

Critical Success Factors to Collaborate in Cross Border Alliances: Experiences of Indian Manufacturing Enterprises

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Abstract

Manufacturing is the backbone of any economy, be it a developed or developing one. Indian Manufacturing Enterprises (IMEs) have benefited from Cross Border Alliances (CBAs) in sharpening their competences to become part of supply chains of global OEM companies. IME alliances are studied on five areas: the rationale for collaborating, forms of alliance organizations, nature of value creating partners, critical factors for maintaining alliance and measuring success. Case studies of four south Indian firms show that critical success factors (CSFs) for successful CBAs include strategical, environmental, structural and temporal oriented elements. The success of alliances is interpreted not only in terms of financial and market achievements, but also the continuous value creation of the alliance, value capture for sharpening competence of partners and appropriation of value for global business later. Indian Manufacturing Enterprises may look at alliances as a means to improve quality, process and productivity at the plant level, to integrate into global supply chains and hence give sufficient management attention to Critical Success Factors for Cross Border Alliances. This study relates literature and established theories of inter-organizational relationships with the experiences on IMEs' alliances by the respective CEOs and Top level Managers. To conclude, the paper proposes a model integrating eleven key Critical Success Factors (CSFs) that can enable the future formation of successful Cross Border Alliances (CBAs) of Indian Manufacturing Enterprises (IMEs).

Keywords – Indian Manufacturing Enterprise, Critical Success Factor, Cross Border Alliance, Value Creation, Capture and Appropriation, Exploratory case study.

1. Introduction

Manufacturing is the backbone of the economy in most countries, especially in fast-growing markets like India. The Indian manufacturing sector has been averaging 9 % growth in the last four years (2004-08), with a record 12.3 % in 2006-07⁴. For the manufacturing sector to grow from current share of 16%⁵ to 30% of the GDP of India requires a) significant increase in the productivity and quality at the plant level, b) pursuit of worldwide competitive manufacturing strategies and operations and c) successful integration into the global supply chains, meeting stringent quality standards and delivery performance (Ref.-A).

A Cross-border alliance can be defined as a strategic partnership that is formed between two or more firms from different countries for the purpose of pursuing mutual interests through sharing their resources and capabilities (Doz et al. 1998). Strategic alliances provide flexibility to the partnering firms by committing on fewer resources and activities on which they have competencies and configuring networks of alliance partners to bridge the gap between firm's present resources and the required. It brings in competitive advantage such as risk reduction and access to new technologies, low cost resources, markets of

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⁴ <http://www.india-now.org/economy/manufacturing.aspx>

⁵ http://mospi.nic.in/4_gdpind_cur.htm Based on the data published by the Ministry of Statistics and Programme Implementation, Govt. of India.

developing nation, etc. Cross border alliances (CBAs) have resulted in reducing the deficiency gap of Manufacturing Enterprises⁶ in India⁷.

The success of many Indian Manufacturing Enterprise (IME) alliances and their confidence to thrust into global business has not caught yet the attention it deserves from the academic community. Thus, this paper identifies the critical success factors (CSFs) of successful cross border alliances (CBAs) of Indian Manufacturing Enterprises (IMEs) based on case study analysis of alliances of four South Indian firms with their overseas partners. While doing this, we have built on and relate with several established theories of inter-organizational relationship and literature. The authors hope, that the results of this study will help the Indian Manufacturing Enterprises to look at alliances as a means for overcoming their deficiencies and give sufficient management attention to CSFs of CBAs.

2. Alliances research: Diverse theoretical framework

The Strategic alliance topic has received wide attention from the research community during the past two decades. The research in “alliances” is characterized by diversity in the theoretical framework and related analysis. These theories can be roughly classified into two streams. According to the first stream, firms form alliances as an alternative to markets and hierarchies that tries to achieve: Minimize the transaction costs (transaction-cost theory: Williamson, 1975, 1991) or give access to resources that cannot be acquired from the market at acceptable cost or risk or that could not be developed internally within reasonable time (resource-based theory: Barney, 1991) or create value by pooling or exchanging dispersed knowledge (knowledge-based theory: Grant and Baden-Fuller, 1995) or provide a vehicle for organizational learning of new skills to face the uncertain future (Praise and Henderson, 2001). This structural view of the alliance, therefore, focus on circumstances under which alliances are formed such as motivations for alliance formation, partner characteristics, etc (Harrigan, 1986). The other major stream, or the relational view, focuses on the interactive nature of ongoing cooperative and dynamic relationship between firms (e.g. Ring & Van de Ven, 1994) and tries to explain alliance in terms of “soft issues” such as the interpersonal and inter-organizational trust (Dyer and Singh, 1998) or the role of key executives to commit on alliance formation and success (Eisenhardt and Schoonhoven, 1996), etc.

