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# The questionable stability of joint ventures

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### **Abstract**

Joint ventures have been highly unstable in the past. Globalisation, technological and organizational developments in recent times are expected to have had a positive influence on the longevity of joint ventures. This research examines whether joint ventures are still highly unstable and which factors influence the longevity of joint ventures. To achieve this multiple ordinary least squares regressions and survival analysis have been carried out. On top of that, a comparison of the termination rates of joint ventures over the years has been made. This research does not provide strong proof for an effect of globalisation, technological and organizational developments on the stability of joint ventures. However, it provides indicators that joint ventures have become more stable over the years.

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## Introduction

Last September, T-Mobile introduced itself in the Dutch telephony and mobile internet market with a publicity stunt, a robot arm tattooed a Dutch actress named Stijn Fransen using new 5G technology. The development was a hot topic in the news under the name 'the Impossible Tattoo'. However, the term impossible is totally out of place here as Fransen said: "I'm delighted with the result" (RTL Boulevard, 2020) afterwards. This shows that it is possible to satisfy a customer with a tattoo even if the tattoo artist is not in the same room. The big question then remains which company managed to achieve this improbable performance. The answer is not so simple, because tattooing from a distance would never have been possible if several companies hadn't worked together. In this case, T-Mobile Netherlands cooperated with the American company Anomaly and the London-based company The Mill. 'The Impossible Tattoo' is an excellent example of an incredible innovation created by cooperating companies. Since the data is kept up to date, the number of corporate alliances has always been growing exponentially (Zephyr, 2020).

Alliances play a major role in today's economy and they come in many different forms. Firstly, the merger in which two separate companies choose to join their forces. The two separate companies cease to exist and there will be one new business after the merger is settled. Secondly, the acquisition in which a company purchases another. The acquiring company acquires all the knowledge and resources of the other company, which ceases to exist. Lastly, there is the joint venture. Two or more companies unite under a contractual agreement to set up a specific company (Harrigan, 1988). In doing so, both parties share profits and losses. This specific company is on some occasions set up for one common project and on other occasions to establish a lasting business relationship across multiple business activities and projects. This thesis will look in more detail at the joint venture.

Many studies have defined a joint venture differently, in this thesis a joint venture is defined as a hybrid of two or more independent collaborating companies in a competitive context (Park & Ungson, 1997; Kogut, 1989). The definition makes clear that a joint venture is a separate business unit that makes its own business decisions, but which can be controlled by the parent companies if needed. Joint ventures are an underexposed subject in strategy economics, especially when you take their extraordinary structure in consent. Joint ventures are a relatively complex way of cooperating because the partners who start a joint venture share the ownership of the newly established company. In the majority of the cases when companies integrate, they want to keep control over their assets even when those are part of a separate business unit (Kogut, 1988). So in many cases, bigger companies choose to acquire a company instead of collaborating with another company. However, there are multiple reasons why

a company would start a joint venture instead of acquiring a horizontal competitor or one of the firms in their vertical supply chain. Those reasons will be explained in the theoretical framework.

Despite the advantages of joint ventures, it has been proven on several occasions that they generally do not survive as long as companies that do not share ownership (Camerer & Vepsalainen, 1988; Lane & Beamish, 1990; Blodgett, 1992; Parkhe, 1993). However, all studies proving that joint ventures are less stable than companies without shared ownership have been done with data from 1960 till 1990.

Some terminations of joint ventures occur soon after the emergence of the joint ventures, this is defined as an early dissolution in this research. Early dissolution can be the result of successful completion of the competitive task the joint venture was created for (Kogut, 1989). However, on most occasions early dissolution is a sign of failure. In this research, the successful and unsuccessful dissolutions will not be differentiated.

The reasons given for the lack of stability of joint ventures included cultural distance (Harrigan, 1988), organizational distance (Killing, 1983) between parent companies and lack of trust (Brown, Rugman & Verbeke, 1989). Towards the end of the previous century, the internet and travel developments brought the world closer together at an incredible speed. As a result, it is to be expected that differences in cultural and organizational distance have narrowed. Furthermore, new technologies have made it possible to monitor partner companies and the working methods and productivity of the joint venture almost completely. For those reasons it seems likely that joint ventures nowadays do not cease to exist as soon as they did in the twentieth century. This thesis will highlight the pros and cons of a joint venture and then examine whether the instability of joint ventures has decreased over the years, by answering this question:

*To what extent has increased globalisation and technological and organizational development in recent times had an impact on the stability of joint ventures compared to previous studies?*

In this thesis globalisation is defined as economic integration, which means that it has become easier to replace a segment of a company or the whole company to another country as well as it became easier for workers to immigrate and work in another country (Antràs, Garicano, & Rossi-Hansberg, 2006). Starting a joint venture has become a lot more attractive, as we have seen in the more recent data, the amount of joint ventures in today's economy is increasing rapidly. Globalisation has almost certainly had an effect on that development. Namely, because the increased globalisation made markets grow and offered companies the opportunity to enter new international markets. A lot of firms took the opportunities that globalisation created and are increasingly entering new markets and looking for cost advantages (Barkema, Bell & Pennings, 1996). However, entering new markets is not the same as starting a new company in one's own country. Customer preferences all over the world

differ from each other and it can be very difficult to adapt to the preferences of foreigners immediately and start a viable establishment abroad. Under these circumstances joint ventures are very suitable. A company with aspirations to enter a foreign market can start a joint venture with a company originated from the target country. This way it will be easier to overcome the adapting difficulties that will occur (Brown, Rugman & Verbeke, 1989).

Shortly, it seems clear that globalisation and development of all kinds have increased the number of joint ventures. On the other hand, it has been a long time since there has been research into the longevity and the success of joint ventures. I expect that the increased globalisation as well as technological and organizational development have narrowed the cultural and organizational gap between national and international partner companies which start a joint venture together. In order to prove whether the stability of joint ventures in general has increased in the past decades the following hypotheses will be examined:

**H1: International joint ventures with different cultural backgrounds survive as long as national joint ventures.**

Multiple types of research in the 80s and the 90s found out that joint ventures with parent companies from distant cultural backgrounds were more likely to dissolve earlier (Camerer & Vepsäläinen, 1988; Lane & Beamish, 1990). Nevertheless, I expect that the globalisation and the increased intercultural teams in corporate organizations all over the world nowadays have reduced the cultural differences in such a way that the difference in longevity from 30 years ago has become negligible. If this hypothesis is true, that could be proof that globalisation and developments of all kinds have reduced cultural distance between parent companies over the years.

**H2: Joint ventures with at least one parent from a lesser developed country dissolve sooner than joint ventures with both parents from highly developed countries.**

Companies from less developed countries generally have a less elaborated organizational culture. In addition, companies from developing countries do not have the same access to information as companies from highly developed countries. The difference in knowledge and working methods can arouse irritations, which can lead to early dissolution (Beamish, 1985). However, this could also work the other way around in some cultures the dissolution of a corporate partnership, such as a joint venture, is seen as organizational failure (Ring & van de Ven, 1994). Quality business people from those countries will be more accurate in the selection process for a partner than Americans for example who tend to rely on contracts instead of the people inside the partner company (Sullivan & Peterson, 1982; Thorelli, 1986; Lane & Beamish, 1990).

**H3: Joint ventures in which one parent company has a bigger stake than the other parent company dissolve earlier.**

If one partner company has a significantly bigger share than the other partner company this indicates that the bigger company can make decisions independently. This will most likely bring tension between the partners, despite Killing (1983) concluded that unequal shares in the decision making led to a more stable joint venture. However, four years later Beamish and Banks (1987) came with growing proof that shared decision making leads to a more stable arrangement. So, in the relevant literature there is a discussion going on about what distribution in the decision making leads to the most successful enterprise. On the other hand, it is not always the case that the bigger company has a bigger share in the company most of the time the partners that brings in the technology is leading in the newly formed enterprise (Blodgett, 1992). The risks of starting a joint venture as the bigger company are that the smaller company wants to get all the available knowledge out of the joint venture, because it is scared to be bought out soon after they are not usable anymore. This is at the expense of the productivity of the joint venture. For a joint venture to be successful it must be a stable business relationship that meets the needs of both partners over the long term (Lane & Beamish, 1990).

**H4: Joint ventures in which both parent companies are direct rivals dissolve earlier than joint ventures in which both parent companies operate in different markets.**

Kogut (1989) found that joint ventures can be expected to be more stable when the norms of reciprocity or the potential to retaliate are greater. Teece (1992) described that the commitment to jointly own the venture as decided by the equity position places the partners in a mutual hostage situation whereby opportunistic behavior can be minimized. However, opportunistic behaviour is the most common in a relationship between two rivals and in multiple researches has been proven that opportunistic behaviour is most often the reason for termination of joint ventures. Opportunistic behaviour means that a partner neglect agreements and attaches greater importance to its own 'gainmanship' (Williamson, 1985). When trust between the parent companies is low, they will allow less vulnerability and they will introduce a greater amount of monitoring tools (Brown et al., 1989). Consider a case in which partners cooperate, while they know they will become competitors again after the mission of their joint venture is accomplished. Both partners would be willing to invest time and effort expecting to get benefits out of the collaboration. However, because the partners know that their current intentions are not sufficient for the period after the joint venture has accomplished its mission. They could act opportunistically by withholding important information or cheat on each other (Park & Ungson, 1997)(See Appendix A).

