factor analysis to make sure that all of the hypothesized factors had high loadings and that no significant cross-loadings between these factors appeared.

The research group agrees that in the ideal scenario the constructs should have been validated for this specific research. However, as Heide (2003, p. 18) points out, “Much of the recent research on interfirm relationships in marketing has relied on the theoretical notion of governance”. Combining this to the fact that the constructs have been validated in a very similar context in

Yang et al. (2017), we believe that there is enough background to confirm that the constructs used in our research, formal and informal governance mechanisms, are valid constructs. As to the importance construct, it is considered mainly as a perceptual issue, and was therefore left open for the informants' perception of the event based on their own experience. There are many reasons that make an event important, in this research the other reasons will be looked past, and this construct will only be used towards its relationship with the governance level. Hence, importance will only be related to governance, as a compound construct to critical events, in order to avoid the risk of loss of validity by dividing up the construct.

### **2.3 A note on cultural distance**

Cultural distance is considered to be one of the key barriers to enter an emerging market. This difference can be measured in attitudes to work, authority, equality and other important factors (Johnson, Whittington, Scholes, Angwin, & Regner, 2014).

In Brazil inequality amongst people is accepted and the informal power acquired by local individuals can influence the process of establishing business more than the actual administrative and legal system (Hofstede, 2001). Language is also still a big barrier when doing business with Brazil. Even though this picture has been changing, most of the Brazilian investors still prefer doing business in Portuguese (Katasioloudes, 2002).

The issue of cultural distance has gained significant attention amongst scholars over the past years. One author that has been given particular attention is Hofstede (1983), who's perspective and framework has been widely used among scholars. This is despite the fact that that the models are criticized for being inaccurate in the way they are validated. Besides the critiques, Hofstede's model is still a very clear conceptual tool when it comes to visualizing of differences between countries.



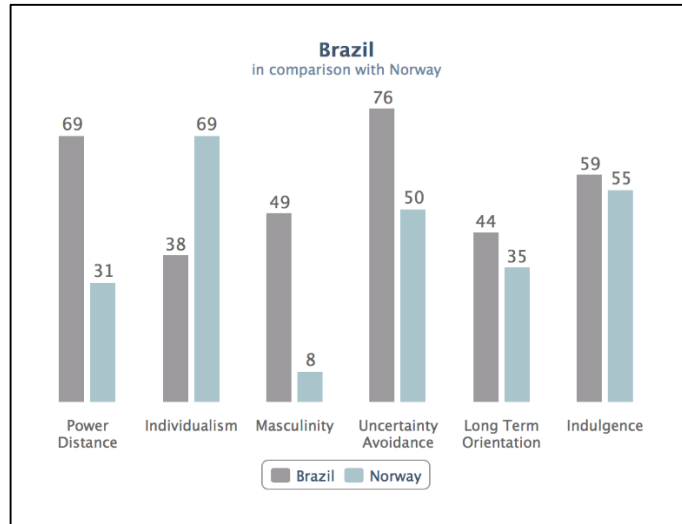


Figure 4- Cultural distance between Brazil and Norway taken from Hofstede (2015)

According to Hofstede (2001), power distance is “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed *unequally*”. As shown in Figure 4, Brazil has a score of 69 in power distance, which is much higher than Norway. In a company setting, this means that in Norway there is more communication amongst individuals of different levels, while in Brazil it is accepted that individuals at higher positions make decisions on their own without asking for other’s opinions.

Brazilians and Norwegians are quite leveled when it comes to long term orientation and indulgence. The medium to low score in the category called “long term orientation” means that both these countries are a bit more normative than pragmatic when it comes to changing rules and norms in the society. Both countries are in the middle regarding indulgence, meaning inconclusive results when it comes to controlling their desires and impulses (Ibid.).

There are very contrasting characteristics regarding individualism and masculinity. Individualism refers to society's position in whether people’s self-image is defined in terms of “I” or “we”. According to Figure 4, Norwegians are more individualistic than Brazilians. Masculinity is the degree to which the society will be driven by competition, achievement and success (Ibid.). Norway is rated as the second most feminine society in the world, showing that there is a great

deal of cooperation and dialog amongst people in different levels in a society. Brazil has a middle score, showing that there is a mix between being competitive and cooperating with others.

As many of the Latin American countries, Brazil shows a very high avoidance for uncertainty. In Brazil, bureaucracy and laws are very important to keep the society safe. Norway on the other hand, scores accurately in the middle, reflecting that there is no preference between norms and trust when it comes to accepting uncertainty.

There are fundamental differences between Norwegian and Brazilian culture. Norwegians like planning and analyzing before the actual execution of a project. Meanwhile, Brazilians are less accurate on planning, and like to take fast decisions to accelerate a process when necessary. A common factor between these countries is that they have an economy based on production and exportation of raw materials. Therefore, despite the differences, a good relationship between these nations might lead to fruitful results.

### 3 A conceptual model for studying conflict through governance mechanisms

The conceptual model for this thesis is based on Vaaland (2002, p. 103), where he explores business relationships in an oil industry network environment. In the model shown in Figure 5, conflict is seen from both the Norwegian and the Brazilian side of the dyad, and there are two main constructs through which the parties can assess events of conflict. One construct is governance mechanisms, which refers to how the parties perceive the degree of formality of the events, and the other construct is the perceived importance of these events for both sides of the relationship. There are also three elements that influence how the events are interpreted; the characteristics of the parties, the environment, and the atmosphere.

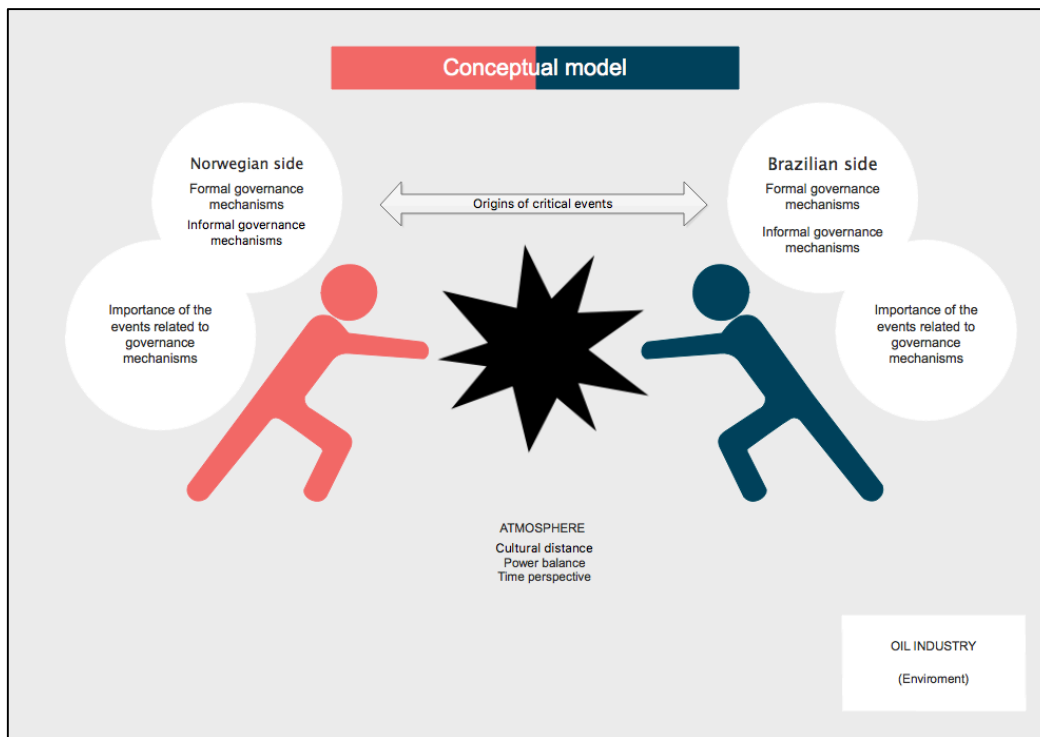


Figure 5- Conceptual model adapted from Vaaland (2002, p. 103)

In the adapted model in Figure 5 governance mechanisms are seen as the main cause of critical events in a dyadic relationship. Therefore, the first research question is related to the parties' perceptions regarding governance mechanisms. With the second research question the aim is to test if the different perceptions of event importance are related to the parties' perception of

governance mechanisms. This is being tested to see if there is an agreement with Vaaland's (2002) finding, that important events tend to be related to formal governance mechanisms. Lastly, atmosphere elements are considered to be the external factors that may also have an effect on events, which in this case are cultural distance, power balance, and time perspective. An important assumption for this model is that the two main constructs, importance and governance mechanisms, are assumed as being perceptual, meaning that the Norwegian and the Brazilian side have different pictures of the conflict events.

## **4 Methodology**

A scientific work must be inventive in order to be successful. The underlying purpose of a scientific work is to find research questions that are fruitful to ask, and methods that are suited to answer these (Widerberg, Hansen, & Album, 2010). In the next sections, the basic methods that are used to acquire knowledge for a research will be shown, starting from the epistemological standpoint and going until the choice of methods for data collection and analysis.

### **4.1 Research design**

#### **4.1.1 Epistemology**

Epistemology is related to how one can acquire and understand knowledge about the world, or in the case of a research, how to acquire and understand acquired knowledge about the chosen subject of study. Two concepts that are closely related to epistemology are positivism and hermeneutics. Positivism is often connected with a quantitative method and is built upon the belief that all recognition is scientific, and that science therefore must be based on controllable observations (Bjørner, 2010). Hermeneutics, on the other hand, is seen a way of interpreting and understanding ourselves, and viewed as the dominating scientific theory within qualitative research (Ibid.). As a presumption for hermeneutics it is believed that the reality we surround ourselves with is controlled by human actions and understanding. From a positivist standpoint scientific methods make it possible to decide an objective reality, whereas in a hermeneutic approach there is no objective reality, there are only subjective opinions about the reality (Busch, 2013).

One could argue that since conflict is a social phenomenon it requires an epistemological approach that enables interpretation of previous research, and therefore a hermeneutic approach would be sufficient. However, as this thesis seeks to identify the source of inter-organizational conflict, followed by an assessment of different perceptions as to why these events occur, it is necessary to apply a combination of hermeneutics and positivism. This is done in order to achieve a more holistic understanding of the results, and give a more fruitful discussion.

#### **4.1.2 Explorative case design**

In this research the object of study is the conflict phenomenon in an inter-organizational context, specifically between Norwegian and Brazilian companies in the oil industry. The research on

critical events in Norwegian- Brazilian dyads has not been done before, thus an explorative case study design was the best option. An explorative design is used when the problem in question has little or no studies to refer to (Holme & Solvang, 1996). This approach has the advantage of giving a better picture of the situation being developed, in order to generate ideas and assumptions to the development of tentative hypotheses. In addition to that, such an approach can determine whether a study in the field is feasible in the future. On the negative side, exploratory research generally utilizes small sample sizes, and for this reason the findings are typically not generalizable to the population at large. Also, it is harder to make definitive conclusions about the findings, due to the explorative nature of the research (Ibid).

