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Sharing Risk: A Study of Corporate Alliances

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Overview

Today more than ever the term 'risk management' is relevant to the business world. Even though 2009 has seen the global stock markets making substantial gains, the matter of risk is still high on the executive agenda. As the debate about how the recovery will be shaped continues, the fact remains that market and financial conditions continue to be uncertain for many companies. One appealing strategy to navigate these challenging waters is business collaboration, which can achieve growth while minimising risk levels.

"Especially in periods of market or operational uncertainty, joint ventures can be used effectively as an alternative to a merger, acquisition or even organic growth."

Scott Moeller, Director of the M&A Research Centre, Cass Business School

This report by the M&A Research Centre at Cass Business School, together with founding sponsors Allen & Overy, Credit Suisse, Deloitte and FT/Mergermarket, focuses on collaboration between firms through joint ventures and shows that this type of deal structure can be an effective tool for managing risk. We have collected and tested a global data sample of joint ventures which covers a period over 24 years and interviewed industry deal-makers to gain insights into deal benefits and challenges. The report examines the reasons and rationale behind joint ventures, the effect they have on company risk and their key success factors. Finally, we examine the duration of joint ventures together with potential exit strategies.

Highlights of this report:

Joint venture activity increases in the recovery period after a major economic downturn by over 20% above average levels. As market conditions begin to recover, business strategy shifts from survival to growth. But with the crisis still fresh in the memory, business managers increasingly look to share the risk of new projects with other players in the market, or use joint ventures as a first step in an M&A process.

Joint venture deals are effective at decreasing company risk. Participants of joint ventures saw a decrease in beta of 3.9% as a result of the joint venture with the effect intensifying if the joint venture is announced in the period following a major crisis when the decrease in beta is 6.2%.

Setting up a joint venture with a 'too close' competitor is a challenge as it intensifies the issue of collaboration versus competition. Choosing a partner carefully is instrumental to the success of a joint venture, with participants' culture fit, deal experience and trust between participants emerging as critical factors.

The average duration of a joint venture is shorter than expected, which emphasises the importance of exit strategy. When compared to conventional wisdom and existing literature, this extensive study found that joint venture deals are shorter than expected, with an approximate duration of three years. This puts pressure on participants to have a clear exit strategy in place from the very beginning of the collaboration.

A Corporate Marriage

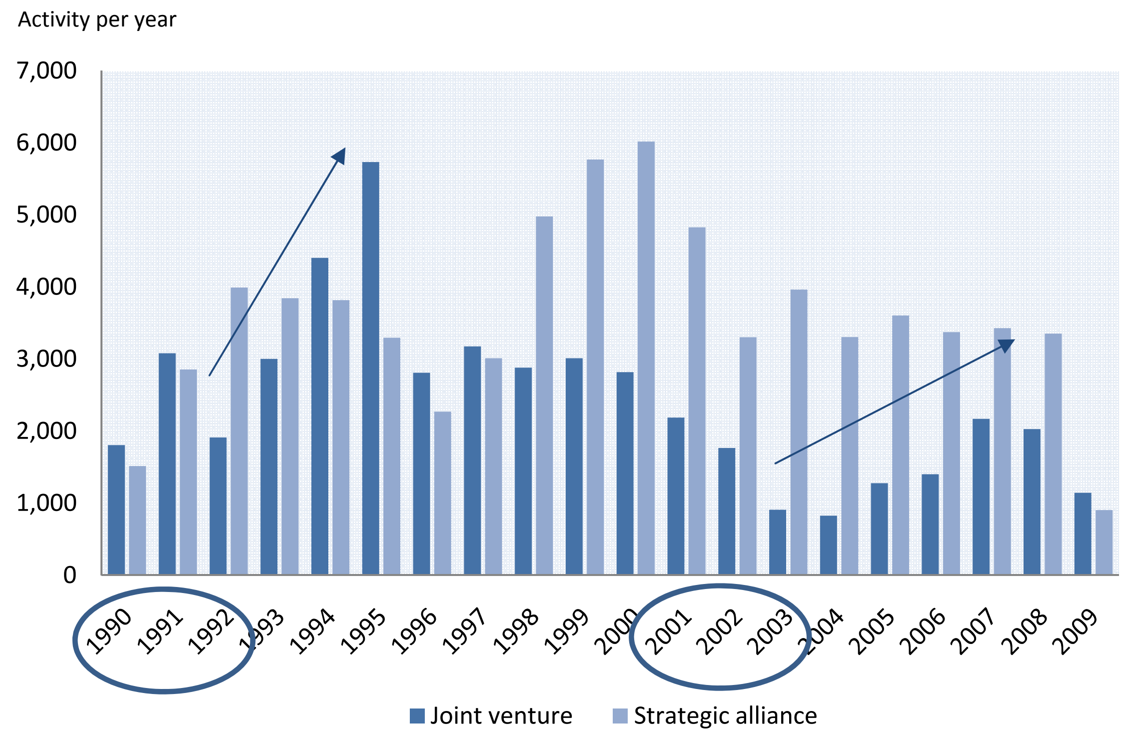
A joint venture could be described as a corporate marriage where the partners either set up a jointly-owned entity, a 'strict' joint venture or, where a contractual agreement exists between the partners, a strategic alliance. The essence of the two structures is the same however: two or more corporations agreeing to operate jointly for a common purpose.

"A joint venture is like marriage; you need to constantly work on it and put time and effort in your relationship with your partner."

Keri Elborn, Head of Emerging Markets M&A, RSA

For the purpose of this study, we focused on the type of alliance which is a joint venture rather than a strategic alliance as the former has a more tangible structure and is, therefore, more robust for research purposes. Nevertheless, Exhibit 1 shows the activity of both joint ventures and strategic alliances during our sample period. It is clear from the exhibit that strategic alliances in most years are the most common alliance type. However, joint venture activity rises in frequency after a major downturn (indicated with circles), whereas strategic alliances show no such correlation to these crises. This will be discussed further later in the report.

Exhibit 1: Comparison of joint venture and strategic alliance activity[1]



[1] Note that the activity in 2009 is only measured up mid-year.

Joint Venture Rationale

Setting up a joint venture means entering into a relationship with another corporation, sometimes even a competitor. Usually the partners will have complementary skills, for example one partner could provide expertise and market knowledge and the other funding and organisational management. In highly competitive industries, there are often examples of two competitors entering into a joint venture to increase market share.

