

# Alliance Decision-Making of SMEs

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**Abstract:** Hardly a sector of economic activity has remained untouched by the trend of inter-firm collaboration, particularly among large enterprises, but it seems to remain uncommon among many SMEs especially in some developing countries. The advantages of the SMEs of being faster and flexible are clouded by the lack of resources and skills to develop businesses in the network. Successful development in some economies, mainly in Asia, has been based on effective linkage participation of SMEs as a strategy to cover the scarcities they face. This strategy is now playing an important role on the agenda in many countries in Latin America, but there is still a lack of information to make this strategy more popular among SMEs in these countries. Traditional literature in developed countries has been focused on large companies to explain what makes an alliance successful, how the relationship alliance partners should be, which structure of the alliance or the type of contract may make or break an alliance but, few researches have explored alliance as a strategy to develop SMEs. The critical role of decision-making process regarding to the choice of being engaging into an alliance deserves particular research attention. This paper is focused on the alliance decision making process with specially emphasis on SMEs. The main contribution is to provide a framework of different factors that have influenced alliance decision making process. Based on Social Capital and Social Exchange, this research concentrates his analysis on a sample of SMEs from Mexico in which both, experienced and inexperienced alliances entrepreneurs, were considered. Our proposal included twelve variables which were analyzed to find their impact on the alliance decision making. The results show that the internal alliance initiative, frequently enterprise diagnose, trust based on partners' prestige and smaller or similar characteristics of potential partners have strong influence on positive alliance decision making. Opposite expected characteristics were found between alliance experienced entrepreneurs and alliance inexperienced entrepreneurs.

**Keywords:** Alliances, decision-making, factors, process, SMEs.

## 1. Introduction

The rapid pace of technological development and the increase of globalization of the marketplace are creating a new competitive environment in which competing only with one's own resources has meant to abandon opportunities and resources available from others (Fraser and Oppenheim, 1997); many researchers, particularly in the advanced countries have studied strategic alliances with special emphasis on large enterprises and focused as a way of internationalization (Vonortas and Safioleas 1997), but there is still a gap of references to understand how this decision is taken from the point of view of small and medium size enterprises (SMEs).

SMEs are characterised by tight resources, which puts them in particular jeopardy from increasing globalisation and rapid technological changes. One might expect that SMEs would draw extensively on alliances to overcome their resource shortages and increase their viability in difficult times (Hoffmann and Schlosser 2001). However, recent studies show that SMEs' propensity to co-operate is significantly less than that of large companies (Haagedorn and Schakenraad 1994) particularly in developing economies (Vonortas and Safioleas 1997) such as Latin America. There is ample evidence that both large-small and small-small linkages are important in Latin America (Berry 1997) but many governments have to face the lack of consistent analytical studies on this issue.

This study aims to identify critical factors in alliance decision-making with particular consideration given to the specific situation of small and medium enterprises (SMEs). The concept of inter-linkages among firms and the adoption of cooperative strategies by companies face with continuous economic changes (Coral 2009). We can find several useful definitions of strategic alliances proposed by researchers; Gulati (1995), for example, defines them as an "independently initiated inter-firms link that involves exchange, sharing, or co-development", while Hitt (2000) sees them as "cooperative arrangements between two or more firms to improve their competitive position and performance by sharing resource". These definitions pay attention to the perspective of management resources, and capture the substance of strategic alliances as exchange or sharing subject to the nature of management resources to be exchanged. In this research alliance of SMEs should be understood as a cooperative agreement among themselves and/or with third parts (such as large enterprises, universities, organizations, etc.), based on business contracts (formal or informal) to reach medium or long term benefits that they could hardly obtain under dairy economic activities, like exchanging,

sharing or co-development of products, technologies or services (Diaz et al 2010). Similar terms, such as: inter-relationships, inter-firms cooperation, partnering, collaboration, engagement, and association are also used as synonymous of alliance of SMEs in this research.

Our main contribution is seeking to provide a framework with factors that influences alliance decision-making process. Based on Social Capital and Social Exchange, this research concentrated his analysis on a sample of SMEs from Mexico integrated by both, experienced and inexperienced alliance entrepreneurs.

The critical role of decision-making process regarding the choice of being engaging into an alliance deserves particular research attention (Das and Teng 2001). This research could be especially attractive to the different actors involved with SMEs, such as government; large enterprises, universities and nongovernmental organization in order to focus their effort to promote this strategy successfully.

## **1.1 Literature review**

### *1.1.1 Social Capital*

The concept of Social Capital has different perspectives such as bonding, bridging, and linking (Szreter and Woolcock 2004). Bonding social capital refers to horizontal ties, bounded within similar individuals or groups (Putman 2003). This form of social capital acts at the micro-level of individual/family, strengthening social support and cohesion (Pridmore 2007). Bridging and linking social capital refer to ties that cut across individuals/communities and probably operate at the meso-level of neighbourhoods and cities and the macro-level of states (Pridmore 2007). Bridging social capital is related to an inequality thesis, arguing that the growing gaps in developed societies erode mutual respect and trust (Wilkinson 2005).