One point that is very special about explorative design is that researchers are somewhat free to design the research as it best fits the purposes. This lack of rigorous standards has its advantages and disadvantages, as not taken necessary precautions can make the methods become unorganized. The research group has however taken precautions to make the data collection for this thesis organized to fit the purposes of this research.

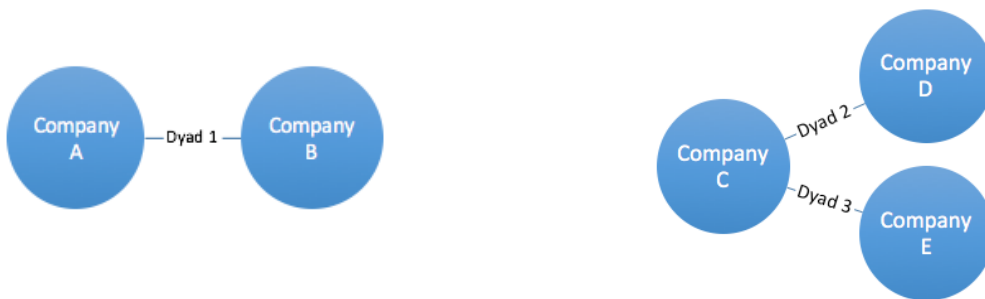
## **4.2 Research sample**

The oil industry is an international industry, with strong holding points, both in Stavanger and in Rio de Janeiro making it an ideal industry to consider when evaluating perceptual distances in business relationships. The population sampled was oil industry personnel, middle and upper management, as this group were believed to be the segment within each organization that had the most inter-organizational contact.

The first contact with each informant was established via phone and mail, by searching for companies operating both in Brazil and in Norway, and actively planning meetings. Both men and women, Brazilian and Norwegian were interviewed, all living in Brazil as a common factor. The number of people interviewed was restricted by challenging external conditions in Brazil, such as the rather recent “Lava-Jato” corruption scandal and the carnival celebration.

In this research one side of the dyad had to be a Norwegian company, and the other side had to be a Brazilian company. Another demand for the sample included in the research is that the companies had to be from the oil industry, and currently working together.

By the 9<sup>th</sup> of February there were five interviews scheduled with different Norwegian companies, but none with their Brazilian counterparts. The research team and the Norwegian companies encountered some difficulty to schedule interviews with Brazilian companies. The informants from the Norwegian side speculated the reason for this could be the recent corruption scandal in Brazil, which made companies more cautious about sharing information. Another possible reason mentioned was that Brazilian companies could be more afraid of sharing internal knowledge than the Norwegians, on a general basis. In the beginning of March there were six Norwegian companies and three Brazilian companies that had participated or were scheduled to participate in the research. After several attempts from both the research team and the Norwegian companies to reach more Brazilian counterparts, the final scenario of the dyads looked as in Figure 6.



*Figure 6- Overview of the dyads*

Companies “A” and “C” are Norwegian companies and companies “B”, “D” and “E” are Brazilian companies. Company C has two dyads, while company A has only one, leaving us with three dyads in total. In the final selected group shown in Figure 6 there were in total three informants from the Norwegian side and four from the Brazilian side, those were divided as follows:

1. **Dyad A-B:** One informant from A’s side and one informant from B’s side.

2. **Dyad C-D:** One informant from C's side, who is not the same informant from dyad C-E, and two informants from C's side.
3. **Dyad C-E:** One informant from C's side and one informant from E's side.

**Dyad 1** consisted of a Norwegian company acting as the selling part, and a Brazilian company as the buyer. With regards to power balance in the dyad, it is possible to argue that the Norwegian to some extent with regards to size dominates the Brazilian. Interaction between the companies was short to medium term. The relationship started with a one-time deal, but the Brazilian company saw the need to use the expertise of the Norwegian company to operate the assets. Therefore, the relationship developed into a customer and service provider relationship with perspectives to last from two to five years. When looking at the dyad in relation to Table 2 it is possible to argue that the dyad is in category 4, having a low degree of continuity and high involvement. A total of 26 events were taken out of the first interviews, all articulated by the informants. Three answers were left unanswered and therefore taken out, leaving the dyad with a total of 23 critical events to be analyzed. After interviewing each side in the dyad, the research team was under the impression that this dyad is in the "hostile" area in Figure 2. This is based upon the perception of a high level of conflict, and that there seemed to be a more competitive approach to the dyad, leading them to a low degree of collaboration. Dyad 1 cannot be directly compared to the two other dyads, which are related to a complex project. Even though this dyad is not directly comparable to the two other dyads, it is still an interesting case to look at, as the time perspective and the nature of the relationship gives a broader perspective to this research.

**Dyad 2** has two rather big companies, with the Norwegian company acting as the buyer, and the Brazilian as the seller. The Norwegian company is an oil field service company operating worldwide, and the Brazilian a multinational company, selling their products to several industries. With regards to power balance the Brazilian company is on top. The relationship between the two is ongoing and long term, as the Norwegian company often is dependent upon the products provided by the Brazilian company, to be able to provide their customers with the quality they need. These two factors, place the dyad in category 2 in Table 2, "long-term intense relationship", as the level of involvement and continuity is high. Degree of conflict is low, as few critical events were articulated by the informants. This dyad is considered to be in the "nice" area (Figure 2). The



nature of this dyadic relationship is complex, compared to dyad 1. Initially 69 events were taken out of the interview, with 13 of these being articulated by the informants. Three of the events from previous research recognized by the informants were left unanswered, and therefore taken out, leaving the dyad with 66 events.

**Dyad 3** consists of a Norwegian company acting as the buyer, and a Brazilian company as the seller. In contrast to dyad 1, the buyer is in this case dominating the seller in size. The relationship between the two companies is long term and ongoing. The Norwegian company, also an oil field service company buys a product from the Brazilian company, needed to start and keep their offshore systems going. The Brazilian company is an actor on the international market, providing qualities needed to operate offshore. It is without a doubt a dyad with high continuity and high involvement (Table 2), leaving this dyad in category 2. Another trait dyad 3 has in common with dyad 2 is complexity. This dyad had 60 events, all from previous research recognized by the informants. None were left unanswered, leaving the dyad with a total of 60 critical events to be analyzed. Even though events were not articulated by the informants, it became clear through the interviews that there were in fact several conflicting issues between the parties. There seemed to be a high level of collaboration, as both parties can thrive by common progression, leaving the last dyad in the “well-developed” area in Figure 2. Table 4 shows a summary of the characteristics of the dyads in this research.

*Table 4- Summary of the characteristics of the dyads*

|                         | Dyad 1                 | Dyad 2            | Dyad 3            |
|-------------------------|------------------------|-------------------|-------------------|
| Degree of conflict      | High                   | Low               | High              |
| Degree of collaboration | Low                    | High              | High              |
| Continuity              | Short- to- medium-term | Long-term         | Long-term         |
| Involvement             | High                   | High              | High              |
| Power company           | Norwegian company      | Brazilian company | Norwegian company |

### 4.3 Data Collection

The choice on methods for data collection depends on the research questions that need to be answered, and the resources that are available to implement the research (Busch, 2013). A researcher can use qualitative and/or quantitative methods for gathering data. It is important to point out that these approaches are not mutually exclusive, and they can in certain cases be combined to achieve better results(Ibid.).

For the purpose of gathering the best possible data for the analysis, the methodology in this thesis consisted of a combined approach, which started with interviews to identify events in order to guarantee that the questionnaires for the quantitative analysis were appropriately formed.

The positive side of such a combined approach is that it gives a great opportunity to take advantage of the strong sides of each method, in an attempt to acquire precision and sensitivity, distance and closeness, overview and deepness (Ibid.). For instance, a qualitative approach enables the research team to go deeper and understand why people do as they do, while a quantitative approach provides a more broad, precise, representative prediction and good comparison possibilities. Applying a combined method can therefore create unique synergies, which makes the analysis especially valid as a decision-making tool (Bjørner, 2010). The negative side of combining approaches is that it is time consuming, and the research design can become very complex (Busch, 2013). The combination of methods in the way that is being used in this research is a common method, recognized by several authors (Bjørner, 2010; Holme & Solvang, 1996).

The data was collected during a period of five weeks. Both qualitative and quantitative methods were applied. This was done in order to establish a more complete picture of what critical events had occurred, and the difference in perception of the parties involved in a dyad. The interviews were conducted in Brazil with several companies, representing either the Norwegian or the Brazilian side of the dyad. In the first two weeks, Norwegian companies were interviewed, and from there on the research team relied on these companies to find a partner they believed could be interviewed as a counterpart. The data collection was halted during the Carnival period. During the last couple of weeks, round two of the data collection started, where a questionnaire formulated with the events taken from the different interviews was assessed by their respective companies.

### **4.3.1 Field research preparation**

As a failsafe, and to be somewhat prepared for the field research, the research group decided to do some “test interviews” in Norway before leaving to Brazil. The group was provided with a list of companies operating both in Norway and Brazil, by Innovation Norway. This list made it easier to identify and establish contact with the informants. Even though the list was extensive, it proved to be difficult to get informants, as only two out of thirteen people contacted were willing to participate.

Two interviews were then conducted, one with an informant affiliated with trade facilitation between Norway and Brazil, conducted via Skype, and the other face- to -face with an informant from the oil research community in Norway, which was in direct collaboration with the Brazilian scientific community. Both interviews were conducted very openly, first the research group briefly explained the aim of the research, and then let them speak freely about friction events that happened in their relationship with Brazilian companies. When the informant was done, or did not have any more examples, a list of critical events based on previous research would be presented to them. They would then go through the points in the list, and often remember more events.

After evaluating the two meetings, it was agreed that inter-organizational conflict in relation to buyer-seller perspective appeared most appealing and interesting, rather than the scientific research collaboration that was discussed in the second interview. This, made the group decide to discharge research collaboration and focus only on business relationships. Both informants identified several events which were added to a “general event list” as a backup solution. The most important knowledge taken from these interviews was understanding more about what kind of information the informants expect to get, and which approaches should be used.