Studies on alliances tend to focus around the determinants of success and failure from a theoretical perspective. Rarely the two streams have been combined in order to investigate the underlying factors that promote or impede successful outcomes of CBA (Nielson, 2007).

3. Critical Success Factors (CSFs)

The Critical Success Factor (CSF) approach has the conceptual antecedents from the “success factors” (Daniel, 1961). He argued that a company’s information system must be discriminative and selective, focusing on ‘success factors’ (usually three to six activities vital for success for an industry), which in turn, must be tied to goals of the organization and form the basis of management control. Later Anthony et al. (1972) sharpened the concept by introducing CSF and uplifted the concept to the managerial level, showing it can vary from

⁶ Hayashi (2002) describes the benefits of being part of global supply chain for manufacturing sector of developing and third world countries as

- a) The reduction of information and transaction costs through subcontracting ties, which includes easy and cheap acquisition of new technologies, product designs, production processes, management tools, marketing and input materials.
- b) The reduction of risks and uncertainty and an increase in the expected rate of profits as a result of stable orders and better payment conditions.
- c) The improvement of creditworthiness (e.g. for financial sourcing).

⁷ Subramanian, (2007) found that Indian Manufacturing Enterprises, particularly SMEs, have been benefited from the large-scale subcontracting of parts and components to Indian and overseas OEMs.

company to company. Rockart (1979) defines Critical Success Factors (CSFs) as those few key areas of activity in which favorable results are absolutely necessary for successful competitive performance for an organization. He introduced the concept of different CSFs based on structural, strategic, environmental, temporal⁸/operational requirements of various companies/industries and different levels and positions of the management, and need for binding to performance indicators⁹. Thierauf (1982) states that if the results in these areas (CSFs) are not adequate, the organization's efforts for the period will be less than desired. The CSFs are those few key areas of activity which must be performed particularly well in order for the organization to outperform its competitors [Vasconcellos e Sa 1988]. For obvious reasons, critical success factors are the key areas of activity where “things must go right” that must receive due attention from management.

4. Research Questions and methodology

Research question

Since alliance is an important “strategic tool” for IMEs to develop competences and compete in the era of globalization, it is pertinent to understand the key areas of activity where “things must go right” that must receive due attention from management and “tune” their management control. The basic research question is: What are the critical success factors for successful cross border alliance among Indian Manufacturing Enterprises (IMEs)?

Based on the literature (detailed in section 5), we have subdivided this question into following and form the basic framework or *study protocol* (Stuart et al., 2002, Yin 2003a,b) for the subsequent interviews and questionnaires.

- a) **Rationale for collaborating:** *Why do IMEs go for an alliance?*
- b) **Forms of alliance organization:** *What form of alliance organization contributes to success?*
- c) **Value creating partners:** *What characteristics of partners bring in alliance success and value creation under a win-win long term perspective?*
- d) **Going with Alliance:** *What factors are critical for maintaining alliance?*
- e) **Measuring Success:** *What indicators can be taken into consideration to measure and track the success of alliance for an IME and the foreign company?*

Choice of research methodology

Rockert (1979) recommends for in-depth interview of managers for finding CSFs. Auruškevicienė et al (2001) observes that there is no universal critical success factor research method and reports that with the growth of the problematic and organizational scope of critical success factors, consultants and researchers used numerous critical success factor methods such as ‘onion technique’ interviews, analysis of related organizational activities, *a priori* list of critical success factors based on literature sources, mailed questionnaires, interviews in combination with subsequent questionnaires.

Yin (2003) defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. Since boundaries of structural and relational factors involved in success of

⁸ “Internal organizational considerations often lead to temporal critical success factors. These are areas of activity that are significant for the success of an organization for a particular period of time because they are below the threshold of acceptability at that time” (Rockart, 1979). We prefer to call temporal factors as operational factors.

⁹ This will force the organizations to collect data and to orient its management information systems (MIS) not based on that which is “easy to collect” rather that is required by Top Managers based on their assessment of critical success factors. Further, many often financial data are not sufficient to capture the requirements of CSFs (Rockart, 1979)

alliance are not clear (Nielson, 2007), we believe an exploratory case study methodology, based on theoretical framework developed from literature, would bring out what managers consider CSFs of their alliance success.