### *1.1.2 Social exchange*

Social Exchange theory is associated with the work of George Homans and Peter Blau and built on the assumption that all human relationships can be understood in terms of an exchange of roughly equivalent values (O'Brien, Jodi and Kollock 1991); for Blau, Social Exchange refers to the voluntary actions of individuals that are motivated by the returns they expect to have from others; The need of reciprocation is for both benefits received and benefits given the starting point for social exchange. This exchange of benefits makes partners in a relationship more interdependent and establishes mutual trust. For Hommans, Social Behaviour is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige. The people that give much to others try to get much from them, and the people that get much from others are under pressure to give much to them. This process of influence tends to work out at equilibrium to a balance in the exchanges. Social Exchange theory is one of the primary orientations to the analysis of social interaction and social structure. Social relations are viewed in terms of the primacy of the costs and benefits exchanged in interaction, often acting through different factors.

### *1.1.3 Alliances*

An increasing amount of attention is being paid in the literature to business networks, clusters and other kind of association among small firms to bring about economic growth through productivity gains based on collaboration (Coral 2009).

It is argued that the success of industrial districts in Europe is based on a system that socializes risk across a broad array of public and private institutions (Schmitz and Musyck 1994). Small firms do not have to bear the entire burden of developing new technologies, finding new markets, training skilled workers, or raising capital. Many of the costs of specialisation are shared by or embedded in a dense of alliances among firms. Entrepreneurial firms benefit because, the linkages allow firms to enhance their strategic marketing options and to compete effectively in, or circumvent, channels normally controlled by larger firms, serving as a source of competitive advantage (Coral 2009, Cravens and Piercy 1994).

Alliances should be understood in this paper, as a cooperative agreement among themselves and/or with third parts (such as LEs, universities, organizations, etc.), based on business contracts (formal or

informal) to reach medium or long term benefits that they could hardly obtain under dairy economic activities, like exchanging, sharing or co-development of products, technologies or services (Diaz et al 2010).

The role of individual strategic decision-makers constitutes a significant factor in strategy-making, because no appreciation of strategic outcomes can be achieved without understanding the nature and impact of this role (Das 2001).

**1.1.4 Alliances and SME's**

SME are always full of contrast; on the one hand, the simple structure that many SMEs have, provide a vast pool of creative energy distributed in small way of production that are more inclined to innovate and more able to implement changes than in large enterprises but, on the other hand, they, particularly in developing countries such as Mexico, face structural problems; many of these enterprises are family-business in which the conventional methods have been used generation by generation, many entrepreneurs argument: "This way of operation has worked in the past, why should we change our way of working?" (SE 2008).

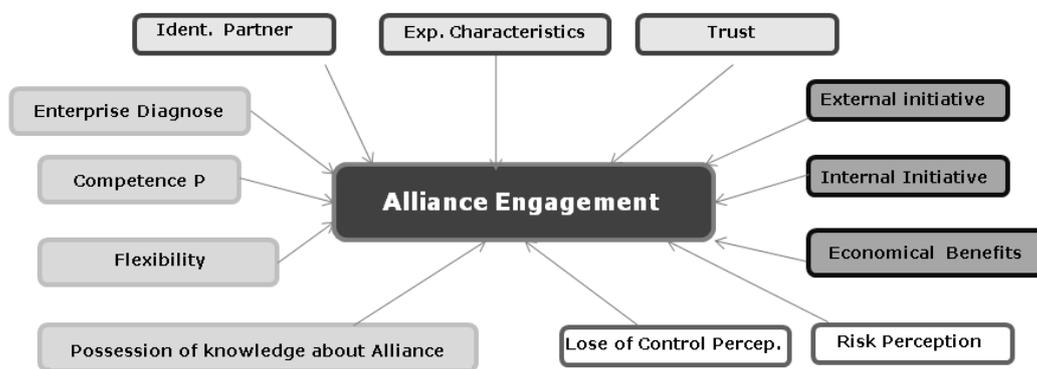
In the industrial district or dynamic sectors, SMEs overcome individual limitation through collective efficiency through three different ways: inter-firm co-operation, public-private collaboration and supportive public policies. These three forms provide the organizational forms under which the small firms can combine its advantages of flexibility and the support that came from larges networks (Pyke and Sengerberger 1992).

As a consequence of the globalization, many different agreements had been holed between developing and developed economies making the environment hostile for those SME's which are no able to be enough competitive. The new challenger is now producing a new paradigm "Joining to be competitive" (SE 2008).