Joint ventures are also set up as a part of an M&A strategy. If the desired asset is not for sale or, alternatively, not attractive as a target, a joint venture is a viable strategic option to access the assets without making an outright takeover. In addition, the joint venture can function as a bridge between buyer and seller whereby the buyer has a unique opportunity to a prolonged and thorough due diligence process to ensure fit, opportunity and correct valuation. Similarly, the seller can use the joint venture as a staged sale to maximise the valuation. In addition, a joint venture can also function as a part-sale whereby one of the partners sets it up in order to exit an investment.

Exhibit 2: Joint venture rationale

Pooling Resources

One of the most popular reasons for setting up a joint venture is the opportunity to collaborate and pool resources with another market player. Resources which are typically brought together include sharing the capital necessary for a project with high R&D investment, funding a project with capital from another partner and pooling market share in a competitive industry.

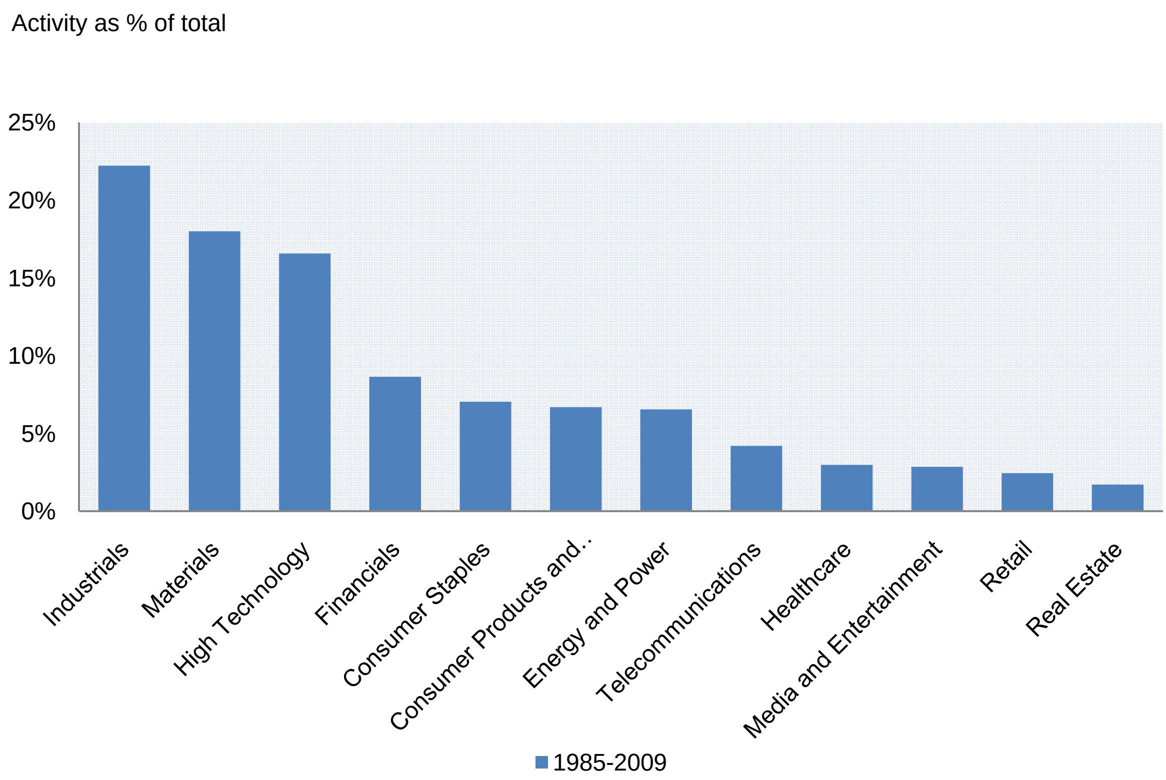
The need to pool resources as a driver of joint venture activity was examined by studying an industry activity breakdown together with selected financial indicators.

The analysis showed that a majority (56%) of all joint ventures are set up in just three sectors: industrials, materials and high tech.

Three possible drivers of joint venture activity for each industry were studied: R&D intensity (measured as R&D expense over sales), leverage (measured as total liabilities over total assets) and capital intensity (measured as sales over total assets).

The industrials, materials and high technology sectors all have high levels of R&D intensity compared to other industries. It is interesting to note that healthcare does not have high joint venture activity, yet the industry scores the highest levels of R&D intensity. These results are surprising because as the level of R&D is high, the expectation should be that joint venture activity would also be high as the need to pool capital and share risk is prominent in R&D projects. It can, however, be explained by the fact that most corporate alliances in the healthcare sector take the form of strategic alliances, which have been excluded from this data sample.

Exhibit 3: Joint venture activity by industry



As credit has become scarce in the wake of the financial crisis, companies are looking for alternative sources of funding which could be sourced from a partner or raised with the activities of the joint venture as securitisation. This could be the reason for the high joint venture activity in the industrials industry, as this sector has the highest overall leverage levels.

The indicator for capital intensity shows that consumer staples and consumer products & services industries score highly and are also in the upper half of the activity table.

The correlation between the three financial indicators and joint venture activity was tested by performing statistical analyses of R&D intensity, leverage levels and the capital intensity of the participants compared to peers in their industry one year prior to the announcement of the joint venture.[2] It appears that our three indicators are the correct measures to use when determining drivers of this type of deal activity as, in each category of financial ratios, joint venture participants have higher levels than their peers in eight out of the eleven industries.

"A joint venture must have a clear definition of scope that permits and defines partners' freedom to compete outside that scope and equally prevents any competition within."

Benedict O'Halloran, General Counsel for European Transactions, General Electric

Companies often set up a joint venture with a major competitor in order to increase market share. This type of activity is more frequent in highly competitive industries such as telecoms, as shown in Market Example I on page 16. This example of T-mobile and Orange UK setting up a joint venture in the UK is particularly interesting as, prior to the joint venture announcement, there had been rumours in the press[3] that Vodafone and Telefónica, industry competitors, had both bid for Orange UK. The offer price, said to be around £4 billion, was considered too low by Orange UK's parent company, Deutsche Telekom, particularly when it is taken into account that Deutsche Telekom paid £6.9 billion for Orange UK in 1999.

In order for the benefits of a joint venture to be realised, collaboration usually requires a certain amount of information sharing between partners which poses a risk to the confidentiality of companies' business intelligence. This point is illustrated the joint venture between France's Danone and China's Wahaha, Market Example II on page 16. Danone accused Wahaha of having set up a competitive entity to the two firms' joint venture in China. As a result, the joint venture terminated in September 2009.