### **4.3.2 Part I: Identifying critical events by the means of interviews**

The purpose of the interviews was to identify a set of critical events occurring in a Norwegian-Brazilian dyad, by exploring each informant’s perceptions and experiences. An on-site in-depth interview makes it possible to establish a deeper understanding of how and why answers are given, by looking at the informant’s way of answering or how they react to certain questions. This can also be the biggest weakness in such an approach, as interpretation never can be considered objective (Bjørner, 2010). The interviews reduce the risk involved with preparing the questionnaire

for the quantitative study, as the informants themselves have submitted or recognized the events prior to the questionnaire, and can therefore relate to them (Malaval, Bénaroya, Digout, & Szapiro, 2013)

The interviews in Rio de Janeiro were mostly conducted face to face, as this ensured direct interaction and the possibility to give necessary explanations (Malaval et al., 2013). Two telephone interviews were however needed.

The research group had close collaboration both with the Norwegian consulate in Rio, and Innovation Norway, receiving guidance during and before the data collection. Getting enough informants from the Brazilian side proved to be a hard task, but good communication between the research team, the Brazilian PhD student, the consulate and Innovation Norway made it possible to strengthen the specter of informants and collect enough data.

The word “conflict” was left out of the interviews, as it was believed the informants would be more reluctant to talk about the relationship if conflict was mentioned as an asset or in relation to a possibly fragile business relationship. Instead, the informants were first presented with a brief description of what is considered to be a critical event, ensuring a common understanding of the term.

The interviewer proceeded with asking the informants to identify some of these events, and events that could be linked to a single relationship. If this proved to be hard, the informant would be presented to different categories of critical events and some examples to get him/her going. A few categories were applied: organization of work, work performance, human interaction, data precision, physical resources, manpower resources in addition to a category labeled as “externalities”, as shown in Appendix 5. The last category was added to capture possible points that were externally imposed, but could create friction internally in the dyad. After interviewing one side of the dyad, the respondent was reminded to contact the counterpart to be interviewed, representing the other side of the dyad. Interviews with the counterparts were conducted in the same manner. The interviews ranged from one, to one and a half hours of duration.

All four researchers were taking notes, and supplementing the interviewer, when questions needed clarification. The structure of the interview was rather flexible, as the interviewing group concluded that an open conversation would make the informant more comfortable and willing to talk about a rather tense subject.

Each side of the dyad was interviewed independently, and was therefore not affected by each other. However, the subjective understanding of the research team may to some extent have affected the research. This was counteracted by quadro-hermeneutics or reflexive interpretation (Bjørner, 2010). The reflexive interpretation was also strengthened by the fact that the research group for this paper consisted of one native Brazilian and one native Norwegian, to some extent decreasing biasness when analyzing the parties' responses and possibly reducing cultural barriers.

One of the biggest challenges faced in this research was related to dealing with ethical and moral thinking of the informants. In other words, *how to make sure the informants were honest about the information they were providing?*

Already from the first interview we noticed that the informants were very careful about sharing information about undesired events. All of them were told before the interview that there would be complete anonymity in the paper, so we wondered why they were still reluctant to share information. In a certain interview, the interviewer asked the informant: *“Did this specific issue caused an undesired situation for your company?”*. After careful thinking, the response given by the informant was *“Will you tell this to the other company (the other side of the dyad)?”*

The research group identified getting informants to speak truthfully as the biggest challenge during the qualitative research. There is no way of telling what reasons lay behind companies choosing not to answer, or to postpone until it was too late to get an interview. It is however plausible that informants thought participation in such a research would have negative effects on the relationship. External factors such as a relatively low oil price in combination with the rather recent “Lava-Jato” may also have had an effect, making companies put a lower emphasis on participation in external activities such as research and rather focusing on core-activities.

Secondly, the group was under the impression that some informants presented an unrealistic depiction of the dyadic relationship or withheld information. This suspicion emerged after an interview where the informant presented no critical events, but ended the interview by stating that the business relationship was “*in no manner flawless*”, thereby stating that there actually were or had been friction in the relationship. It is possible to believe that untruthful answering is a result of the informants making conscious and deliberate trade-off between the cost of dishonesty and the expected external benefits, concluding in higher utility by talking untruthful (Mazar, Amir, & Ariely, 2008). Expected external benefits is in this case hard to identify. It is plausible to think that the informants were under the impression that identifying few critical events would be more beneficial than identifying many. This is the opposite of what is argued by Tjosvold (2008), stating that a higher degree of conflict may actually benefit teamwork within and between organizations. It is further argued that conflict avoidance may undermine relationships and performance in teams, and that avoiding conflict may lead to frustration and an unproductive relationship (Ibid.). The research group acknowledges the belief that some informants withheld information, and that it would be hard to tell realistic from unrealistic depictions of the dyadic relationship.

The team also experienced a great variation in how each informant chose to answer, often answering with external content, rather than with dyad specific critical events. This might be due to different understanding of what the interviewer needed, or due to informants not wanting to share internal content. In addition to being time consuming, the answers given were often impossible to implement in the study. However, some externalities have had a direct impact on the relationship and were therefore looked upon as critical events.

#### **4.3.3 Part II: Accessing perceived importance of governance mechanisms by the means of questionnaires**

The second part of the research aims to find answers to the research questions 1 and 2, which are:

|   |
|---|
| 1) Once the parties of the dyad have assessed critical events, to what extent do the different parties associate conflict with formal vs. informal governance mechanisms? |
|---|

|   |
|---|
| 2) Is there a difference between which governance mechanisms the parties perceive as important? |
|---|

The first question is directly related to the parties' perception of the conflict events with relation to governance. While the second question speculates on the possibility of a relationship between the governance level and the importance of the events. The first part of research question number one was to find and recognize events through the interviews. Once events were in place, it was easier for the informants to answer, and a good analysis here is more dependent on quantity of answers collected. The informants were sent a questionnaire with the examples of conflicts they came up with, and also examples from previous research that were recognized by them. They were asked to judge the level of formality of each of these events, and to give a level of importance to these events.

There are a few rules one must comply with when preparing a questionnaire out of interviews, in order to achieve the best results. Firstly, during the interviews the interviewer must avoid using topics that might pollute or direct the thought process of the informant (Malaval et al., 2013). Secondly, when preparing the questionnaire, the researchers must find the best order of the issues to be dealt with, that complies with the logic and thought process of the informants. As a way of complying with these guidelines, the research team chose to create a straightforward questionnaire, presenting externalities in the end, to avoid "pollution" of the informants thought process by guiding them away from the dyad and into external issues. After careful discussion, the extended research group decided to use a 1 to 7 scale, to get a good spread of the answers, with 1 representing extremely informal, 4 middle ground and 7 extremely formal. The same scale was given to importance, ranging from 1 being not important to 7 being extremely important.

The questionnaires were sent to the informants either by e-mail or taken directly to their office. All informants got clear instructions on how to answer the questionnaires, and if there were any doubts they could contact the research group. The informants were also presented with a figure showing the description of what was included in the formal and informal governance mechanism's construct (Figure 7). The importance was left open for the informants' perception based on their experience in the specific event. Every informant was asked to judge the events having their specific dyadic counterpart in mind, this in order to avoid results that are not related to the dyad.

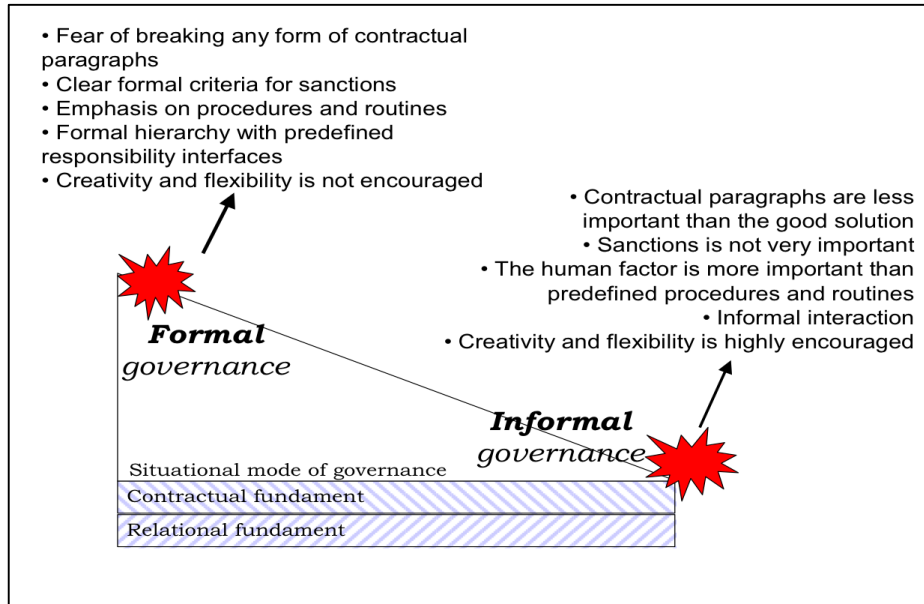


Figure 7- Formal vs. Informal side of the relationship taken from Vaaland (2002)

At this point of the research getting an answer from the respondents was a much simpler task than trying to schedule the first interviews. The reason for this is that the informants answering the questionnaire were the same informants from the interviews. The informants were also more interested once they had been a part of the interviews, and had got a better understanding of what the research was about.

An overview of the data gathered from the questionnaires is shown in Table 5:

Table 5- Overview of critical events

|               | Number of events | Average rating Norwegian side | Average rating Brazilian side | Events articulated directly from informants | Events from previous research recognized by informants | Discarded events (non answered) | Final events/ number of answers on each side |
|---------------|------------------|-------------------------------|-------------------------------|---|--|---------------------------------|--|
| <b>Dyad 1</b> | 26               | 2,96                          | 5,30                          | 26  | 0  | 3                               | 23   |
| <b>Dyad 2</b> | 69               | 4,38                          | 4,59                          | 13  | 56   | 3                               | 66   |
| <b>Dyad 3</b> | 60               | 4,87                          | 4,67                          | 0   | 60   | 0                               | 60   |



## 5 Data Analysis

### 5.1 Type of Analysis

The data analysis is divided in two parts, where the first part is related to the first research question, about the different perceptions of governance mechanisms for the two parts of the dyads. The second part is related to the second research question, and involves relating the perceptions of governance to the perceptions of importance in a correlation analysis.

In the first part of the analysis the pairs that are being related are perceived governance for the Brazilian versus the Norwegian side of each dyad. The analysis is done by comparing the means of each dyad by performing one sample t-tests, and Levene's test for assessing the differences in perception between nations in a dyad. The related pairs for the first part of the analysis are therefore:

|   |
|---|
| NorGov (X-axis)- Norwegian perceived governance level |
| BraGov (Y-axis)- Brazilian perceived governance level |

For the second part of the analysis, perceived governance is related to perceived importance for each part of the dyad. A correlation analysis was chosen as the best option to explore the relationship between importance and governance. The related pairs for the analysis are therefore:

|  |
|--|
| NorGov: Norwegian perceived governance level |
| NorImp: Norwegian perceived importance level |

|  |
|--|
| BraGov: Brazilian perceived governance level |
| BraImp: Brazilian perceived importance level |

### 5.2 Analysis for the first research question: The governance perceptions

The research group aimed to compare governance perceptions from the Norwegian and the Brazilian side of the dyads, in relation to the set of critical events. Firstly, a one sample t-test was done to compare the means of each group (Appendix 1), followed by an independent-samples t-

test to compare the governance scores for Norway and Brazil in dyad 2 and 3 (Appendix 2). Related to the first research question, the scatter plots presented in this chapter (Figure 8-11) display the three dyads and how Brazilians and Norwegians in each dyad see the governance mechanisms in relation to the critical events.