**1.1.5 Alliance decision-making process**

The growing interest in strategic alliances has begun to provide us with significant research insights. However, most major perspectives attempt to underline the advantages and disadvantages of being engaged, but very few researches provide information about the factors that play an important role into the decision-making from the perspective of SMEs, indeed, existing approaches have been criticized for lacking of an orientation process (Ring and Van de Ven 1994).

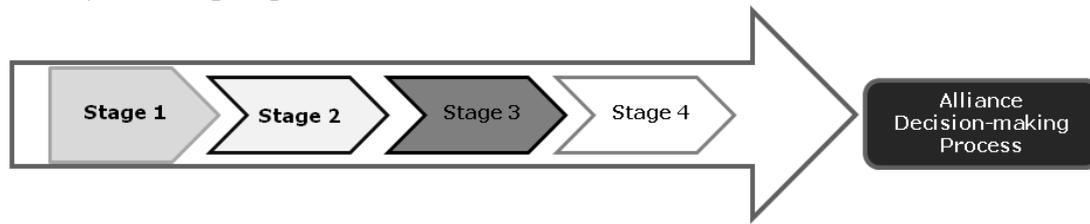
We provide a framework based on different factors, we analyzed how these factors impact into the alliance decision-making (figure 1) and we propose a process that could be follow to increase positive alliance decision among SMEs (figure 2).



**Figure 1:** Factors on alliance decision-making

A fair number of scholars have studied strategic decision-making in alliances, typically aiming at understanding the perceptions and decision contexts that form the basis of the partners' decisions. Alliance decision-makers are no longer assumed as completely rational rather, they are believed to have limitations in reasoning capacity. Our proposal is integrated by 12 different factors as it is showed in figure 1. Based on the current literature we suggest that these factors have influence on

alliance decision-making, we also propose a four steps sequence to lead the alliance decision-making process, integrated by four stages: 1) internal enterprise analysis, 2) searching of partner, 3) linking stage and 4) evaluating stage.



**Figure 2:** Stages of alliance decision-making process

### **Enterprise diagnosis**

Enterprise diagnose refers to the analysis used to evaluate the current situation of the enterprise, we could compare this analysis to the SWOT method (Strengths, Weaknesses, Opportunities and Threats) created by Albert Humphrey. It involves specifying the objective of the business venture or project and identifying the internal and external factors that are favourable and unfavourable to achieve that objective.

The enterprise diagnose is closely linked to the decision-making process as a way to determine the best strategy to the objectives of the entrepreneur in the next future. We propose a correlation between the level and frequency of enterprise diagnoses and the positive alliance decision-making.

### **Competence perception**

The perception of self-efficacy leads the internals to believe that if they do their part of the job then, things will be fine. Since internals are confident about their planning of the alliance, they will perceive relatively low performance risk (Miller 1999).

The entrepreneur, as protagonist of the decision-making, could have different perceptions of the company's competence. Competence perception is a factor that has influence on the entrepreneur's decision making. In essence, we suggest that there is a positive influence between high competence perception and positive alliance decision-making.

### **Flexibility**

One of the most common advantages of SMEs identified by many authors is the possibility to change constantly in order to be more adaptable to the environment; we should then take this as a definition of flexibility in this research.

The concept of flexible specialization has been closely associated with Piore and Sabel's. SMEs can grow fast or even faster than LEs (large enterprises) with the process of development (Piore & Sabel 1984). In many western countries, including Japan, Sweden and the USA; SMEs in some subsectors e.g. electronics and automotive, have been found to be very significant as sources of invention, innovation and efficiency.

Hence our proposition makes reference to the higher level of flexibility as a factor influencing positive alliance engagement.

### **Possession of knowledge about alliances**

Knowledge is among the most valuable and meaningful organizational assets (Drucker 1993) affecting the competitiveness of firms, and even their survival (Quinn 1992 and Toffler 1990). Indeed, in an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge (Nonaka 1991).

In order to create a competitive advantage, firms need to harvest and exploit knowledge (Grant 1996), possession of information regarding to different issues makes people to be more confident and to have more possibilities to decide their business strategies. Therefore we propose a positive correlation between possession of information about alliances and positive alliance decision-making.

### **Identification of partners**

The failure of many alliances can easily be traced to partner selection. In choosing appropriate partners, strategic alliance research identifies four Cs (compatibility, capability, commitment and control) as criteria for successful pre-selection of alliance partners (Hagen 2002, Kanter 1994).

While these issues have been examined differently in diverse inter-organisational contexts, not much work has been done to investigate empirically how this issue influence the evaluation of alliance decision-making process; therefore we suggest a positive influence between the high level of partner's identification and the positive alliance engagement.

