

The moderating effect of fairness on the relation between bargaining power and value appropriation

STRATEGIC MANAGEMENT

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Master Thesis in Strategic Management

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December 2015

Document information

Title: The moderating effect of fairness on the relation between bargaining power and value appropriation

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Date: December 2015

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SUMMARY

In recent years, the project-based organizations manifest themselves more and more frequently. Especially in industries in dynamic environments with innovative and/or highly complex products or services project-based organizations are common. Organizations seek co-operation to combine resources individual organizations lack, to work on a project and create value. However, project-based organizations fail at an alarming rate. This study gives insight in why some project-based organizations fail, and how this can be prevented.

The project-based organizations has increasingly been the subject of study in recent years. However, there has been relatively little research on the process of how organizations appropriate value within project-based organizations. And most of this limited body of research focuses on how project-based organizations can use their flexibility to contribute to the performance of firms or industries (Bechky, 2006).

It is generally accepted that value is appropriated by project partners by utilizing their bargaining power. However, by incorporating fairness into game theory, Kahneman, Knetsch, and Thaler (1986a) proved that the distribution of value is not only based on economic theory, but that fairness considerations affects the outcomes.

This study contributes to fill the gap in the scholarly literature by advancing theory, and with empirical research on the influence of fairness on the relation between bargaining power and value appropriation within project-based organizations.

We gathered data by conducting a survey amongst project managers, senior designers, heads of departments, advisors and managing directors of companies working in the Dutch construction industry. These companies include clients, architects, designers, advisors, contractors, subcontractors/suppliers and project management organizations to gain an unbiased, multilateral view on the Dutch construction industry.

Based on the scholarly literature, we expected to find a positive relation between bargaining power and value appropriation. According to theories incorporating fairness into game theory, this positive effect of bargaining power should be lessened by fairness considerations. Analysis of our data showed us that the expected relation between bargaining power and value appropriation did not

present itself in our study. Instead, we found a direct relation between fairness and value appropriation.

These findings suggest that fairness indeed has a significant influence on value appropriation. An important implication of these findings is that organizations participating in project-based organizations should realize the importance of fairness in the value appropriating process. When for instance the distribution of value amongst the project partners is perceived as unfair, in relation to the contributed resources of the partners, the risk of that partner abandoning the project increases, potentially leading to project failure. Organizations should therefore try to prevent a perceived unfair distribution of value within a project. When an organization perceives their own share as unfair, it should appeal to the sense of fairness of its project partners to try to increase its share of the created value up to the point where it is proportional to its contribution to the project. Further, attention should be paid to the fairness of the decision process of the value appropriation, the project partners should be treated with respect, and information regarding this process should be provided correct, complete, and timely.

1. INTRODUCTION

1.1 INTRODUCTION

Project-based organizations are temporary organizations, created to carry out a project (Hobday, 2000; Lundin & Söderholm, 1995; Modig, 2007). However, the fail rate of projects is very high, in some industries such as IT up to 60% (www.netoutcomes.com, 2015). Failing projects create less value than successfully completed projects, if any and create less value to be appropriated by the parent organizations. It seems logical that organizations participating in projects have an interest in keeping the projects from failing. This study creates more insight in project-based organizations, aiming to contribute to a lower failure rate of projects.

The project-based organization is an emerging organizational form, ideally suited for fast changing markets with a high complexity, technological insecurities and innovative, complex products (Hobday, 2000; Sydow, Lindkvist, & DeFillippi, 2004). In industries which incorporate these characteristics, such as the entertainment industry, consulting, IT and construction, project-based organizations are widespread.

Project-based organizations are a fast and flexible way to combine the resources of one or more parent organizations, to complete tasks relatively quickly (Sydow et al., 2004). Project-based organizations have one or multiple parent organizations (Hobday, 1998, 2000). A single parent project-based organization can be initiated to perform a certain task. Because the project-based organization is temporary, it is no threat to vested interests within the parent organization, which a new department or division could be. Because of this, the project-based organization can bypass the traditional barriers within the parent organization to complete its task, which a permanent entity within the organization might not be able to do (Sydow et al., 2004). However, this study focusses on project-based organizations with multiple parent organizations.

The amount of value an organization can appropriate within a project-based organization depends on its relative bargaining power (Harrigan & Newman, 1990). Earlier studies have shown that bargaining power has a strong positive relation with value appropriation (Hamel, 1991; Khanna, Gulati, & Nohria, 1998; Yan & Gray, 1994). Through negotiations at the initiation of a project and during the execution of the project, organizations can apply their bargaining power to appropriate as much of the created value as possible (Fisher, Ury, & Patton, 2011; Schelling, 1956; Yan & Gray, 2002).

Traditional permanent organizations have as ultimate goal survival, whereas project-based organizations exist to complete a task (Lundin & Söderholm, 1995). Tasks of project-based organizations can be versatile, but in general that task is to create value. This could be new product development, knowledge, expansion of the parents' network (social capital) or economic. Due to the temporary nature of project-based organizations, the created value will be divided amongst the parent organizations once the project-based organization is terminated.

Value appropriation is of great importance when multiple organizations are participating in a project-based organization (Brandenburger & Stuart, 1996; Gulati & Wang, 2003; Ritala & Hurmelinna-Laukkanen, 2009). If an organization does not appropriate value from a project, it has no incentive to participate in the project, to contribute to the completion of the projects tasks, and will quit the project-based organization, or refrain from joining it in the first place (Makhija & Ganesh, 1997). From an economic perspective, participating organizations should appropriate as much value as possible, or at least as much value as they put into the project, or the organization should decide against participating.

From this economic perspective, organizations should utilize their bargaining power to its fullest to obtain as much value as possible from a project (Khanna et al., 1998). However, Khanna et al. (1998) acknowledge that this is based on pure rational theory, and does not take suboptimal behavior of people into consideration. Research incorporating fairness into game theory has proven that people are not merely 'homo economicus', but take fairness considerations into account when making decisions (Kahneman et al., 1986a; Leventhal, 1976; Rabin, 1993; Thaler, 1988). Research of Fang, Palmatier, and Evans (2008) on value creation in the value chain suggests that the ability of a project partner to capture created value within the project is based on the partners' bargaining power, but that this power is mitigated by the perception of fairness, the sense of the project partners that all project partners should get their "fair share", reflecting each party's contribution. We will build on this study in the context of project-based organizations, and look more deeply into the different aspects of fairness and their influence on the relation between bargaining power and value appropriation.

If an organization uses its bargaining power to appropriate a disproportionate share of the value at the expense of the other partner organizations beyond a threshold which the other organizations perceive as fair, the organization risks that other organizations abandon the project, potentially

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leading to the failure of the project. This suggests that all project partners have a vested interest to prevent the perception of unfairness with one of the partners.

There has been relatively little research on the process of how organizations appropriate value within project-based organizations. And most of this limited body of research focuses on how project-based organizations can use their flexibility to contribute to the performance of firms or industries (Bechky, 2006). By researching the influence of fairness on the process of value appropriation within project-based organizations, we aim to contribute to fill the gap in the scholarly literature. Findings from this research can help organizations to realize the importance of fairness considerations on value appropriation in projects. By realizing the risk that an organization could quit the project when that organization feels it does not receive its “fair share”, project partners should understand that it is in their own best interest that each organization should have the perception that it appropriates a fair share of the created value in relation to the contributed resources. Without this perception, the risk of a failed project due to one of the organizations abandoning the project increases. Our study aims to increase the understanding of fairness in project-based organizations, by researching its moderating effect on the relation between bargaining power and value appropriation. We intend that this increased understanding helps organizations participating in project-based organizations in decreasing the fail rate of their projects.

1.2 RESEARCH QUESTIONS

To guide this research we have created a main research question, of which three subquestions are derived.

Main research question:

What is the moderating effect of fairness on the relation between bargaining power and value appropriation in project-based organizations?

Subquestions:

- 1. How are project-based organizations organized?**
- 2. How does bargaining power manifest itself in project-based organizations compared to permanent organizations?**
- 3. What is the relation between fairness and value appropriation?**

Subquestion 1 and subquestion 2 will be addressed through a review of the scientific literature. Subquestion 3 will be answered by a combination of reviewing the literature and quantitative research.

2. LITERATURE REVIEW

2.1 PROJECT-BASED ORGANIZATIONS

With the birth of the industrial revolution many industries evolved from man-made production towards machine-made mass production. While parts of the construction industry evolved along with the other industries, the process of constructing structures remained essentially the same. Construction remained mostly a project-based activity.

In project management literature (Lundin, 1990; Morris & Hough, 1987; Packendorff, 1995; Pinto & Prescott, 1988), a project in general has been defined as a unique, non-repetitive task consisting out of complex and/or interdependent activities, with a predetermined completion date and with preset performance goals. Project-based organizations, created to coordinate, plan and execute these projects, are by definition temporary organizations, since they no longer have a goal after the project task has been completed and will be dissolved upon completion of the project (Hobday, 2000; Lundin & Söderholm, 1995; Modig, 2007).

Construction companies are no pure temporary organizations. They act as parents (Lundin & Söderholm, 1995; Söderlund, 2000; Turner & Müller, 2003), sponsors (Turner, 2000) or hosts (Eskil Ekstedt, 2002) for project-based organizations. They form consortia to plan and execute large complex projects through DBFMO¹ contracts (Reynaers, 2014), or act teams in collaboration with clients, designers, consultants and other partners.

The most obvious difference between temporary organizations and permanent organizations is their duration. Temporary organizations have a limited lifespan, and are expected to dissolve after completion of their goal (Modig, 2007). At the start of a temporary organization, it knows it will exist for a limited amount of time. Time for a temporary organizations is finite, and every passed moment will be subtracted from its remaining life time (Lundin & Söderholm, 1994). Time in organizations can be viewed as linear or cyclical (Burrell, Reed, & Hughes, 1992). Temporary organizations can be viewed as linear in time, divided in phases from initiation, to planning, execution and finally evaluation and termination (Lundin & Söderholm, 1995). Permanent organizations suggest a more cyclical concept of time, in which certain events are recurring time after time (Burrell et al., 1992).

¹ Design Build Finance Maintain Operate, a contract form in which the constructor arranges the entire project route, from design to exploitation, according to performance demands given by the client, and also arrange financing of the project. It is also possible to exclude some elements such as financing or exploitation from such contracts, leading to DBFM or DBM.