Case Study methodology

Our framework follows the “replication” logic which states good performance of the factors (*here – CSFs*) under which successful occurrence of phenomenon (*Successful CBA*) is likely to occur in two or more cases (literal replication) (Yin, 2003a, b) and Auruškevicienė et al (2001) “recipe” as described in *Choice of research methodology*. As Miles and Huberman (1984) observed: “...findings are more dependable when they can be buttressed from several independent sources...” Secondary sources were used to check the veracity.

A detailed semi-structured questionnaire¹⁰ was prepared based on the factors mentioned earlier in this section. The main sources for questions are from Saxena and Kumar, (2007) for motives, partner selection, performance and termination (employed Likert scales 1-5); Dyer (2004) and Jagersma (2005) for forms of alliance organization and Bamford et al. (2004) for Align strategically – Governance systems - Economic dependencies – Building Alliance Organization.

Face to face interviews were conducted with CEOs and/or managing partners and/or top officials of companies based on the questionnaire prepared. The chosen companies for this study have good financial performances and successful cross border alliances as per company annual reports, news reports & websites on their secondary sources such as company websites. It took roughly an hour for each interview. The meetings took place in their head offices. Later on, the three companies have returned the filled questionnaires and for the fourth company, it was filled while interviewing. The detailed case studies were prepared. Then major themes were derived out of it. These case studies with their theme summary were sent to each company for their approval. Two companies corrected and approved. The third one orally approved. The fourth company did not respond.

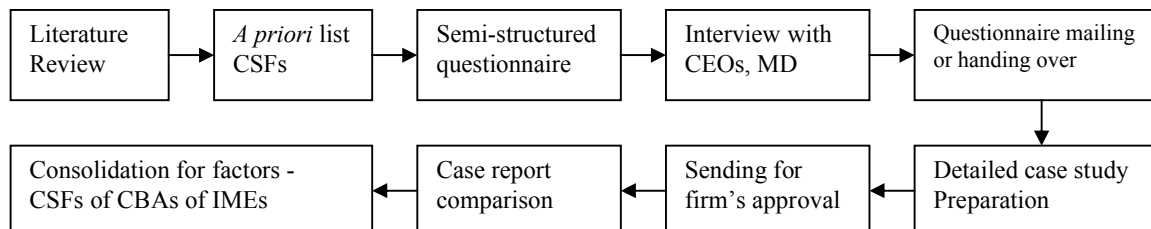


Figure 1 Research Methodology

5. Critical Success Factors (CSF's) for IMEs

a. The rationale for collaborating

Value creation – The need to collaborate to compete

Value creation is to make “sense” or value to collaborate. Doz and Hamel (1998) further elaborate by identifying three types of “logic of alliance value creation” for firms.

It could be *to co-opt collaborating firms* (networking) in order to develop critical mass by pooling combined customer bases and to build the necessary supporting resources and capabilities of all players of the network taken together, thus exploiting the opportunities opened by globalization, and ultimately, each vying for a “nodal position” in the future in the network of relationship that the firm has built. Yet another imperative could be *to leverage the unique resources and capabilities* of the local and/or technology partners such as to enter into unknown markets across the border of its own nation or into unfamiliar product

¹⁰ A format of the questionnaire is available on request from the first author.

development, thereby becoming one among the insiders of that market for reaping the opportunities in the future. The third objective could be *to learn and internalize new or deficient skills and technologies* from the partner, thereby building new competencies required for future business. Besides these, many authors have mentioned that firms are increasingly resorting to CBAs to escape from problems associated *with acquisition and mergers* such as high cost and issues of retaining local skills, particularly for SMEs of developed countries *and with internal development* such as long duration required for building skills internally and indigenously by firms of developing nations (Jagersma, 2005).

Strategic fit occurs when partners value the skills each brings to the alliance (Bierly III and Gallagher, 2007). Eisenhardt and Schoonhoven (1996) found that alliances are more likely to be formed when both firms are in vulnerable strategic positions (i.e., in need of resources) or when they are in strong social positions (i.e., possess valuable resources to share). Strategic fit of alliance of IMEs occurs when both partner firms are in vulnerable strategic positions (i.e., in need of resources), seeking complementary or similar resources for transferring or pooling (Ahuja, 2000). Usually the foreign partner looks for a local firm support to manage the local people, politicians, bureaucrats and market distribution capabilities or to avail low cost resources such as cheap labour, raw materials, etc. In turn, IMEs look for firms that can provide higher technology and process capabilities. Hence *Cross Border Alliance, that provides the IME and its foreign partner to leverage on unique resources and capabilities of the other, creates value at the time of formation.*

Value Capture – Why is it difficult?