### **Expected characteristics**

The relative size, resources, and market power of the partners affect the decision of being engagement in an alliance. Alliances between equally strong, equally weak or unequal partners can be dramatically different in their alliance motives and structuring process. Partner asymmetry which allows one partner to exercise power and control over another partner is one of the key alliance motives (Oliver 1990). Many stronger partners enter into an alliance with the hidden agenda of "capturing" the weaker one (Bleeke and Ernst 1995). Small firms are more vulnerable to their partners' opportunistic behaviour (Oborn and Baughnüs 1990). Hence we propose that asymmetry (size, technology, facilities, market, sector, location and business relation) of enterprise characteristics increase positive alliance decision-making.

### **Trust**

Partners' trustworthiness influences the conduct of the partners in all stages of alliance development. Trust is influence by cultural background. Various studies point out the role of cultural beliefs in the performance of work organizes, evaluate and carry out their work (Trompenaars 1985). The construction of stereotypes related to the culture of a country affect the way of doing business (Paz 1991).

There are some factors that are considered in selecting a partner: complementary, resources relative to their value, status similarity, direct prior alliance experiences, indirect prior alliance experiences and prestige. This research suggests especial attention to trust built by the prestige of partners, particularly in developing countries whose economics are fragile and highly vulnerable. Therefore we suggest that there is strong influence of the level of trust built by the prestige of a partner and the positive alliance decision-making.

### **Initiative to propose an alliance**

More importantly, for an SME, the process of achieving competitiveness is strongly influence by the key players, highlighted as entrepreneurship factors in the framework of Horne (1992). Even in the literature emphasizing the internal or external sources of competitiveness, these entrepreneurial factors are also stressed. For instance, an OECD study (1993) has put forward the idea that the "basic role played by the owner/manager" is one of the major determinants of SME competitiveness because of the concentration of decision-making power in the owner/manager in an SME environment, consequently affecting the firm's overall strategy.

A clear example to illustrate this could be found in Italy, mainly in Prato, Toscana; the existence of a leader enterprise to be in charge of promoting and coordination with other enterprises has become one of the most important force to develop these enterprises (SE 2008).

### **Identification of benefits through alliance strategies**

The literature on motivation has produced an impressive list of reasons for why organizations enter into an alliance, including along the supply line and involve resource transfer beyond simple exchange relationship (finance, design, management skills and technology may flow between the partners), learning-based alliances, which enable both creation and transfer of tacit knowledge across organizational boundaries, market-based alliances, for instance motivated by a need to reduce competition.

Fundamentally, alliances are motivated by the desire to achieve some benefits of a global strategy or the need to compensate for the absence of, or weakness in, a (perceived) needed asset or competency. Specific motives include economies of scale, sharing R&D costs, reducing competition,

learning, conforming to government policies and facilitating international expansion (e.g., Glaister and Buckley 1996).

The specific motive for alliance formation is likely to have an impact on the partner selection process, as firms are likely to value differently the capabilities of a potential partner based on this initial motive. (Nielsen B. 2003). We suggest then a positive correlation between the higher level of identification of benefits through alliance strategies and positive alliance decision-making.

### **Risk perception**

Just like the characters in animated films who, suspended in mid-air, do not plunge to the ground until they realize their predicament, people construct their own reality and evaluate risks according to their subjective perceptions. This type of intuitive risk perception is based on how information on the source of a risk is communicated, the psychological mechanisms for processing uncertainty, and earlier experience of danger. This mental process results in perceived risk—a collection of notions that people form on risk sources relative to the information available to them and their basic common sense (Jaeger et al. 2002). Thus, this section focuses on constructed reality, i.e. the world of notions and associations that help people to understand their environment and on which they base their actions.

A risk perception is a term to refer to those ambiguities, as perceived by prospective alliance partners, about the future events that may negatively impact on the performance of the alliance. It can be identified two distinct sets of uncertainty in strategic alliances: uncertainty regarding future states of nature” and “uncertainty whether the parties will be able to real on trust (Ring and Van de Ven 1992). Proceeding along similar lines, it can be differentiated between relational risk and performance risk in strategic alliances (Das and Teng, 1996, 2001). Our suggestion is that the lower the level of risk perception (relational and performance risk) is, the higher the positive alliance decision-making will be.

### **Loss of control perception**

Perceived control has been defined as “the belief that one has at one’s disposal a response that can influence the assertiveness of an event” (Thompson 1981). Control may be perceived as instrumental, where a behavioural response is available, or cognitive, where a cognitive strategy is available (Litt, 1988, Thompson 1981). It is important to note that control need actually not to be provided, it simply needs to be perceived to be available (Law, Logan, and Baron 1994, Litt, 1988; Thompson, 1981).

Researchers have also identified a close relationship between a strategy-maker’s locus of control and strategy-making. The perception of self-efficacy leads the internals to believe that if they do their part of the job, things will be fine. Since internals are confident about their planning of the alliance, they will perceive relatively low performance risk. In essence, we suggest that the higher the perception to loss control is the lower positive alliance decision-making will be.