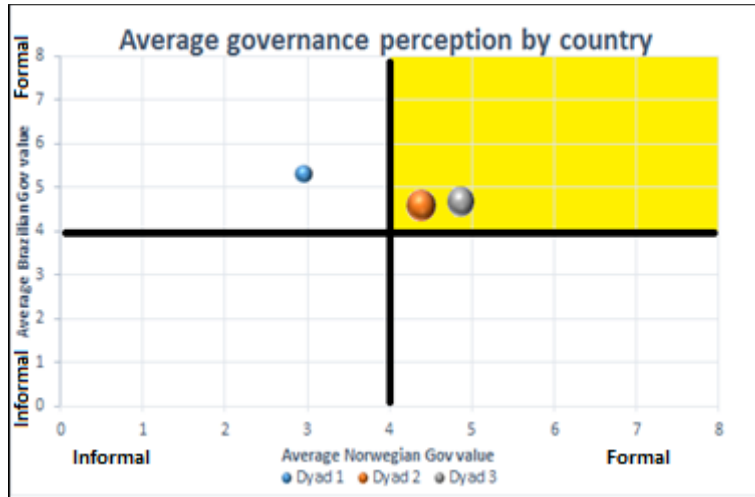


Figure 8- Average governance perceptions

|        | Number of events | Average rating Norwegian side | Average rating Brazilian side |
|--------|------------------|-------------------------------|-------------------------------|
| Dyad 1 | 26               | 2.957                         | 5.304                         |
| Dyad 2 | 66               | 4.379                         | 4.591                         |
| Dyad 3 | 60               | 4.867                         | 4.667                         |

Table 6- Overview of governance ratings

In the scatter plot in Figure 8 each circle represents a dyad. The size of the circles represents the number of critical events related to each dyad (Table 6). The biggest circle is dyad 2, with 66 events. The variables in the scatter plots are average Norwegian governance value on the X-axis and average Brazilian governance value on the Y-axis. As this is not a regression, the X and Y are acting completely independent of each other. Dyad 2 and 3 is as shown within the “mutually formal” zone (yellow-marked), referring to Figure 2. Dyad 1 is within the zone categorized as “unbalanced” in Figure 2. All mean values presented significantly deviated from the middle, apart from the Norwegian side in dyad 2 (for full analysis see table in Appendix 1). Each finding is further discussed and elaborated on below.

### 5.2.1 Findings for the first research question

In the next three sections the dyads will be analyzed one by one, related to their governance perceptions. In the scatter plots used for this analysis the circle size represents the number of events within the same rating. The X-axis indicates the rating done by the Norwegian part of the dyad, while the Y-axis indicates the Brazilian rating. For example, a rating of (1,1) would represent a common Norwegian/Brazilian rating of the event being a result of weakness in informal governance mechanisms.

### 5.2.1.1 Dyad 1

All 26 events in this dyad, were originated from the informants, making this dyad especially interesting, and to some extent different for the two others. As displayed in the graph, none of the events were rated under 4 by the Brazilian side of dyad 1, indicating that most events were perceived originating from more formal governance mechanisms. On the other hand, the Norwegian side seem to be more centered in the middle with their ratings ranging from 2 to 5, indicating that the Norwegian side in this dyad rated all events originating from neither informal nor formal governance mechanisms. The average from dyad 1 points in the direction of a clear difference between perceived causes of critical events, placing this dyad in an “unbalanced zone” (Figure 3). The Brazilian side rated the cause of critical events originating from a more formal than informal governance mechanism, and the Norwegian side leaning in the opposite direction.

The independent-samples t-test showed significant difference ( $p=0.000$ ) in score for Norway ( $M=2.96$ ,  $SD=0.93$ ) and Brazil ( $M=5.30$ ,  $SD=0.76$ ). The magnitude of the differences in the means was quite big, and the assumption of equal variance was not violated.

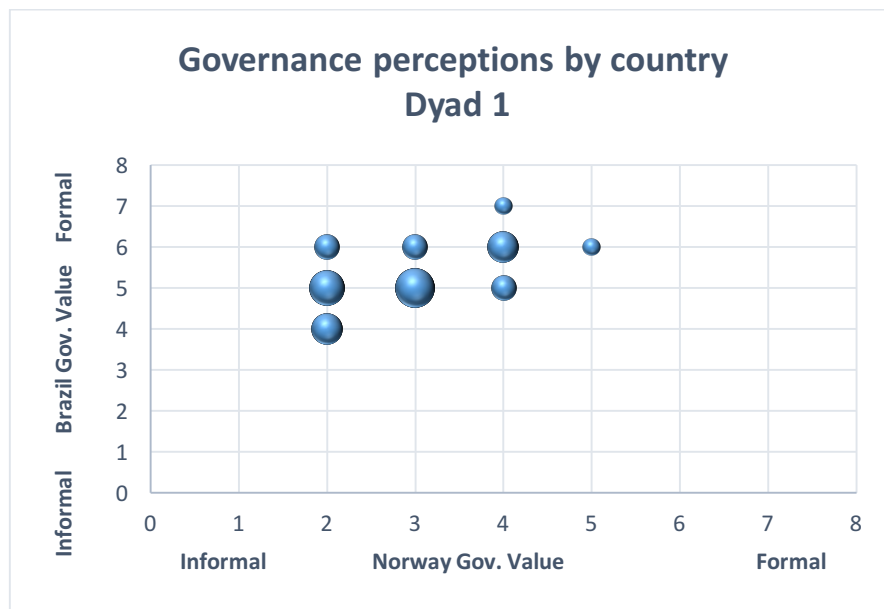


Figure 9- Governance perceptions dyad 1

### 5.2.1.2 Dyad 2

Dyad 2 had 13 out of 66 events articulated by the informants. This might have caused the slightly different spread of the Brazilian ratings ranging from one event being rated as 2, to the rest being between 3 and 6. The averages in this dyad only differs by 0, 21 from each other, and is set nearly in the middle of the plot (4,38 -4,59), placing the dyad the “mutual formal zone” (Figure 3), displaying consensus on formal governance mechanisms as cause of critical events.

The independent-samples t-test showed no significant difference ( $p=0.435$ ) in score for Norway ( $M=4.38$ ,  $SD=1.95$ ) and Brazil ( $M=4.59$ ,  $SD=0.99$ ). The magnitude of the differences in the means was very small. The assumption of equal variance was violated, but that is ok in Levene’s test, as the information on the second line of the t-test can be used instead (Equal variances not assumed).

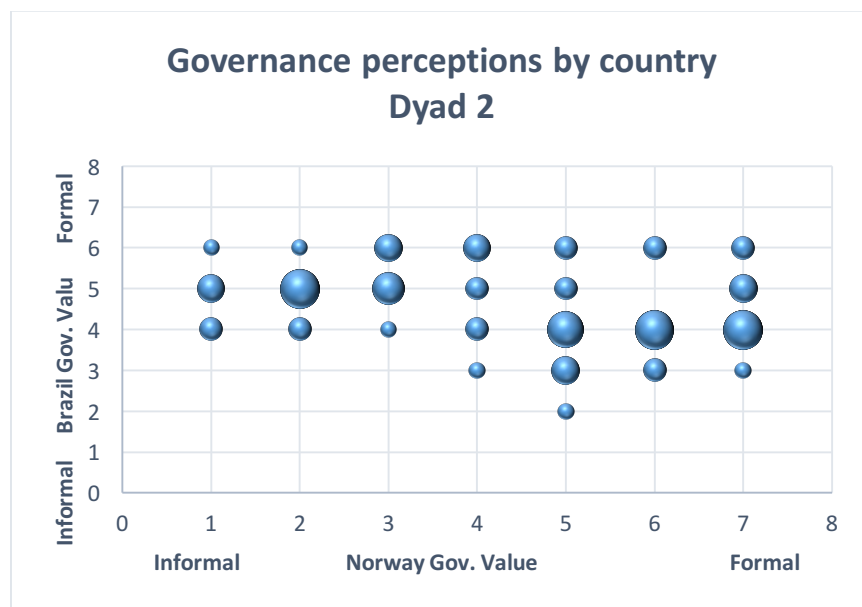


Figure 10- Governance perceptions dyad 2

### 5.2.1.3 Dyad 3

The last dyad shows a bigger spread of the Brazilian ratings, ranging from “informal” in two critical events, to “formal” on three critical events. The Norwegian side seems to be more on the formal zone, with only two events rated under 4 (Middle ground). The average ratings are also in this case rather similar (4,87-4,67), and around middle ground, placing the dyad as a whole in the “mutual formal zone”.

An independent-samples t-test was conducted to compare the governance scores for Norway and Brazil in dyad 3. There was no significant difference ( $p=0.435$ ) in score for Norway ( $M=4.87$ ,  $SD=0.929$ ) and Brazil ( $M=4.67$ ,  $SD=1.446$ ). The magnitude of the differences in the means was very small. The assumption of equal variance was violated, but that is ok in Levene’s test, as the information on the second line of the t-test can be used instead (Equal variances not assumed- Appendix 2). This shows that the parts of the dyad had approximately the same meaning regarding governance scores, as in dyad 2.