The dynamic evolution of learning approach (Doz, 1996)¹¹ and the viewing alliance as a progression of inter organizational co-ordination (Ring and Van den Van, 1994) from the initial condition at the time of formation considers the success of the alliance in terms of progressive learning and value capturing for themselves (private benefit) and for the alliance (public benefit) in the midst of the cooperation and competition (Khanna et al, 1998) between the partners. This inter-organizational learning from the partners' alliance occurs through internalization by information processing leading to change in behaviour (Huber, 1991) or routines embedded in the organization memory (Levitt and March, 1996) of the entity (here the partner firms). Learning in alliances involves significant transfer of tacit, specialized and complex knowledge (Parise and Henderson, 2001). Table-1 gives some of the challenges for the transfer of tacit, specialized and complex knowledge, methods of overcoming the same and some examples of overcoming transfer challenges from the case studies.

The critical challenge for IMEs is to have the alliance learning capability.¹² Levin (1997) looks at technology in a broader perspective as a complex product that entails the tacit knowledge, values, culture and organizational forms. Chaston et al. (2001) found that the small firm's¹³ growth is critically depending on improving five areas of competence: new product development, human resource management practices, organizational productivity, management of quality and management of information. Learning requires close collaboration of both firms at various levels of the respective organizations, overcoming the various transfer challenges mentioned earlier. Value capture in alliance for IME is the satisfactory acquisition of technology, internalization of the associated tacit knowledge and

¹¹ Doz discusses learning along five paths, namely environment, task, process, skills and goals and provides partners with the insights to improve the alliance from the starting conditions (Doz 1996).

¹² The term "alliance learning capability" is coined by Parise and Henderson (2001).

¹³ <http://msme.gov.in> Based on website of Ministry of Micro, Small and Medium Enterprises (MSEs): "The MSEs play a pivotal role in the overall industrial economy of India. It is estimated that in terms of value, the sector accounts for about 39% of the manufacturing output and around 33% of the total export of the country. Further, in recent years the MSE sector has consistently registered higher growth rate compared to the overall industrial sector."

enhancement of organizational capabilities that reduces its vulnerability due to deficiency of skills and knowledge and equips them to face the challenges of globalization. Hence *successful cross border alliance of IME involves continuous value capture.*

b. Forms of alliance organization

In the case of a to-be-formed global joint venture with a stand-alone organization, the classic issues of organization structure and “cultural fit” are the most critical. In the case of a cross-border alliance with little or no organizational integration between the partners, the critical issues often center on how to gain momentum and meet performance targets in the absence of a dedicated organization (Jagersma, 2005). We have classified the alliances of the firms under study in accordance with classification by Jagersma (2005) (See table – 2).

c. Value Creating Partner

Capability

Several past studies have shown that the selection of a particular partner has a great impact on the performance of CBA as it determines the extent of skill and resources available to the alliance for achieving its objectives (Geringer, 1991, p. 42). Ahuja (2000) points out that if a partner firm has a high level of technical or commercial capital, its attractiveness as a potential partner increases. Needless to say, any partner that has necessary resources fits the purpose of alliances for IME firms.

Bargaining power

The relative bargaining power of partners can reduce the firm’s share of common benefits relative to its share in joint investments (Khanna et al., 1998). Bargaining power depends on two factors of interdependence, i.e. stake of the parties involved in the relationship and the availability of alternatives (Bacharach and Lawler, 1981). Therefore the availability of partner’s resources in an alliance is moderated by bargaining power.

Trust-ability

A trustworthy partner builds trust and hence increases effectiveness of alliance as it reduces cost of governance or safeguard mechanisms for deterring opportunistic behaviours of partners and opens possibilities for newer transactions that may not be possible with governance (Barney et al (1994). *Trust-ability* of a trustworthy firm is increased with social aspects of the relationship, such as Social network in which firms are positioned, Cultural and organizational similarity, reputation, previous ties and propensity to trust (primarily based on past experiences and trusting environment) (Bierly III and Gallagher, 2007).

d. Going with Alliance

Challenge of maintaining alliance

The first challenge for the implementation of Cross Border Alliance is to build and maintain strategic alignment across the separate corporate entities, each of which has its own goals, market pressures, and shareholders. Bamford et al (2004) advocated four basic factors for successful launch of international joint venture: Align Strategically–Governance system–Economic dependencies –Building Alliance Organization Structure.