#### *1.1.6 Phases of alliance engagement*

Although researchers agree that alliances evolve in stages, there is no consensus on the specific stages that alliances go through. Following Das and Teng (2001) and based on the literature reviewed we propose a four steps sequence to lead the alliance decision-making process, integrated by four stages: (1) internal enterprise analysis, (2) searching of partner, (3) linking stage and (4) evaluating stage. We suggest a positive association between alliance engagement and the four steps sequence proposal.

## **2. Methodology**

### **2.1 Sample**

The sample is integrated by 148 SMEs located in Mexico, 69 of these SMEs with alliance experiences and 79 SMEs without alliances experience. The main characteristics of our samples are summarized as follows: (a) size: participants of the sample were small sized enterprises (between 11 and 50 employees) and medium sized enterprises (between 51 and 250). (b) sector: the sample was integrated by manufacture enterprises focused on manufactured goods (including agricultural activities), trade enterprise focused on buying and selling products and service enterprises focused on providing different kinds of services.

(c) age: the year of operation of the SMEs was between 5 to more than 30 years of operation, (d) market: most of the SMEs in the sample were focused on regional and domestic markets. Very few of them operated in international markets, and (e) alliance experiences: the sample included SMEs without alliance experience and SMEs with alliance experience.

**2.2 Measurement and Procedure**

To be able to access to the empirical data and taking into account the information above, two questionnaires were designed for this research. In order to reduce bias, the questions were structured and standardized so that, one response does not influence the subsequent questions.

The questionnaires were developed to use them, either face to face interview or written survey; however, face to face interviews were preferred because they allowed getting in-depth and had comprehensive information. Most of the items were measured using a five-point Liker scale.

The questionnaire asked respondents to indicate the extent to which the proposed factors have affected the decision of being engaged on alliance or not. To ensure that respondents share a common notion of alliance engagement, a definition was given at the beginning of the questionnaire.

Target respondents were owners or decision-makers managers of SMEs. Since the primary objective of this study is to develop a framework of the main factor influencing alliance decision-making, owners and decision-makers were the most appropriate single source. The challenges of accessing these people who are particularly “time-poor” required a concerted approach. Our first point of contact was through our research partners, followed by telephone contact to introduce ourselves as well as to concert a meeting and finally a personal interview.

**3. Data analysis**

Data itself is not information, it has to be analyzed and interpreted, and then it is able to provide useful information. Statistical data analysis involves discussing the use of specific tests, the assumptions of the statistic and how the statistic would be interpreted.

Due to the fact that the sample was not distributed in a Gaussian manner, the main tests chosen were non parametric tests. Basically the data analysis was done following three different perspectives: one general (bases on descriptive statistic), a second one focuses on find any relation between the factors, and the last one causal (to find cause-effect factors). The descriptive perspective, showed in table 1, was based on measures of central tendency including the mean, median, mode, standard deviation, variation, percentage.

**Table 1:** Results of main central measures

Independent Variables	SMEs without alliance engagement				SMEs with alliance engagement			
	Mean	Median	Mode	Std. Dev	Mean	Median	Mode	Std. Dev
Enterprise diagnostic	1,4	1,0	1,0	0,9	3,3	3,0	4,0	0,9
Competence perception	2,8	3,0	3,0	0,9	3,4	3,0	3,0	0,6
Flexibility	2,2	2,2	2,0	0,6	2,9	2,8	2,6	0,4
Possession of knowledge	1,8	1,7	1,7	0,7	2,6	2,6	2,9	0,5
Partner’s identification	1,8	2,0	2,0	1,0	3,1	3,0	3,0	0,8
Expectation about characteristics	2,7	2,8	3,0	0,3	2,3	2,3	2,2	0,4
Trust	3,9	4,0	4,0	0,2	3,6	3,5	3,5	0,3
Economic benefits	2,7	3,0	3,0	1,0	3,6	4,0	4,0	0,5
External initiative	1,7	1,0	1,0	1,0	2,4	2,0	2,0	1,3
Internal initiative	1,2	1,0	1,0	0,5	2,9	3,0	2,0	1,4
Risk perception	2,6	2,7	2,7	0,4	2,7	2,7	2,7	0,3
Loss of control perception	2,7	2,8	2,0	0,4	2,8	2,8	3,0	0,3

**Source:** Own elaboration based on SPSS outputs. Table 1 shows the mean, median, mode and standard deviations of the independent variables. They were grouped based on two criteria: SMEs without alliance engagement and SMEs with alliance engagement experience.

The second perspective was based on Spearman's Rho correlation which was selected on the assumption that our data was ordinal and not normally distributed. The Spearman correlation coefficient is often thought of as being the Pearson correlation coefficient between the ranked variables; however, a simpler procedure is normally used to calculate  $\rho$ . The  $n$  raw scores  $X_i, Y_i$  are converted to ranks  $x_i, y_i$ , and the differences  $d_i = x_i - y_i$  between the ranks of each observation on the two variables are calculated.