Furthermore, partners from the same sector will start joint ventures for other purposes than companies from two different sectors. Similar companies will use the joint venture for smaller innovations to guarantee the entry-detering investment, while for the big innovations companies choose to research on their own to get an edge over their competitors because the profit range is so big these are profitable despite the expensive research (Vickers, 1985). Shortly, it is to be expected that rivals who start a joint venture together will terminate the cooperation sooner.

To prove these hypotheses this thesis will use a self-made dataset from the Thomson SDC Platinum database. In the used database on joint ventures, there will be differentiated on multiple factors. These factors will be the origin of the parent companies, the stake they posses in the joint venture and whether both parents are competitive in the same main sector or not. The factor origin will be used in two different ways to investigate whether the companies are culturally distant and to find out whether they were formed in a highly developed or a less developed country. Several regressions and a survival analysis will be carried out to find out whether globalisation and technological developments have had an impact on the stability of joint ventures. The stability of joint ventures will be defined as their longevity because longevity has been used the most as an indicator of success and stability of joint ventures in earlier research (Geringer & Hebert, 1991; Lu & Beamish, 2006).

## **Review of literature concerning economic integration and joint ventures and their stability**

### **1. Integration**

#### **1.1 Horizontal integration**

The joint venture is a form of integration. Integration takes two different forms: horizontal and vertical integration. Horizontal integration is the merger or cooperation of companies that operate in the same layer of the vertical supply chain, for example a company that offers rides with a cab employs an independent cab driver who offers rides with his own car that is horizontal integration. When this new cab driver offers rides in a part of the city where the company did not offer rides before the employment, then horizontal integration leads to a larger market base for the merged firm (Cai & Obara, 2009). The main reason to horizontally integrate is to enlarge a company's target market. Horizontal integration is not only used in the domestic market. Caves (1971) described that international corporation's plans are directly comparable to business decisions opting for familiar forms of domestic expansion. International horizontal integration is especially attractive when a company has a unique asset over the competitors in the foreign markets, but cannot make maximum profits in the foreign market without foreign production. This can be the case due to export or import tariffs or huge transportation costs (Caves, 1971). Shortly, horizontal integration is most often used to entry new geographical markets.



A second reason to integrate horizontally is to enlarge market share in the domestic or the foreign market. Mergers and acquisitions are the most common strategies to increase a company's market, but they usually go hand in hand with enormous sums of money. An increased market share is attractive, because a bigger market share gives a company a stronger bargaining position. Firms that possess a lot of bargaining power do not need to own vertically related units to enjoy the advantages of owning them (Harrigan, 1985). On the other hand, this competitive strategy is risky because outsiders can influence the company's market share and therefore their bargaining power fluctuates. When their bargaining power decreases the suppliers will be in a better negotiating position and demand more from the firm than they could before.

## 1.2 Vertical integration

### 1.2.1 Transaction costs economics

Vertical integration involves a variety of decisions concerning whether corporations should provide goods and information in-house or purchase them from outsiders (Harrigan, 1985). There are several reasons to vertically integrate instead of purchasing from suppliers. Transaction cost economics is the most important reason for vertical integration. Coase (1937) is considered the founder of transaction costs economics in the modern economy. He expressed that companies choose to vertically integrate when the transaction costs are so high that producing it themselves is more profitable in the long run. He concluded that transaction costs can be minimized, but will never be zero. If transaction costs would be negligible then organizational structure would be irrelevant, since any advantages of one organizational mode over another will be eliminated by costless contracting (Williamson, 1979). Transaction costs are all the costs involved in transactions except the production costs. This includes the costs of any mechanism that is needed for coordinating the actions of individuals, such as planning and negotiating the terms of exchange between two or more parties. The costs of changing plans later, renegotiating terms and resolving disputes belong to transaction costs as well.

The costs of transaction are created by the price mechanism. The price mechanism includes all the activities that are needed to come to an agreement. On the one hand, the price mechanism creates an incentive to use long-term contracts, because making contracts is expensive. On the other hand, long term contracts create an incentive for the partners to neglect the agreements of the contract, because the other party will not easily terminate the contract (Coase, 1937).

Williamson (1979) described transaction costs economics as different modes of organizing transactions that minimize the transaction costs. The optimum organizational structure is a structure that achieves economic efficiency by minimizing the costs of exchange (Williamson 1979, 1986). Transaction costs vary a lot between different sectors, this makes them hard to determine. Williamson described four

factors that should be taken into consideration when estimating transaction costs. Namely, asset specificity, frequency of the exchange, uncertainty and the threat of opportunism. Changes in these factors shift the weighting in decision making between producing in-house or purchasing from suppliers. Asset specificity, frequency of the exchange, uncertainty and the threat of opportunism are the fundamentals for the parties their bargaining power. Bargaining power determines to what extent a party has influence on the terms of an exchange. On some occasions, the firm with the stronger bargaining position can enjoy the benefits of owning the upstream or downstream establishment without actually owning it, because the other firm is heavily dependent on the firm with more influence (Harrigan, 1985).

Firms will expand until the point where doing an extra internal transaction costs as much as carrying it out in the open market. Internal transactions become more expensive as they become more because of the diminishing returns on the entrepreneur in the firm (Coase, 1937). When the entrepreneur does not have enough time to accomplish all his tasks in the process of a transaction adequately then it is better to outsource the transaction.

#### 1.2.2 Market conditions

Harrigan (1985) found that the choice in the vertical integration decision is not only a function of transaction costs. Market conditions also determine whether vertical integration will be a profitable business decision. Difficult market conditions create uncertainty, when demand is declining due to systematic reasons the likelihood of insufficient sales increases. Uncertainty discourages vertical integration, especially for separate business units that became heavily dependent on each other for product transfers. Uncertainty usually creates variability in the demand and especially for firms who depend on a few customers variability creates an insurmountable problem. The number of integrated layers in organizations will therefore be low in uncertain industries. Furthermore, vertical integration will be less common in industries in their infancy, because those are highly uncertain as well. Changing circumstances create changing preferences from customers and therefore it is very difficult to invest in the right upstream or downstream establishment. Furthermore, Harrigan (1985) found more integrated stages appeared in steadily increasing industries. Thus, vertical integration in multiple stages is common in steadily growing industries but does appear sporadically in highly uncertain industries.

Competition determines the degree of vertical integration as well. Fierce competition decreases the attractiveness of vertical integration. Competition is more volatile in industries where technology changes rapidly and businesses try to steal each other's market share by price cutting. In these

conditions, vertical integration is more costly for firms to sustain, particularly for firms who make customized products for specific customers instead of standardized models (Harrigan, 1985).

## **2. Corporate relationships**

Cooperation between two separate business units and starting a joint venture are both modes to expand markets, enter new markets or gain competitive advantages. They can both be used in a horizontal as well as a vertical relationship. There are multiple similarities between cooperation and starting a joint venture. Firstly, in both cases experience with cooperating has a positive effect on the longevity of the corporate relationship (Barkema, Bell & Pennings, 1996). Especially in an international relationship, companies that already had experience with cooperating with a partner from another culture were more successful than companies without any experience. This success can be ascribed to the learning effects of earlier cooperation and the acquired knowledge about the culture of the partner company. Secondly, the goals of cooperation between separate companies are similar to the goals of joint ventures. Namely, entering a new market, most of the time an international market (Agarwal & Ramaswami, 1992), or taking advantage of the valuable knowledge of the partner company. Finally, reputation is of major importance for both. Upholding one's good reputation is considered to be essential when partners anticipate later interactions with each other, or interactions with other possible partners in the future (Park & Ungson, 1997).

However, multiple modes of corporate relationship do not exist without reason. There are several differences and pros and cons between the different modes those will be addressed in the next section.

### **2.1 Mergers and Acquisitions**

First, mergers and acquisitions will be discussed. Those will be discussed together because after the process of a merger or an acquisition, the result is one company with one board whose purpose is to optimise that company's results. The structure that remains after the merger or acquisition is fairly simple. Mergers and acquisitions are a form of integration and can be either vertical or horizontal. However, the degree of integration varies between mergers. Sometimes companies merge for financial synergy only and on other occasions they merge their whole production process, acquisitions more often have the goal to be integrated in an existing production process in a firm (Shrivastava, 1986).

The benefit of mergers and acquisitions is that they do not create a reason to behave opportunistically, because if there was any rivalry that disappeared with the collision of the companies.

In a merger, two organizational cultures are combined. The extent to which the various organizational structures of the merging firms will be combined is determined by the implementation strategy. The implementation strategy depends on the type of merger and the motive to merge (Nahavandi & Malekzadeh, 1988). The combination of various organizational structures can lead to complications,

but there is no way back since the ancestors of the merged companies seized to exist with the merger. The integration of culture is heavily dependent of the relatedness of the two ancestors from the company which counts as the result of the merger. In related mergers, the acquirer is more likely to impose its own culture and practices on the acquired company (Walter, 1985). Logically, in an acquisition the acquirer persists its own organizational culture.

## 2.2 Joint ventures

### 2.2.1 The joint venture

The joint venture is an organizational structure that has been growing in popularity ever since the data is kept (Zephyr, 2020). Recently, even US multinationals who were long noted for their penchant to own subsidiaries outright rather than sharing ownership, have been willing to consider a joint venture when starting a new business (Anderson, 1990). The joint venture is defined in many ways in previous research. In essence, the joint venture is a new company created by two or more existing companies with a goal that the parent companies believe is accomplished more successful, sooner or cheaper by cooperating. The goal of a joint venture can vary from entering a new geographic market to accelerating technological development. However, the goal of the two parent companies is not always identical. In the case of two companies who start a joint venture, both with a different goal, there are three goals in total. The joint venture itself has a goal as well, for example profit maximization. It is to be expected that a company with a goal different than the goals of its shareholders is less stable than a company in which everyone's goal is profit maximization (Park & Ungson, 1997).