	Temporary organizations	Permanent organizations
Timespan	finite	continuous
Task	complex, unique, non-repetitive	simple, repetitive
Team	created from scratch around a task, can return to parent organization after completion of task	incremental composition, continuous
Transition	transformation as a consequence of action, change of participants through changes in task	focus on production, incremental continuous improvement
Organization	role structure, coordinating through networking	schedules, formal rules and regulations, division of labour
Hierarchy	informal, horizontal	formal, vertical

Table 1 - differences between temporary organizations and permanent organizations

Temporary organizations are created to complete one or a small number of tasks, whereas permanent organizations are more devoted to goals (Lundin & Söderholm, 1995). These tasks are the reason why temporary organizations are created. Tasks can be categorized in unique tasks and repetitive tasks (E Ekstedt, Lundin, Söderholm, & Wiridenius, 1993). A project is defined as a unique, non-repetitive task consisting out of complex and/or interdependent activities (Hobday, 2000; Modig, 2007). Therefore are the tasks of a project-based organization generally unique tasks. Permanent organizations tend to have more repetitive tasks.

According to Lundin and Söderholm (1995), a team in a temporary organization differs from a team in a permanent organization. In a temporary organization, a team is formed around a task. Individuals are handpicked from their parent organizations to handle this specific task. Also, individuals realize that participation within a team in a temporary organization will have a limited timeframe, and they will return to their parent organizations once the team is disbanded. Due to the temporary nature of the team, individuals might be more willing to accept conflicting interests within the team (Lundin & Söderholm, 1995) Participation in a team in a permanent organization might be more permanent, since those teams have no clear termination parameters and might have a very long lifespan.

Temporary organizations are organized differently than permanent organizations. They often lack a complex system of vertical lines of authority due to its relatively short lifespan and are governed through more horizontal networks of relationships (Jones, Hesterly, & Borgatti, 1997; Modig, 2007; Powell, 1990). Social mechanisms such as socialization, reciprocity and reputation are used to coordinate these organizations using these networks (Jones et al., 1997). Heath and Staudenmayer (2000) argue that organizations organize themselves in response to uncertainty in both task and environment. Research suggests that greater uncertainty leads organizations to make more use of informal communication and coordination as mentioned before, and less of formal organization

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structures such as schedules, rules and division of labor (Galbraith, 1973; March & Simon, 1958; Thompson, 1967).

Coordination within temporary organizations can be provided through a role structure (Bechky, 2006; Bigley & Roberts, 2001; Weick, 1993; Weick & Roberts, 1993). Roles within a role structure are defined as basic units of socialization that provide continuity in organizations (Goffman, 1961). Research on film sets by Bechky (2006) leads to believe that reputation building by individuals within the project organization during a project is essential to be invited for future projects. If individuals are successful within a project organization they prefer to work with other successful individuals who they cooperated with before (Faulkner & Anderson, 1987; Jones, 1996; Zuckerman, 2004).

The concept of transition can be viewed in two different lights (Lundin & Söderholm, 1995). The first meaning of transition is the transformation of something as a consequence of the actions of an organization, to achieve its goals. The other meaning is more related to process, the change of participants in an organization as a result of working on a task or project. The first type of transition is closely related to the reason temporary organizations exist: to complete projects (Lundin & Söderholm, 1995). In permanent organizations, production of products or services is usually more or less continuous, without clearly defined phases or organization level. Transition on organizational level is therefore less common in permanent organizations than at temporary organizations.

Depending on the goal of the alliance the parent organizations should decide on its governance structure (Powell, 1990), contract types (Pisano, Russo, & Teece, 1988), commitment of resources and participation of the parent organizations (Gulati, Khanna, & Nohria, 1994). This leads to a large diversity in alliances. Lorange, Roos, and Bronn (1992) have categorized them by longevity (short-term operation versus long term adaptation) and whether the output of the alliance is retained by the alliance or retrieved by the parent organizations. In the construction industry, all these types of alliances can occur. However, only those with a relative short lifespan can be categorized as project-based organizations.

2.2 VALUE APPROPRIATION

Anderson (1995) states that the creation and distribution of value could be regarded as the reason for relationships between organizations. Cooperating organizations can use their complementary competences and resources (Hamel & Prahalad, 1994), and can coordinate their efforts to create synergy (Anderson & Narus, 1990). Brandenburger and Stuart (1996) define created value in an

supply chain as the difference between what the buyer is willing to pay minus its opportunity costs. The created value is divided between the buyer, producer and supplier in accordance to figure 1. The created value for the buyer is the difference between the price paid and the willingness-to-pay price. For the producer, the created value is the difference between price and cost, where the created value for the supplier is the difference between cost and opportunity cost (Brandenburger & Stuart, 1996).

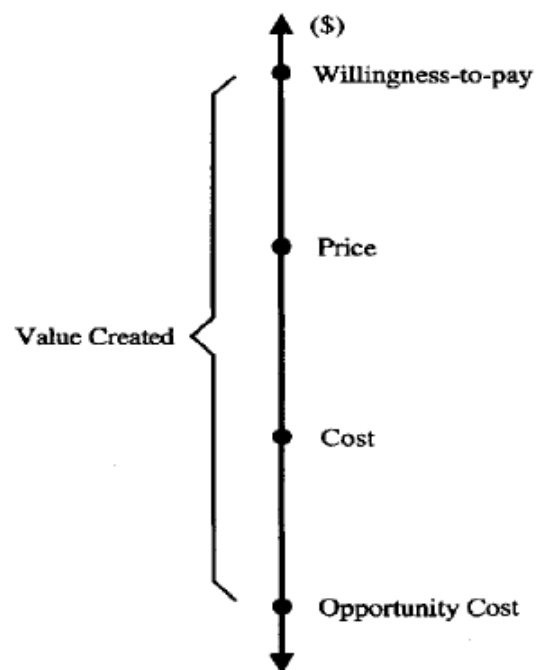


Figure 1 - value created - Brandenburger and Stuart (1996)

The willingness-to-pay price is the price where the buyer has the conviction that the amount of money paid is lower than the perceived value of the product. The opportunity costs are not the actual costs the organization has for its production, but the amount of money its suppliers see as the minimum price for which the supplier is willing to part of his product and still consider this situation better than before the sale. Brandenburger and Stuart (1996) assume that all involved parties have access to all prices in the market to compare and reflect these prices between the parties. They state that the actual prices between the suppliers and the organization are determined by the bargaining process, and are not an accurate reflection for calculating the created value. Therefore opportunity costs are not equal to the costs incurred by the organization, and should not be used to determine the created value. The next section will elaborate on the process of bargaining.

The total sum of the value appropriated by the parent organizations of a project-based organization, must be equal to the total created value of the project (Brandenburger & Stuart, 1996). According to Ghosh and John (1999) an organization in a partnership only takes action to increase the created value of a project if the organization can appropriate more value than the value they will appropriate in the current situation. Brandenburger and Stuart (1996) theorize that the appropriated value by a party cannot be larger than the created value by the same party. If a party captures more value, this means the other parties together would capture less value than the value they created together. In a perfectly open and transparent world the other parties would go and find another partnership where

2. LITERATURE REVIEW

they would be able to appropriate the value they created. Since the world is not perfectly open and transparent, it could be possible for a party to appropriate more than the value the party created. Also, the parent organizations might assign different values to assets within the organization, depending on for instance how they could use those assets outside the partnership (Khanna et al., 1998).

Created value can manifest itself in many forms. An example of created value is financial, by cost reductions or the increase of book value of the real estate. Organizations also obtain other assets which could be appropriated by one of the parent organizations, such as knowledge (Sporleder & Peterson, 2003), technology, social capital (Chloupkova, Svendsen, & Svendsen, 2003) and brand awareness. The appropriating organization can potentially use these assets to create (and appropriate) more value in future projects, improving its future profits.

The created value in an alliance can be divided in two categories: the economic output as a result of the co-operation between parent organizations, and the internalized skills a parent organization learned from its partners in an alliance (Hamel, 1991). Building on this and other research (for instance by Kogut (1988)) Khanna et al. (1998) introduced two new conceptual elements to categorize jointly created value in learning alliances: private benefits and common benefits. Private benefits those benefiting a single project partner and can be applied outside the scope of the project, common benefits are the collective benefits resulting from joint knowledge creation in the project, benefitting all project partners (Khanna et al., 1998).

Private benefits and common benefits are not directly related. Alliances can create private benefits, common benefits or a mixture of both. Most alliances will create both common benefits and private benefits (Khanna et al., 1998). An example of a private benefit is the knowledge which an organization can obtain from its partners and use individually outside the scope of the activities where they were obtained. This means that knowledge gained within a project can have different value to different organizations, related to the opportunity the organizations have to implement this knowledge outside the scope of the project, independent of whether they learned exactly the same or not. A common benefit is the collectively created body of knowledge as a result of the cooperation within the project, beneficial to all partners and are applicable within the scope of the project (Khanna et al., 1998). According to Khanna et al. (1998) common benefits are appropriated through bargaining. However, Inkpen (2000) stated that this type of knowledge is a specific form of collective learning that enables more efficient cooperation within the project, which would not be of use

outside the project. It can therefore not be appropriated, since this knowledge would be so specific, that it would be of little to no use outside the specific context of the project (Inkpen, 2000). Because of that, common knowledge cannot be considered as value appropriable by a project partner.

Private benefits are not appropriated in the same way as common benefits. Private benefits are acquired by interorganizational learning (Khanna et al., 1998), governed by intent, transparency and receptivity (Hamel, 1991). The underlying mechanism for this process is bargaining power, as bargaining power governs the control over key mechanisms to appropriate these benefits (Hamel, 1991; Makhija & Ganesh, 1997).

2.3 BARGAINING POWER

At the earliest stages of initiating an project, organizations look for potential partners which possess complementary assets and/or capabilities they require to reach their goals. This is the starting point for negotiations between the organizations where the expected costs and benefits of the partners are divided amongst the partners, and described in a contract (Ganesh & Makhija, 1997) or verbal agreement (Yan & Gray, 1994). The outcome of such negotiations is based on the relative bargaining power of the organizations (Harrigan & Newman, 1990).

Emerson (1962) describes power as a relation of dependence between partners: *“The dependence of actor A upon actor B is (1) directly proportional to A’s motivational investment in goals mediated by B, and (2) inversely proportional to the availability of those goals to A outside of the A-B relation. The power of actor A over actor B is the amount of resistance on the part of B which can be potentially overcome by A”*. Therefore, bargaining power can be described as a function of mutual dependency within a relationship.