The joint venture between Morgan Stanley and Citi, illustrated in Market Example III on page 17, was set up to create a leading private wealth management business by teaming up with a competitor in order to increase market share. But another important factor was the capital gain which Citi could charge to its balance sheet which subsequently resulted in profit for that quarter[4]. The joint venture also functioned as a part-sale, discussed in further detail below, in which Citi was able to sell a valuable asset in return for cash which gave a boost to its balance sheet, but was also able to retain much of the future income of the business. A part-sale is also illustrated in Market Example IV on page 17 where Wolseley sold its US building product business to the private equity group Gores in an attempt to save the business from insolvency procedures.

[2] Results are summarised in Exhibit 8 on page 20.
[3] *Financial Times* (September 2009)
[4] *Financial Times* (July 2009)

Entering New Markets

Expanding the business into new markets has always been an attractive option to achieve growth for well-established firms. Whether the expansion is geographical or in terms of boosting the product line, the need for expertise and knowledge of unexplored areas is of vital importance. Companies will often seek a partner with local knowledge or technical expertise in exchange for funding and management or organisational skills. In addition, a local or established partner will give direct access to customers, distribution channels and suppliers as seen in the joint venture between France's Vicat and India's Sagar Cement, Market Example V on page 18.

"A local partner can help us overcome language barriers, mitigate cultural issues and give us direct access to local customers. In exchange, we give them either funding or management and organisational know-how."

General Manager, Legal & Compliance Department, Japanese trading company

The popularity of using a joint venture when entering a foreign market is well known with almost 60% of deals being classified as cross-border. Only 26% of all M&A deals during this period are cross-border, in comparison. In addition to the need for local expertise, companies wanting to do business in emerging markets are sometimes legally required to find a local partner, without which they would not be allowed to operate. The opportunity to collaborate with a local partner also gives a political advantage which could greatly mitigate the risks involved in operating in a foreign country.

The other form of entering a new market is by expanding the company's product line, as seen in the joint venture between gambling specialist William Hill and software provider Playtech, Market Example VI on page 18. A joint venture is used in horizontal expansions as it gives a unique opportunity to access existing customers and suppliers directly, as well as the technical and industry expertise supplied by the established industry partner. However, if the partner is a 'too close' competitor, this type of expansion requires some careful consideration, as illustrated in joint venture between Danone and Wahaha, Market Example II, with the risk to business intelligence increasing. This highlights the importance of protecting the company's legal rights. Choosing a trustworthy partner is essential, as discussed in the performance section of this report.

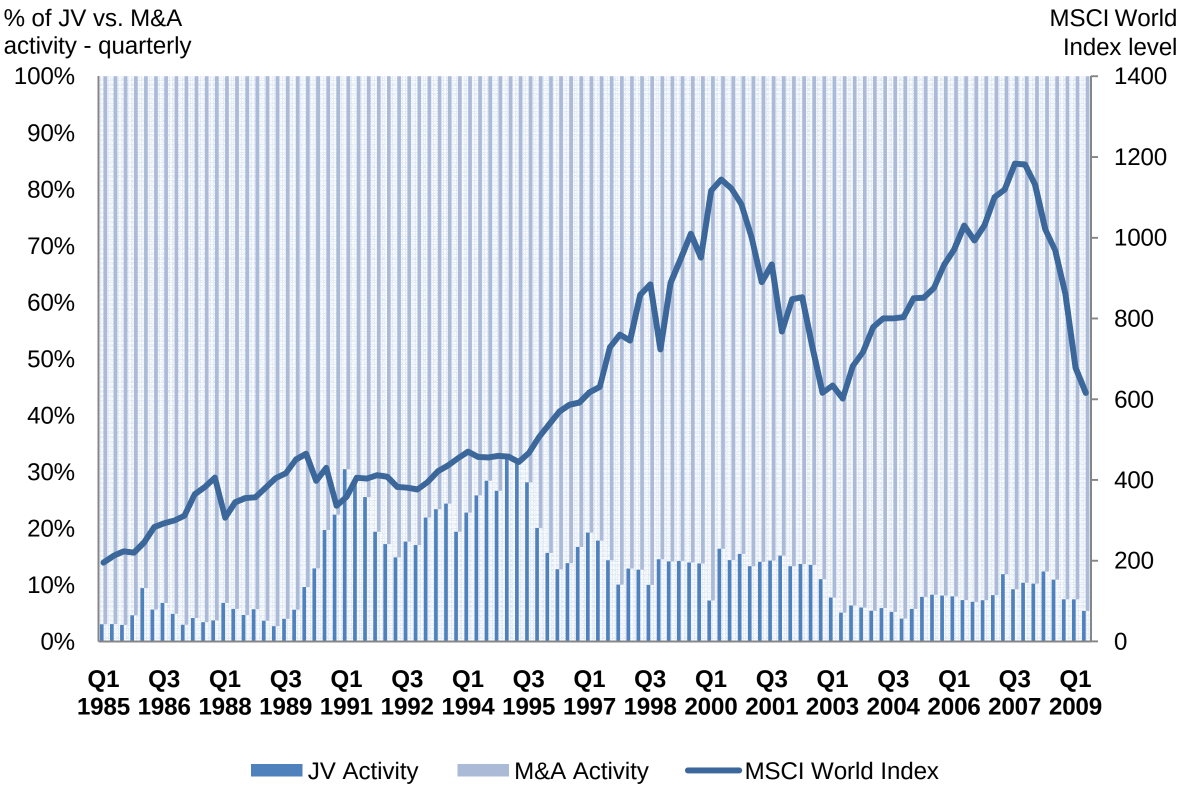
Joint Venture as an M&A Alternative

Joint ventures can be set up for the same reason as general M&A, with partners looking for ways to enter or exit markets or investments.

To measure the relationship between joint ventures and M&A activity, we plotted the relative yearly activity over the sample period against the MSCI World index, which is used here as a proxy for economic cycles. It is well known that M&A activity moves closely in conjunction with overall economic cycles, whereas joint venture activity shows a different relationship. Statistical tests show that the correlation between joint venture activity and the MSCI World index is relatively low while the correlation between joint venture activity and M&A activity is higher.[5]

The activity analysis also uncovered another important finding: relative joint venture activities increased significantly after the last credit crisis in the early 1990s. An explanation could be that the constraint of capital in the years during and immediately following the crisis significantly changed the relationship in activity between the two deal types, as one fundamental component in an acquisition is the acquirer's access to capital. In joint venture deals, the capital requirement is typically significantly less.