The allocation of shares in a joint venture most often is commensurate to the extent of equity participation. Through joint equity contributions, the partners commit themselves to the venture, sharing proportionately in the gains and losses. Buckley and Casson (1988) Argued that joint ventures are mechanisms by which to enforce "mutual forbearance" among the partners. However, initial equity shares are unlikely to perfectly reflect the rewards to cooperative action (Kogut, 1989). Often, the allocation of shares in a joint venture is unequal. Several researches (Killing, 1983; Aldrich, 1979) found out that organizational size was related to corporate culture and in which size differences between partners affected joint venture performance. The size of the parent firms is positively related to their share in the joint venture (Lu & Beamish, 2006). Companies should be of equivalent size so that there is equally as much at stake on each side and optimise the joint venture performance (Park & Ungson, 1997).

### 2.2.2 Differences between joint ventures and mergers and acquisitions

Joint ventures and mergers or acquisitions are all modes of integration and can be used for comparable reasons. Nevertheless, they differ on multiple major issues in organizational structure. A joint venture

straddles the border of two firms, it differs from contracts insofar as cooperation is administered within an organizational hierarchy. It varies from an integrated enterprise in so far as two or more firms claim a share of ownership to residual value and control rights over the assets (Kogut, 1988). The result from the process of creating a joint venture is three separate entities which all have their own goals and own board. However, the boards of the parent companies are the main shareholders in the joint venture. The board of a joint venture has the task to keep the parent companies i.e. their shareholders satisfied as well as to accomplish the goal of the joint venture. Joint ventures perceived by their parents as performing more successfully are more likely to remain in operation (Geringer & Hebert, 1991).

Further, the amounts of money involved in starting a joint venture are relatively small compared to mergers and acquisitions. Mergers and acquisitions often involve tons of money. "The joint venture mode involves relatively lower investment and hence provides risk, return, and control commensurate to the extent of equity participation of the investing firm" (Agarwal & Ramaswami, 1992). This is a reason for smaller companies or multinationals, which do not have tons of cash, to invest in the cheaper joint venture. Joint venture arrangements allow parents to share costs and risks and make use of each others complementary assets and skills (Harrigan, 1985). Long-term uncertainty is reduced at a lower cost than through pure hierarchical or market approaches (Beamish & Banks, 1987). All reasons to invest in joint ventures will be discussed in the next segment.

### **3. Reasons to create a joint venture**

#### **3.1. Entering new markets**

Firms are increasingly entering new global markets, looking for cost advantages through lower labour costs in foreign countries and following the demand for their product. Barkema, Bell and Pennings (1996) showed that firms entering the global game face cultural adjustment costs, especially when they engage in double layered acculturation, such as joint ventures. However, they also discovered a learning curve for expanding firms. Previous experience with joint ventures or other forms of double layered acculturation in the same country decreases the cultural adjustment costs over time. The centrifugal expansion patterns are more successful than a random strategy. In the long-term, the advantages of the joint venture outweigh the initial cultural adjustment costs (Barkema et al., 1996).

The choice to enter by a joint venture is influenced by the size of the targeted firm relative to that of the partner firm, by the characteristics of the industry and by the cultural characteristics of the countries where the partner firms are established (Caves & Mehra, 1986; Kogut & Singh, 1988).

Furthermore, the choice to enter a market by joint venture depends on the size of the company and the conditions in the targeted market. Doz (1988) expected that the size of the company would be

positively correlated with the propensity to enter foreign markets and to choose for sole and joint ventures in particular. The preference for sole ventures is not surprising, while the choice to establish joint ventures can be explained by the fact that larger organizations will be less concerned about the potential possibility of exploitation by the host country partner than smaller organizations. Agarwal and Ramaswami (1992) came to the conclusion that the joint venture is preferred by larger and more multinational firms as well. However, they also found that smaller less international firms used joint ventures, especially to enter high growth potential markets.

### 3.2 Risk

In the joint venture, the partner companies share gains and losses commensurate to the extent of their equity participation. Shared ownership decreases risk because a part of the risk is shifted to a partner. This partner most often has its own qualities and can, for example help in negotiations with the host government that reduces investment risk as well (Agarwal & Ramaswami, 1992).

Contractual risks are also a reason to start a joint venture. Contractual risks are higher in less developed countries with less organized juridical systems, in a foreign market a firm is heavily dependent on its ability to enforce contractual obligations by the partner firm. For example, firms do not wish to export equipment to The Middle East, because regardless of the nature of the contract the equipment becomes property of the ruler of the nation whereto is exported. Starting a joint venture there and operating in the framework of domestic laws is safer in such cases (Agarwal & Ramaswami, 1992).

However, starting a joint venture does not only reduce risks, it also contains one major risk. Namely, giving up knowledge that leverages one company over its competitors. This risk is smaller when the product has the long-term potential to remain differentiated (Harrigan, 1988). When a joint venture grows and the market uncertainties have been resolved the initial need to share risks in emergent industries lessens. Thus, the attractiveness for further cooperation lessens as well (Kogut, 1989). So after the cooperation demises, the leveraged company's product will on most occasions still be differentiated.

### 3.3 Acquiring knowledge

Some companies form joint ventures primarily to gain core skills that would be very difficult for them to obtain on their own (Murray & Siehl, 1989). Both companies in a joint venture have different characteristics and methods, they bring these into the joint venture. The joint venture is used for the transfer of organizationally embedded knowledge which cannot be easily blueprinted or packaged through licensing or market transactions (Kogut, 1988). Those transfers encourage the joint venture if neither party owns each other's technology, nor understands each other's routines. Following Nelson and Winter (1982), firms decide to joint venture in order to retain the capability of organizing a

particular activity while benefitting from the superior production techniques of their partner. In this situation the difference in the value of options to exploit future opportunities drives the choice to joint venture.

The joint venture is encouraged under two conditions if it was formed to obtain knowledge: one or both partners wish to acquire organizational know-how or one firm desires to maintain an organizational capability while benefitting from the partner's knowledge or cost advantage (Kogut, 1988). However, no company would agree with this if it would not benefit itself. Thus, this idea suggests that the stability of joint ventures depends on the complementarity between the partners in the joint venture (Park & Ungson, 1997).

#### 3.4 Resource availability and innovations

Both parents commit resources, personal as well as material, to the joint venture. By committing resources to the joint venture the parent companies come in a situation of "mutual forbearance" to each other. Companies choose to commit their resources to a joint venture, because they are not able to deal with the difficulties on the road to success on their own. Joint ventures flourish within slowly growing industries. In these industries, projects grow larger and more risky. Larger projects mean that the projects become more expensive, probably too expensive to afford alone. Further, global competition increases in a growing industry, this will make it difficult for independent companies to survive independently. Firms must shrink productive capacity for their own good or through marriages to avoid a price warfare (Harrigan, 1988). Under these circumstances, companies choose to join forces and establish a joint venture. Firms choose to hand in their sole ownership to overcome the diseconomies of acquisition in the market. The diseconomies of acquisition consist of the costs of divesting or managing unrelated activities or the higher costs of internal development (Kogut, 1988).

The same applies to innovations. Vickers (1985) showed that for small innovations a joint venture is an effective mechanism to guarantee the entry-detering investment. For the big innovations firms choose to do research independently, because of the larger profit range which compensates for the more expensive research. The joint venture is important in innovations to counter free-rider problems. In the absence of collusion, incumbents tend to underinvest collectively.

#### 4. Dissolution of joint ventures

Previous literature made clear that joint ventures are less stable than other companies. They tend to dissolve in an earlier stage than others (Blodgett, 1992; Parkhe, 1993). This is not only attributable to the liability of newness, there are multiple reasons for the dissolution of joint ventures those will be examined in the next section.

#### 4.1. Cultural distance

Joint ventures are often a cooperation between two firms from different countries. Different countries do often have different cultures in many aspects. However, nationality alone does not fully capture cultural values, national boundaries delineate the legal, political and social environments within which organizations and workers operate (Ronen & Shenkar, 1985). The high rate of dissolution of joint ventures is generally based on the proposition that differences in cultural values can increase misunderstanding between partners and that culturally distant joint ventures experience greater difficulty in their transactions (Brown, Rugman & Verbeke, 1989; Lane & Beamish, 1990). With the cultural distance the differences in organizational practices, employee expectations and interpretation of and response to strategic issues grow (Kogut & Singh, 1988). Accordingly, the communication between cultural distant partners will be more difficult, compounding the coordination problems in any corporate relation. This leaves joint ventures vulnerable to managerial conflicts and early dissolution (Camerer & Vepsalainen, 1988; Lane & Beamish, 1990).

Whenever a firm cooperates with a foreign partner in a country where it has not done business before problems of understanding and adapting to another culture always exist. In the beginning, the differences in ambient cultures may lead to a web of fear and mistrust that increases cheating and perceptions of cheating in joint ventures (Brown, Rugman & Verbeke, 1989). When time passes these risks decrease, according to Barkema, Bell and Pennings (1996) learning between partners offsets cultural differences. Prior relationships create trust and familiarity (Gulati, 1995; Kogut, 1989). Mutual understanding of each other's economic and cultural philosophies and practices is necessary to improve the management's information about their partner and to make the joint venture succeed. Acquiring this knowledge, let alone embedding it into the organizational structure of the multinational enterprise is a major challenge (Adler & Doktor, 1986; Brown, Rugman & Verbeke, 1989). Compatibility between partners is an indispensable factor in the endurance of joint ventures, the differences between national cultures if not understood lead to poor communication, distrust and eventually dissolution of a venture (Lane & Beamish, 1990).