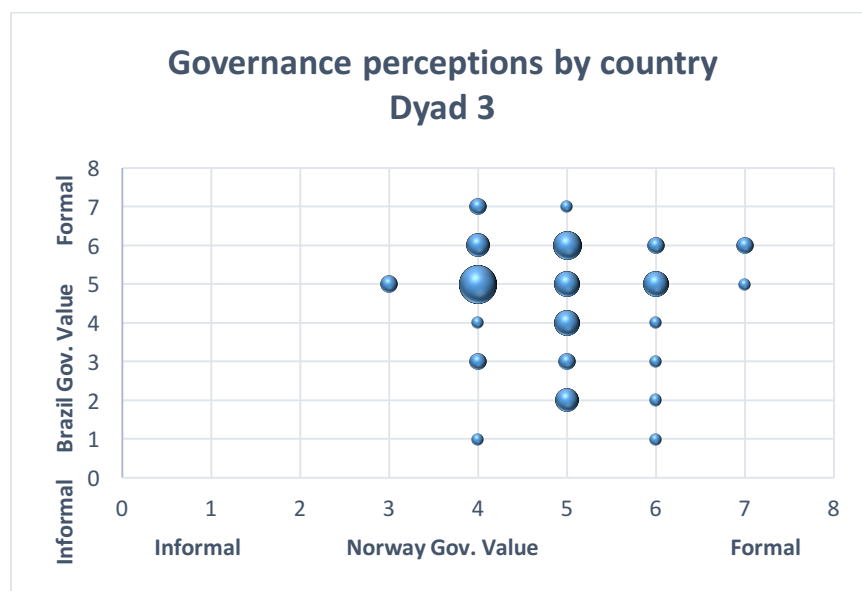


Figure 11- Governance perceptions dyad 3

### 5.2.2 Discussion of findings for the first research question

In dyad 1, 2 and 3 the Brazilian side associates formal governance mechanisms as a cause of critical events. The Norwegian side in dyad 1 points in the direction of informal governance mechanisms as cause. The Norwegian side in dyad 2 and 3 rated formal governance mechanisms as cause of critical events. The results of Levene's test shows that the parts of the dyad were in agreement to each critical event were originated from (more formal), both in dyad 2 and in dyad 3. In contrast, dyad 1 showed significant differences in the mean scores for the parts of the dyad.

The depiction of the average in dyad 1 displays it as being in the "unbalanced zone" (Figure 3), where the Brazilian side average governance rating is higher than the Norwegian side. Dyad 1 is in contrast to the two following dyads, not comparable with Vaaland's (2002) research. For it to be correct and comparable the Brazilian and Norwegian side would have to be switched, leaving the average rating in the other "unbalanced zone", as the Brazilian part was the buyer and the Norwegian the seller. The Norwegian side, gave lower ratings on governance, than Brazilian, meaning that the Norwegian side rated most critical events as originating from informal issues and the Brazilian the opposite. When compared to the two other dyads, a possible explanation for dyad 1 not being in the "mutual zones" with the other dyads, could be rooted in the nature of the dyad itself, as dyad 2 and 3 in this study are perceived as complex.

Dyad 1 differs from the others, by having all critical events articulated by the informants and by being characterized as less complex. It is possible that a lower level of complexity made the dyad more transparent, making it easier to identify critical events related to the dyad, although this can only be seen as speculations.

Both dyad 2 and 3 indicate that the cause of critical events is within the "mutual formal zone" (Figure 3), meaning that the critical events originate from a weakness in formal governance mechanisms. This is in sharp contrast to what is previously found in Vaaland (2002), where all dyads were within the "mutual informal zone". A possible explanation to this is the fact that the industry, and conditions around it, has changed since 2001. Another explanation is that the environmental characteristics are different from previous research.

### 5.3 Analysis for research question 2: The governance and importance perceptions

Research question number 2 explores a possible relationship between the perceived governance mechanisms of the events and their perceived importance. This question is divided into two sub research questions, which are:

*Q.2.1. In the Norwegian side, how does the perceived governance level relate to the perceived importance level?*

*Q.2.2. In the Brazilian side, how does the perceived governance level relate to the perceived importance level?*

In accordance with the sub research questions Q.2.1. and Q.2.2, the statistical outputs in this section reveal the perceptions of importance related to governance mechanisms for Norwegians, and for Brazilians. A Pearson correlation, was chosen as the most fitting analysis to show the relationship between perceived importance and perceived governance. The correlation tests were performed using SPSS statistics program. The tests were done separately for each dyad, first for the Norwegian side and then for the Brazilian side.

#### 5.3.1 Testing assumptions for correlation

Before performing a correlation analysis there are certain assumptions that must be tested. These assumptions are as follows: level of measurement, related pairs, independence among observations, normal distribution, linearity and homoscedasticity (Pallant, 2010).

##### **Level of measurement**

All the data collected in the questionnaire consists of actual measurements. The items were judged in a metric scale from one to seven type, where 1=strongly informal/ 7=strongly formal, and 1=strongly unimportant/ 7=strongly important.

##### **Related pairs**

Each subject has provided a score on both governance and importance. Both pieces of information come from the same subject.

### Independence of observations

Each part was asked to make assessments independently of the other part. This guarantees that each observation is not influenced by another observation.

### Normal distribution

The data used for the survey in this thesis is an interval data in a Likert scale that goes from one to seven. This type of data is considered normal when the data is approximately normally distributed (Morgan, 2004). That is when most scores are somewhere in the middle, with similar numbers for high and low scores.

*Table 7- Descriptive statistics to check for normality*

|        | Mean      |            | Skewness  |            | Kurtosis  |            |
|--------|-----------|------------|-----------|------------|-----------|------------|
|        | Statistic | Std. Error | Statistic | Std. Error | Statistic | Std. Error |
| NorImp | 4.35      | .132       | -.278     | .199       | -.595     | .395       |
| BraImp | 5.57      | .109       | -.823     | .199       | .246      | .395       |
| NorGov | 4.36      | .131       | -.209     | .199       | -.645     | .395       |
| BraGov | 4.73      | .097       | -.736     | .199       | .594      | .395       |

For NorGov the skewness is -0.209, meaning that the data is fairly symmetrical and negatively skewed. The kurtosis of NorGov dataset is -0.645, therefore negatively peaked.

For BraGov the skewness is -0.736 meaning that the data is moderately symmetrical and also negatively skewed. The kurtosis of BraGov is 0.594 meaning that the dataset is positively peaked. For NorImp the data is negatively skewed (-0.278) and negatively peaked (-0.595). For BraImp the data is negatively skewed (-0.823) and positively peaked (0.246). The values for skewness and kurtosis between -1 and +1 are considered acceptable in order to indicate normal distribution, therefore the datasets in this analysis can be considered approximately normally distributed (Morgan, 2004).



### Linearity and homoscedasticity

The scatter plot in Appendix 3 shows that the data is very spread for Norwegian scores, showing that there are no signs of linearity. On the other hand, the data seems to be showing signs of an upward linear correlation on the Brazilian side.

### Outliers and other discarded variables

The process for discarding outliers in the dataset consisted of calculating the mean and trimmed mean of the dataset. In the following step the mean was compared to the trimmed mean at a 10% level. As an example, in a data set of 20 answers the two lowest and the two highest ratings would be trimmed. If there was a high difference between the mean and the trimmed mean, extremes would be removed. This did however not occur in any of the three dyads, as the gap between the mean and trimmed mean was always lower than one (Appendix 4).

In some cases, one part chose not to answer. The research team deemed these answers impossible to use, as there was no single explanation to why the informants chose not to answer. These answers, in total six originated from three events in dyad 1 (Events articulated directly from informants), and three in dyad 2 (events from previous research recognized by informants), were all discarded (see Table 5).

### 5.3.2 Correlation results

As observed in Table 8, on the Norwegian side there is no significant correlation between importance and governance level for all of the dyads taken in consideration. There is however a slight significance ( $p=0.041$ ) in dyad 1 and a positive correlation coefficient (0.429), which is a very small positive correlation and can therefore be disregarded.

*Table 8- Correlation between importance and governance mechanisms in the Norwegian side*

| Norwegian perceptions of governance mechanisms | N   | Pearson corr. Coefficient (R) | Sig. 2-tailed |
|--|-----|-------------------------------|---------------|
| All dyads                                      | 149 | -.001                         | .987          |
| Dyad 1   | 23  | .429*                         | .041          |
| Dyad 2   | 66  | -.004                         | .974          |
| Dyad 3   | 60  | .202                          | .122          |

\*) Correlation is significant at the 0.05 level (2-tailed).

However, on the Brazilian side (Table 9) there is a significant correlation ( $p = .000$ ) for all of the dyads, and a positive correlation coefficient for all of them. This is interesting, because it shows that on the Brazilian side higher levels of formality are associated to higher levels of importance.

*Table 9- Correlation between importance and governance mechanisms in the Brazilian side*

| Brazilian perceptions of governance mechanisms | N   | Pearson corr. Coefficient (R) | Sig. 2-tailed (p) |
|--|-----|-------------------------------|-------------------|
| All dyads                                      | 149 | .565**                        | .000              |
| Dyad 1   | 23  | .532**                        | .009              |
| Dyad 2   | 66  | .800**                        | .000              |
| Dyad 3   | 60  | .559**                        | .000              |

\*) Correlation is significant at the 0.05 level (2-tailed) \*\*) Correlation is significant at the 0.01 level (2-tailed)

### 5.3.3 Discussion of findings for the second research question

To start the discussion, it is important to mention that the findings in this analysis are limited due to certain weaknesses in the data collection process. Firstly, the amount of answers collected was 149, which is enough to start identifying a certain tendency in the data, but is not enough to prove that there is a pattern. Secondly, governance mechanisms are only one variable of what makes an event important, there might be many other variables, such as the frequency to which a certain event occurs. For this research the other reasons were disregarded due to limited amount of time, this might have affected the capacity of the model to be a good predictor of importance. Lastly, critical events were identified differently in the three dyads. This could consequently lead to a larger number of insignificant events in the two last dyads when compared to dyad 1, where all the events came from the informants. However, it was decided that keeping all the dyads would add a significant amount of responses, therefore lowering the risk of unevenness in the data. The parts involved were assumed to make assessments of importance and governance level of the events independently from each other.

Considering the limitations, the data analysis reveals that there is a tendency in the Brazilian side to associate higher levels of formality with higher levels of importance. Given that, we can conclude that there is a strong relationship between these two factors, but not a causal relationship since there are other factors that influence Brazilian's perceived importance. One interesting fact,

is that this finding directly corresponds to what has been said in the interviews with the Brazilian companies. The informants in general said that Brazil is a highly bureaucratic country, and that their line of thinking is usually “as long as it is not written, it will not be done”. Also, this finding partially confirms what Vaaland (2002, p. 184) found in his research, that important events tend to be related to formal mechanisms. The results also show that in the Norwegian side of the dyads there is no correlation between importance and governance levels. There are many reasons why this might have occurred, but given the assessment done in this thesis it is not possible to conclude on what these reasons are.

#### **5.4 Concluding discussion**

The purpose of Chapter 5 was to discuss the findings of the two research questions and relate these to the theory presented in the beginning of the thesis.

Question one was related to how Brazilians and Norwegians perceive the origins of conflict in relation to governance mechanisms. The first finding was that the Brazilian side of the dyads had significantly more events rated as formal, than the Norwegian side which had a more spread distribution. The second finding was that two out of three dyads were located in the “mutual formal zone”. This finding is interesting, because it is the exact opposite of the finding in Vaaland (2002), where all three dyads in his study were in the mutual informal zone, as presented in the lower left corner of Figure 12. The two dots in the upper left square in Figure 12 represents dyad 2 and 3 from this study. Dyad 1 is left out of the comparison, as the buying part in the dyad is the Brazilian, as opposed to the two others.