If there are no tied ranks, then  $\rho$  is given by:

$$r = 1 - \frac{6 \sum d_i^2}{n(n^2 - 1)}$$

If tied ranks exist, Pearson's correlation coefficient between ranks should be used for the calculation:

$$\rho = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_i (x_i - \bar{x})^2 \sum_i (y_i - \bar{y})^2}}$$

One has to assign the same rank to each of the equal values. It is an average of their positions in the ascending order of the values. Table 2 shows these results.

**Table 2:** Results of Spearman Correlation

No	Variable	Spearman	Sig
1	Enterprise Diagnose	0.726	0.000
2	Competence Perception	0.359	0.000
3	Flexibility	0.505	0.000
4	Possession of knowledge	0.609	0.000
5	Partner's identification	0.589	0.000
6	Expected Characteristics	-0.451	0.000
7	Trust	-0.500	0.000
8	External initiative	0.390	0.000
9	Internal initiative	0.739	0.000
10	Economic Benefits	0.431	0.000
11	Risk Perception	0.189	0.101
12	Lost of control perception	0.312	0.001

**Source:** Own elaboration based on SPSS outputs.

The last perspective analysis was developed because the correlation is symmetrical and does not provide evidence of which way causation flows. We choose binary logistic regression because it is a form of regression which is used when the dependent is a dichotomy (in our case with or without alliance) and the independents are of any type. Logistic regression applies maximum likelihood estimation after transforming the dependent into a logarithm variable (the natural log of the odds of the dependent occurring or not). In this way, logistic regression estimates the odds of a certain event occurring. The regression model predicted the log, that is, the natural log of the odds of having made one or the other decision regarding to alliance engagement. That is,

$$\ln \left( \frac{Odds}{1 - Odds} \right) = \ln \left( \frac{\hat{Y}}{1 - \hat{Y}} \right) = \ln \left( \frac{e^{b_0 + b_1 X_1 + b_2 X_2 + \dots + b_n X_n}}{1 - e^{b_0 + b_1 X_1 + b_2 X_2 + \dots + b_n X_n}} \right)$$

where  $\hat{Y}$  is the predicted probability of the event which is coded with 1 (alliance engagement) rather than with 0 (not alliance engagement),  $1 - \hat{Y}$  is the predicted probability of the other decision, and X are the predictor variables, ED, CP, FX, PK, PI, EC, TR, CT, EI, II, EB, RP and LC (see abbreviations). The model was constructed by an iterative maximum likelihood procedure. The summary model is showed in table 3.

**Table 3:** Binomial Regression

Step	-2log likelihood	Cos & Snell R Square	Nagelkerke R Square	Chi-Square
6	60.857	0.621	0.829	4.683
No	Variable	B	Sig	Exp (B)
1	Enterprise Diagnose	-2.141	0.002	0.117
4	Flexibility	-19.06	0.997	0.000
6	Expected Characteristics	1.81	0.01	6.144
7	Trust	1.6	0.024	4.972
8	External initiative	-1.4	0.057	0.246
9	Internal initiative	-1.89	0.007	0.150
10	Economic Benefits	-2.451	0.099	0.086

**Source:** Own elaboration based on SPSS outputs.

Finally to be able to have an objective interpretation about the sequential order of the proposed stages of alliance engagement, we reordered all the possible combinations selected by our responders and choose those which were more frequently selected.

#### 4. Results and discussion

Small more than medium enterprises were more propensities to alliance engagement, particularly enterprises with manufactures and services activities; we think this is because these two activities provide more possibilities to exploit alliances strategies focus on market increasing, accessing of resources and cost reductions which are the area within entrepreneurs show more knowledge.

60% of the entrepreneurs who experienced alliances have used this strategy more than one time, there is a clear trend to prefer alliances related to market issue; resources access alliances showed an important decrease of percentage (15%) when the number of engagement increased, while alliances related to cost reduction issues increased up to 10% and research and development issues up to 5%; our argument suggest that entrepreneurs prefer to start with market and access of resources alliances since they require weak level of engagement while, cost reduction and research and development alliances require stronger level of inter co-operation as well they seems to be more complicated to them at the very beginning (Díaz et al 2010).

Enterprise diagnostic was a variable with important differences between SMEs with alliance experience and those without alliance experience. The first group was significantly high evaluated in doing an enterprise diagnostic before taking any strategic decision. These results support the idea that in alliances, cooperation can be more firmly subordinate to a firm’s strategic goal, rather than being aimed at resolving immediate or circumstantial needs (Gates 1995, Hagedoorn and Schakenraad 1993, Lewis 1992, Ring and Vand de Ven 1992). SMEs involved in alliance were highly aware of enterprise diagnostic as a precondition of being engaged.