#### 4.2. Decision making control

Control in a joint venture is defined as the authority to make decisions, it refers to a parent's need to influence systems and decisions (Anderson & Gatignon, 1986). Decision making control can either be shared equally or dominated by one of the partners. Higher control results from having greater ownership in the venture (Agarwal & Ramaswami, 1992). Although, Lane and Beamish (1990) doubt that assumption, they found that ownership percentage does not necessarily determine the control of a parent. Majority ownership with a clearly better developed partner can reflect a lack of trust in the less developed partner, this creates a barrier to success. The shared control over a joint venture can



create conflicts when the parents disagree about differentiation, access to markets or product presentation (See appendix A). Shared control makes joint ventures too inflexible if the basis for competitive advantage is volatile unless partners agree that their cooperation is temporary in nature (Harrigan, 1988).

Further, in joint ventures the partners are likely to be rivals over the residual claims and the control over the operating management. Rivalry creates suspicion, whether this leads to termination is a function of future benefits and reciprocity. The suspicious thoughts increase instability in the venture, because it decreases the commitment to the overall partnership (Kogut, 1989).

#### 4.3. Goal accomplished

Joint ventures do not always dissolve because of friction between the partner companies due to poor communication or a lack of adaptability to changing circumstances due to control issues. Some joint ventures dissolve after accomplishing the goal they were established for (Kogut, 1989). Joint ventures are extraordinary, parents can perceive a venture as unsuccessful despite good financial results or continued stability. On the other hand, joint ventures may have been meeting or exceeding the parents' objectives despite disappointing financial results or instability then they will be considered successful (Geringer & Hebert, 1991). Geringer and Hebert (1991) also found that joint ventures perceived by their parents as successful remain in operation longer than ventures that were evaluated as less successful. The stability of joint ventures in general can be affected by the positive and the negative reasons for dissolution.

#### 4.4. Opportunistic behaviour

Previous studies (Park & Ungson, 1997) have shown that the main reason for the dissolution of joint ventures is opportunistic behaviour from one or both partners. Opportunistic behaviour is the pursuit of self-interest and neglecting the interests of the joint venture and the partner. Opportunistic behaviour is often a form of short term "gainmanship". The balance between long term benefits and opportunism in a joint venture is heavily dependent on the relationship between the partners (Park & Ungson). With the commitment to jointly own a joint venture a mutual hostage situation that should minimize opportunistic behaviour arises (Teece, 1992). However, cheating on a joint venture partner is still common.

Joint venture partners can be competitors with a need to cooperate in an early stage of an enterprise, but they are aware that they will be competing against each other later on. The partners are willing to put in effort and time in anticipation of the benefits, even when they know the collaboration is temporary. However, the partners are aware that their intentions are only sufficient in the early stage. Therefore, they can act opportunistically by providing false information, withholding important

information or cheating (Brown, Rugman & Verbeke, 1989). When one or both of the partners possesses the ability to develop differentiated products, it runs the risk of loss of long-term revenues through sharing specific knowledge. The partner may acquire the knowledge and choose to operate as a separate entity in the future (Poole & Van de Ven, 1989)

The envisaged benefits of opportunistic behaviour create the incentive to cheat. When one of the partners expects to better off by cheating the joint venture is not likely to be viable for much longer. Therefore, joint ventures succeed when both partners have a firm specific advantage (FSA) and these advantages complement each other. Efficient safeguards need to be created to prevent the partners from acquiring each other's FSAs and terminating the venture. Safeguards monitor whether both partners keep to their end of the deal. These safeguards give the partners the power to punish each other when neglecting arrangements or cheating. Safeguards make the partners less vulnerable, because they abstain the partners from opportunistic behaviour. The costs of cooperation arise from the risk of opportunistic behaviour in the context of vulnerability (Brown, Rugman & Verbeke, 1989). These costs can be decreased when the partners trust each other. Trust attenuates opportunistic behaviour, but it takes time to build trust. Further, familiarity enhances transparency and reduces the costs of monitoring (Park & Ungson, 1997). Therefore, the trust between partners that have had prior relationships as well as cultural and organizational similar companies is greater in general (Gulati, 1995; Kogut, 1989). When trust is greater, only limited explicit safeguards are necessary and more vulnerability is acceptable (Brown, Rugman & Verbeke, 1989)(see Appendix A).

### **Data**

The performance of joint ventures is difficult to measure, because a joint venture can be successful for one partner while it was unsuccessful for the other (Anderson, 1990). Longevity is not in all cases a good measure for the performance of a joint venture, because some joint ventures are created to solve minor inconveniences or develop small improvements to a production process. Those smaller developments can be achieved quickly and the joint venture will dissolve shortly after the goal is accomplished (Geringer & Hebert, 1991). Therefore, this thesis will not try to determine the performance of joint ventures, because performance is a multidimensional phenomenon that covers too many factors (Mitchell, Shaver & Yeung, 1994). Due to the difficulties to measure performance, this research will be into the stability of joint ventures. Stability is defined as the longevity of the joint venture and commonly seen as an important indicator of joint venture performance.

To determine whether the hypotheses must be rejected or confirmed a dataset from 194 terminated private and public joint ventures from all over the world which were established between January 1st 2000 and December 31st 2009 will be used. In the dataset there are only joint ventures with an

ownership distribution from at least 30 percent ownership for both partners, if the stakes were unavailable they were adopted as equal. The data is acquired from the SDC Platinum database (2020) on joint ventures and contains characteristics from the joint venture as well as from the parent companies: longevity, cultural background of the parent companies, whether the home countries of the parents are developed countries, the stake the parent companies own in the joint venture and whether the parent companies are rivals in their product market.

Firstly, the longevity is measured, the stability of joint ventures is defined as the time they are in operation. The longevity is measured to get a view of which of the upcoming variables have an impact on the stability. Longevity is not a measure of success. In this research, it is not possible to identify whether a joint venture was successful by accomplishing its goal and is therefore terminated or whether the joint venture could not live up to the expectations and was reviewed as a failure. To differentiate between successful and unsuccessful more explicit company data would have been needed. That company data was not available in the dataset, without the information from the involved companies themselves it would be educated guesswork whether the joint venture was successful and that would call the validity of the research into question.

Secondly, the cultural backgrounds of the parent companies that establish a joint venture together will be examined to find out whether intercultural joint ventures are less stable than joint ventures established by two companies with a similar cultural background. Ronan and Shenkar's (1985) figure about cultural blocks will be used to determine which companies have a similar cultural background (Appendix B). In the dataset are companies with diversified cultural backgrounds to get a view of the effect of the combination of cultures on joint venture stability.

Thirdly, the home countries of the parent companies are determined as highly developed countries and lower developed countries. Countries are defined by GDP per capita. Countries with a GDP per capita above \$10,000 at the end of 2008 are determined as highly developed countries and countries with a GDP per capita that does not reach the benchmark of \$10,000 are determined as less developed. The data concerning GDP per capita from every country originates from the International monetary fund's world economic outlook database (April, 2019). After that, a dummy has been made called "developed" which will take the value of 1 when both parent companies are originated from highly developed countries. When either one or both of the parent companies are originated in a lesser developed country the value of the dummy is equal to zero. Development could not be a linear variable, because it is challenging to determine how developed as there are numerous factors that influence development. Besides that not every country is developed in the same factors and not all

factors such as behaviour are measurable. A list of the countries involved in the dataset and whether they are determined as highly developed or lesser developed countries can be found in Appendix C.

Fourthly, the effect of the share of the stakes the parent companies possess on the stability of joint ventures will be examined. Previous studies (Killing, 1983) have shown that in the previous century the size of the partners had an impact on the stability of the joint venture. Both parents should have an equal stake, because in those situations both partners will be equally committed to the venture. The dummy that has been created takes the value of 1 when the stakes are equally divided between the parents.

At last, the markets in which the parent companies of the joint venture compete are subject of research. Previous literature (Blodgett, 1992) has proven that joint ventures established by competitors tend to seize earlier than joint ventures wherein both partners do not compete with each other. Companies are seen as rivals in this dataset when they compete in the same product market. This means that companies who, for example, both supply energy but one supplies coal and the other electricity are not seen as rivals. The dummy "Rivals" takes the value of 1 when the parent companies are competing in the same product market. By measuring the longevity of the joint ventures a conclusion can be drawn about the effect of competition between parents.

### **Methodology**

To determine to what extent the stability of joint ventures has been influenced by globalisation and organizational and technological developments ordinary least squares (OLS) regressions will be carried out. These will give correlations between the variables and the stability of joint ventures. To measure whether the factors have a significant effect or not the confidence level will be set at 5%. This means that the effect of the investigated factors on the longevity of joint venture is significant, when the P-value is smaller than 0.05. The results provide an insight into the reasons why joint ventures dissolve if they still dissolve as often as they did in the 90s of the previous century. The goal of this research is to get a view of joint ventures in general, which are likely to survive for a long time and which are doomed to perish quickly.

To create an as complete as possible view survival analysis will be carried out as well. Survival analysis is time to event analysis and measures the time until the termination of joint ventures. Kaplan-Meier estimators will be determined for all the influential variables in order to make visible to what extent the corresponding variable has an effect on the termination of joint ventures. The Kaplan-Meier estimator gives the survival rate of joint ventures over time. A comparison of the Kaplan-Meier survival estimators, between the group with and the group without a certain characteristic, gives a more complete view of the effect of the variables.