The dependence of an organization from a partner in a project can be stated as how much the organization needs her partner (Frazier, 1983; Pfeffer & Salancik, 1978) and how hard it is to replace that partner with another party (Heide & John, 1988). The bargaining power between these organizations can be defined as the difference in dependence of these organizations towards each other, where the organization with the lowest dependence on the other partners has the greatest bargaining power (Ganesan, 1994; Heide & John, 1988). Yan and Gray (1994) and (Lavie (2007), 2009)) combine several (sub)definitions to define bargaining power as the ability to favorably change the terms of agreements (Sebenius & Lax, 1986), to win accommodations from the other party (Dwyer & Walker Jr, 1981), and to influence the outcomes of a negotiation (Schelling, 1956).

If a parent organization joins an organization where all or most of the bargaining power resides with the other partners, the parent organization might not be able to appropriate any of the created value or assets produced (Bae & Gargiulo, 2004). For the organization to be successful, it is imperative that all partners have the perception they benefit from the cooperation (Carson, Devinney, Dowling, & John, 1999; Wilson, 1995). A parent organization which does not appropriate (part of) the created value or assets does not have a sustainable strategy (Porter, 1996).

The bargaining theory states that a negotiation partner's bargaining power is influenced by the stakes of the partner and the availability of alternatives (Bacharach & Lawler, 1981). The stakes is the level of dependence of a negotiation partner on the outcome of the negotiation process. If the stakes are rising for a negotiation partner, its bargaining power is lessened. Therefore, stakes are negatively related to bargaining power. Alternatives are different possible choices a negotiation partner can potentially take to reach the same goal as sought in the negotiations with its negotiation partner (Yan & Gray, 1994). The bargaining partner with the best or most alternatives can threaten to walk away from the negotiations and go for the next best alternative option, and is therefore more powerful than its bargaining partners (Fisher, Ury, & Patton, 1981). This leads to the conclusion that the availability of alternatives is positively related to bargaining power (Yan & Gray, 1994). Both alternatives and stakes are context related variables. Yan and Gray (1994) refers to them as sources of context-based bargaining power.

The other type of bargaining power is resource-based bargaining power (Beamish, 1987; Coff, 1999; Pfeffer & Salancik, 1978; Yan & Gray, 1994). Resource dependence theory suggests that having control over or having possession of critical resources determines the level of bargaining power a negotiation partner has (Pfeffer & Salancik, 1978). The more critical resources a negotiation partner has committed to the interorganizational project, the more power it has over its negotiation partners. Yan and Gray (2002) categorize these resources as capital resources (financial, raw materials, equipment and other assets) and non-capital resources (technology, market access, managerial knowledge, marketing, et cetera). The more resources an organization brings to the negotiation table, the more bargaining power it possesses (Harrigan, 1986). If a negotiation partner is critical for the project's success, its bargaining power increases (Harrigan & Newman, 1990). This is also the case if a negotiation partner cannot be replaced by the other partners, or when this would be too costly (Root, 1988).

Bargaining power does not manifest itself only at the start of a project (Lavie, 2007). In a project, not all eventualities can be secured in a contract. Changing circumstances, such as market conditions, unequal learning rates between project partners (Hamel, 1991; Inkpen & Beamish, 1997; Makhija & Ganesh, 1997), or other unsuspected events which are not included in a contract, lead to renegotiations of the made agreements (Lavie, 2007). If the relative bargaining power of a partner compared to its project partners has changed since the initiation of the project, such renegotiations can result in a shift of the distribution of the output of the project (Hamel, 1991; Inkpen & Beamish, 1997; Khanna et al., 1998; Lavie, 2007).

It is important that the participating partners in a project perceive that the bargaining power is balanced (Makhija & Ganesh, 1997). This perception of the bargaining power by a project partner does not necessarily have to be in line with the perception of other partners in the project on its bargaining power, it is based on the information known to the partner. Information disparity between project partners can lead to a perception of a partners bargaining power which could be divergent from how other partners view the bargaining power of said partner. If a partner believes the perceived bargaining power is unbalanced in its disadvantage (and as a result, lower benefits), it will attempt to reopen the negotiations until it believes its share in both costs and benefits is equitable (Makhija & Ganesh, 1997). If renegotiations fail and the perception of unbalanced value appropriation remains, the chance increases that partners quit the project prematurely. According to the model Makhija and Ganesh (1997), if the bargaining power between the partners is more or less balanced the chances for a relationship to be successful improve. Changes in the balance of the bargaining power often lead to instable project-based organizations (Inkpen & Beamish, 1997).

If the ratio of appropriated value to incurred costs of an organization is less than of its project partners, it contributes relatively more to the project than the other partners. If the other partners have the perception this organization is indeed contributing relatively more than the other partners, the organization's bargaining power will increase (Makhija & Ganesh, 1997). Organizations should therefore always make sure that if their organization is in such a position, the other organizations involved in the project are aware of the situation. This way the organization can use its increased bargaining position to improve its costs to benefits ratio.

Earlier we described that in a project can create both private and common benefits. Khanna et al. (1998) state that the ratio between private and common benefits influences the behavior or organizations within an alliance. The lower the private to common benefits ratio, the more

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cooperative organizations behave, and vice versa. If the ratio gets higher, organizations have an increasing urge to race in obtaining private benefits. Once it has learned enough, and there are little or no common benefits to distribute, the organization has no incentive to stay in the alliance. Since organizations are aware of this process, they try to avoid being the last one to finish learning and being left behind by their partners, initiating the previously mentioned race (Khanna et al., 1998). According to this perspective, organizations will only look at their potentially appropriable value. The ratio of the organization's appropriated value, whether private or common, is not relevant to the organization (Khanna et al., 1998).

Khanna et al. (1998) acknowledge that this is a pure rational theory, and that suboptimal behavior will influence this relation. One of these managerial decision biases are fairness considerations, which will be discussed later on in this research.

Knowledge can both be a common benefit or a private benefit (Khanna et al., 1998). To gain knowledge, an organization must absorb it through learning. If learning is an important goal for an project-based organization, the key processes, or control systems, for learning are important aspects in the negotiation process. Organizations obtain knowledge from their alliance partners by using several key processes, as identified by Inkpen and Dinur (1998): technology sharing, alliance-parent interaction, personal transfers, and strategic integration. Organizations will attempt to use their bargaining power to design and control of these key processes (Makhija & Ganesh, 1997). By controlling these components, the organization controls the method how knowledge and skills are transferred. If this control is large enough and the organization is able to obtain a disproportionate part of the knowledge and skills, the other partners will capture a smaller part, which may lead them to conclude the remaining benefits are not outweighing the costs, reconsidering joining the project. This leads Makhija and Ganesh (1997) to conclude there has to be a balance in bargaining power between the partner organizations, or the project has little chance of succeeding.

According to Inkpen and Beamish (1997), context-based elements of bargaining power are only indirectly related to the dynamics of project-based organizations. Bargaining power associated with learning within project-based organizations is primarily resource-based. The main source of the resource-based bargaining power are the resources the parent organizations commit to the project (Inkpen & Beamish, 1997).

The process of interorganizational learning while the project-based organization is operational influences the bargaining position of organizations towards its partners (Hamel, 1991). By successful learning it lowers its dependency on these other organizations connected to the project, increasing the bargaining power of the organization. And by lagging in learning, the organization risks being more dependent on the project partners, possibly leading to redundancy (Hamel, 1991; Inkpen & Beamish, 1997).

This implies that bargaining power is a major influence on the appropriation of both private benefits and common benefits in learning alliances. Both types are used to acquire benefits in project-based organizations and alliances, whether the benefits are financial, knowledge (learning) or some other form of value. This leads to our first hypothesis:

Hypothesis 1: the appropriated value by a partner in a project-based organization will be positively related to its bargaining power.

2.4 FAIRNESS

From an economic point of view, organizations should make optimal use of their bargaining power to appropriate as much of the created value as possible. However, when organizations use their bargaining power beyond the threshold where other partners in the project perceive the bargaining power as balanced, the organization risks that its partners will reconsider their participation in the project, and the project could fail (Wilson, 1995). All partners need the perception they receive a fair share of the pie, or they have no incentive to stay in the project (Ganesh & Makhija, 1997). Since organizations will only agree to participate in a project if they all appropriate their fair share, the actual formation of an project-based organization can be considered as the balance point between the bargaining power of the partners (Harrigan, 1985).

The terms fairness and justice are often seen as interchangeable, however they are not the same (Rawls, 1958, 2001, 2009). Justice generally refers to a judgment where a situation can be compared to a set of rules or regulations, without letting personal feelings, preferences or particular circumstances affect it. Fairness is the perception of what is right, and circumstances and subjective feelings are taken into consideration when judging a situation. Each situation is judged as a separate case, where justice is more generalizing (Rawls, 1958, 2001, 2009). Since business transactions are not strictly regulated like the juridical system, and each transaction has its unique properties and circumstances, we think fairness is more appropriate to this context than justice. However, since

2. LITERATURE REVIEW

justice and fairness are closely related, literature about justice has been taken into account (Blodgett, Hill, & Tax, 1997; Colquitt, 2001; Folger, 1977; Folger & Konovsky, 1989).

In the context of transactions, four aspects of fairness can be distinguished, namely distributive fairness, procedural fairness, interpersonal and informational fairness (Greenberg & McCarty, 1990). Other researchers combined the aspects interpersonal fairness and informational fairness, defined as interactional fairness (Blodgett et al., 1997; Poppo & Zhou, 2014).

Distributive fairness indicates whether the actual distribution of created value by the partners is perceived as proportional to each parties input ((Adams, 1965; Cullen, Johnson, & Sakano, 2000; Folger & Konovsky, 1989). Procedural fairness reflects on the decision making process of value distribution itself (Konovsky, 2000; Leventhal, 1980; Lind & Tyler, 1992; Lind & Tyler, 1988; Thibaut & Walker, 1975) and if this process was consistent, transparent and whether all partners had a voice (Folger, 1977). Interactional fairness reflects on whether partners are treated just during the process of decision making (Bies & Moag, 1986; Luo, 2007). According to Greenberg and McCarty (1990), Greenberg and Cropanzano (1993) and (Colquitt, 2001), interactional fairness has two dimensions, explanations and sensitivity, which have been shown to have effects independent of each other (Bies, Shapiro, & Cummings, 1988; Greenberg, 1993; Shapiro, Buttner, & Barry, 1994). Informational fairness contains the perceived adequacy of the provided explanations, for instance if the provided information was correct, complete and timely (Shapiro et al., 1994). Interpersonal fairness refers to the perception that the communication was respectful (Bies & Moag, 1986) and with decency (Colquitt, 2001).