To enable both studies to be comparable, some adaptations had to be made. Vaaland’s (2002) results had to be scaled up, since his scale went only from 1 to 5, and the indications on the axis had to be changed to “Norwegian” and “Brazilian” instead of “buyer” and “seller”. Both the results from dyad 2 & 3 had compatible results, as the Norwegian side represented the “buyer” and were both defined as “complex projects”. Dyad 1 had the Brazilian as the “buyer” and did not have the same characteristics as dyad 2 & 3. With this as a basis only the two last dyads were included in the comparison.

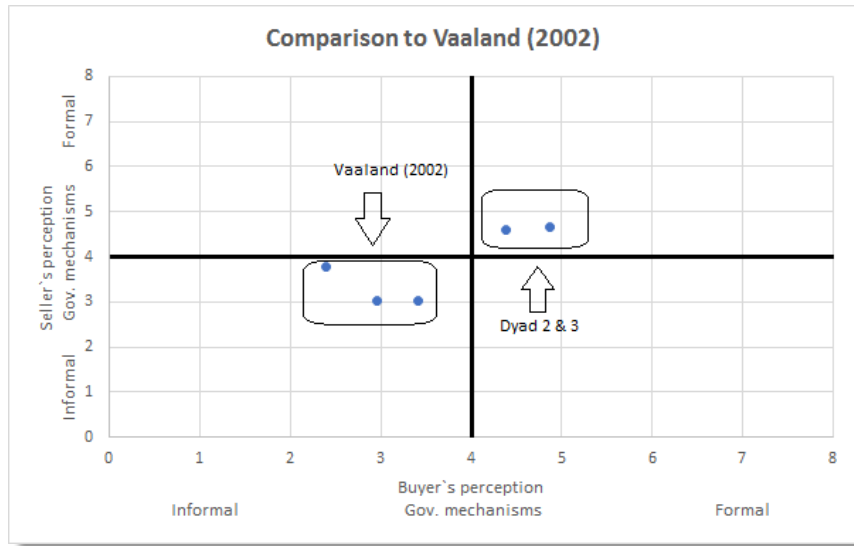


Figure 12 - Governance perceptions comparison with Vaaland's (2002) results

The reason why the results in this research are the opposite of Vaaland (2002) (Figure 12), could be due to a difference in duration of the dyads. As trust is built over time, and a characteristic of a relationship that has existed for some time (Edelenbos & Klijn, 2007; Lane & Bachmann, 1998). Given Yang (2017) connection between trust and informal governance, this may imply that older relationships have a higher level of informal governance. It is therefore possible to argue that different results are caused by differences in the dyadic relationships duration. It could also be due to the atmosphere of the dyads, since the cultural differences, power balance and time perspective are different in the three dyads presented in this thesis.

For the second question, the importance of events was related to the governance. The third and final finding shows that, in the Brazilian side of the dyads, formal governance is associated to higher importance. This partially confirms the second finding of Vaaland's (2002) research where he finds that events rated as originating from weakness in formal mechanisms are also associated to higher levels of importance. The reason why it does not fully confirm, is because in the Norwegian side of the dyads there is no indication that any of the governance mechanisms is more important than the other. This finding is also somewhat in agreement with Hofstede (2001), where it is indicated that for Brazilians bureaucracy and laws are very important to keep the society safe,

and for Norwegians there are no preferences between norms and trust when it comes to accepting uncertainty.

As a final note to the discussion, other cultural aspects should be mentioned. When it comes to cultural distance, it was clear at the interviews that the parts had different understanding of who should take part in important decisions at the company. At a few interviews, the Brazilian informants said that they got annoyed at meetings with the Norwegian partner, because everyone has something to say. In other words, in general the Brazilians like to get clear instructions from a leader figure, while the Norwegians like to talk amongst themselves before making a decision. This information complies with Hofstede (2015) assessment of cultural distance, in Figure 4.

In the interviews, there were also several other examples of critical events related to cultural distance, such as language barriers and power distance. Here are three examples of critical events taken from the questionnaires:

- Different business approaches (Direct vs. emotional) created tension
- One part gave non precise answers in order to save time, while the other gave precise but time consuming answers
- Due to language barriers, finding the right words in a meeting can be tiresome, leading to a higher chance of misunderstandings.

These examples show clear difference in way of thinking and management styles between the parts, and are also related to the differences in power distance, and contrasting expectations between the parts, with regards to language. For more examples of critical events see Appendix 5.

The division of power is directly related to the power in the decision making process. A lot of research has been done in decision –making, starting with Barnard and Simon (1947). In this work, the authors describe a framework for the analysis and description of administrative situations, and with a set of factors that must be weighed in arriving at any valid proposal for administrative organization. Perhaps the most interesting work is when Simon (1957) discusses the notion of causality. The idea of causality is that a second subset of events is caused by the first one, and so on. That might seem like a logical statement, but in order for that to be logical, one would have to

assume that the thinking process is “self-contained”. Without a self-contained system, the influence of the other part might lead to opposed causal interpretation of what you do know (Solow, 1958). This corresponds to what is observed in the results of this thesis, where the parts were given the same exact events, but they view the causes of these events differently. While Norwegians seem to have a good mix of formal and informal mechanisms, Brazilians address the origins of events as being much more to the formal side. But *why does this happen?*

One reasonable explanation would be that it is more acceptable in the Norwegian work environment to talk freely about informal events, while in the Brazilian work environment one shall only mention formal happenings.

Another plausible explanation is that drawing on decision making in administrative behavior, it is possible to say that the rational model is contrasting for the management styles in the dyad. Recently, there has been a growing interest among authors to the combination of decision making and specific cultural settings. Jette (2001) makes a comparison between French and Danish managers, where he places the Danish as “action men” and the French as “emotional men”. Meaning that the French aim at showing intellect and creativity, and the Danes aim at being pragmatic, realistic and result oriented, including the phase of implementation. We can say that Danish culture is very close related to the Norwegian culture, as Norway was once ruled by Denmark. While, Brazilians are more closely related to the French when it comes to the emotional aspect of the relationship.

A very interesting question from Jette' s (2001) study is how top managers and lower-level managers/ employees adapted to the situations arising from the encounter of the two cultures with different power distances. One of the findings was that the French managers were irritated when Danish lower-level management delegated too much decision power to their employees. This is exactly the same observation that the Brazilian firms in this research had to say about the Norwegian firms. Reminding that, Norwegians are much more balanced when it comes to power distribution (see Figure 4).

Also, in Jette (2001) , the Danes found it unnecessary to have so many control mechanisms and procedures, believing that trust would be a better solution. Several Danish top managers in France tried to give more responsibility to their respective lower-level managers, to which the French reacted with great enthusiasm and commitment, and it had an extremely positive effect on performance. This model of experimenting with the power division might be interesting to explore in the Brazilian-Norwegian relationship. Perhaps the Brazilians could get better results by balancing power division in the company, in that way also improving their relationship with the Norwegian part.

Concluding this discussion of the findings, it is safe to say that the parties had clear differences in management styles, even though in two of the dyads they agreed on the causes of events. The findings here were contrasting to previous research. Also, the addition of dyad 1, which is not a complex project, has provided insightful knowledge on the behavior of the parts in what it seems to be a hostile environment.

## **6 Implications**

### **6.1 Theoretical implications**

The research project in this thesis was based on previous literature in conflict in dyadic B2B relationships (Pondy, 1967; Vaaland & Håkansson, 2003; Yang et al., 2017).

This study differentiates from other inter-organizational conflict studies, because it looks at relationships between Norwegian and Brazilian firms. As the sample in this study is small, it is not possible to take general conclusions about the behavior of these countries in a dyadic situation. However, the results have shown that all the Brazilian firms in this research have a tendency to associate the origins of conflict to higher levels of formality. As for the Norwegian side, the results for two out of the three dyads show a similar tendency when it comes to governance. When it comes to importance, higher levels of formality are associated to higher levels of importance in the Brazilian side. On the Norwegian side, there seems to be close to no connection between the two variables.

The findings from the first research question are contradictory to what was found in previous research. What was found in this thesis is that firms involved in complex projects were in a mutual formal agreement zone, while in previous research firms were placed in the mutual informal agreement zone (Vaaland, 2002). It was argued that this difference might stem from the bureaucratic environment of the oil industry in Brazil, that requires the firms to have a higher degree of formality in the relationship.

### **6.2 Managerial implications**

The cases studies in this research have shown formal protection seems to be more important than informal interaction for the Brazilian side of dyads, between Norwegian and Brazilian firms. This has a few managerial implications.

Firstly, it seems that even though companies involved in complex projects were in the mutual formal zone, Brazilians seemed much more concerned about events related to formal mechanisms given their assessment of importance. This shows a difference in perception that could be due to



cultural and environmental aspects. It is safe to say that Brazilians have the better understanding of the market in this situation, since they are the host country. The fact that Brazilians seem to value formal mechanisms more than informal, can be a valuable information for Norwegian managers wanting to enter the Brazilian market. However, it is important to reinforce that this study is small, both in terms of sample size and geographic spread. Findings should therefore not be generalized as a national pattern of behavior.

Several Norwegian companies interviewed for the first part of the research, were not able to find a Brazilian dyadic partner willing to participate, and their data was therefore discarded. These interviews were not in vain, as they provided the research group with insightful information. The first noticeable pattern was that almost all Norwegian companies in Brazil started off with a mostly Norwegian native team, and after a few years the structure had changed completely to a Brazilian native team. When asked about why this happened, the informants said that the costs of keeping the Norwegian employees were too high, and that once the knowledge was transferred from Norwegians to Brazilians, it made sense that the Brazilians would take over since they also understood more of the market. This can be a valuable information for new entrants.

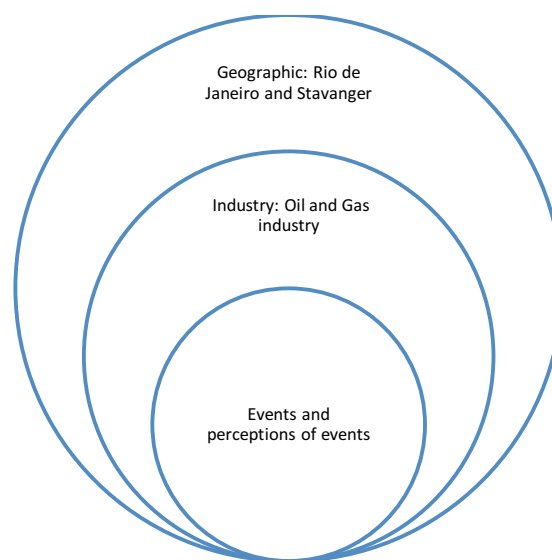
With regards to cultural distance, a managerial implication is that the parts need to find common ground in decision making, where Brazilians do not think that they are “wasting time”, and Norwegians feel that everyone is still involved.