Furthermore, a Cox regression will be carried out to determine the effect of the variables on the hazard rate of the termination of the joint ventures. The hazard rate is a predicting variable associated with the chance of termination happening over time. It is the probability that an individual will experience an event in a certain unit of time while that individual is at risk of having an event. The hazard rate is the ratio of hazard rates corresponding to the examined variables. In this research joint ventures can have two levels of every explanatory variable, they can have the score 1 or 0. The group without the characteristic has the score 0 for this characteristic and is the control group. The hazard rate compares the control group and the treated group which has a score of 1 for the characteristic. Thus, when the hazard rate for a characteristic is 1.5 this means that joint ventures terminate one and a half times as fast as joint ventures without this characteristic. The confidence level for the hazard rate will also be set at 5%.

On top of that, the termination rate of joint ventures will be compared over time to see if there is a drop in the amount of terminated joint ventures. This is to investigate whether joint ventures are still highly unstable or if they have become more stable over the years due to globalisation and all sorts of developments. The termination rates will be examined over the years starting in the year 1980 onwards up to the end of 2009. It is expected to see a drop in the joint venture termination rate after the introduction of the internet in 1991. The termination rate shall also be influenced by the increased popularity of joint ventures in the past decades.

## Results

Table 1

*The effects of 5 explanatory variables on the longevity of joint ventures. N=194.*

<b>Longevity</b>	<b>Coefficient</b>	<b>Std. Err.</b>	<b>t</b>	<b>P&gt; t </b>	<b>95% Confidence Interval</b>	
<b>Equal stake</b>	284.00	178.84	1.59	0.114	-68.79	636.78
<b>Developed</b>	-570.77	196.33	-2.91	0.004	-958.05	-183.48
<b>Same country</b>	656.98	295.17	2.23	0.027	74.71	1239.244
<b>Cultural distant</b>	404.82	289.24	1.40	0.163	-165.74	975.39
<b>Rivals</b>	-725.08	172.37	-4.21	0.000	-1065.12	-385.04
<b>Constant</b>	1692.06	331.16	5.11	0.000	1038.79	2345.33

Table 2

*The hazard ratio computed by a Cox regression*

<b>Longevity</b>	<b>Hazard rate</b>	<b>Std. Err.</b>	<b>Z</b>	<b>P&gt; z </b>	<b>95% Confidence Interval</b>	
<b>Equal stake</b>	0.791	0.122	-1.52	0.128	0.585	1.070
<b>Developed</b>	1.444	0.247	2.14	0.032	1.031	2.020
<b>Same country</b>	0.509	0.129	-2.66	0.008	0.309	0.837
<b>Cultural distant</b>	0.637	0.160	-1.79	0.073	0.389	1.042
<b>Rivals</b>	1.697	0.252	3.56	0.000	1.268	2.271

For some variables the results are similar to what was expected, however, other variables stand out because they are counterintuitive at first sight. All the variables can be explained and give an understandable view of the effects on the longevity of joint ventures. Some of the hypotheses can be confirmed because the results give significant proof. Others can not be confirmed or must be rejected, because of counterintuitive results or an insignificant result for the effect of a variable. All hypotheses will be examined, however, this will not be done in the same order as before.

**H2: Joint ventures with at least one parent from a lesser developed country dissolve sooner than joint ventures with both parents from highly developed countries.**

The regression in Table 1 gives a striking result concerning this hypothesis and an earlier study (Beamish, 1985). Joint ventures with at least one parent from a lesser developed country do not dissolve sooner than joint ventures with both parents from highly developed countries. The result is exactly the opposite joint ventures with at least one parent from a lesser developed country on average dissolve almost 571 days later than joint ventures with both parents originated from higher developed countries. This result is significant at the chosen confidence level of 5% because the P-value is smaller than 0.05 (0.004). Table 2 confirms that joint ventures with both parents originated from a developed country dissolve sooner, 1.44 times sooner to be exact. This result is significant at the set confidence level as well. Figure 2 (Appendix D) shows the clear difference in survival estimates between the treated group and the control group. The significant difference can be explained from different sides: why do joint ventures with a parent from a lesser developed country survive so long or why do joint ventures with both parents from a higher developed country dissolve so early?

A possible explanation for the early dissolution of joint ventures with both parents from higher developed countries is the goal of the joint venture. When companies start a joint venture to realize an innovation that they cannot realize alone, their goal is not to have a long lasting venture. Their goal is to achieve what they want and then terminate the venture. Innovations are most often realized by companies with specific knowledge and those are most often found in higher developed countries. Most of the time these ventures are for small innovations (Vickers, 1985). Logically, realizing small innovations does not take as long as a healthy joint venture can survive. Therefore, joint ventures established by parent companies originated from higher developed country could dissolve earlier.

A second explanation is that parent companies from higher developed countries start a joint venture together in a lesser developed country, but lack specific knowledge about the local economy and culture. In those cases the parent companies struggle with adapting difficulties, experience in the

relevant market and country must be gained quickly. Therefore the partners must be committed to learn, otherwise the venture is destined to fail quickly (Barkema et al., 1996).

This matter can also be explained the other way around. Joint ventures formed by two parents from lesser developed countries are more stable, because they are often placed in one of the two countries. So, one or both partners have specific knowledge about amongst others the local economy, culture and the government. A second explanation for the longer survival of joint ventures established by parents from lesser developed countries is the standards of people in those countries. Quality business people in many developing countries are likely to be more relationship-oriented than people from developed countries, especially from the United States. The relationship-oriented business people take more time to select a partner before they do business, because the dissolution of a joint venture is seen as a failure in their culture. A longer and more accurate selecting process decreases the chance of early dissolution (Lane & Beamish, 1990).

**H4: Joint ventures in which both parent companies are direct rivals dissolve earlier than joint ventures in which both parent companies operate in different markets.**

The results clearly show that this hypothesis can be confirmed. Whenever two partner companies are competitors in the same product market their joint venture ceases to exist 725.08 days, approximately 2 years, earlier. Considering that the mean of longevity in this dataset is 1692.06 days, rivalry between partners almost halves the longevity of a joint venture. This result is highly significant, because the P-value of this result is 0.000 which is smaller than 0.05. Previous studies (Kogut, 1989) also showed that rivalry between partners has a significant negative effect on the longevity of joint ventures. The hazard rate in Table 2 shows this significant negative effect, joint ventures with rivaling parents terminate 1.7 times earlier than joint ventures without rivaling partners. The Kaplan-Meier survival estimator shows a clear distinction between the groups as well (Figure 5, Appendix D). Earlier studies (Kogut, 1988; Rugman et., 1989; Park & Ungson, 1997) gave opportunistic behaviour, which occurs more often in joint ventures with partners who compete against each other, as the main reason for earlier dissolution. They declared that trust in each other decreases opportunistic behaviour, but it is more difficult to trust a party that can benefit from your knowledge more than any other, especially, when the party benefits whenever your company is doing worse. Therefore, rivalry decreases the longevity of joint ventures.

On top of that, rivalry can have an effect on the stability in another way. Competing companies are often in pursuit of the same developments, which can give them a competitive advantage over others. However, when it concerns a small yet expensive development there is a chance competitors will choose to be allies for that matter. The newly formed allies establish a joint venture for those kinds of

developments. Logically, small developments are mostly realized quickly and the joint venture will not exist for more than a few months. This organizational mode is not suitable for bigger developments, their profit range is so big the expensive research will be off even when companies do it on their own (Vickers, 1985).

Table 3

*The effects of 4 explanatory variables on the longevity of joint ventures for joint ventures with parents that are not from the same country. N=134.*

<b>Longevity</b>	<b>Coefficient</b>	<b>Std. Err.</b>	<b>t</b>	<b>P&gt; t </b>	<b>95% Confidence Interval</b>	
<b>Equal stake</b>	517.84	205.09	2.52	0.013	112.04	923.64
<b>Developed</b>	-535.25	208.36	-2.57	0.011	-947.54	-122.97
<b>Cultural distant</b>	413.92	278.68	1.49	0.140	-137.50	965.34
<b>Rivals</b>	-744.85	201.23	-3.70	0.000	-1143.02	-346.68
<b>Constant</b>	1531.47	331.80	4.62	0.000	874.94	2188.00

*Table 3 has the same content as Table 1 without the observations of joint ventures which parent countries are the same, therefore the explanatory variable same country is omitted. 134 of the 194 original observations were used. Whichever countries are seen as culturally distant is found in appendix B.*

**H1: International joint ventures with different cultural backgrounds survive as long as national joint ventures.**

The regression in Table 3 has been done to examine whether cultural distance is significant at the conference level of 5%. The variable same country has been left out, because the correlation between the variables same country and cultural distant was extremely high (See Appendix D, Table 5) due to the assumption that companies originated from the same country have equal cultural values. All the joint ventures which had parents from the same country were eliminated from the dataset to come to a conclusion about the effect of cultural distance. Nevertheless, cultural distance is not significant, because 0.140 is bigger than 0.05. Therefore, it will not be possible to come to a reliable conclusion on the posited hypothesis.

The regression from Table 1 shows that the effect of two parents from the same country has a positive impact on the longevity of the joint venture. The joint venture survives 657 days longer when the parents are originated from the same country, this effect is significant because 0.027 is smaller than 0.05. Furthermore, the Kaplan-Meier survival estimator shows that joint ventures with both parents originated from the same country have a higher chance to survive for more than 5 years (Appendix D, Figure 3). Another clear indicator that national joint ventures survive longer is the significant hazard rate of 0.51. This hazard rate indicates that the chance of termination is approximately two times smaller for national joint ventures.