Exhibit 4: Joint venture activity vs M&A activity and the stock market



[5] Correlation tests between joint venture activity and M&A activity show a relatively high number of 0.75, where 1 is a perfect positive correlation, but against the MSCI World index, the correlation figure is only 0.52.

Joint ventures are considered to be a viable deal alternative to M&A in times of recovery, no doubt partly due to capital constraints, as noted above, but also to minimise the risk of misvaluations. In times of uncertainty, management is more hesitant to suggest deals and, equally, boards are more reluctant to approve them. In addition, the option of exiting an investment through a joint venture might drive the increased joint venture activity, both absolute and relative to M&A, in the period just after a major peak when companies are looking to unload investments.

Joint ventures can be considered the precursor to a merger or acquisition: 'dating before marriage'. As the participants in a joint venture have the unique ability to test the project and the strategy before making an outright takeover, many joint ventures as a deal type are viewed by managers as a long and thorough due diligence process, with the additional perk of being able to buy or opt out at the end of the period, depending on the outcome of the co-operation. A joint venture could also function as a 'staged sale', whereby the seller has the opportunity to demonstrate the synergies and revenue stream of the potential target to a buyer in order to maximise valuation.

"Creating a joint venture can be viewed differently by the parties. One could see it as the first step in a staged sale and at the same time the other as a thorough due diligence and valuation process for an ultimate purchase."

David Livingstone, Managing Director and Head of European M&A, Credit Suisse

Additionally, a joint venture could function as a part-sale where the seller is under pressure to sell an asset but still wants to maintain many of the benefits going forward. As many sellers are reluctant to sign deals while valuations are still low, we expect the 'staged sale' type of joint venture to be prominent in the future and that 'part-sales' will show a similar increase in activity as many sellers will be forced to sell assets.

Another important rationale is related to accessing a part of another business which is not necessarily for sale or which is not a desirable target. If a company is in need of certain tangible or intangible assets belonging to another company but those assets are not for sale, a joint venture is an option. Additionally, if the desired asset is too large or expensive, a joint venture could give access without the need to perform a takeover. It is interesting to note that in our sample of public participants,[6] their median market value is $2.8 billion, which is relatively high, whereas the median deal size is relatively small, with the estimated joint venture capitalisation being only 0.1% of the market value of the participant, weighted to equity holding. This indicates that joint ventures are often set up to access a small part of another large company. The issues of relative size and business relatedness between partners proved to be critical success factors and are elaborated upon in the performance section of this report.

[6] 5,301 participants over the sample period

Growing while Managing Risk

Most of the aforementioned drivers are related to pursuing growth strategies whilst minimising risk, characteristics common to business strategy in periods of economic recovery. Therefore, it can be assumed that joint ventures will become increasingly popular in the next several years.

This hypothesis was tested by analysing quarterly joint venture activity at various points in the economic cycle.

Evidence shows that more joint ventures happen when markets recover from a major downturn – in fact, they are over 20% more likely to occur in times of recovery compared to the overall average. Also interesting to note is that activity levels are also higher than average in the period just after the fall from a major market peak, 6% above average. This can be explained by the increased activity of staged- and part-sale type joint ventures, where the original owner wants to exit an investment to generate capital or return to core. These are typical short-term strategies common in periods of high economic distress. The point-in-time periods were identified using the peak-to-trough method, which is explained in further detail in the methodology section of this report.

As most of the drivers for setting up a joint venture are closely tied to risk management, it is important to test how company risk is affected by a joint venture. As a proxy for company risk, we used the leveraged beta (β). Leveraged beta measures risk by looking at how closely company stock moves with the index. Essentially, if the beta decreases so will the cost of equity and the overall cost of capital, all other things being equal. In an environment of great uncertainty and volatility it is increasingly important for executives to manage the company's levels of risk and minimise costs.

The analysis showed that the leveraged beta of participants decreases significantly as a result of the joint venture, by 3.9% over a 24-month period after announcement. As a result, the cost of equity decreases as the participants' stock becomes less volatile. Interestingly, the breakdown analysis highlighted the importance of risk management in times of uncertainty as the decrease in beta is greater in times of economic distress, intensifying just after a major trough with a 6.2% fall.

Exhibit 5: Beta calculations and effect

All deals	Number of companies	Beta (mean) before deal	Beta (mean) after deal	Beta decrease
	1025	1.027	0.987	-3.895%
	Test Result: Risk goes down at 5% significance level			
Economic Cycle 3	Number of companies	Beta (mean) before deal	Beta (mean) after deal	Beta decrease
	649	1.053	0.988	-6.173%
	Test Result: Risk goes down at 1% significance level			

The Key to Success

The rationale for setting up a joint venture could be summarised as a strategy to achieve growth whilst minimising risk. This report has shown that engaging in a joint venture could reduce equity beta but is it a successful strategy?

To determine the long-term success of participants in joint ventures, the sample was restricted to only two participant deals where the combined relative deal size was over 5%. The final sample of 75 companies had a median market value of $2bn at the time of the announcement. The proxy for profitability is Return on Equity (ROE), yearly adjusted for industry effects,[7] measured over a period of four to five years, from one year prior to the deal announcement until three to four years post announcement.

"If the two partners are too different in size, the smaller partner is running the risk of getting lost in the corporate governance of the larger firm."

David Olney, Head of Marketing Strategy and Intelligence, Fujitsu

The results show that the adjusted ROE of the participants increases significantly over the period analysed. Interesting results emerge from the breakdown analysis which highlight the importance of choosing the right partner:

It is preferable to set up a joint venture with a partner of similar size in terms of market value which can be used as a proxy for corporate culture. As companies grow in size, they increase the number of their corporate governance processes and inevitably become more bureaucratic. In comparison, smaller firms tend to be more entrepreneurial. The results show that it is difficult to manage and govern a project jointly when corporate cultures are very different.

Setting up a joint venture with a company that is 'too close' a competitor can prove difficult as the issue of information-sharing versus protecting business intelligence becomes more important. The results show that setting up a joint venture with a competitor in a closely related area of business might prove difficult as participants in this group underperform in comparison to the rest of the sample. One explanation can be found in the intensification of the matter of collaboration versus competition, i.e. sharing rather than protecting business intelligence. For the collaboration to be effective and worthwhile, some information sharing between partners is usually required. This exchange of information has to be weighted against the importance of protecting business intelligence from the other partner, which could, in this case, be considered a competitor. This theory is reinforced by the result showing that cross-border partnerships outperform domestic partnerships, indicating that geographical operations which are too close to each other can also cause friction and lead to less effective management.