## 7 Limitations and further research

### 7.1 Limitations

This paper explored dyadic relationships between Norwegian and Brazilian companies. It is important to stress that as any academic research this thesis has its limitations. Firstly, there are geographic limitations. Since Brazil is the world's fifth biggest country, and a big part of our research involved live interviews, we had to limit our interviews to the part of Brazil where most Norwegian companies are located: Rio de Janeiro. This limited the research, because there are clear different cultural patterns in different parts of Brazil, as for example in the very south of Brazil there is a lot of German and Italian influence, whereas in São Paulo there is a big Japanese influence, affecting the local culture. In Rio there is a great mix of the Brazilian population which is a great factor for our research, but the results could be different if the research was conducted in São Paulo or other parts of the country.

Secondly, given that both Stavanger and Rio de Janeiro are big oil cities, we found it reasonable to limit our research to the Oil and Gas industry. That gives us a narrower perspective of the rest of the business activities happening between these two countries, but it also gives us an opportunity to explore more deeply and focused on the best industry that was given the geographical and resource related circumstances.



*Figure 13- Research limitations*

Thirdly, the construct of governance mechanism has not thoroughly been validated for this particular context. It has however been used by Vaaland (2002) and Vaaland and Håkansson (2003), without being validated. It was also argued that the terms “contract” and “trust” validated in Yang et al. (2017), are well corresponding with the terms formal and informal. In addition, an effort was made to reduce the chance of informants interpreting the terms differently. Each informant was given an explanation of governance mechanisms as a construct, with illustrations and examples. In addition, all five students conducting the interviews were in most cases present to answer questions regarding the construct.

Fourthly, the research was limited by some of the informants’ inability to identify critical events. Two out of three dyads articulated critical events, and for the third the research team had to provide the informants with pre-made list of events originated from previous research. This may have affected the results, as the average rating from the dyad with all events articulated by the informants were in the “unbalanced zone”, while the two with some or no events articulated by the informant both were within the “mutual formal zone”.

As the fifth, and final limitation, a tight schedule in combination with informants struggling to find counterparts in their dyad made it challenging to collect enough data. It would be ideal to have even more dyads, with all critical events originating from within the dyad, as this would enable to make a more general statement on Norwegian and Brazilian perceptions of critical events in relation to governance mechanisms and importance.

## **7.2 Further research**

As this study has a somewhat narrow specter, it would be interesting to apply it on a bigger scale, both by expanding geographically, and into other industries. Even the internal variation in Brazil would make it interesting to compare different regions/ cities, mapping local variations within the national market.

This research does not look into the solution to critical events, but rather the cause. It might seem obvious that when informants identify the cause of a critical event as “formal” the only way of

solving it is by strengthening the formal governance mechanisms. However, this has not been thoroughly investigated, and would make an interesting theme for further research.

Informants said that there is a high level of bureaucracy in Brazil, specially related to state- owned companies. However, all the Brazilian companies in this research were privately-owned, and still associated high formality with high importance. For future research it would be interesting to study whether type of ownership (private/state-owned) of the companies also influences their perception of importance related to governance mechanisms.

## 8 Conclusion

In this thesis we explored the causes of critical events in three dyadic business-to-business relationships between Norwegian and Brazilian firms. The aim was to find if critical events were caused by mostly a weakness in formal or informal governance mechanisms, and whether there was a difference in perception between the parties in a dyad.

Research question number one was to compare governance perceptions from the Norwegian and the Brazilian side of the dyads, in relation to the set of critical events. There are two findings stemming from this question.

The first finding showed that the Brazilian side of the dyads associates critical events mostly originating from weakness in formal governance mechanisms, while on the Norwegian side one dyad points in the direction of weakness in informal governance mechanisms as the cause, and two dyads rated weakness in formal governance mechanisms as the cause of critical events.

The second finding was that two out of three dyads were in the mutual formal zone, meaning that the parts agree in formal mechanisms as being the main cause of critical events. This is the exact opposite of what is found in the comparing research, Vaaland (2002), where dyads were placed in the mutual informal zone. These contrasting findings could be due to variations in the environment of the dyads in this research compared to the dyads in previous research.

Research question number two was to explore a possible relationship between the perceived governance mechanisms of the events and their perceived importance. Deriving from this question, the third finding showed that in all of the dyads, the Brazilian party had a tendency to associate events caused by higher levels of formality to higher levels of importance, and that there does not seem to be such tendencies for the Norwegian side. This partially confirms what was found in Vaaland (2002), where firms related events coming from weakness in formal governance mechanisms as being generally more important.

The characteristics of each dyad were also discussed regarding power balance, time perspective and cultural distance. This was done in order to paint a better picture of the atmosphere surrounding the dyads. Thus not included in the statistical analysis, we argued that the roles of these variables might influence the causes of critical events.

Due to the limitations of time and resources, this report only explored three dyadic cases. The results of these cases cannot be generalized for all dyads between Norwegian and Brazilian companies, but it gives a start for further research on the matter. As the number of Norwegian companies in Brazil continue to grow, we believe that exploring business relationships between these two countries is a matter of high relevance.

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## Appendix 1- Mean comparison by one sample t-test

### Norwegian side:

|                            | Test-value = 4 |       |         |                    |                |
|----------------------------|----------------|-------|---------|--------------------|----------------|
| Norwegian governance value | N              | Mean  | t-value | p-value (2-tailed) | Std. Deviation |
| Dyad 1                     | 23             | 2.957 | -5.391  | 0.000              | 0.9283         |
| Dyad 2                     | 66             | 4.379 | 1.571   | 0.121              | 1.9593         |
| Dyad 3                     | 60             | 4.867 | 7.225   | 0.000              | 0.9291         |

Significant at 0,01 level

### Brazilian side:

|                            | Test-value = 4 |       |         |                    |                |
|----------------------------|----------------|-------|---------|--------------------|----------------|
| Brazilian governance value | N              | Mean  | t-value | p-value (2-tailed) | Std. Deviation |
| Dyad 1                     | 23             | 5.304 | 8.179   | 0.000              | 0.7648         |
| Dyad 2                     | 66             | 4.591 | 4.840   | 0.000              | 0.9919         |
| Dyad 3                     | 60             | 4.667 | 3.572   | 0.001              | 1.4458         |

Significant at 0,01 level

## Appendix 2- Levene's Test (T-test for independent samples)

### Dyad 1

Group Statistics

| Nation1 |     | N  | Mean | Std. Deviation | Std. Error Mean |
|---------|-----|----|------|----------------|-----------------|
| Gov1    | Nor | 23 | 2.96 | .928           | .194            |
|         | Bra | 23 | 5.30 | .765           | .159            |

Independent Samples Test

|      |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |        |       |
|------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|--------|-------|
|      |                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |        |       |
|      |                             |   |      |                              |        |                 |                 |                       |   | Lower  | Upper |
| Gov1 | Equal variances assumed     | .712                                    | .404 | -9.362                       | 44     | .000            | -2.348          | .251                  | -2.853                                    | -1.842 |       |
|      | Equal variances not assumed |   |      | -9.362                       | 42.447 | .000            | -2.348          | .251                  | -2.854                                    | -1.842 |       |

### Dyad 2

Group Statistics

| Nation2 |     | N  | Mean | Std. Deviation | Std. Error Mean |
|---------|-----|----|------|----------------|-----------------|
| Gov2    | Nor | 66 | 4.38 | 1.959          | .241            |
|         | Bra | 66 | 4.59 | .992           | .122            |

Independent Samples Test

|      |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |        |                 |                 |                       |   |       |       |
|------|-----------------------------|---|------|------------------------------|--------|-----------------|-----------------|-----------------------|---|-------|-------|
|      |                             | F                                       | Sig. | t                            | df     | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |       |       |
|      |                             |   |      |                              |        |                 |                 |                       |   | Lower | Upper |
| Gov2 | Equal variances assumed     | 39.145                                  | .000 | -.785                        | 130    | .434            | -.212           | .270                  | -.747                                     | .323  |       |
|      | Equal variances not assumed |   |      | -.785                        | 96.265 | .435            | -.212           | .270                  | -.749                                     | .324  |       |

### Dyad 3

Group Statistics

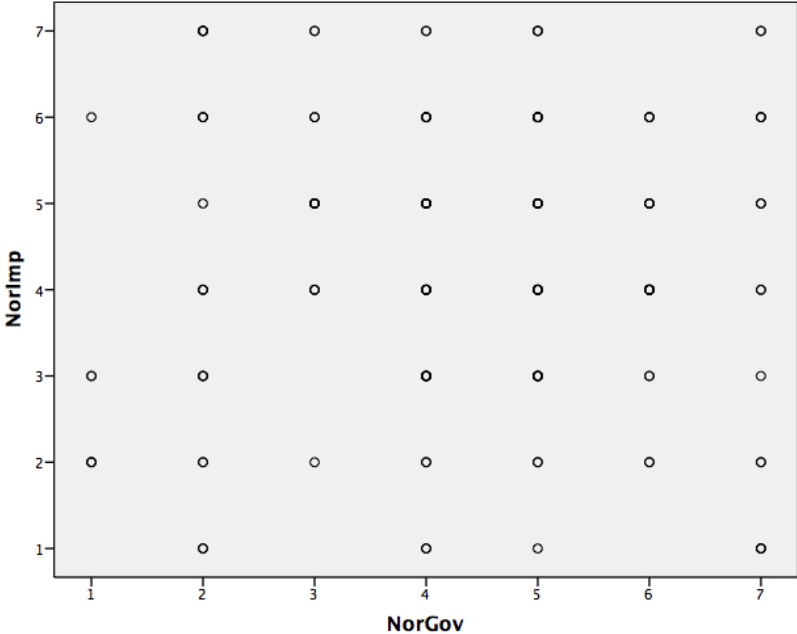
| Nation3 |     | N  | Mean | Std. Deviation | Std. Error Mean |
|---------|-----|----|------|----------------|-----------------|
| Gov3    | Nor | 60 | 4.87 | .929           | .120            |
|         | Bra | 60 | 4.67 | 1.446          | .187            |