Align Strategically

The transaction-cost theory stipulates the need to configure at the beginning in order to minimize behavioural uncertainty and the resulting need for control for a successful alliance (Hennart, 1988). Defining a detailed business plan, consisting of scope, future possibilities and financial targets, can contain disputes, hindrances for cooperation and overcoming differences later. Some quick and early results will motivate for cementing the

alliance. Bamford et al. (2004) advise for assigning a senior and respectable person as launch leader who can work in a cross cultural environment for the new CBA and create accountability for the business plan. The use of modern Information and Communication Technology (ICT) will reduce the transaction costs, avoiding possible conflicts to become a major issue by not attending in time (Bamford et al 2004) and should focus on critical success factors at each level of management (Rockart, 1979).

Governance system

Governance system should neither stifle entrepreneurship nor create dysfunctional bureaucracy for a child CBA. However, organizational mechanisms are needed to control parent companies such as Capital allocation, Risk management, Disclosure and Performance tracking to protect critical shareholders' interest in the child CBA. (Bamford et al 2004).

Economic dependencies

Settling the economic issues is not only a time consuming process but also can be a contagious issue later, if not properly defined. The process is to sort out who will provide what resources (such as intangible and tangible assets, employees, financial funds, etc) to the CBA and the associated transfer price (Bamford et al 2004).

Building Alliance Organization Structure

Forming the right organizational structure across the cultural barriers of the parents with proper ownership, responsibility and control are the hallmark of successful ventures. The form of the organization, the extent of independency of CBA, conflict resolving mechanisms, communication channels and a strong CEO with necessary supporting staff (Bamford et al 2004) etc. are the basic elements for building alliance organization structure.

Trust-based Relationship

The partner-specific learning involves the process of learning from and about an individual partner. This is very critical when there is an exchange of tacit, specialized and complex knowledge (Parise and Henderson, 2001). Transparency brings opportunity to learn more about the practices of world class organizations that they ally (Doz and Hamel, 1998). Haque et al. (2004) reported that supportive and open behaviour with honesty can create successful alliances. Kausar and Shaw (2004) have found empirically higher level of trust in successful alliances than in less successful counterparts. The trust-based relationship, therefore, aids alliance success.

Staffing – Getting the right people

Skills are transferred by people, not by processes and contracts. Getting the right people committed for the alliance, with parent companies not losing the service of their top performers for themselves, is the challenge of staffing (Cascio and Serapio 1991). Lajara et al (2003) provide an excellent review on the HR issues for the success of alliances. Based on these, we have identified critical HR elements for success of the CBA as identifying the right people, securing commitment from the key staff, ensuring proper incentives and providing for their career aspirations.

e. Measuring success

Defining success

Defining success for both partners and for the cross-border alliance requires careful evaluation. Apart from financial and marketing achievements, what do partners gain out of alliance that is deemed as success of their partnership?

Objectives of alliances

Several empirical studies have been carried out on performance of international alliances on different financial and objective indicators¹⁴. The other set of studies looked whether the alliance has achieved the underlining aim or motives of its formation¹⁵. Because there is no commonly accepted definition, there is no single adequate measure of alliance success. Therefore, in alignment with several researchers in the field (Johnson, 1999; Kauser and Shaw, 2004, etc.), we employed subjective performance measures through our interviews and questionnaire-filling by *the respective CEOs and Top level Managers*. The use of such measures does not imply that financial indicators are inadequate to evaluate alliance performance, but rather that financial data are difficult to obtain (Schumacher, 2006).

Value appropriation for global business

The hallmark of successful alliances is their ability to evolve beyond initial expectations and objectives (Bleeke and Ernst 1991). Beyond the immediate reasons of partnership, the alliance should offer the parties an option on the future, opening new doors and unforeseen opportunities (Kanter 1994). Alliance should be viewed as an occasion to learn (Intent to Learn) for capturing long term benefits and make conscious effort to identify the value of new information, assimilate and apply to *commercial purposes* (absorptive capacity – Cohen and Levinthal, 1990). The alliance management capability equips firms with the art of entering, maintaining and capturing value from allying with different firms simultaneously (Parise and Henderson, 2001). The development of this capability is, therefore, essential for global business operations.