The deal experience of at least one of the participants is correlated to positive ROE for both participants. As in M&A, deal experience proves important for the success of the partnership. From the interviews which we carried out with deal-makers, the issue of trust between partners emerged as a highly critical factor.

On the next page follows a check-list regarding the potential partner company to be reviewed and answered whilst negotiating a joint venture:

[7] The analysis has also been conducted using non-adjusted ROE with similar results.

Pre-deal partner checklist:

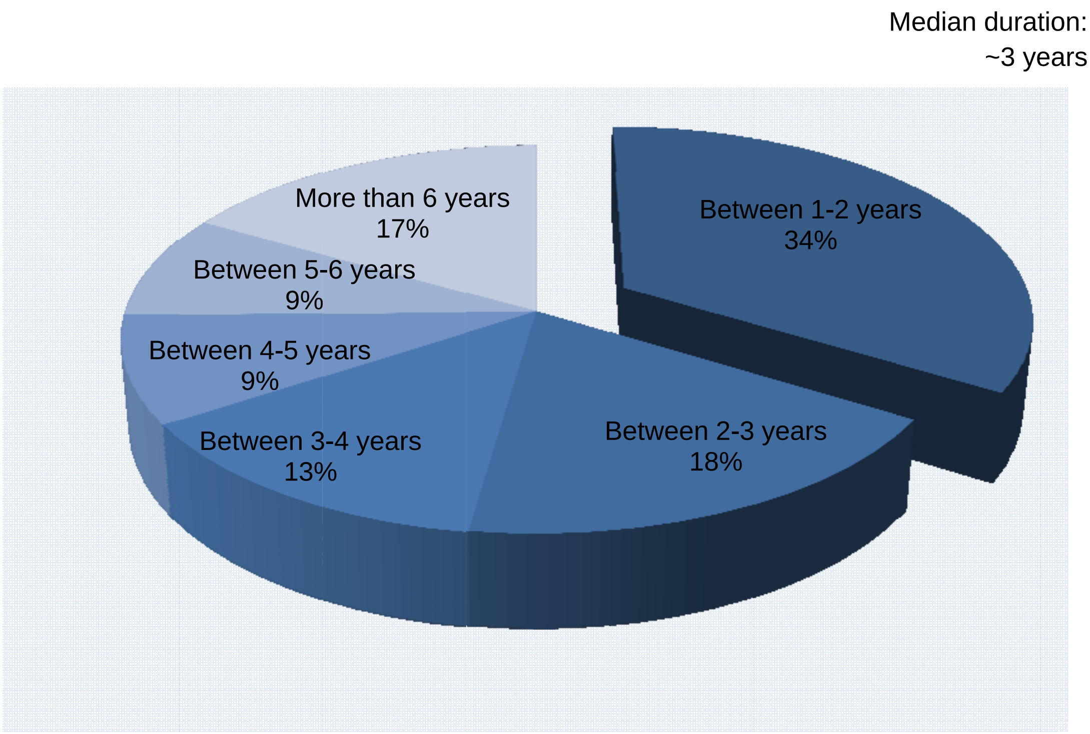
- ✓ Will the other party be able to meet the long-term obligations on both the financial and strategic fronts?
- ✓ Does the other party provide full and accurate information during the negotiations?
- ✓ Does the other party deliver on time?
- ✓ Do you trust your direct counterpart at the partner company?
- ✓ Is the other party committed to a mutually beneficial relationship?
- ✓ Are the beliefs and culture of the other party's organisation similar to yours?
- ✓ A joint venture is a mirror exercise; will your business be able to cope with the commitment required to make a jointly run business a success?

The Exit Strategy

Joint ventures are, in most cases, relationships with an expiry date, even if that date might not be known or even considered at the start of co-operation. This report found that joint ventures have a median duration of no more than three years,[8] even when deals less than one year in duration were excluded.

It can therefore be concluded that many joint ventures appear to terminate within a relatively short timeframe and it is critical to consider and prepare an exit strategy when the alliance is set up. We have identified a number of exit strategies below:

Exhibit 6: Joint venture duration



[8] Earlier academic studies show evidence of longer average durations and the market conventional wisdom is even greater with many citing approximately seven years as the expected average. However, more recent studies, such as Mantecon and Chatfield (2004) find an average duration of around four years.

The preferred exit strategy is a sale of assets to one of the partners. This option is favoured by practitioners as it maximises valuation. The buyer will know the fair price of the asset and will also 'hit the ground running' as it has already been involved in the operation as a partner in the joint venture. The seller will also be able to maximise the valuation as the assets and synergies will be well-known to the buyer. An illustrative example of a case when a joint venture was sold to a partner can be found in Market Example VII on page 19, about Mitsubishi Motors buying out Chrysler due to concerns about the partner's financial health. Market Example VIII also on page 19 illustrates an exit strategy whereby the seller, Henkel Group, decided to exit a joint venture due to a change in strategy.

Joint ventures are often spun off to the public in an initial public offering. If all of the partners want to exit the investment, the preferable option tends to be selling the joint venture to the public as an IPO. An option to acquire the assets from one of the partners is usually included in the joint venture agreement in case they disagree that this exit strategy will give the highest asset valuation.

Sale to an external buyer can give a lower valuation as the buyer does not have full insight into the operation and value of the business.

Closing the joint venture presents difficult issues in dividing assets. If no external bidder can be found and neither partner wants to buy the other out, one option is to wind up the assets. This is a difficult route as it imposes the challenge of dividing the assets fairly between partners.

Deadlock is not a desirable option as the friction will destroy the relationship between the partners and effectively end the joint venture. This scenario occurs when two partners with equal ownership fail to reach agreement on any issue regarding joint operations or exit strategy. Solutions include:

Russian roulette: One partner names an all-cash bid for half of the joint venture and the other party can then either acquire or sell its share for that given price.

Shootout: Each party sends a sealed all-cash bid to an umpire. The two bids are opened together and the highest bidder is required to buy out the other partner for the price given by the buyer.

Dutch auction: Similar to a shootout but instead the partners send a sealed bid indicating the minimum price at which they are prepared to sell. The highest bidder must buy out the other partner at the minimum price given by the seller.

Sample and Methodology

Data Sample

The full download of over 120,000 alliance deals over the period January 1985 to May 2009 was used in the comparison of alliances and joint venture activity (Exhibit 1) and in the analysis of domestic versus cross-border activity.

All joint ventures where a macro-industry could be defined were used in the industry activity analysis table, a total of 3,419 deals. For the participant analysis in the same section, all deals in which the participants were public and the financial data could be sourced were used, a total of 4,922 participants.