Independent Samples Test

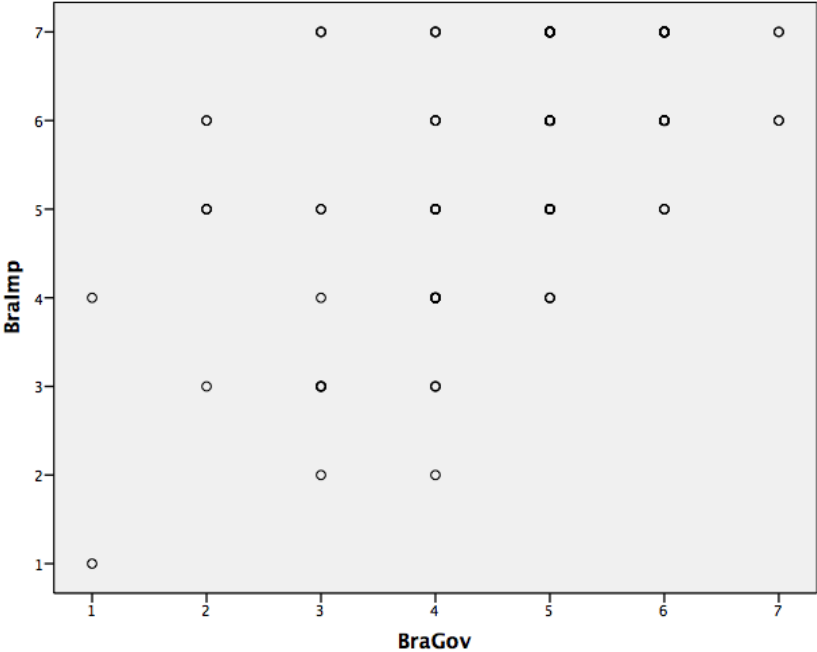
|      |                             | Levene's Test for Equality of Variances |      | t-test for Equality of Means |         |                 |                 |                       |   |       |       |
|------|-----------------------------|---|------|------------------------------|---------|-----------------|-----------------|-----------------------|---|-------|-------|
|      |                             | F                                       | Sig. | t                            | df      | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference |       |       |
|      |                             |   |      |                              |         |                 |                 |                       |   | Lower | Upper |
| Gov3 | Equal variances assumed     | 8.127                                   | .005 | .901                         | 118     | .369            | .200            | .222                  | -.239                                     | .639  |       |
|      | Equal variances not assumed |   |      | .901                         | 100.631 | .370            | .200            | .222                  | -.240                                     | .640  |       |

# Appendix 3- Scatter Plot Importance vs. Governance perceptions

Norwegian side of the dyads:



Brazilian side of the dyads:



#### Appendix 4- Test for outliers

|                 | <i>IMPORTANCE</i> |        | <i>GOVERNANCE</i> |        |
|-----------------|-------------------|--------|-------------------|--------|
|                 | Norway            | Brazil | Norway            | Brazil |
| Mean D1         | 5.35              | 5.87   | 2.96              | 5.30   |
| Trimmed mean D1 | 5.43              | 5.86   | 2.90              | 5.29   |
| Mean D2         | 3.52              | 4.79   | 4.38              | 4.59   |
| Trimmed mean D2 | 3.47              | 4.80   | 4.42              | 4.62   |
| Mean D3         | 4.88              | 6.32   | 4.87              | 4.67   |
| Trimmed mean D3 | 4.89              | 6.46   | 4.83              | 4.72   |

## Appendix 5- Example of questionnaire

| Category type               | Critical events   | Importance (1-7)<br>1 = Very low<br>7 = Very High | Governance (1-7)<br>1 = Very informal<br>7 = Very formal |
|-----------------------------|---|---|--|
| <b>Organization of work</b> | Lack of proper scheduling from client/supplier caused unnecessary delays  |   |  |
| <b>Org work</b>             | One party schedule MRO (maintenance, repair, overhaul), but keeps postponing creating “noise” and annoyance   |   |  |
| <b>Org work</b>             | Unrealistic expectations for deliverance of service from clients  |   |  |
| <b>Org work</b>             | Clients strong effort to lower costs, lowered their ability to do proper planning and organizing  |   |  |
| <b>Org work</b>             | The carnival season create a “no-order” period causing overcapacity   |   |  |
| <b>Org work</b>             | Management of one company likes to share opinion. In the other there is a more hierarchical system where employees wish to get clear instructions from the managers                                 |   |  |
| <b>Org work</b>             | Due to different ways of understand messages given during meetings one part would think they reached an agreement while the other would not start work because they thought that nothing is decided |   |  |
| <b>Org work</b>             | Delay of work, the project was only ready at the last minute, everything is last minute. For one part this can be stressful, but for the other it has become a common practice                      |   |  |
| <b>Org work</b>             | One part has a strict schedule with no room for changes, which makes it difficult for the two parts to work together  |   |  |

|                       |  |  |  |
|-----------------------|--|--|--|
| <b>Org work</b>       | The common business practice of “exchanging favors” causes uncertainty on what to expect between the parts   |  |  |
| <b>Org work</b>       | Parts had different perceptions of the importance of a meeting or an appointment, which was scheduled and had to be cancelled or delayed                               |  |  |
| <b>Org work</b>       | One part would wait until the last minute to tell about project complications, which creates unpredicted delays  |  |  |
| <b>Org work</b>       | One part changed project requirements, which invalidated a lot of previous work and created delays   |  |  |
| <b>Org work</b>       | One part sent a tender right before holidays, and expected answer within the holidays  |  |  |
| <b>Org work</b>       | Delays due to one part wanting to do things his/her own way instead of being more open minded  |  |  |
| <b>Org work</b>       | Lack of project follow-up created misunderstandings about progress.  |  |  |
| <b>Org work</b>       | One part would follow the contract too strictly, with no flexibility and possibilities for minor alterations   |  |  |
| <b>Data Precision</b> | Constantly changing requirements on user’s needs create short time to adapt, causing unnecessary stress on the relation  |  |  |
| <b>DataPre</b>        | Different standards and color coding on small items can create misunderstandings and mistakes in delivery and installation, causing delay or higher costs.             |  |  |
| <b>DataPre</b>        | Clients did not trust their own employees, causing lack of proper know-how of the system   |  |  |
| <b>DataPre</b>        | In a project one part only used two digits, while others used more digits, and that caused problems when the formation and combination of the format between the parts |  |  |



|                          |  |  |  |
|--------------------------|--|--|--|
| <b>DataPre</b>           | Wrong use of measurement specification created delay   |  |  |
| <b>DataPre</b>           | Implementation of ERP (Enterprise Resource Planning) systems took longer than expected, causing buyers/suppliers to have to postpone work and have unexpected delays |  |  |
| <b>Work Performance</b>  | Little investment in proper training for workers on one side, raise concerns in the other side, on their ability to properly handle equipment                        |  |  |
| <b>WorkPer</b>           | One side choose shortcuts and improvised fixes on broken equipment potentially creating dangerous situations   |  |  |
| <b>WorkPer</b>           | One part uses the equipment until it breaks down to gain short-run profit, rather than doing continuing maintenance  |  |  |
| <b>WorkPer</b>           | Different understanding of the big picture and potential risks creates tension   |  |  |
| <b>WorkPer</b>           | Lack of teamwork and/or supervision caused project delays  |  |  |
| <b>WorkPer</b>           | The lack of questioning, brainstorming and teamwork led to delayed project execution   |  |  |
| <b>WorkPer</b>           | Low willingness to plan in one side of the dyad cause stress and annoyance in the other  |  |  |
| <b>Human Interaction</b> | Language barrier created difficulty both on project-management level, and operational level  |  |  |
| <b>HumInt</b>            | Due to lack of communication, one part was not aware of restructuring, causing missing documentation   |  |  |
| <b>HumInt</b>            | Different perception of acceptable time consumed in meetings creates misunderstanding, confusion and potential for disagreements.                                    |  |  |
| <b>HumInt</b>            | One side keeps giving excuses for things not done and delays, instead of solving it  |  |  |

|               |  |  |  |
|---------------|--|--|--|
| <b>HumInt</b> | One part is more direct and “hard” in the way they talk, which could be viewed as rude and inappropriate by their counterpart                              |  |  |
| <b>HumInt</b> | Punctuality which is obvious for one side is considered unnecessary by the opposite part, causing halts and a potential for irritation                     |  |  |
| <b>HumInt</b> | The need to constantly push for proper documentation takes time and resources  |  |  |
| <b>HumInt</b> | The sensitivity and emotional barrier in one side of the dyad, create stress on the other side, increasing the barrier for relations to form               |  |  |
| <b>HumInt</b> | The direct approach from one side, can be annoying and create resilience on the counterpart’s side   |  |  |
| <b>HumInt</b> | Language barriers made it hard for the parts to reach an agreement   |  |  |
| <b>HumInt</b> | Relationship development is more important for one part than the other, this misalignment of expectations can create friction                              |  |  |
| <b>HumInt</b> | Different perceptions of trust make the relationship development challenging, and represents a risk for the "trusting" part                                |  |  |
| <b>HumInt</b> | One part refused to speak English in meetings, or make contracts in English. Creating potential detail misunderstandings                                   |  |  |
| <b>HumInt</b> | Language barriers created uncertainty in meetings  |  |  |
| <b>HumInt</b> | When trying to make direct contact one part had to go through formal, rigid and time consuming procedures which caused a delay in the start of the project |  |  |
| <b>HumInt</b> | Due to different perceptions of trust, focus of the projects wrongfully shifts more towards outsmarting the other part                                     |  |  |
| <b>HumInt</b> | Delays due to centralized decision making in partner company   |  |  |

|                           |  |  |  |
|---------------------------|--|--|--|
| <b>HumInt</b>             | One part being too protective of their technology led to project delays  |  |  |
| <b>HumInt</b>             | One part gave non precise answers in order to save time while the other gave precise but time consuming answers                                      |  |  |
| <b>HumInt</b>             | One part chose to answer with false information instead of admitting lack of knowledge   |  |  |
| <b>Manpower resources</b> | Personnel turnover in clients/suppliers force the development of new business relationships  |  |  |
| <b>ManRe</b>              | One part's low productivity level due to lack of qualification, generated the need to hire more workers to get the task done                         |  |  |
| <b>ManRe</b>              | Managers don't have the expected level of English, causing trouble with sales and orders   |  |  |
| <b>ManRe</b>              | Very complicated for some workers to keep concentration over a long time, causing frustration on their partners                                      |  |  |
| <b>ManRe</b>              | Partner's personnel did not have a good understanding of their own processes and goals, creating unnecessary delays                                  |  |  |
| <b>Physical Resources</b> | One part lacking proper maintenance routines caused unnecessary downtime   |  |  |
| <b>PhyRes</b>             | The importance of maintenance practices and investments are different from one part to the other part, which causes friction, and potential hazards  |  |  |
| <b>Externalities</b>      | Different tax-regimes between firm and clients/supplier depending on area of operation increase bureaucracy and costs                                |  |  |
| <b>Exter</b>              | Suppliers were so influenced by the labor-unions (syndicates), that management decisions caused increase in cost and time for both parts of the dyad |  |  |