World class leading organizations are focussing on their core business and downsizing by outsourcing non-core activities (Hayes et al., 2005). This new environment offers opportunities for IMEs to partner with such firms and enter into the realm of globalization. Secondly, new models of SME-SME collaboration create virtual organizations based on Information and Communication Technology (ICT) (Noori and Lee, 2006). This widens their scope of operations by imbibing strength based on cohesion as against being “annexure” to big players. Both situations require providing higher customer value in terms of cost, quality, services, shorter delivery time, flexibility and alliance management capability. Value appropriation is the promotion of IMEs into global business as a consequence of and by the application of value captured as defined sub-section a of section 5.

Termination

The termination of an alliance need not be a sign of failure, but it is to be made as a part of the agreement. The average life of a CBA is 7 years. More than 80 percent CBA are purchased by one partner while the rest were either sold to a third party or dissolved. Exit terms are to be negotiated in advance as how to end the relationship and divide the assets since the bargaining power will decrease over time.

6. CASE STUDY – FINDINGS

a. The rationale for collaborating

Value Creation (VR) – *analyzing from the case studies*

“*Why does our Japanese partner want to collaborate?*” A clear understanding of this question is the beginning of a successful alliance, then General Manager, Finance & Strategic

¹⁴ Some of the financial and objective indicators are profitability, growth and cost position (e.g., Tomlinson, 1970), survival (e.g., Killing 1983), duration (e.g., Harrigan, 1986; Kogut, 1988), instability of ownership (e.g., Gomes-Casseres, 1987) and re-negotiation of the alliance contract (e.g., Blodgett, 1992).

¹⁵ Such as enhancing parent learning (Praise and Henderson, 2001), improving strategic positioning of the parent firms (Contractor & Lorange, 1988), or gaining legitimacy within the larger social environment (DiMaggio & Powell, 1983).

Planning of company **B** succinctly answered to our query about success in their alliance. Similar sentiments were expressed by other companies also.

In our case studies, we found Indian Partners sought for superior technology and imbibed customer acceptance from the foreign partners. In turn, foreign partners co-opt the Indian partners for accessing Indian customers, their local resources, and leverage the unique skills of the Indian partner in handling local people and government officials, etc. On the other hand, it also opened a way for the Indian partner to learn about world class manufacturing best practices, techniques and technology from the foreign counterpart.

Value Capture (VA) – analyzing from the case studies

Transfer challenges	Methods for overcoming	Some examples of overcoming transfer challenges in the case studies
Difficult to articulate	Learn-by-observing & -by-doing for individuals directly involved in utilizing the knowledge	General Manager (Finance & Strategic Planning) of company B recalled Japanese obsession for accuracy of processes or activities. An attitude of absolute clarity “without any assumption” to the last detail, a culture that is difficult to emulate for many Indians. Japanese are excellent trainers. Initially 250 disassembled products were brought and Japanese managers themselves trained personals at the shop floor as how to assemble. <i>Proper training and imparting a new working culture to Indian employees were the hallmark of association with Japanese.</i>
Difficult to diffuse	In-person contact between key executives and employees of partner firms	“We deliberately delayed the transfer of technology in three phases through seven years for allowing the proper assimilation (diffusion) of technology and the process by our people ” the managing partner of company D replied to our query of value capture from their alliance. Now the Indian company has enhanced process capabilities and could design better and customized products.
Difficult to integrate with existing knowledge	Develop common understanding of how to utilize knowledge	Company A realized the fact that TQM will be the foundation for their future and became totally committed for its implementation, <i>a tribute to their alliance with Japanese firms.</i> Four companies in the group have won the Deming Prize in 2003, 2005 and 2007. Their approach has been marked by a continual acquiring and applying of global technologies and cutting-edge strategies.
Inter-firm differences	Firm-level social capital; intentionally work to develop trust between partners	“We have contributed to the alliance by providing knowledge about customers, government regulations, supply of inputs, low wage labour and most importantly managerial personnel ” claimed the managing director of company C . The superior technologies for product, R&D and process capabilities were learned from the foreign partner, with which market network was developed further. Foreign partners have gained a clear insight of operating in India and market access. This mutual learning creates interest in both partners in developing and cementing the CBA further
Cultural differences	Focus on frequent communication, on-site meetings and partner visits	Company A : Implementing TQM means a radical shift in the mindset of the people. Company B : Installing a new work culture in the Indian workforce and managers is a major reason for the success of the alliance Company D : This prolonged transfer (<i>of technology and process in a span of 7 years</i>) enabled the effective training of the company’s personnel until their employees learnt the soft and technical skills and able to apply. <i>Grooming Indian workforce/managers into a new work culture is of greater concern and considered as important item for success. This was expected as Indian firms look for world class manufacturing practices, which needs an equally “transformed” HR.</i>