In this research companies from the same country could never be culturally distant, however Harrigan (1988) claimed that the cultural values of American companies could be further apart than the cultural



values of an American and a Japanese company. Being originated from the same country is a good measure for cultural distance, but does not imply equal cultural values (Ronen & Shenkar, 1985).

Despite the insignificance of the factor cultural distance, it can still be interesting to look at the results for cultural distance. Cultural distance had a positive effect on the longevity, it increases the longevity by 414 days. Furthermore, the hazard rate is negative for cultural distance joint ventures, meaning cultural distance decreases the chance of termination, however, this variable is insignificant as well. Therefore, these findings can not be counted as proof for the positive effect of cultural distance on joint venture longevity. In this research the hypothesis stating that international joint ventures with different cultural backgrounds survive as long as national joint ventures must be rejected. Nevertheless, a bigger dataset and more accurate information about the cultural values from the parent companies could prove that the developments have decreased the differences between cultures and increased the understanding of other cultures and therefore increased the longevity of joint ventures. In line with this statement Park and Ungson (1997) proved that cultural distance has a positive effect on longevity in contrast to previous studies (Brown et al., 1989; Camerer & Vepsäläinen, 1988; Lane & Beamish, 1990) and common beliefs that joint ventures formed by culturally distant parents are more likely to fail anymore.

**H3: Joint ventures in which one parent company has a bigger stake than the other parent company dissolve earlier.**

It is difficult to come to a conclusion on this hypothesis, because the results of the effect of both parents having an equal stake in the venture differ heavily between Table 1 and Table 3. Clearly, the effect of an equal stake is different in joint ventures with parents from the same country and parents from different countries. Table 3 shows a highly significant ( $0.013 < 0.05$ ) result of increased longevity by 517.84 days when both parents own an equal stake. While Table 1 shows an insignificant ( $0.114 > 0.05$ ) and less positive result. The hazard rate in Table 2 shows that an equal stake between the parents decreases the chance of termination compared to unequal stakes by approximately 0.8 times, however, this result is insignificant ( $0.139 > 0.05$ ).

For the joint ventures with parents from different countries sharing the stakes equally has a positive effect on the longevity corresponding with the theory of Beamish and Banks (1987). This result seems logical, because an unequal share distribution gives one of the parents more decision power which can cause tension between the partners causing dissolution. However, in spite of using similar reasoning Killing (1983) came to the opposite conclusion. In his theory parent companies should only have equal shares when their interests are equal and the companies are of equivalent size. Only whenever there is equally much at stake on each side shared decision making is the best option (Park & Ungson, 1997).

The regressions in this research do not give proof which strongly supports one of the theories. The results from Table 1 and Table 3 concerning the factor equal stake contradict one another. The hypothesis can not be confirmed. Nevertheless, it seems likely that joint ventures in which one of the parents has a bigger stake dissolve earlier. The dataset, namely, contains more than twice as many ventures with parents from different countries (134 to 60). When there are a few extraordinary observations in the small share of ventures with parents from the same country, the validity of the whole regressions decreases dramatically. Therefore, the results for the variable “Equal stake” in Table 1 are insignificant.

Table 4

*The amount of terminated joint ventures from the Thomson SDC platinum database between January 1st 1980 and December 31st 2009 divided in periods of 5 year.*

<b>Period</b>	<b>1980- 1984</b>	<b>1985- 1989</b>	<b>1990- 1994</b>	<b>1995- 1999</b>	<b>2000- 2004</b>	<b>2005- 2009</b>
<b>Total joint ventures completed</b>	15	1078	10771	12157	3046	2883
<b>Terminated within 5 years</b>	0	63	242	175	73	87
<b>Terminated within 10 years</b>	1	73	251	195	91	101
<b>Terminated now</b>	2	82	264	211	97	101
<b>Termination rate after 5 years in %</b>	0	5.84	2.25	1.44	2.40	3.02
<b>Termination rate after 10 years in %</b>	6.67	6.77	2.33	1.60	2.99	3.50
<b>Termination rate now in %</b>	13.33	7.61	2.45	1.74	3.18	3.50

The termination rate is the number of joint ventures dissolved or acquired by one of the parents or a third party. The termination rates from the SDC Platinum database cannot be seen as reliable on this occasion. For that, the termination rates are simply too low. Kogut (1989) found a termination rate of 43% after 5 years, despite Kogut's smaller dataset of 92 observations between 1975 and 1983. Other researches (Blodgett, 1992; Parkhe, 1993) also found that joint ventures are heavily unstable, however those researches did not give a clear termination rate. On the other hand, Beamish and Banks (1987) found in their dataset of 44 observations that the average longevity of a joint venture was 11.5 years. Beamish and Banks (1987) findings are somewhat contradictory to Kogut (1989). It is highly unlikely that the developments from 1975 up till 2009 have had an impact that explains the difference between the termination rate found in earlier researches and the termination rates from Table 4. The huge difference in termination rates can be explained by the fact that the used dataset contains public and private companies. The termination of a private company will most often do not give the information about an acquisition by one of the partners out publicly and when they do the manufacturer of the dataset will not always modify the dataset years later. Therefore, amongst other reasons considering the private companies the termination rates from the SDC Platinum are not reliable. Nevertheless, the

relative values of the termination rates do not lack reliability, because they suffer from the same inconsistencies. The termination rates in Table 4 can be used in comparison to each other, Table 4 shows a drop in the termination rates after 1990. Most researches on this matter were examined with data from the 1980s or earlier, so they do not exclude the possibility that the stability of joint ventures increased over the years. The drop after 1990 possibly is correlated with the introduction of the Internet among the general public in 1991. The Internet has been one of the most influential factors for globalisation and has decreased cultural distance. However, later on when the Internet became more developed the termination rates rose again, but this rise is probably dependent on the lower amount of observations. In conclusion, Table 4 shows that globalisation and all sorts of developments possibly increased the stability of joint ventures, however the results from Table 4 are inconsistent with earlier researches and therefore are unreliable for the calculation of termination rates.

### **Conclusion and Discussion**

This research has been about the effect of globalisation, technological and organizational developments in recent times on the stability of joint ventures. This thesis does not give strong proof that the stability of joint ventures has increased between 1980 and 2009. However, multiple indicators for an increased stability of joint ventures were found. Firstly, there is a drop in the termination rates from 1990 on, despite the lack of reliability of the used table in comparison to other researches. The drop in termination rates means that joint ventures dissolve less often and therefore are more stable.

On top of that, several factors have been found which have a significant effect on the longevity of joint ventures. The research gave strong evidence for the decrease of longevity and an increased chance of termination for joint ventures when they were established by parent companies from developed countries and by rival parent companies. The effect of the first factor is striking as it is the opposite of earlier research (Beamish, 1985), but can be explained by the difference between the countries where the parents are originated from and the country where the joint venture is established. This finding explained that knowledge about the local circumstances is essential to establish a viable joint venture. That rivaling parents are not beneficial for the longevity of a joint venture became clear in earlier research (Kogut, 1989) and has been confirmed again by this research.

Further, the research also showed factors with a positive effect on joint venture longevity. Joint ventures in which the parents had equal stakes and were from different countries tended to survive longer as well as companies with parents from the same country. These findings are consistent with intuitive thinking and previous literature (Beamish & Banks, 1987) on this subject. However, in the case of joint ventures with parents from the same country who have an equal stake this study gave a striking

result. The results did not give significant proof but indicated that the longevity of those joint ventures equal stakes have a negative effect. Killing (1983) found a comparable result.

At last, the cultural distance had an effect on the stability of joint ventures, however, the effect was insignificant. Regardless of the insignificance cultural distance seemed to have a positive effect on the longevity and the chance of termination of joint ventures, such as proven by Park and Ungson (1997). On the other hand, this finding is opposing to earlier research (Harrigan, 1988; Camerer & Vepsäläinen, 1988; Lane & Beamish, 1990). So, it seems to be that cultural distance was a downside for the stability of joint ventures in the past, but has become an advantage in more recent times.

Despite the findings of the investigation, it has also emerged that the characteristics used do not explain all developments in the stability of joint ventures. Why and when a joint venture collapses is highly dependent on individual characteristics. The longevity of joint ventures is heavily dependent on the incentives of both partners to establish a joint venture (Kogut, 1988), their selection process for a partner and the degree of commitment to the venture (Lane & Beamish, 1990). All those factors are difficult to measure without honest internal information from the parent companies. In this research, these factors were simulated by allocating characteristics to companies based on from which country they were originated from. These characteristics have explanatory power, but cannot match the explanatory power of individual characteristics.

Further, there are multiple factors which were not involved in this research, but could be of great importance for the stability of joint ventures. Firstly, the industry wherein a joint venture operates. Some industries like the mining industry have significant initial costs and are therefore a joint venture in this industry is less likely to terminate early, because the parent companies do not want to lose their investment. On the other hand, joint ventures in service-based industries do not have high initial costs, when the parent companies do not make every effort to keep the joint venture in operation the venture will dissolve sooner. However, when this research would have differentiated for industry the results would have been insignificant due to the size of the dataset.