Research on distributive, procedural, interpersonal and informative justice has shown that these aspects of justice are independent, but form an overall perception of justice when combined (Blodgett et al., 1997; Greenberg & McCarty, 1990). These aspects interact with each other, where for example high levels of interactional justice or high levels of procedural justice can compensate for lower levels of distributive justice on the overall perception of justice (Brockner & Greenberg, 1990; Goodwin & Ross, 1989; Lind & Tyler, 1988). Earlier research has shown that the way parties treat each other (interactional justice) influences the perception of procedural justice in decision making procedures (Bies & Moag, 1986; Tyler & Bies, 1990). It appears that parties compensate the different aspects of justice to create an overall perception of justice (Blodgett et al., 1997).

Fairness has a proven influence on transactions. Many economical models have the built-in assumption that decision making is a rational process. However, decision making is executed by people, and they are no 'homo economicus', primarily focused on wealth above immaterial issues (Thaler, 1988). The influence of both procedural fairness and distributive fairness is demonstrated in several experiments on game theory, such as the Ultimatum Game and the Dictator Game (see appendix A).

Each aspect of fairness has its own effect on the relation between bargaining power and value appropriation. Distributive fairness refers to the perception of a balanced value distribution in relation to the input of the project partners. The positive relation of bargaining power on value appropriation is lessened by distributive fairness, where a higher level of distributive fairness has a stronger mitigating effect (Bolton, 1991; Corsten & Kumar, 2003; Fang et al., 2008).

Hypothesis 2a: the distributive fairness as perceived by a partner in a project-based organization will have a lessening effect on the relation between the partners' bargaining power and its appropriated value.

Game theory shows that it is not only the distribution of the created value is of influence of the perception of fairness, the process of *how* the value distribution has been established is a relevant factor (Blount, 1995; Camerer & Thaler, 1995; Rabin, 1993; Roth, Prasnikar, Okuno-Fujiwara, & Zamir, 1991; Schotter, Weiss, & Zapater, 1996). The incorporation of fairness into game theory reveals that when partners perceive the procedure of decision making towards the value distribution is fair, the procedural fairness has a lessening effect on the relation between bargaining power and value appropriation. This is explained more extensively in appendix A.

Hypothesis 2b: the procedural fairness as perceived by a partner in a project-based organization will have a lessening effect on the relation between the partners' bargaining power and its appropriated value.

The interpersonal fairness refers to the perception of project partners about how they have been treated during the decision making process towards determining the value distribution. If a project partner feels they have been treated with respect and propriety, the interpersonal fairness will have a lessening effect on the relation between bargaining power and value appropriation.

2. LITERATURE REVIEW

Hypothesis 2c: the interpersonal fairness as perceived by a partner in a project-based organization will have a lessening effect on the relation between the partners' bargaining power and its appropriated value.

According to Folger and Bies (1989) informational factors are structural aspects of procedural fairness, regarding truthfulness and justification (Colquitt, 2001). Factors such as adequacy, accuracy and timeliness of information (Shapiro et al., 1994), managerial responsibilities associated with ensuring fairness in the implementation of decision-making and giving adequate explanation about the decision making process (Bies & Moag, 1986) together form informational fairness (Colquitt, 2001). If project partners perceive the information they received about the value distribution process is accurate, timely and unbiased, the informational fairness will have a mitigating effect on the relation between bargaining power and value appropriation.

Hypothesis 2d: the informational fairness as perceived by a partner in a project-based organization will have a lessening effect on the relation between the partners' bargaining power and its appropriated value.

We will research these different aspects of fairness on the relation between bargaining power and value appropriation to see if the effect diverges between those aspects, and which aspects have the largest effect. We will also look into the effect of the combined fairness effects on this relation.

2.5 CONCEPTUAL MODEL

According to the consulted scholarly literature, bargaining power has a positive influence on the appropriation of both private benefits and common benefits. An organization with a relatively larger bargaining power can use its leverage to obtain a disproportionate part of the jointly created common benefits, such as financial output. It can also use its bargaining power to influence the way the project is structured, controlling the control systems through which the transfer of knowledge and skills takes place. By controlling those control systems the organization can potentially increase the amount of private benefits it can obtain, or improve the speed by which the organization can obtain her private benefits.

Our literature review implies that the perception of fairness amongst organizations in a project mitigates excessive bargaining power, contributing to a more balanced distribution of the created value between the organizations. Thus, the perception of fairness amongst project partners reduces

the relation between bargaining power and value appropriation. Project partners with a relatively high bargaining power will not use their full bargaining power to appropriate value, and forgo part of the value in favor of the other project partners because of the idea that each organization is due its fair share. This study theorizes that both fairness and all in this research distinguished aspects of fairness have a mitigating effect on the relation between bargaining power and value appropriation.

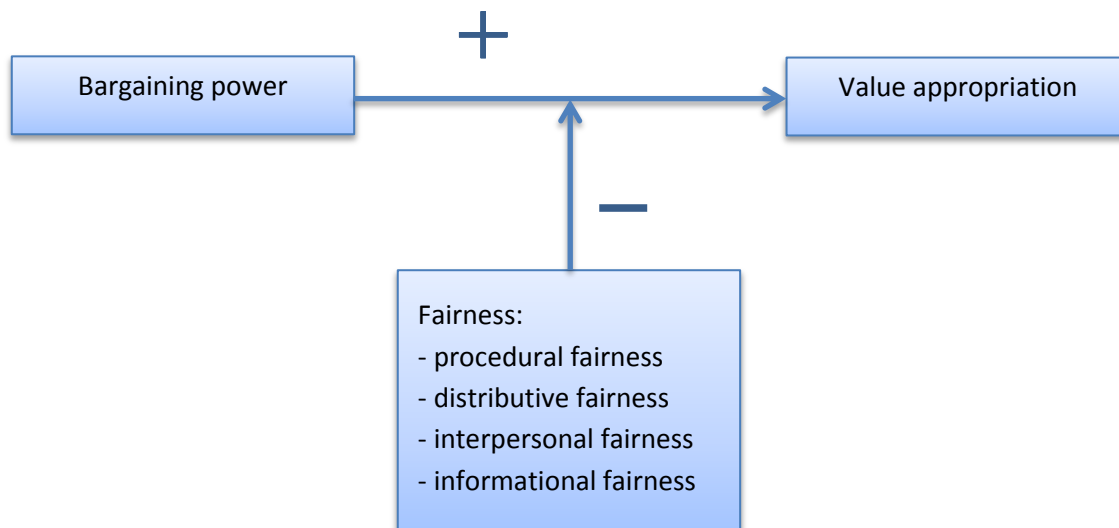


Figure 2 - Conceptual model

3. METHODOLOGY

To test the hypotheses, a questionnaire was administered to 204 potential respondents in 84 companies in the Dutch construction industry. Dutch construction companies make much use of project-based organizations in order to realize the erection, renovation or repairs of buildings and infrastructure. The Dutch construction industry is therefore suitable as a population to test the hypotheses.

This research has taken place in the Dutch construction industry. We chose this industry because construction is an industry in which people have used project-based organizations to complete structures for a long time (Eccles, 1981). Also, project-based organizations in the construction industry are present in relative high numbers. These factors make the construction industry an interesting industry to focus our research upon. By far most projects are national projects, that is why we focused on projects in one country. For practical reasons we chose the Dutch construction industry.

We created the questionnaire, and send it to the sample of the population. After that, we used statistical analysis to analyze the data, recorded our findings and used these findings to confirm or reject our hypotheses. Then we answered the research question, based on the analysis of the data.

3.1 RESEARCH DESIGN

This research has followed the research methods of Bryman and Bell (2011). We chose to collect quantitative data for this research. Since financial data or data on value appropriation on projects in the construction industry is not readily available, we used a questionnaire to acquire the data for our research.

3.2 SAMPLE

The population for this research are people working in interorganizational project teams in the construction industry of The Netherlands. There are no complete lists or registers of professionals of this sample, therefore it is not possible to draw an random sample from the population. We have used a convenience sample, consisting out of persons in our network. There are a number of criteria a member of our sample has to meet. The individual has to work in the construction industry in The Netherlands. By limiting the sample (and consequentially, the research itself) to The Netherlands, we can exclude major environmental factors and cultural differences between the respondents. Further,

potential respondents have to participate regularly in interorganizational projects. The respondent must have completed at least one project, because only at the end of a project an estimation of the appropriated value through that project can be made. And as a result of that, the respondents has no clear perception whether the appropriated value is a fair share of the total created value in the project (distributive fairness).

The projects we researched are all projects in the Dutch construction industry. Part of the projects are new developments, others are redevelopments, renovations or revitalizations of existing buildings. These buildings are typically non-residential, such as offices, schools, hospitals and churches. Projects must have been (nearly) completed to be included in the study. For projects in progress, the distribution of the created value is not fully insightful yet. The projects must have been completed relatively recently to prevent respondents from being unable to remember the required information regarding fairness, bargaining power and value appropriation on the project.

3.3 DATA COLLECTION

We chose a questionnaire as a method to collect this data, since questionnaires have a lower chance for respondents to give socially desirable answers (Sudman & Bradburn, 1982). Another advantage of using a questionnaire to collect data is that it prevents interviewer variability. It is also more convenient for the respondents, since they can complete a questionnaire at a time of their own choosing, and at the speed of their preference.

The respondents were required to have knowledge about the performance of the projects, and the benefits their organization has appropriated from the project. This implied that not all project members were potential respondents. Individuals working on lower levels, such as draftsman, are most likely not informed about the created and appropriated value of a project, nor can they make an accurate estimation of the relative bargaining power of their organization. We therefore aimed to include only project leaders, heads of departments, managers, advisors, senior architects and managing directors into the sample.

We have include individuals from all types of organizations participating in projects in the construction industry, to prevent a biased, unilateral view on the projects. Our sample includes clients, architects/designers, advisors, contractors, subcontractors/suppliers and project management organizations.

3. METHODOLOGY

One of the disadvantages of a questionnaire compared to other research methods is the lower response rate. This increases the risk of bias. To limit this risk, we have taken several steps to increase the response rate. We checked whether the response rates differ between the different types of organizations. We also conducted a T-test to check if there was a significant difference between early respondents and late respondents, where late respondents are the respondents who filled in the questionnaire after the reminder email was sent. However, since our sample is not selected through probability sampling, non-response is less of an issue, since the sample is not an exact representation of the population to begin with.