For the beta analysis, a top quartile subsample of all public participants was used, determined by the estimated capitalisation of the joint venture over the market value of the participant weighted by ownership.

The performance study only included deals with two partners as the aim was to test various issues relating to the choice of partner. With more than two partners it is difficult, if not impossible, to determine issues like ownership, business relatedness, relative size, etc. The final performance sample was also restricted as only the deals where the average of the two participants' relative size to the joint venture (as defined above) was above 5% were included in order to avoid testing insignificant deals. In addition, companies for which accounting information was missing for the analysed period were excluded. The final sample size was 75 participants.

Finally, the exit strategy analysis included all deals in the sample with a stated termination date. All durations of less than one year were excluded from the analysis as the view is that those joint ventures failed to start operating or were very limited in operations. The final sample was 2,467 deals.

All deal data was downloaded using the SDC Platinum database with the accounting, share price and index data downloaded from Datastream.

Beta Calculations

The beta was downloaded from Datastream and measured over the pre-announcement period (which covers 24 months before the announcement) and the post-announcement period (covering 24 months after the announcement). To exclude the outliers, the results were normalised using a winsorisation method which normalises all negative values of beta to 0 and all betas higher than 2 to a value of 2. A paired mean t-test was used for testing statistical significance.

Performance Study

For the performance study, the adjusted value of ROE, calculated as income available to common shareholders over common shareholders equity from the year prior to the announcement to three to four years after, was analysed. The adjusted values were derived from the difference between the company's actual ROE values less the corresponding industry median value for that year. The industry values were computed using all available companies from the Thomson ONE Banker database in each industry and the accounting information was subsequently downloaded from Datastream. The change in ROE over the period was tested for significance using a paired t-test of the means. In addition, we tested the association between adjusted ROE and the various deal and participant characteristics by correlation calculations.

Peak-to-Trough

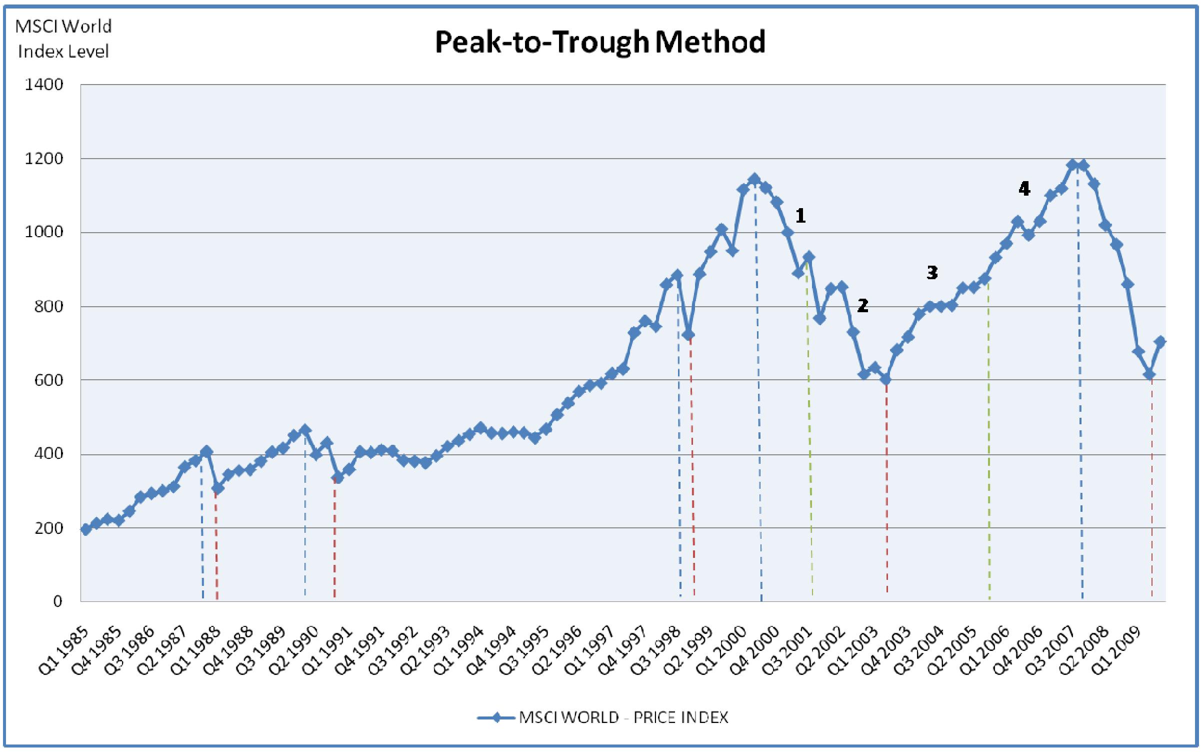
The methodology used to classify the various time periods in the sample is a 'peak-to-trough method'. The idea is to cluster periods within the full time period during which the market behaves in a similar manner. We used the

MSCI World index as a proxy for economic cycles as it is the most widely recognised world index.

The methodology is as follows:

We first identify major troughs by studying an exhibit of the MSCI World index development over our time period. A major trough is defined as a steep decline in index levels followed by an increase. Once the troughs have been identified, we can then identify the major peaks before and after the trough, and also find the mean value in between the peaks and troughs. The time period between the previous peak and the mean value in between is numbered 1 and corresponds to when markets have just started to fall after a major peak. The period between the mean value and the trough is numbered 2 and corresponds to the period when markets are falling towards a trough. The next period is from the trough to the mean value in between the trough and the next peak. This is numbered 3 and corresponds to when markets are starting to rise after a trough. Finally, the period from the mean value to the next peak is numbered 4 and corresponds to the period when markets are rising towards a peak. All other periods (e.g. at the beginning and end of the sample period) are given the value of 0 and excluded from the study.

Exhibit 7: Peak-to-Trough Method



Market Examples

MARKET EXAMPLE I:

On 8 September 2009, Deutsche Telekom and France Telecom announced their plans to establish a 50:50 joint venture between their UK subsidiaries, T-Mobile and Orange, respectively. Orange UK and T-Mobile UK are the third and fourth largest mobile operators in the exceptionally competitive British telecoms market. Both subsidiaries at present lag behind Telefónica's O2 and Vodafone. The joint venture would, however, form the largest mobile operator in Britain with 37% of UK mobile subscribers.

Gervais Pellissier, CFO of France Telecom commented on the joint venture, "By combining our operations in the UK, we anticipate the long-awaited consolidation in one of Europe's most competitive markets, thereby creating a well positioned player. This will reinforce fair competition and will provide strong benefits for our customers through improved coverage, quality of service and an enhanced capacity to develop new services and technologies. Our shareholders will benefit from higher profitability and an immediate cash flow per share accretion without impacting the overall indebtedness of the parent companies."