Similarly to this fact competence perception was highly ranked among SMEs with alliance experience. Most of the SMEs with alliance engagement were in the highest level of competence perception (almost 94%). They saw themselves as highly competent to be engaged in alliance strategies. They felt self-confidence to be involved in new strategies. However, interesting is the fact that, in general terms, both group ,with and without alliance, were similarly competitive but the perception of this fact was higher on SMEs with alliance experience than the second group. We think this fact was resulted of the frequently enterprise diagnose practiced by the first group, providing real and current

information regarding to their company, while group two was characterized by lack of information of their current business situation.

Both groups of SMEs were found flexible and adaptable to changes, which agree with other studies that point it out as a common characteristic of almost all SMEs, both groups reported the highest level of flexibility in service issues; they had few complications to make changes related to product and facilities and they faced a lot of difficulties to be flexible in personnel and administrative issues, however, SMEs without alliance experience reported stronger difficulties in administrative issues, particularly in implementing new strategies. We think this fact is playing an important role on alliance engagement as a strategy to be considered for many SMEs with close-management owners.

Possession of knowledge was low evaluated in both groups, but particularly in SMEs without alliance experience. According to Drucker (1993), knowledge is among the most valuable and meaningful organizational assets affecting the competitiveness of firms, and even their survival (Quinn 1992 and Toffler 1990). Indeed, in an economy, where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge (Nonaka 1991). In general, it can be assumed that there is a lack of knowledge about different issues of alliance, particularly regarding to research and development alliances.

Trust was highly required for all SMEs to be engagement in alliance issue. These results are confirmed by the current literature in where the critical place of trust has been always emphasised in organisational relationships (Cavaye and Coote 2002) and strategic alliances in particular (Das and Teng 1999, Hitt et al. 1996, Medcof, 1997). In Mexico, trust plays an important role in business relationship, especially strong trust form, which emerges where there are many possibilities of opportunism; therefore, it should not be a surprise that the level of trust for both groups was very high qualified. Trust involves uncertainty about the future, implies vulnerability which means the risk of losing something of value and it is placed in another whose behaviour is not under one's control. An important fact to underline leads to the fact that the more experience the SMEs had on alliance engagement, a slightly reduction on trust requirement was observed. It seems that SMEs turn trust requirement in more objective requirement that might be affect alliance success.

On the other hand entrepreneurs without alliances experiences seems to be very far away from this strategy because most of their weaknesses are located on factors which are closely related to the enterprise deficiency such as weak enterprise diagnose, low level of flexibility, lack of knowledge; Many of these enterprises are more concentrated to survive than to growth.

High level of risk perception and high level of loss of control perception were constant in both alliance experienced and inexperienced entrepreneurs, the main cause is related to the fact that many SMEs in our sample do not offer very sophisticated products or services which increases in one hand the risk of plagiarisms in alliances strategies and on the other hand the loss of control perception is strongly affected by the fact that Mexico is a country with high levels of economy , politics and social instability .

There are significant difference between the expected characteristics of alliance experienced entrepreneurs and non alliances experiences entrepreneurs. The first group acknowledge that successful alliances are achieved with enterprises with same size, facilities, and technologies, higher market penetrations and better business relationships. Same sector but different activities seem to increase positive attraction to be involved on alliances, however the lack of orientations and idealization had made inexperience entrepreneurs look for larger enterprises making the potential engagement as a unfairness and highly competitive strategy and therefore less attractive.

Enterprise diagnose, competence perception, flexibility, possession of knowledge, identification of potential partners, internal initiative and economic benefits and loss of control perception are positive correlated to alliance engagement while higher expected characteristics and high level of trust is negative correlated to alliance engagement (Díaz et al 2010).

In addition the results of logistic binary regression shows that internal alliance initiative, frequently enterprise diagnose, trust based on partners' prestige and smaller or similar characteristics of potential partners and a good identification of economic benefits are cause-effect factors on positive alliances decision-making. We think that the main reason of these results lead to the following facts:

(a) the evaluation of the current situation of an enterprise and establishment of objectives usually identified from an enterprise diagnostic are closely linked to the decision-making process as a way to determine the best strategy for the next future of an enterprise. Alliances place greater emphasis on firm's strategy. In the alliances, cooperation can be more firmly subordinate to a firm's strategic goal, rather than being aimed at resolving immediate or circumstantial needs, such as avoiding the expenses of plan expansion or meeting an unexpected surge in product demand. (Gates 1995, Hagedoorn and Schakenraad 1993, Lewis 1992, Ring and Vand de Ven, 1992). (b) a positive competence perception increases the self-confidence of enterprises to be involved in different strategies. The SMEs likely to engage in alliance activity embodied certain characteristics related to their own perception (Arend 2006.). Evidence indicates that weaker SMEs are less likely to choose alliance activity while stronger SMEs are more likely to choose alliance activity and (c) according to Rosales (1997), in Latin-American there is lack of leadership to take initiatives of joint strategies, few entrepreneurs know different alternatives of association and there is still a lack of objectives and regulation about this issue. Internal initiative is then an important cause of alliance engagement. The role of entrepreneurs to become more active on alliance engagement is one of the major determinates of SMEs competitiveness (OECD 1993).