We send an email with a link to the survey to all respondents. The survey was hosted on a survey website (www.enquetesmaken.nl). We took several steps to increase the response rate. First, we explained to the respondents the reason for the research, and guaranteed their confidentiality. We made sure the questionnaire was visually appealing. To prevent potential respondents from dropping out of the questionnaire halfway due to uncertainty about the length of the questionnaire, we unclosed the total number of questions and required time for the questionnaire beforehand, and we showed the progress of the questionnaire on each page.

Dillman (2010) suggested to use upper case for closed questions, however nowadays upper case is associated with 'shouting' on the internet, so we opted to use lower case. We did follow his advice to use a compact layout, not using the full width of the screen, and lining up the answer boxes vertically for a better oversight (Dillman, 2010). Other mentioned principles about navigation through the questionnaire are nowadays being tackled by modern software, so they need no special attention.

Dillman, Tortora, and Bowker (1998) suggest to start with an easy to answer question, so respondents get an impression of the difficulty of the questionnaire. A hard first question risks to deter potential respondents, hence we started with some general questions about the respondents to get them committed to the questionnaire. We also tested the questions on intelligibility by testing them on three potential respondents (Jenkins & Dillman, 1995a, 1995b). This resulted in some minor grammatical changes and removal of textual inconsistencies in the questionnaire after discussing the items with the selected persons.

Each mail with the questionnaire was sent individually to the respondent, using his or her name in the salutation, in an attempt to increase the response rate (Dillman, 1998). We also stimulated the respondents to respond, by donating a small donation of € 1,- per valid survey to a charity (Bryman &

Bell, 2011). Also, the respondents have been ensured all response will be treated anonymous. This should also help to prevent socially desirable response by the respondents. The survey is anonymous, and the respondents were asked about some general information about their function and organizations. Finally, respondents were promised to be informed on the results of the research on request.

The survey was sent to a sample of 204 individuals by email (186) and social media (Facebook 4, LinkedIn 14) when no email address was available, and it was filled in by 79 respondents (38,7 %). 14 of those were incomplete, leaving 65 valid respondents. Some of the respondents who did not finish the survey contacted us to explain why. The stated reason was that the respondents' function does not give the respondent sufficient insight in projects to finish the survey. The test respondents were not included in our results, to prevent possible bias of the test respondents.

Out of the 14 respondents who discontinued the survey, most (10) quit at the questions regarding the value appropriation concept. The other four quit at the questions regarding the bargaining power (1), distributive fairness (2) and interpersonal (1) fairness. The 14 entries with missing data have been removed from the dataset before the statistical analysis.

Response bias

Once the scales were composed, we checked whether there were any significant differences between early responders and late responders. We define late responders as the responders who filled in the questionnaire after the reminder email was sent. Levene's test for equality of variances showed us that there is no significant difference in variances between the early and late respondents for value appropriation, distributive fairness, procedural fairness and interpersonal fairness (table 2, table 3). The independent samples t-test shows that there is no significant ($p < 0.05$) difference between means of all six variables between the early and the late respondents.

3. METHODOLOGY

Group statistics

	respondents	N	Mean	St. dev.	St. err. Mean
Value appropriation	early respondents	42	3,624	0,583	0,090
	late respondents	23	3,687	0,361	0,075
Bargaining power	early respondents	42	3,369	0,547	0,084
	late respondents	23	3,397	0,363	0,076
Distributive fairness	early respondents	42	3,437	0,665	0,103
	late respondents	23	3,594	0,635	0,132
Procedural fairness	early respondents	42	3,657	0,768	0,119
	late respondents	23	3,652	0,560	0,117
Interpersonal fairness	early respondents	42	3,921	1,020	0,157
	late respondents	23	4,072	0,586	0,122
Informational fairness	early respondents	42	3,310	0,822	0,127
	late respondents	23	3,533	0,513	0,107

Table 2 – group statistics of early and late respondents

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2- tailed)
Value appropriation	Equal variances assumed	1,340	,251	-,471	63	,639
	Equal variances not assumed			-,538	61,935	,592
Bargaining power	Equal variances assumed	4,311	,042	-,218	63	,828
	Equal variances not assumed			-,244	60,515	,808
Distributive fairness	Equal variances assumed	,006	,938	-,929	63	,357
	Equal variances not assumed			-,941	47,178	,351
Procedural fairness	Equal variances assumed	,544	,463	,027	63	,978
	Equal variances not assumed			,030	57,776	,976
Interpersonal fairness	Equal variances assumed	2,507	,118	-,656	63	,514
	Equal variances not assumed			-,762	62,802	,449
Informational fairness	Equal variances assumed	6,094	,016	-1,179	63	,243
	Equal variances not assumed			-1,344	61,810	,184

Table 3 – Independent samples test between early respondents and late respondents

3.4 MEASURES

In our aim to uphold the reliability of this research as high as possible, we have used existing scales to measure several of the concepts whenever available. The primary factors concerning the reliability of a measure are its stability, the internal reliability and the inter-observer consistency (Bryman & Bell, 2011) and external reliability (LeCompte & Goetz, 1982).

The stability, or test-retest reliability, has not been tested due to the cross-sectional nature of this research, in a limited timeframe. If the two observations are made too close to each other in time, the first observation will influence the second observation, this may lead to a greater consistency between the observations than they should be. However when the time between the observations grows, change in external factors or the respondents latest experiences in projects can influence the view of the respondents. We were unable to solve this issue within our research, so we did not test for stability.

We were unable to find a validated measurement for bargaining power and value appropriation, which could be used by our research. We therefore designed new measures based on the scholarly literature.

Validity exists out of internal validity and external validity (LeCompte & Goetz, 1982). The internal validity refers to the degree the measures as used in the research represent the concept they intend to measure. We tested the internal validity by presenting our measures, translated to Dutch from the original English, and adapted to the context, to three persons working in the Dutch construction industry, to check whether the items of the measures had face validity. Their remarks lead to some linguistic adjustments on a few items, but not to significant changes.

The external validity refers to the degree the findings of the research can be generalized to different contexts. It also addresses the extent to which the research can be duplicated (Bryman & Bell, 2011; LeCompte & Goetz, 1982). The external validity was secured by providing our measures in appendix D and describing our population and sample.

3.4.1 VALUE APPROPRIATION

Appropriated value can be categorized into private benefits and common benefits. Since bargaining power is positively related to both, according to scholarly literature, we decided this categorization was not relevant to our research, and not to split up our dependent variable.

3. METHODOLOGY

Value appropriation is often measured by measuring the financial performance, by measuring the quotient of the inputs and outputs (Hatfield, Walster, Walster, & Berscheid, 1978). However, this does not take into account the non-financial benefits.

Scholarly literature review revealed that more types of value can be distinguished. Next to financial output (Brandenburger & Stuart, 1996), knowledge (Sporleder & Peterson, 2003), technology, social capital (Chloupkova et al., 2003), and brand awareness are types of created value. Since we could not find a validated measuring scale for value appropriation, we designed a new measuring scale, based on the literary review. Our measurement scale of value appropriation includes questions covering all of these different aspects. The questions inquire the respondents about the financial gains, gained knowledge, network growth and acquisitional value of the project.

3.4.2 BARGAINING POWER

The measuring scale we designed for bargaining power is based on Yan and Gray's case study of joint ventures between partner organizations in the United States of America and in the People's Republic of China (1994).

To measure bargaining power, both context-based bargaining power and resource-based bargaining power have to be addressed in the measuring scale. The context-based bargaining power is composed out of two main components: how many alternatives are available for the focal organization (Bacharach & Lawler, 1981) and the stakes for the focal organization, or simply said how important the project is for the focal organization (Yan & Gray, 1994). Resource-based bargaining power theory states that having the control over or having possession of critical resources determines the level of the resource-based bargaining power (Yan & Gray, 1994). The components resource-based bargaining power is comprised of are both physical resources (monetary, equipment, resources), and immaterial resources (knowledge, network, skills, reputation, patents, etc.).

We comprised the measuring scale of seven items, of which three items address context-based bargaining power, and six items which address resource-based bargaining power. These questions address the applicable components of both context-based bargaining power and resource-based bargaining power in the Dutch construction industry (for instance: patents are a minor issue in the construction industry, compared to the IT industry). We used a five-point Likert scale, in accordance to the measuring scales we used to determine the fairness concepts.

3.4.3 FAIRNESS

Colquitt (2001) has done extensive research on the dimensionality of justice. As stated before, the difference between justice and fairness is context, not content. Therefore, the measuring scales developed by Colquitt (2001) to measure justice can be used to measure fairness. Consequently, we have adopted the measuring scales for our own research.

We measured the four aspects of fairness separately. The scale for procedural fairness comprises of seven items. Two items are proposed by Leventhal (1980), the other five items are adopted from Thibaut and Walker (1975). Distributive fairness is measured by a four item scale, designed by Leventhal (1976). The measuring scale for interpersonal fairness comprises of four items by Bies and Moag (1986). Informational fairness consists of a five item scale, of which two items are proposed by Bies and Moag (1986) and three by Shapiro et al. (1994). All the items for these four concepts use a 5-point Likert scale with anchors 1 to 5, where 1 stands for *to a small extent* and 5 stands for *to a large extent*.

The items used to compose the scales for fairness have been used in several earlier studies (Colquitt, 2001), increasing the likeliness that they are reliable and of a high degree of content validity. After using these items to create new measuring scales, Colquitt (2001) has used them in two studies. These studies were set in two different environments, namely in an educational context by using them for a study on 301 undergraduate management course students, and in a business environment for a study on 337 employees in two automobile parts manufacturing plants. The questions were adapted to the environment where the research was done (Colquitt, 2001). In these studies the Cronbach's alpha were above the 0.7 threshold for all measures, indicating a high internal consistency of the measures. The variable fairness was computed by averaging the four measures of fairness. By doing so, instead of averaging all valid fairness items, we avoided that certain aspects of fairness with more valid items become dominant in the total fairness measure.

Control variables

As control variables we used the size of the organization in FTE, the age of the respondents and the number of years active in their current function. With these control variables we intended to eliminate possible influences of organizational size, age and job tenure on the relationships in our research.

3. METHODOLOGY

We further asked the respondents for the type of organization they work for, their current job title and the method by which their organization is being rewarded for participating in a project. However, these variables are not numeric, and were not used as control variables in the statistical analysis.