Secondly, the size of the parent companies could have brought interesting results in this research. Larger companies are more interested in joint ventures, because they are less concerned to lose their firm specific advantages to their smaller partners (Agarwal & Ramaswami, 1992). On top of that, larger companies are most often older and more likely to have experience with corporate cooperation and international expansion. Barkema et al. (1996) found that learning effects have an impact on the success of international expansion, those learning effects derive from experience. Therefore, larger companies should establish more stable joint ventures. On the other hand, larger parent companies could be less committed to the joint venture than smaller parent companies. Especially when a big and

a small parent company have an equal share in the joint venture, the small company is likely to be more committed to the joint venture. Despite the equal stakes, the joint venture is not of the same importance to the partners. Park and Ungson (1997) proved that partners should be of equivalent size to increase the stability of joint ventures. Therefore, it would be useful to include the turnover of the parent companies in the regression.

Besides the effect of parent companies size, the difference between the shares of the parent companies can have an influence on the stability of joint ventures. In this research, a distinction has been made between equal and unequal shares between parent companies. However, it could be important to include the percentages of ownership for both parents to achieve a more complete view of the effect of the share of ownership on the longevity of joint ventures.

Apart from the examined factors and the factors which should be added to create a regression with more explanatory power, the dataset could be improved by adding joint ventures that were not terminated. In doing so, the results for the influential factors possibly differ from the results in this research, because the joint ventures that are still in operation could have deviating characteristics from the terminated ventures. The joint ventures that are still in operation will increase the average longevity and possibly change the effects of the used variables.

However, in the used dataset from the Thomson SDC Platinum the amount of terminated joint ventures is questionably low and if the joint ventures still in operation were included all the variables would become insignificant, because it is impossible to calculate the longevity for companies that are still in operation. A possible solution could be to make calculations with the estimated hazard rates like Kogut (1989) did as well. However, to give a trustworthy picture a bigger dataset is needed. With a small dataset there is no certainty that the hazard rates are reliable estimators that will prove to be correct in the future. In other words, the inclusion of joint ventures still in operation could be an asset to this research, but comes with threats for the internal validity.

As every research, this research leaves room for improvement. Nearly all variables in the executed regressions were dummy variables. For some of them such as rivalry, there is no other option because it is too difficult to measure to what extent two partners who form a joint venture are rivals especially as the intensity of the rivalry can change over time. For the variable same country there is also no better option than using a dummy, because a company is originated from a country and that won't change over time. However, for others it can be measured to what extent they differ instead of only using the fact that they differ. For the variable "Equal stake", the percentages of ownership could be included in the regression. Cultural distance is a special variable in this regard, Hofstede (1980) manufactured an index to calculate cultural distance between organizations. Specific information is

essential to make use of this index and therefore it will be difficult to make a linear variable. However, when this is accomplished a more complete view of the stability of joint ventures can be created.

In conclusion, this research does not provide strong proof for an effect of globalisation, technological and organizational developments on the stability of joint ventures. However, the research has confirmed that certain variables have significant effects on joint venture longevity. Besides, the indicators which point out that joint venture stability has increased over the years.

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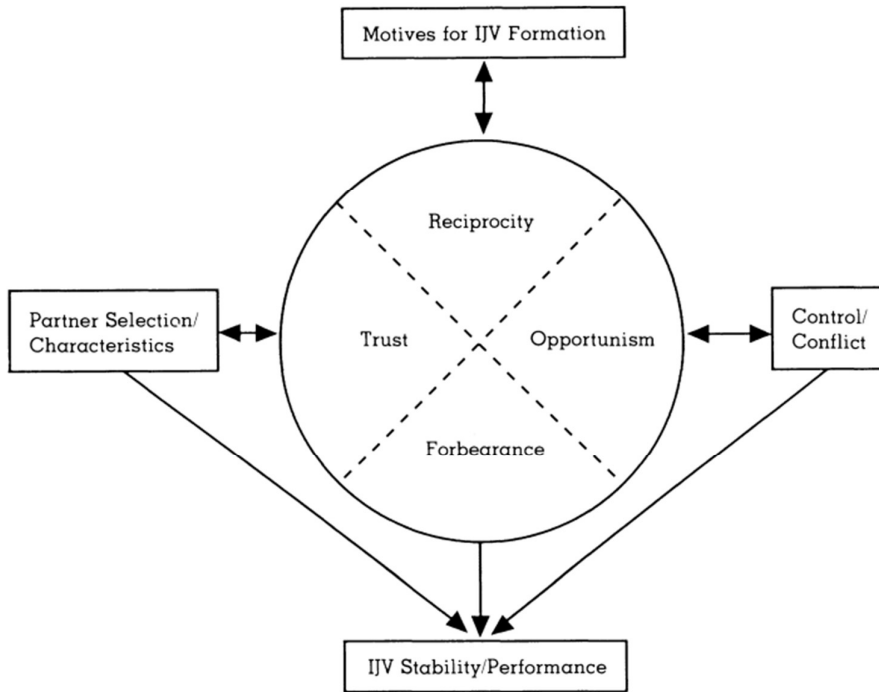
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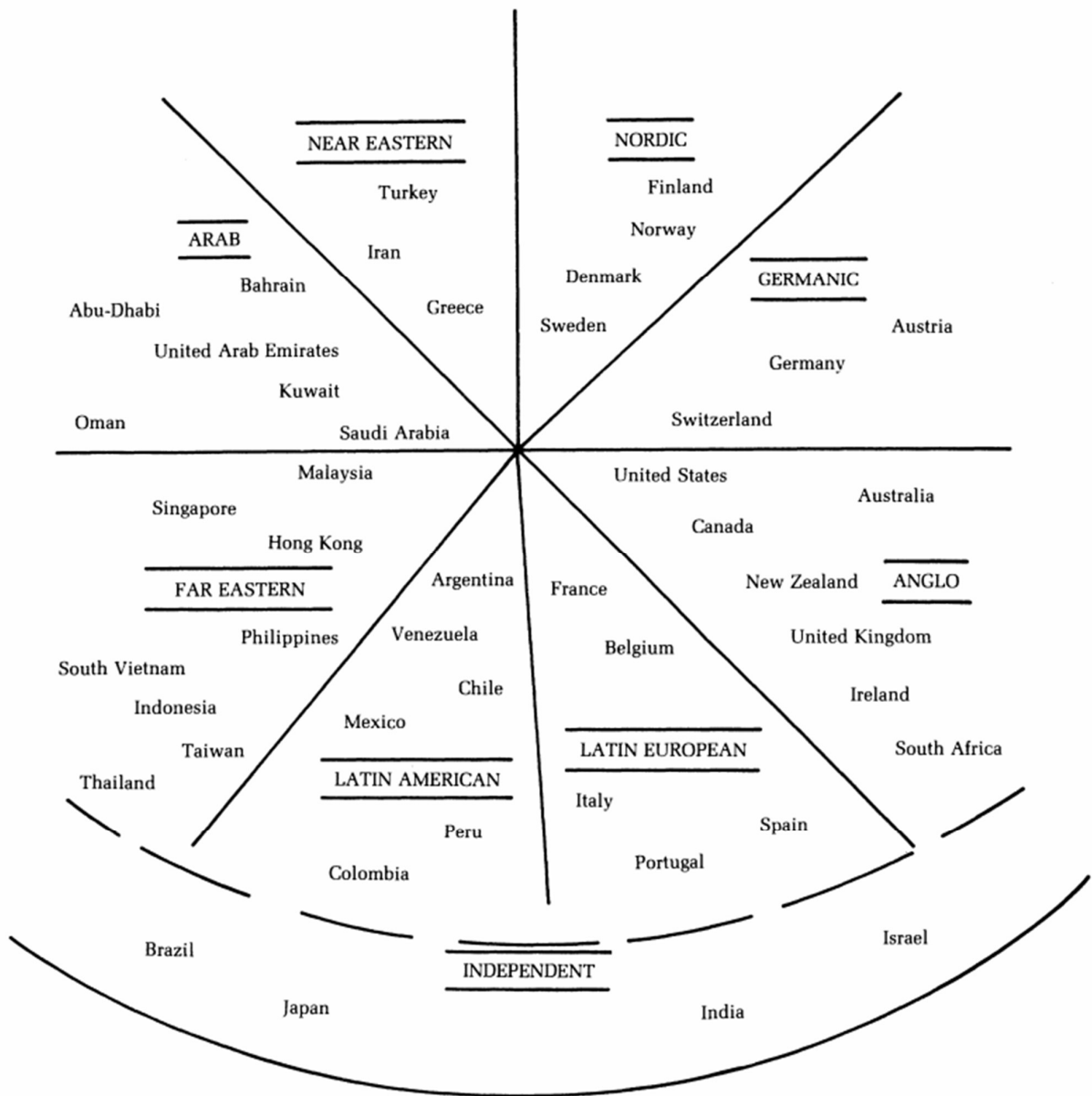
Appendix A

**FIGURE 2**  
**Integrating Research in IJVs**



Retrieved from Parkhe, A. (1993). "Messy" research, methodological predispositions, and theory development in international joint ventures. *Academy of Management review*, 18(2), 231.

Appendix B



A synthesis of country clusters, the countries in the same cluster are not culturally distant. The countries which are not in the same cluster are determined as culturally distant. Retrieved from Ronen, S., & Shenkar, O. (1985). Clustering countries on attitudinal dimensions: A review and synthesis. *Academy of management Review*, 10(3), 435-454. p 449.