Timotheus Höttges, CFO of Deutsche Telekom, added, "We will become market leader - our customers will benefit in many ways, for example from the best mobile broadband offer in Britain. In the second-biggest market in Europe, which is undoubtedly one of the toughest and most competitive, we are giving T-Mobile UK a clear and strong future. And, with our partnership, we have taken the most value enhancing strategy for Deutsche Telekom and its shareholders."

Sources: FT.com and Deutsche Telekom press release

MARKET EXAMPLE II:

On 30 September 2009, France's Danone officially announced that it was exiting its partnership after several years of disputes and legal battles with China's Wahaha. In 2007 Danone accused Wahaha and its founder, Zong Qinghou, of setting up a parallel copycat production and sales operation for the same products produced by the venture which subsequently garnered significant political attention from both Europe and Asia. Nevertheless, Danone declared peace by suspending its legal actions against its joint venture partner following clear indications from both the Chinese and French governments that the two needed to reach an amicable solution.

Commenting on the transaction, Franck Riboud, CEO and Chairman of Danone, stated, "The collaboration between Danone and Wahaha helped to build a strong and respected leader in the Chinese beverage industry. We are confident that Wahaha will continue to be highly successful under its future management guidance. Danone has a longstanding commitment to China where it has been present since 1987 and we are keen to accelerate the success of our Chinese activities, in keeping with our mission of bringing health through food to the largest number of people."

Sources: FT.com and Reuters Newswire

MARKET EXAMPLE III:

On 13 January 2009, Morgan Stanley and Citi announced that they had reached agreement on setting up a joint venture by combining Citi's Smith Barney, Smith Barney Australia and Quilter (in the UK) and Morgan Stanley's Global Wealth Management Group in order to create the industry's leading wealth management business. As part of the agreement, Citi received an upfront cash payment of $2.7 billion and the benefit of charging a capital gain of approximately $6.7 billion to its financial statements. Without this gain Citi would have suffered its sixth loss-making period in the seven quarters prior to the second quarter of 2009.

Citi CEO Vikram Pandit said, "This joint venture creates a peerless global wealth management business and provides tremendous value for Citi. Once this transaction is completed, our clients and financial advisors will benefit from the combined intellectual capital, market intelligence and product capability of Citi and Morgan Stanley. For Citi, the joint venture provides significant synergies and scale, substantially reduces our expenses and enables us to retain a significant stake in a company that immediately becomes the industry leader with real growth opportunities. We will own 49 percent of this leading wealth management business and will continue to participate in its earnings and growth. In addition, we will generate equity capital that we can deploy to other core businesses which are well positioned to deliver attractive returns in the future. Citi and its clients will maintain access to the industry's leading wealth management platform for capital markets transactions."

Sources: FT.com and Morgan Stanley press release

MARKET EXAMPLE IV:

In May 2009, UK-based Wolseley announced its intention to exit its US building products business, Stock Building Supply, through selling the business to the private equity group Gores and remaining as a joint venture partner with a 49% holding in the new entity, with the remaining 51% owned by Gores.

Wolseley management commented to the *FT*:

"We indicated back in March our intent was to exit the Stock business and we explained a number of scenarios," said Chip Hornsby, Chief Executive. "The most extreme would have been total closure by the end of July this year, the best case scenario would be a joint venture and that is exactly what we ended up with, so we are pleased."

"In normal times, when you have a lossmaking business like this you have to consolidate the losses and they form part of the ebitda of the group, which is used for covenant test purposes," said Stephen Webster, Chief Financial Officer. "Now we have done the joint venture, the fact that we don't control the business means that we do not have to bring in those losses or our share of those losses into the ebitda calculation."

Source: FT.com

MARKET EXAMPLE V:

On 23 June 2008, Vicat SA, a French-based building materials group, and India's Sagar Cements announced a 51:49 joint venture which was formed in order to facilitate the companies' joint construction of a greenfield cement plant in Gulbarga, India. The Indian cement industry, with a volume growth of over 9% per annum in the three years prior to the deal announcement in 2008, had attracted many foreign investors. The two companies planned to explore opportunities in the world's second largest cement market by combining Vicat's 150 years of experience in the industry and Sagar's efficient operations as well as its strong sales and distribution network.

Dr Anand Reddy, Joint Managing Director of Sagar Cements Limited, stated, "We are delighted to partner with Vicat, which is a highly respected global cement group. This transaction gives us the opportunity to expand our scale and size and consequently strengthen our competitive position. We also look forward to leverage on Vicat's high degree of experience and expertise especially in fields like waste fuel and product development. The interest shown by Vicat is testimony to our capabilities and operations which we have continuously endeavoured to optimise."

Mr Guy Sidos, Chief Executive Officer of Vicat SA, added, "We are very pleased to be building a cement plant together with Sagar Cements. This operation results from methodical and determined efforts in the Indian market decided by the Chairman of Vicat, Jacques Merceron-Vicat. It illustrates the international expansion strategy pursued by the Vicat group, which aims to expand its presence in high-potential markets with very high-quality partners. We are confident about the growth momentum of our markets in Asia and India, and in Vicat's ability to fully leverage it".

Sources: Sagar Cements Limited, French News Digest and Business Standard

MARKET EXAMPLE VI:

In October 2009, UK betting and gambling specialist, William Hill, set up a 71-29 joint venture with the UK-based software provider, Playtech. The joint venture was named William Hill Online and aimed to develop William Hill's existing platform which would enable bet-in-running for betters. Playtech provided a substantial amount of assets, £140 million, in exchange for the equity holding in the joint venture as well as a pro-forma share of the future earnings.

William Hill's CEO, Ralph Topping, commented, 'This transaction is a transformational step for William Hill consistent with our stated strategy to increase online gaming and international earnings. William Hill Online is one of the leading European online gaming and sports betting businesses and the clear online leader among UK land-based gaming and betting operators. The transaction generates significant shareholder value and enhanced growth prospects for William Hill.'

Sources: thisismoney.co.uk and William Hill press release

MARKET EXAMPLE VII:

In October 1985, a partnership (named ‘Diamond Star’) was established between Chrysler Corp. and Mitsubishi Motors with both owning 50% and 35% respectively and the remaining of the equity shareholding distributed between Mitsubishi Corp. (10%), Mitsubishi Bank (2.5%) and Mitsubishi Trust (5%). However, six years later concerns were raised by the Japanese carmaker with regard to Chrysler’s ability to meet substantial development costs and over the company’s general financial difficulties.