3.4.4 MEASURE COMPOSITION

We composed new multi-scale items, comprised of the average score of the separate items. The six scales for value appropriation ($\alpha=0.730$), bargaining power ($\alpha=0.684$), distributive fairness ($\alpha=0.802$), procedural fairness ($\alpha=0.820$), interpersonal fairness ($\alpha=0.976$) and informational fairness ($\alpha=0.869$) were then optimized through the Cronbach's alpha (table 4). We addressed the internal reliability of the measures by using existing measures with a proven reliability in earlier research for as many concepts as possible. For the concepts we could not find existing measures for, we used Cronbach's alpha to check the internal reliability of the measure (0 stands for non-existent correlation between the items, 1 stands for perfect correlation between the items). The desirable lower limit for the measures is a result of 0.7 or higher.

For each measure we computed the Cronbach's alpha, and optimized the measure by removing items to increase the α when applicable. We presented the final measures in table 4, which shows that we removed one item from all measures, except for the procedural fairness measure, of which we removed two items.

Reliability statistics of items

	Cronbach's Alpha	Items (Valid)	N	Mean	Std. Deviation
Value appropriation	0.730	6 (5)	65	3,646	0,513
Bargaining power scale	0.684	9 (8)	65	3,379	0,487
Distributive fairness	0.802	4 (3)	65	3,492	0,654
Procedural fairness	0.820	7 (5)	65	3,655	0,697
Interpersonal fairness	0.976	4 (3)	65	3,974	0,888
Informational fairness	0.869	5 (4)	65	3,389	0,732

Table 4 – reliability statistics of the measures

4. RESULTS

4.1 DATA ANALYSIS

The data was analyzed using multiple regression analysis in SPSS version 21. The negative items (6) were recoded. Next, we computed boxplots out of the data to check for outliers (appendix E). We did find a limited number of outliers, however because of the nature of the collected data (5-point Likert scale), we do not consider these invalid data and have not removed them from the dataset.

We checked whether the distribution of the data was normal by evaluating the skewness and kurtosis of the measurement scales (table 5). Bargaining power appears to be almost symmetrically distributed, where value appropriation and distributive fairness are moderately skewed to the left. Procedural fairness, interpersonal fairness and informational fairness are all quite highly skewed to the left. The kurtosis of value appropriation, procedural fairness, interpersonal fairness and informational fairness is quite high, indicating that a disproportionate number of values lie around the mean, compared to a normal distribution. The distribution of the data in the measuring scales is close enough to a normal distribution to analyze statistically.

Data distribution statistics of items

	N	Mean	Std. Deviation	Skewness	Kurtosis
Value appropriation	65	3,646	0,513	-0,454	1,619
Bargaining power scale	65	3,379	0,487	0,042	0,230
Distributive fairness	65	3,492	0,654	-0,509	-0,386
Procedural fairness	65	3,655	0,697	-1,177	2,354
Interpersonal fairness	65	3,974	0,888	-1,626	3,640
Informational fairness	65	3,389	0,732	-1,214	1,887

Table 5 – data distribution of the measures

Correlations

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Main study variables												
(1) Value appropriation	3,646	0,513	1									
(2) Bargaining power	3,379	0,487	-,001	1								
(3) Distributive fairness	3,492	0,654	,375**	,272*	1							
(4) Procedural fairness	3,655	0,697	,323**	,200	,483**	1						
(5) Interpersonal fairness	3,974	0,888	,462**	,243	,542**	,702**	1					
(6) Informational fairness	3,388	0,732	,336**	,248*	,506**	,510**	,619**	1				
(7) Fairness	3,628	0,612	,461**	,292*	,753**	,822**	,893**	,804**	1			
Control variables												
(8) Age ¹	2,770	1,012	,003	-,173	-,046	-,021	-,053	,086	-,012	1		
(9) Active in current function	11,308	7,531	,021	,045	-,177	-,108	-,133	,080	-,102	,702**	1	
(10) Organizational size ²	3,400	1,529	-,203	,145	,144	,237	,142	,173	,209	-,081	-,210	1

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

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

1. Age is categorised in ≤ 30, 31-40, 41-50, 51-60 and 61+ years old

2. Organizational size is categorised in < 10, 10-19, 20-49, 50-199, 200-499 and 500+ FTE

Table 6 - correlations

4. RESULTS

After computing the variables, the data can be considered as a continuous scale from 1 to 5 at an interval level. We have used multiple linear regression to find the correlations between the variables and test the hypotheses.

We checked if the control variables had a significant correlation with the dependent and the independent variables (table 6). No such correlation was found. Not surprisingly *age* and *years active in current function* are highly correlated with a correlation of 0.702 with a > 99% probability, they are strongly related. Multiple regression shows the control variables do not have a relevant ($R^2 = 0,042$, adjusted $R^2 = -0.005$) or significant relation with value appropriation (*model 1, table 7*).

Hypothesis 1 proposes that bargaining power is positively related to value appropriation. Regression analysis shows us that bargaining power has no relevant or significant influence on the dependent variable value appropriation (*model 2, table 7*). A simple linear regression between *bargaining power* and value appropriation confirms this. Our research therefore does not support hypothesis 1.

Regression table

	Value appropriation								
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Intercept	3,898 (0,245)	3,895 (0,247)	2,420 (0,373)	2,844 (0,501)	4,412 (0,546)	4,123 (0,532)	4,309 (0,486)	4,285 (0,537)	4,695 (0,538)
Main effects									
Bargaining Power		0,038 (0,142)		-0,159 (0,127)	-0,130 (0,140)	-0,033 (0,136)	-0,110 (0,125)	-0,071 (0,137)	-0,192 (0,138)
Fairness			0,444 *** (0,093)	0,482 *** (0,097)					
Distributive fairness					0,355 ** (0,101)				0,156 (0,111)
Procedural fairness						0,338 ** (0,101)			0,070 (0,118)
Interpersonal fairness							0,351 *** (0,071)		0,228 * (0,102)
Informational fairness								0,295 ** (0,098)	0,093 (0,107)
Interaction effects									
Bargaining Power X Distributive fairness					-0,046 (0,180)				-0,286 (0,258)
Bargaining Power X Procedural fairness						0,158 (0,170)			0,096 (0,287)
Bargaining Power X Interpersonal fairness							0,179 (0,110)		0,336 (0,241)
Bargaining Power X Informational fairness								0,031 (0,152)	-0,056 (0,277)
Control variables									
Organizational size	-0,070 (0,043)	-0,072 (0,044)	-0,104 ** (0,038)	-0,097 * (0,038)	-0,078 (0,041)	-0,101 * (0,042)	-0,087 * (0,038)	-0,093 * (0,042)	-0,102 * (0,039)
Age	0,002 (0,090)	0,010 (0,095)	-0,023 (0,077)	-0,0258 (0,082)	-0,056 (0,089)	-0,027 (0,089)	-0,038 (0,082)	-0,020 (0,089)	-0,062 (0,083)
Experience	-0,002 (0,012)	-0,003 (0,013)	0,003 (0,011)	0,007 (0,011)	0,009 (0,012)	0,004 (0,012)	0,008 (0,011)	-0,003 (0,012)	0,009 (0,012)
R^2	0,042	0,043	0,307	0,325	0,223	0,201	0,329	0,193	0,411
Adjusted R^2	-0,005	-0,021	0,261	0,268	0,143	0,119	0,260	0,109	0,274
F-value	0,886	0,672	6,643 ***	5,683	2,775 *	2,438 *	4,749 **	2,306 *	3,018 **

Notes:

N = 65

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; standard errors in parentheses.

Table 7 - Regression analysis – moderating effect of fairness

In model 3 we investigated the direct effect of fairness on value appropriation. We found a strong, positive relation between fairness and value appropriation ($B = 0,444$, $p < 0,001$). With a F-value of 6,643 ($p < 0,001$) this model has significant predicting capabilities.

Model 2 shows that bargaining power has no direct relation to value appropriation. However, it is highly unlikely but not impossible that the different aspects of fairness fully mitigate the effect of bargaining power on value appropriation. To check for the moderating effect of the aspects of fairness on this relation we computed a product variable of bargaining power and the fairness variables. To avoid multicollinearity we computed a centered product scale, subtracting the average value of the variable from the value of the variable before multiplying them. Model 5 to 8 show the direct effects of the four aspects of fairness on value appropriation, and the moderating effect of the four aspects of fairness on the relation between bargaining power and value appropriation separately. Model 9 shows both the direct effects and moderating effects of the four fairness aspects simultaneously.

Hypothesis 2 proposes that fairness has a lessening effect on the positive relation between bargaining power and value appropriation. The regression analysis shows us that the relation between bargaining power and value appropriation is nonexistent. The different aspects of fairness have no significant moderating effects in models 5 to model 9, the explanatory factor of the models is low (adjusted $R^2 \pm 0$), and the predictive capacity of the models is also low ($F < 1,0$). Hypothesis 2 is not supported by this research.

The regression model 3 in table 7 revealed a direct effect of fairness to value appropriation, where we expected a moderating effect of fairness in models 4 till 8. We examined this further to see what the effect of all separate aspects of fairness is on value appropriation. For this, we created a new regression model (table 8).

All relations between the aspects of fairness and value appropriation are significant with a reliability of over 99% ($p < 0,01$). For each aspect the standardized regression coefficient is positive, between $B = 0,275$ and $B = 0,444$. These findings show that the relation between the independent variables and the dependent variable is positive, and which aspects of fairness have a stronger relation with value appropriation.

4. RESULTS

Regression table							
	Value appropriation						
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Intercept	3,898 (0,245)	2,788 (0,382)	2,942 (0,369)	2,792 (0,323)	3,102 (0,332)	2,420 (0,373)	2,435 (0,396)
Main effects							
Distributive fairness		0,332 ** (0,093)					0,154 (0,109)
Procedural fairness			0,290 ** (0,089)				0,023 (0,117)
Interpersonal fairness				0,292 *** (0,064)			0,201 (0,101)
Informational fairness					0,275 ** (0,083)		0,037 (0,106)
Fairness						0,444 *** (0,093)	
Control variables							
Organizational size	-0,070 (0,043)	-0,084 * (0,040)	-0,099 * (0,041)	-0,089 * (0,039)	-0,096 * (0,041)	-0,104 ** (0,038)	-0,096 * (0,039)
Age	0,002 (0,090)	-0,028 (0,083)	-0,013 (0,083)	-0,014 (0,078)	-0,004 (0,083)	-0,023 (0,077)	-0,025 (0,079)
Experience	-0,002 (0,012)	0,006 (0,011)	0,001 (0,011)	0,003 (0,011)	-0,004 (0,011)	0,003 (0,011)	0,005 (0,011)
R ²	0,042	0,211	0,188	0,288	0,188	0,307	0,322
Adjusted R ²	-0,005	0,159	0,133	0,241	0,134	0,261	0,239
F-value	0,886	4,018 **	3,462 *	6,073 ***	3,481 *	6,643 ***	3,866 **

Notes:

N = 65

* p < 0.05; ** p < 0.01; *** p < 0.001; standard errors in parentheses.