Table 1: Tacit knowledge: Challenges and methods of transferring (Collins and Hitt, 2006) with some examples from case studies

There was continuous value capture in terms of internalization of superior work culture, enhanced process capability and product design competence.

b. Forms of alliance organizations – analyzing from the case studies

Table 2 provides the various types of alliances of four companies based on company reports and secondary sources. The classification of the alliances is based on Jagersma (2005). All companies took particular care in choosing right type of organization for CBA.

<i>Objective of the alliance</i>	<i>Type of alliance</i>	<i>Purpose</i>	<i>Alliances of companies under study</i>
<i>For combining complementary resources</i>	<i>Cross-border joint ventures (JV) would be preferable</i>	<i>Entering a new market or starting a new business or developing a new project.</i>	<i>Companies A, B and C (in the 80's) had started JV for developing new markets or products. Recently Company C has a JV for new business with Australian company (specialized ceramic products to power plants and Coal washeries) and south African company (bio-ceramic range of wound dressing products) and another JV with Chinese company to cater to the diamond tool and bonded abrasive markets (new market for C)</i>
<i>For acquiring new technology</i>	<i>either JV or direct parent interaction, often in combination with a technology licensing agreement is preferred</i>	<i>To take advantage of synergy from complementary strengths or resources such as the technology of one partner Vs the market access of the other</i>	<i>Company D has technology licensing from its first alliance. Company B has entered into JV with Australian company to develop fuel injection technology to widen its product profile and to escape from obsolete carburetor business. The beginning tripartite alliance of company C is a strategic alliance of this nature</i>
<i>For managing industry rivalry and market share expansion</i>	<i>parent- to-parent cooperation is typically best suited</i>	<i>For developing technical or long -term standards. It could be with component parts of two or more business being merged to face a strong competitor or possible takeover by the latter, or overcome the provisions of the monopolies & mergers laws, or sometimes for a take over of their competitor firm.</i>	<i>Company B has entered with its first alliance partner (Japanese) for new product development and R&D in 2003 at Chennai in India since both are in fuel management business.</i>
<i>For improving vertical linkages</i>	<i>non-equity arrangements such as long-term contracts are usually best because of the conflicts inherent between suppliers and customers</i>	<i>Specific agreement between manufacturers and their suppliers (supplier contract) or international trading partnerships</i>	<i>Company A has supplier contracts with leading Automobile OEMs (e.g. Volkswagen of Germany) and D has trading partnership with GE digital. All companies have supplier collaborations with Indian OEM companies in their respective sector.</i>

Besides these, Companies B and C have gone for acquisitions in North America to expand their operations

Table 2: Types of alliances of the four companies studied. Classification is based on Jagersma (2005).

Source – Company annual reports, news reports & websites

c. Partner selection – analyzing from the case studies

Trust-ability (TA)

Indian partners looked for similarity in size, business, objectives and what is called “feel good factor”, which they called as cultural similarity. They looked for reputation, past performances and the number of previous successful alliances of the international partners. While Company A insists for clearly laid down documents and other formal way rating the firms, other firms found to have greater propensity to trust. The development of a social network facilitates communication, provides social norms to guide behavior, minimizes

opportunistic activities and institutionalizes a framework for trust. However, we have not studied this aspect since we dealt firms in their own individual settings only (See limitations of this study).

Capability (CA)

While Indian firms look for technology and techniques (process capability), foreign partners mainly look at sound financial position and capabilities such as whether partner can comply with rules and regulations of the land, able to manage local scenario, have market access and human resources availability.

Commitment (CO)

All firms consider commitment as an important partner selection criterion. They have indicated the amount of interest and availability of capability of their partner for alliance is directly depends on commitment. All four firms indicated the amount of investment that partner is ready to invest as a pointer towards the commitment. 50:50 or equal partnership is prerequisite for three firms interviewed. Ownership structure and attitude to the investment (whether for strategic or short gain) are other factors considered as indicators for commitment by the Indian firms.