## Appendix C

List of highly developed countries between 2000 and 2010 with a GDP per capita higher than \$10.000 in 2008

1. Austria
2. Bahrain
3. Belgium
4. Canada
5. Denmark
6. Estonia
7. Finland
8. France (Including Monaco)
9. Greece
10. Hongkong
11. Ireland
12. Israel
13. Italy
14. Japan
15. Netherlands
16. Norway
17. Russia
18. Singapore
19. South Korea
20. Spain
21. Sweden
22. Switzerland
23. UK
24. United Arabic Emirates
25. USA

List of lesser developed countries between 2000 and 2010 with a GDP per capita lower than \$10.000 in 2008

1. Algeria
2. Armenia
3. Belarus
4. Brazil
5. China
6. India
7. Indonesia
8. Malaysia (including Kuala Lumpur)
9. Mexico
10. South Africa
11. Taiwan
12. Thailand
13. Ukraine

Appendix D

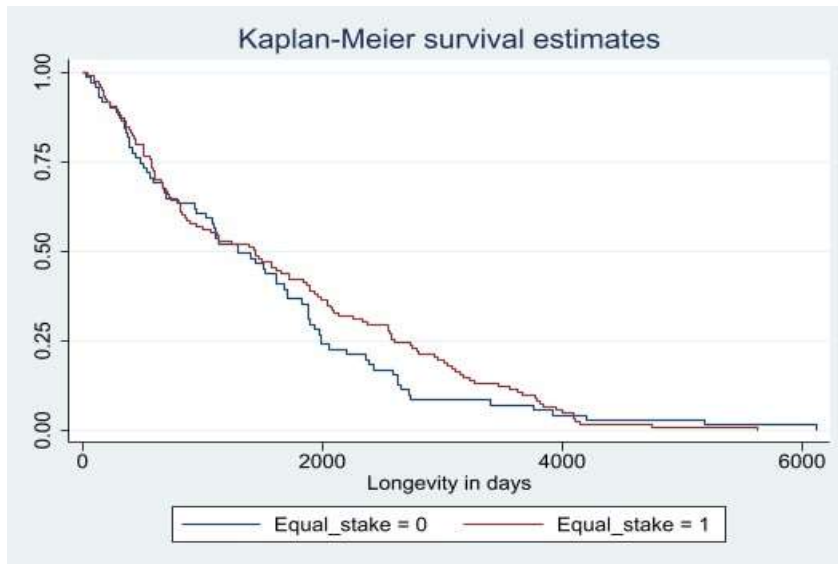


Figure 1. The Kaplan-Meier survival estimates of joint ventures with and without parents with an equal stake.

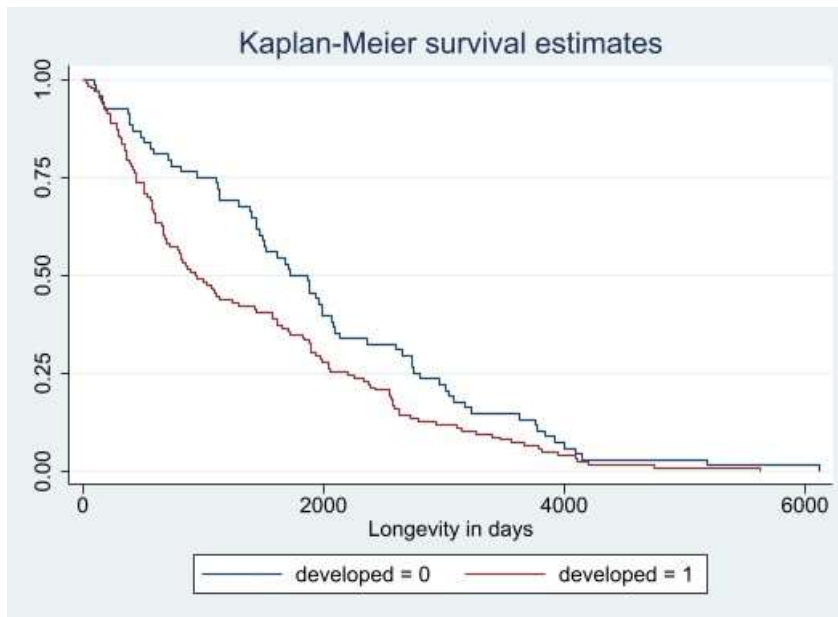


Figure 2. The Kaplan-Meier survival estimates of joint ventures with joint ventures with both parents from highly developed countries and joint ventures with one or both parents from lesser developed countries.

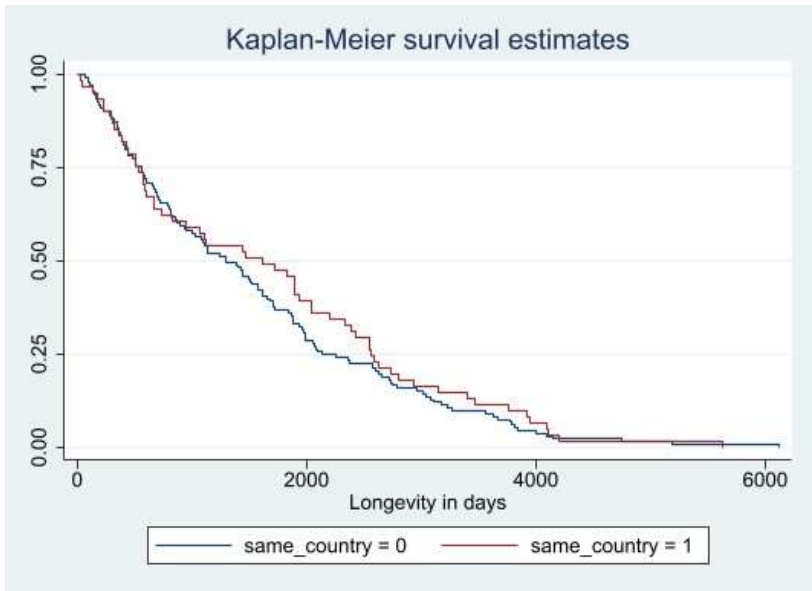


Figure 3. The Kaplan-Meier survival estimates of national and international joint ventures.

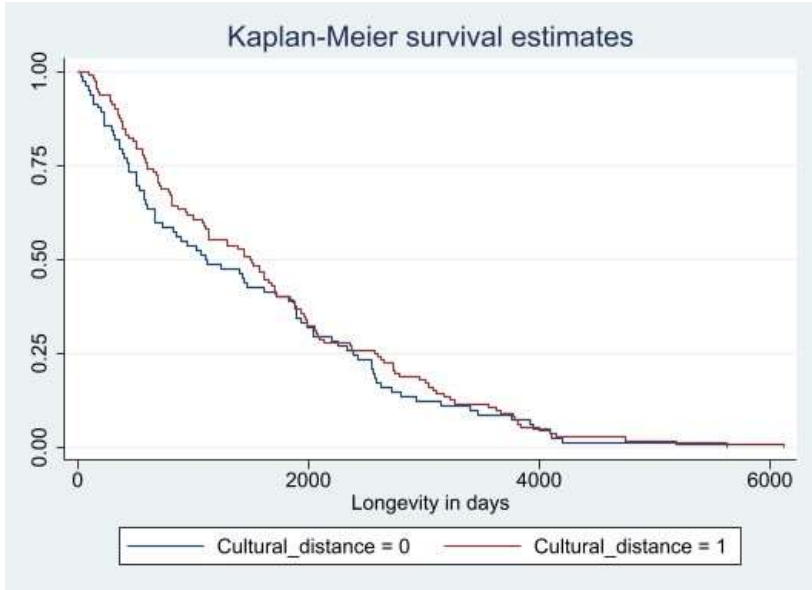


Figure 4. The Kaplan-Meier survival estimates of culturally distant joint ventures and joint ventures which are not culturally distant.

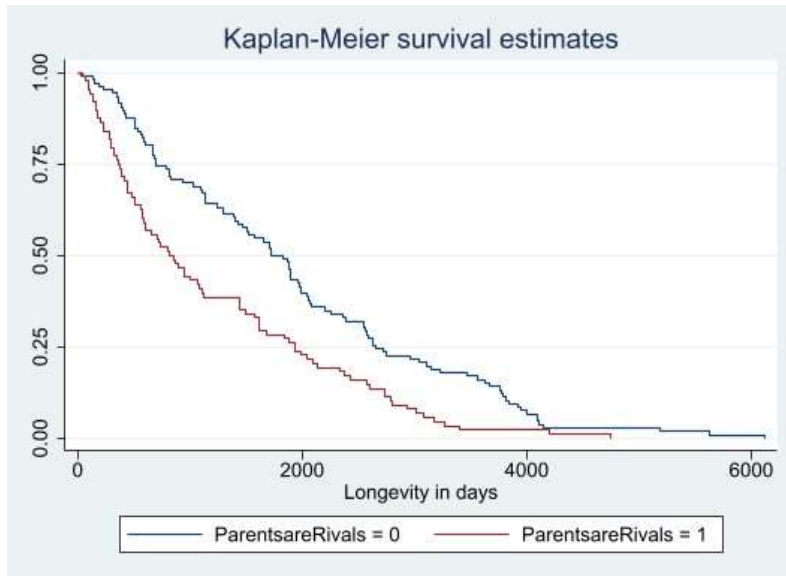


Figure 5. The Kaplan-Meier survival estimates of joint ventures with rivalling parents and joint ventures with non-rivalling parents.

Table 5

*Correlations between the examined variables*

	Longevity	Equal stake	Developed	Same country	Cultural distant	Rivals
Longevity	1					
Equal stake	0.065	1				
Developed	-0.204	0.070	1			
Same country	0.056	0.077	0.311	1		
Cultural distant	0.062	-0.051	-0.417	-0.783	1	
Rivals	-0.277	0.133	0.018	0.007	-0.028	1