Table 8 - Regression table - direct effects of fairness

The F-ratio is high for all independent variables, which indicates the model has predictive capabilities. The adjusted R squared values shows that of the four aspects of fairness, interpersonal fairness is the most influential aspect. The adjusted R² value is 0,241, significantly higher than the value for distributive fairness (R² = 0,159), procedural fairness (R² = 0,133) and informational fairness (R² = 0,134). The total fairness aspect (model 6) increases the value of the adjusted R² to 0,261, so the combination of interpersonal fairness with other aspects of fairness does lead to an increased percentage of the variance of value appropriation explained by the model. Further, the β value shows that the more aspects of fairness are included, the stronger the relation with value appropriation is. Model 6 also has the highest F-factor, indicating that the model with the combined fairness aspects has the highest predictive capacity.

5. DISCUSSION AND CONCLUSIONS

5.1 CONCLUSIONS

A large body of research has underscored the importance of bargaining power in relation to value appropriation. In the context of alliances (Hamel, 1991), value chains (Fang et al., 2008) and joint ventures (Ganesan, 1994; Gulati & Wang, 2003; Makhija & Ganesh, 1997; Yan & Gray, 1994), bargaining power has a proven positive influence on value appropriation.

Our research showed no direct relation (positive nor negative) between bargaining power and value appropriation. Subsequently, we could not find a moderating effect of fairness (or aspects of fairness) on the relation between bargaining power and value appropriation. We expected to find that the higher the level of fairness, the lower the influence of bargaining power would be on value appropriation. We were unable to prove that in this research. The main conclusion is that we cannot prove the lessening effect of fairness on the relation between bargaining power and value appropriation in the context of project-based organizations in the Dutch construction industry. We did find a significant direct positive relation between (the different aspects of) fairness and value appropriation. This suggests that when a project partner perceives a higher level of fairness, it appropriates more value. However, no evidence regarding the causality of this relation was found in scholarly literature.

5.2 DISCUSSION

The relation between bargaining power and value appropriation has been topic of much research. Our literature review did not reveal any research on this topic in the context of project-based organizations. We did expect to find the same (positive) relation between bargaining power and value appropriation in project-based alliances, however we could not find significant proof to confirm this hypothesis with our research. We were unable to measure bargaining power value appropriation using the same methods as in other studies, due to the different context. Where for instance Gulati & Wang (2003) use abnormal returns based on financial data from COMPUSTAT, we used the perception of respondents on their organizations' level of bargaining power and value appropriation, since there is no public data available on project-based organizations within the Dutch construction industry.

Our research was unable to confirm the assumed positive relation between bargaining power and value appropriation. We deducted that possible explanations are that 1) this relation simply does not

5. DISCUSSION AND CONCLUSIONS

exist in the context of our study, 2) our measurement of the scales was insufficient, 3) our respondents are no correct reflection of the population, or 4) our respondents lack insight in the concepts addressed in the questionnaire.

It is generally assumed in the scholarly literature that bargaining power has a positive relation with value appropriation, so we assumed this is also the case in project-based organizations. Instead, we found a strong positive relation between fairness and value appropriation. This suggests that value appropriation in project-based organizations is not a outcome of (mostly) economic factors, but is for a large part governed by sub-optimal behavior such as fairness considerations. We do not think it is likely that a higher level of fairness directly leads to an increase of appropriated value. Neither did we find any indication of such relation in the scientific literature. If causality in this relation would exist, it would more likely be reversed. The partner who did appropriate relatively much of the created value might see this as their prerogative, and consider their appropriated value as “their fair share”, regardless the partners’ input in the project. Conversely, a partner who appropriated relatively little of the created value might feel they appropriated an unfairly low amount of the created value, even if their input might have been even lower, relatively.

We still do believe that bargaining power is the primary factor in value appropriation within project-based organizations. There might be a shift in which aspects of bargaining power are most important in this context though. In a highly competitive industry such as the Dutch construction industry, resource-based bargaining power might be more dominant, and contextual bargaining power might be less present.

The concept of bargaining power had a lower internal consistency than we would have liked to see, with a Cronbach’s alpha of 0,684. The Cronbach’s alpha for value appropriation was 0,730, just above the minimum of 0,700 we set for this research. While these values are not as high as we wished, they are indicating a certain level of internal consistency in the measuring scales. However, both measuring scales have been created for and only tested in this research. Seeing that the measuring scales do have a passable internal consistency, it is most likely that what they measured was not exactly what we wanted to measure. Since we did find significant relations between the different aspects of fairness and value appropriation, it is most likely that it was the measuring scale for bargaining power which was invalid. Bargaining power had no relation with any of the control variables, independent variables nor the dependent variable. This might also be caused by the fact that our measure was dominated by items about contextual bargaining power. If in the Dutch

construction industry resource-based bargaining power is dominant, the measure should have reflected this, and have mostly consisted out of items measuring resource-based bargaining power.

Since there is no exact data on the size and composition of the population, creating a sample which is an accurate reflection of the population is challenging. Our sample was a convenience sample, for which we tried to include a multitude of different types of organizations. Our sample contains clients, contractors, subcontractors, advisors, project managers and designers, with functions in middle management, top management or (senior) advisor / coordinator. The respondents are spread quite evenly over the different age categories, where the categories below 30 years old and older than 60 are represented the least. However this is easily explained by the fact that people tend to retire around the age of 65-67, and that starting professionals are usually older than 20 when they start, and then need time to grow into one of the described functions. All in all we think the sample is a reasonable reflection of the population, however we lack factual evidence to back this claim.

Another possible explanation why our findings deviate from or theory is that the respondents might not be fully informed about what their organizations bargaining power is, compared to the other project partners. Also, respondents might lack insight in the value their organization is appropriating, especially compared to the project partners. We tried to avoid that by selecting only respondents of a certain seniority, and avoided including persons with lower positions. We planned to limit the single informant bias by asking multiple respondents per project-based organization, but this proved to be a challenge in the field. In the end we were forced to abandon this approach.

We suggest that for future research in this area a more reliable measuring scale should be designed for bargaining power. Further research should aim to prove whether the found relation between the different aspects of fairness and value appropriation is actually a direct relation, or just a reflection of a moderating effect between bargaining power and value appropriation which did not show up in this research due to imperfections in our research. Future research should also address the single informant bias.

Besides recreating this research, it would be interesting to research why certain aspects of fairness such as interpersonal fairness seem to explain a larger share of the variance in value appropriation than other aspects of fairness, while other aspects such as distributive fairness have a stronger relation with value appropriation.

It might have been interesting to split the dependent variable value appropriation into two variables, private benefits and common benefits. Our literature review indicated that bargaining power has a positive relation with both, however the moderating effect of fairness might be divergent on those relations.

5.3 LIMITATIONS

Our research is based on the premise that in project-based organizations, bargaining power is a major factor in determining how much of the created value is appropriated by each project partner. We did not consider the possibility that the initiator of a project due to their financial strength and strategic position as initiator of a project (Phelan & Lewin, 1999) and the fierce competition amongst architects, but also amongst contractors and amongst advisors, gives the initiators a relative high bargaining power and the other project partners a relatively low bargaining power. This could indicate that bargaining power in relation to value appropriation functions differently in project-based organizations in highly competitive industries than in other contexts.

In our questionnaire we did not include a “no opinion” choice. This might be the reason for the relative high number of dropouts during the questionnaire. However, this did force the respondents to pick an option, instead of choosing the easy way out by selecting “no option”.

The low number of respondents in relation to the number of variables. We aimed for 100+ respondents. We stimulated potential respondents by approaching them individually, making a donation to charity for each filled in survey, using a clear layout for the questionnaire, creating commitment by starting the questionnaire with easy questions, and sending a reminder email to the respondents. Out of the 79 respondents, 65 completed the questionnaire.

The study is executed cross-sectional. Due to time restraints we were unable to conduct longitudinal research. Lacking longitudinal data, we were unable to determine change in bargaining power, value appropriation and fairness within projects. By measuring at multiple points in time, we might have been able to determine the causality of the relations found in this study.

We conducted our research within the Dutch construction industry. This limited research environment creates the risk that our findings are not applicable to other industries and other countries. Without further research, our findings cannot be generalized to other fields.

5.4 MANAGERIAL IMPLICATIONS

Fairness has a significant influence on value appropriation, whether it be direct, as our findings suggest, or as a moderating effect, as our theory explains. The managerial implications of this information is that managers should take fairness into consideration when participating in a project-based organization. By using fairness to align the appropriated value of each project partner with the input of each project partner and create a fair process towards the value appropriation, the risk that project partners perceive the allocation of value amongst the project partners as unfair is lessened, decreasing the chance that a project partner withdraws from the project, and potentially kills the project. Therefore, using fairness to allocate the created value more proportionally to the input of all partners should lead to a lower fail rate of projects. When a project is ended prematurely, its potential created value is lost. Managers should therefore try to prevent a perceived unfair distribution of value, including the process determining the value distribution, to prevent project failure.

Further, managers should realize that when their organization appropriates less value than they perceive as fair, they can appeal to the sense of fairness of their project partners (Fang et al., 2008). This way they could increase their share of the created value from an 'unfair' share to a larger 'fair' share, proportional to the organizations' input.

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Appendix A: Fairness in game theory

In the Ultimatum Game, two persons have to divide a certain sum. Player 1 is assigned the role of proposer, and player 2 plays the role of responder. In the game, player 1 has to offer part of the total sum to player 2. If player 2 accepts, they both can keep their share. If player 2 rejects the offer, both receive nothing. According to non-cooperative game theory, the proposer should offer as little as possible to the responder, and the responder should accept the offer, since it is more than zero. However, experiments have showed that proposers offer significantly more than a token sum, with the modus usually just below or on half of the sum, and the average between 30% and 50% of the sum. It also shows that responders often turn down low offers.