On 29 October 1991, Mitsubishi announced the purchase of Chrysler’s entire stake in Diamond Star for $99.75m and confirmed its intention to take on the $300m debt incurred by Chrysler in connection with the joint venture. Nevertheless, this outcome seemed to be beneficial for both parties at the time since it provided Mitsubishi with an opportunity to expand its market share in the US automotive market while liberating Chrysler from the heavy financial burden.

Sources: Reuters News, *Financial Times*, *The Washington Post* and Japan Economic Newswire

MARKET EXAMPLE VIII:

Henkel-Ecolab successfully operated for ten years from 1991 as a 50/50 joint venture between the Henkel Group and Ecolab Inc, in which Henkel owned the majority of voting power. In 2001, however, Henkel took the decision to sell its stake in the jointly-run company to its partner since the previously employed strategy, which involved Henkel being responsible for the joint venture’s European clients and Ecolab for the rest of the world, no longer reflected market conditions. Ecolab’s clientele already operated globally and the policy of having two separate divisions - Europe and the rest of the world - had become inefficient.

As part of the transaction Henkel was authorised to increase its direct ownership of Ecolab Inc. from the 27.6% held as of 31 October, 2001, to 35% at any point in time as well as Henkel being entitled to proportionate representation on Ecolab’s board of directors.

Ulrich Lehner, Henkel's Chief Executive Officer, stated, "This transaction is strategically important since Ecolab can now provide new and improved product and service offerings to its global customer base via a single worldwide operating business. Through Henkel's strategic participation in Ecolab Inc. we will share in the success and the long-term growth of this company."

*Ecolab’s internal rate of return would have been 11.62% if it had sold the joint venture in 2001 for $222.1m, the same price at which Henkel sold its stake. Please note that this IRR result does not include the yearly cash flows which Ecolab received from the joint venture due to lack of information.

Sources: Ecolab press release, PR Newswire and Business Wire

Exhibit 8: Drivers of joint ventures - financial ratio analysis

R&D Intensity (R&D Expense/Sales)[9]

Industry	R&D Intensity Industry[1]	Industry-adjusted R&D Intensity Participant[1]	Statistical Significance[2]
Healthcare	0.08	0.01	Significant*
High tech	0.06	-0.01	Significant***
Materials	0.01	0.01	Significant***
Industrials	0.01	0.02	Significant***
Consumer products & services	0.01	0.00	Significant***
Telecommunications	0.01	0.03	Significant***
Consumer staples	0.00	0.01	Significant***
Energy & power	0.00	0.01	Significant***
Real estate	0.00	0.00	Insignificant
Media	0.00	0.01	Significant***
Retail	0.00	0.00	insignificant

[1] All ratios are calculated for the year prior to the JV announcement date and represent the medians of the industry or sample of participant companies.
[2] *** Significant at 1%, ** Significant at 5%, *Significant at 10%

Leverage Levels (Total Liabilities/Total Assets)

Industry	Total Liabilities/Total Assets Industry[1]	Industry-adjusted Total Liabilities/Total Assets Company[1]	Statistical Significance[2]
Industrials	0.57	0.14	Significant***
Telecommunications	0.57	0.07	Significant***
Energy & power	0.56	0.24	Significant***
Retail	0.54	0.03	Significant*
Consumer staples	0.54	0.17	Significant***
Media	0.54	-0.06	Significant**
Materials	0.53	0.15	Significant***
Consumer products & services	0.52	0.38	Significant***
Real estate	0.49	0.00	Insignificant
High tech	0.46	0.18	Significant***
Healthcare	0.44	0.03	Significant*

[1] All ratios are calculated for the year prior to the JV announcement date and represent the medians of the industry or sample of participant companies.
[2] *** Significant at 1%, ** Significant at 5%, *Significant at 10%

Capital Intensity (Sales/Total Assets)

Industry	Capital Intensity Industry[1]	Industry-adjusted Capital Intensity Participant[1]	Statistical Significance[2]
Retail	1.63	-0.01	Insignificant
Consumer staples	1.35	-0.20	Significant***
Consumer products & services	1.04	1.43	Significant***
High tech	0.99	-0.08	Significant***
Industrials	0.98	0.03	Significant***
Materials	0.85	0.04	Significant***
Media	0.82	0.27	Significant***
Healthcare	0.79	0.02	Insignificant
Telecommunications	0.47	0.33	Significant***
Energy & power	0.46	0.47	Significant***
Real estate	0.18	0.06	Significant***

[1] All ratios are calculated for the year prior to the JV announcement date and represent the medians of the industry or sample of participant companies.
[2] *** Significant at 1%, ** Significant at 5%, *Significant at 10%

[9] Excluding the financial services industry throughout due to the difference in accounting measures.

Exhibit 9: Joint venture volumes at different points in the economic cycle

Point in time of economic cycle	Point in time of economic cycle numeric	JV activity[10]
After major peak	1	561
Before major trough	2	298
After major trough	3	640
Before major peak	4	420

Exhibit 10: Ratio performance analysis

Total Sample : 75 Median market value: $1.99bn	ROE Adjusted Y-1 to Y+3
All participants	From 0.01 to 0.07*[11]
All excl. Minorities	From 0.00 to 0.09*
Cross-Border[12]	
Yes	From 0.02 to 0.1*
High business relatedness[13]	
No	From 0.03 to 0.09*
	Correlation analysis of Adjusted ROE Y-1 to Y+3/4
Very different in size[14]	Negative correlation*
One of the partners has deal experience[15]	Positive correlation*

[10] The activity is calculated as the median value of all quarterly activity per cycle.
[11] * signifies a statistical t-test results which gives 10% significance level.
[12] The partners are from different countries.
[13] The partners are related by 3 or 4 sic code digits 4 and the joint venture is related by 3 or 4 sic code digits.
[14] Measured as the relative difference in market value at time of deal announcement, with thresholds levels of small: less than $300m, medium: between $300m and $10bn and large: above $10bn.
[15] At least one of the partners has previous experience of setting up a joint venture.

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Cass Business School
The name for City University's Business School is Sir John Cass Business School, City of London or Cass Business School for short.

Sir John Cass's Foundation
The Foundation has supported education in London since Sir John Cass set up a school in Aldgate in 1710. He was born in the City of London in 1661 and served as MP for the City. He was knighted in 1713.

In May 2001, the Foundation made a generous donation to the Business School's new building project and continues to provide on-going support to the Business School.