Finally, the results of the sequential order to follow on alliance engagement pointed out by SMEs with alliance experience suggest that it should be consider at first place the enterprise analysis, followed by the partners' identification, then risk-control analysis and finally the alliance proposal. Entrepreneurs emphasized the importance of the first stage as a starting point of alliance decision making because it could provide the identification of an ideal partner, the type of engagement and some possible risk that might result from the weakness and threats analysed during this first stages. They suggested the identification of partners as the second stage because it was considered as a key factor for the successful of the alliance. This stage plays a key role for the next stage: Risk and control analysis were acknowledged as significant only after a good identification of the potential partner because it is when a company can have a complete view of the possible risk and loss of control; and finally the development of a good proposal was identified as the last stage into the decision making process. It should be based on the analysis of the previous stages, considering possible limits to negotiate with the potential partners, making the alliance attractive enough to be accepted (Díaz et al 2010).

## **5. Limitations**

Findings might be country specific, particularly regarding to variables such as trust and culture which were based on Mexican context. Future studies should include or exclude some independent variables to provide more general results. Moreover, they should use samples of firms from other countries to analyze the same factors.

The total size of the sample could not have been large enough to represent the total among of SMEs in Mexico. Future studies should consider larger sample to validate findings.

Some variables were measured with only one five-ordinal scale item, which limited the number of tests to analyze the data from more different perspectives. Future studies should consider the possibility to include more items to measure one variable.

## **6. Conclusions**

Globalization is an expression of a rapidly growing and changing economy that has driven both large firms and small to medium sized ones to the same competitive arena (Fraser and Oppenheim, 1997). The advantages of the SMEs of being faster and flexible are clouded by the lack of resources and skills to develop businesses in the network. Successful development in some economies, mainly in Asia, has been based on effective linkage participation of SMEs as a strategy to cover the scarcities they face. This strategy is now playing an important role on the agenda in many countries in Latin America, but there is still a lack of information to make this strategy more popular among SMEs in these countries. This paper was focused on the alliance decision-making process from the perspective of SMEs. The main contribution was to provide a framework of different factors that are influencing alliance decision-making process. To rise this objective, we analyzed the influence of twelve factors: the level of enterprise diagnose, the level of competence perception, the flexibility of the enterprise, the possession of knowledge about alliances of the decision-maker, the capacity to identify possible partners, the asymmetry of expected characteristics, the level of trust, the external and internal initiative, the level of risk perception and finally the level of possible loss of control

perception. Our analysis was focused on a sample of Mexican SMEs with and without alliance experience.

Enterprise diagnose, competence perception, flexibility, possession of knowledge, identification of potential partners, internal initiative and economic benefits and loss of control perception are positive correlated to alliance engagement while higher expected characteristics and high level of trust is negative correlated to alliance engagement (Díaz et al 2010).

Internal alliance initiative, frequently enterprise diagnose, trust based on partners' prestige and smaller or similar characteristics of potential partners and a good identification of economic benefits were found cause-effect factors on alliances decision-making.

We also proposed a decision-making process based on four stages. SMEs with alliance experience pointed out a sequential order integrated at first place by the enterprise analysis, followed by the partners' identification, then risk-control analysis and finally the alliance proposal.

Joint action through alliances is one aspect of the potential for SMEs development. This calls for deliberate and active cooperation at a multilateral level between local agents engaged in similar activities. Nadvi (1999b) have defined this as one element of the "active" dimension of collective efficiency in contrast to the passive gains associated with external economies that accrue to local agents purely by virtue of their location within the cluster. Joint action through the association, such as the formulation of local standards that result in a reputation for quality for the locale, can also lead to externality gains for other agents in Latin America. Particularly in Mexico, over the past years, Federal Government has introduced comprehensive policy measures aimed at making the SME sector more efficient. SMEs account for the near-totality of Mexican firms in the formal economy and most of them are micro firms, which are encumbered by a lack of finance and skills. Only a few SMEs have been able to successfully compete at home and abroad (OECD, 2007). Authorities have chosen a flexible policy approach to reduce barriers to entrepreneurial activity to increase decentralization and network building. States, local authorities and intermediate organizations have contributed to policy design and implementation (OECD, 2007). Many developed countries have been successful in making SMEs more competitive, one answer to this fact can be found by looking at small firms not as individual entities, but as parts of groups of firms that, by working together, are able to create what they would not be able to create as single firms.

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