This experiment has been repeated several times with different setups such as a higher sum to divide (Hoffman, McCabe, & Smith, 1996a), creating a two-stage Ultimatum Game (Binmore, Shaked, & Sutton, 1985), or with multiple rounds (Ochs & Roth, 1989). All these experiments show different results than to be expected according to game theory. Clearly, other factors than used in game theory are at play in the Ultimatum Game.

According to Thaler (1988), responders rather decline a small offer than to accept an “unfair allocation of the stake”. However, this explains only why the responders decline low offers, game theory also fails to predict the offered sum by the proposer correctly. Thaler (1988) states three possible explanations. The proposer did not understand the game correctly, the proposer was offering a higher sum he or she considered as a fair share, or the proposer was afraid the responder would reject the offer.

To investigate the latter offer, experiments were conducted using the Dictator Game (Forsythe, Horowitz, Savin, & Sefton, 1994; Kahneman et al., 1986a; Kahneman, Knetsch, & Thaler, 1986b). In this experiment, once again there are two people assigned the roles of proposer and responder. However, in this game, the responder does not have the option of rejecting the offer. Game theory would suggest that the proposer should give nothing at all to the responder, but once again experiments showed that the results were not according to game theory. The offered sums were lower than in the Ultimatum game, but more than zero in 80% of the cases (Forsythe et al., 1994). This proves that proposers don't just offer suboptimum sums out of fear of rejection (Camerer & Thaler, 1995).

Hoffman, McCabe, Shachat, and Smith (1994) conducted further experiments with additional factors (Hoffman, McCabe, & Smith, 1996b). They concluded that each single factor increased the likeliness of the proposer to keep the full sum to himself, but that no single factor was crucial. The authors further conclude that an increase in “social distance” between the proposer and the responder would lead to a lower offered sum.

Another experiment by (Blount, 1995) revealed that when the offer was created at random, the responder would accept a low offer where that same offer by a proposer would be rejected. She concluded that responders not so much reject inequality but unfairness of the offer. Bolton (1991) created a model comparing the offered sum to the responder to the remaining sum of the proposer.

He states that this ratio of relative benefits has little meaning as long as a person feels treated fairly, but gains significant meaning once a person feels treated unfairly. This model was expanded by Rabin (1993) who included whether the offer had a positive connotation (as a gift, help or a token of trust) or a negative connotation (as punishment, at cost to oneself). Responders accepted lower offers if they had a positive connotation, proving that “intentions matter” in the decision making process (Rabin, 1993). Psychologists refer to this as attribution theory, describing how people attribute cause to events, and let this influence their reaction.

This is researched more extensively in “procedural justice” research (Camerer & Thaler, 1995). They conclude from analyzing their own and earlier Ultimate Game and Dictator Game experiments that participants desire a form of equity in the interaction between players, but that this has more to do with manners than with altruism: “Etiquette may require you to share a windfall with a friend, but it certainly does not require you to give up some of your hard-earned year-end bonus to a stranger”.

Other studies introduced competition between responders (Roth et al., 1991) and between proposers (Schotter et al., 1996). In the first study nine responders had to simultaneously state their minimum acceptable offer, and the proposer would give it to the responder with the lowest level. The responders set their minimum offers well below the average of earlier Ultimate Game experiments. Camerer and Thaler (1995) state that respondents don’t feel treated unfair since they have to compete amongst each other, and proposers don’t feel unfair about the transaction since it was the responder who actually made the offer, clearing the proposers of blame on the unequal division of the sum between proposer and responder.

In the latter game proposers had to compete, where eight proposers had to make an offer, but only the highest four offers would be actually allowed to be made. In both studies respondents were willing to accept lower offers, due to competition amongst themselves or amongst the proposers, below 30% of the total sum. This is actually lower than the average sum proposers offered in Dictator Games. Camerer and Thaler (1995) conclude that if proposers have to compete with each other, the proposers know that if they offer a higher share to the responder they are ruled out of the game, and therefore feel that a low offer is not unfair.

Appendix B: Invitation email

Geachte [aanhef achternaam], beste [voornaam]

Ter afronding van mijn part-time master bedrijfskunde aan de RSM – Erasmus Universiteit ben ik bezig met een onderzoek binnen project gebonden organisaties in de bouw. In mijn scriptie onderzoek ik de invloed van “fairness” (het gevoel van rechtvaardigheid, eerlijkheid) op het proces van het bemachtigen van gecreëerde waarde door verschillende organisaties in een project.

In het kader hiervan heb ik een survey opgesteld. Deze survey duurt ca. 10 minuten om in te vullen en bevat 40 vragen. Als u mee wilt werken met dit onderzoek, dient u een recent afgerond project in gedachten te nemen, en de vragen aan de hand van met dit project te beantwoorden.

De survey is niet naar u persoonlijk herleidbaar. Uiteraard zullen alle gegevens vertrouwelijk worden behandeld. Indien gewenst zal u na afronding van het onderzoek de resultaten hiervan ter beschikking worden gesteld.

Voor elke volledig ingevulde survey zal € 1,- worden overgemaakt naar een goed doel naar uw keuze.

De survey is te vinden via onderstaande link:

<https://www.enquetesmaken.nl/s/35fcfde>

Alvast bedankt voor uw medewerking!

Met vriendelijke groet,
Ronald de Vreede

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Appendix C: Reminder email

Geachte [aanhef achternaam], beste [voornaam]

Onlangs heb ik u uitgenodigd om deel te nemen aan mijn afstudeer onderzoek aan de Rotterdam School of Management, betreffende de invloed van fairness binnen projectomgevingen (zie de originele uitnodiging in onderstaande mail). Ik wil u bij deze verzoeken de survey voor vrijdag 7 augustus in te vullen.

Indien u de survey reeds heeft ingevuld kunt u deze mail als niet verstuurd beschouwen.

Nogmaals hartelijk dank voor uw medewerking.

Met vriendelijke groet,
Ronald de Vreede

Ter afronding van mijn part-time master bedrijfskunde aan de RSM – Erasmus Universiteit ben ik bezig met een onderzoek binnen project gebonden organisaties in de bouw. In mijn scriptie onderzoek ik de invloed van “fairness” (het gevoel van rechtvaardigheid, eerlijkheid) op het proces van het bemachtigen van gecreëerde waarde door verschillende organisaties in een project.

In het kader hiervan heb ik een survey opgesteld. Deze survey duurt ca. 10 minuten om in te vullen en bevat 40 vragen. Als u mee wilt werken met dit onderzoek, dient u een recent afgerond project in gedachten te nemen, en de vragen aan de hand van met dit project te beantwoorden.

De survey is niet naar u persoonlijk herleidbaar. Uiteraard zullen alle gegevens vertrouwelijk worden behandeld. Indien gewenst zal u na afronding van het onderzoek de resultaten hiervan ter beschikking worden gesteld.

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Alvast bedankt voor uw medewerking!

Met vriendelijke groet,
Ronald de Vreede
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Appendix D: Measuring scales (Dutch)

Main study variables

Bargaining power (adapted from Yan and Gray (1994))

Deelname aan het project was van strategisch belang voor mijn organisatie.
Er zijn veel organisaties die de rol van mijn organisatie in het project hadden kunnen uitvoeren.
Het project betrof een significant deel van de omzet van mijn organisatie.
Mijn organisatie bezit voor het project relevante kennis die overige partijen niet hebben/hadden.
In vergelijking met de andere project partners zijn wij een kleine organisatie.
Mijn organisatie bezit vaardigheden en/of technologie die voor het project onmisbaar zijn.
Mijn organisatie had onvoldoende werk bij de start/verwerving van het project.
Mijn organisatie staat bekend om haar hoge kwaliteit dienstverlening/productie.
Mijn organisatie is in vergelijking met de projectpartners meer kapitaalkrchtig en/of winstgevend.

Value appropriation (based on literary review)

Het project was winstgevend voor mijn organisatie.
Het project heeft mijn organisatie veel nieuwe kennis opgeleverd.
Dankzij het project is het netwerk van mijn organisatie vergroot.
Het project heeft een toegevoegde waarde als referentie voor toekomstige acquisitie
Het project heeft meer waarde gecreëerd voor mijn organisatie dan dat het heeft gekost.
Mijn organisatie heeft zich ten opzichte van de overige partijen in het project relatief meer waarde toegeëigend.

Distributive fairness (adapted from Colquitt (2001))

Is de door uw organisatie verworven waarde een goede afspiegeling van de door uw organisatie gedane inspanning?
Is de verkregen waarde ten opzichte van de projectpartners naar verhouding van de geleverde inspanning?
Is de verkregen waarde gerechtvaardigd gezien de geleverde prestatie?
Is de door uw organisatie verworven vergoeding passend voor het gedane werk?

Procedural fairness (adapted from Colquitt (2001))

Heeft u uw mening en/of gevoelens gedurende deze procedure kunnen uiten?
Heeft u invloed gehad over de bereikte uitkomst?
Zijn deze procedures consistent toegepast?
Waren deze procedures vooringenomen?
Zijn deze procedures gebaseerd op accurate informatie?
Was de mogelijkheid aanwezig om beroep aan te tekenen tegen de uitkomst van deze procedures?
Voldeden deze procedures aan morele en ethische normen?

Interpersonal fairness (adapted from Colquitt (2001))

Heeft hij/zij u beleefd behandeld?
Heeft hij/zij u met waardigheid behandeld?
Heeft hij/zij u met respect behandeld?
Heeft hij/zij ongepaste opmerkingen gemaakt of ongepaste commentaar gegeven?

Informational fairness (adapted from Colquitt (2001))

Is hij/zij openhartig geweest in zijn/haar communicatie naar u?
Heeft hij/zij de procedure grondig uitgelegd?
Was zijn/haar uitleg met betrekking tot de procedures redelijk?
Communiqueerde hij/zij gegevens tijdig?
Leek hij/zij zijn/haar communicatie aan te passen aan uw specifieke behoeften

Control variables / general information about respondents

Welke rol heeft uw organisatie in het project?
Wat is uw functie in uw organisatie?
Hoeveel jaar bent u al werkzaam voor uw organisatie?
Wat is uw leeftijd?
Hoe groot is uw organisatie?
Op welke wijze wordt uw organisatie betaald voor haar rol in het project?
(als u opdrachtgever bent: op welke wijze betaald u de door u ingeschakelde organisaties over het algemeen?)
Aan welke liefdadigheidsorganisatie wilt u dat uw bijdrage gedoneerd wordt?

Appendix E: Boxplots