d. Going with Alliance – from case study

We summarise the items for success during “Going with Alliance” as following

ALIGN STRATEGICALLY	GOVERNANCE SYSTEM	ECONOMIC DEPENDENCIES	BUILDING ALLIANCE ORGANIZATION STRUCTURE	STAFFING	TRUST BUILDING
Align Strategically (AS)	Performance focus (PF)	Pricing (PR)	Organization structure (OS)	Developing staff (DS)	Building Trust (BT)
<i>Performance targets</i>	<i>Being definite on the performance metrics to focus</i>	<i>Uniform and proper auditing practices</i>	<i>Type and Independence</i>	<i>Targeted trainings and working procedures</i>	<i>Being vigilant over the major barrier to integration</i>
<i>Detailed plan of action and resource requirements</i>	<i>Focusing to produce results on the performance matrices</i>	<i>Dealing with exchange rate fluctuations</i>	<i>Leadership</i>	<i>Timing of assimilation</i>	<i>Transparency and fair dealing</i>
<i>Assigning to local management and appropriate team of people</i>	<i>Performance reporting</i>	<i>Clarity in the inputs (by the parent organizations) and its quality levels</i>	<i>Mechanism for conflict resolution</i>	<i>Incentives to Employees to new organization set up</i>	-
-	-	<i>Need for localization of inputs</i>	-	-	-

Table 3: Items for critical success factors during “Going with alliance” phase

e. Measuring Success – from case study

Value Appropriation for globalization – from case studies

We found that all these companies have not only captured value, but also moved up in the value chain through proper value appropriation.

- ***Created superior customer value***
- ***Moving higher in the value chain through alliance, as time passes***
 - *Company A*

- *Becomes tier -1 supplier to leading OEM automobile companies of world, meeting stringent quality standards and time limits (e.g. supplier to Volkswagen of Germany)*
- *becomes product developer of specific automotive parts for them*
- *Company B*
- *Alliance moves to product development & firm goes for related product diversification (e.g. from carburetor, they moved fuel injection technology)*
- *“The courage” for the small firm to acquire a firm in the competitive US market (A Precision Products company based in Illinois, U.S. in 2005)*
- *Company C*
- *“Going global” strategy through collaboration and acquisition across the world (e.g. acquisition to expand its operation into the large North American market and CBA (JV) in China)*
- *Thrusts into new markets of world and to access niche technologies (e.g. JV in Australia to cater a particular market segment and CBA with South African company to offer special product)*
- *Company D*
- *Becomes a technological provider to other firms*
- *Manufacturer and exporter of other products in the power conditioning sector*
- ***Managing different alliances together*** (sign of alliance maturity -see table 2)

Value appropriation - Summary from case study

Indian firms have appropriated the value captured by earning superior customer acceptance, moving higher in the value chain, learning alliance management capabilities and thrusting into global business.

Termination

The process of forging and developing alliances takes time and full capture of value and strategic potential happens after the elapse of several years. Indian companies looked alliance “with perpetuity in mind”, once the trust is established. We, therefore include Longevity (duration) as a measure for success (Harrigan, 1986). It requires transparent dealings and continuous value creation between partners.

We have classified strategic, marketing and financial results as one group under Alliance Performance (AP). The Value Appropriation (VA) or degree of application of value capture (learnt from alliance) for global business and Longevity (LO) of alliances are other indicators for success in IME CBAs.

7. Model

The Critical Success Factors (CSFs) for Cross Border Alliance (CBA) of Indian Manufacturing Enterprises (IMEs) and its elements are based on these case studies which are summarized in the model given in figure 2. While value creation brings the two partners together initially, it is the value capture that makes sense in continuing the relationship. We look at the strategic fit not just in terms of value creation alone, but the ability to capture value in sharpening the competencies of IMEs such as improved product design, process capabilities, new work culture, alliance learning capability (such as going along with foreign organization), etc and forms strategic CSF. A firm’s alliance performance is limited by the availability of partner with requisite capabilities (environmental CSF). Not paying due attention to structural and temporal critical success factors during alliance process (i.e. Governance Mechanisms (GM) and Economics of Operations (EO) respectively) may result in not achieving the financial and market objectives which can make partnership fall apart. While Governance Mechanisms builds and maintains alliance structure, Economics of

Operations are areas of activity that are significant for the success of an organization for a particular period of time because they are below the threshold of acceptability at that time. Finally, our studies show that the successful IMEs appropriate what they have learnt from the alliance for global business. This is aligning with the export performance of this sector. All Indian partners see alliance “with perpetuity in mind”. So we have introduced longevity as a measure of success. Figure 1 and table 4 presents the eleven identified critical success factors that enable the successful formation and operation of cross border alliances of IMEs, grouped into strategic, environmental, structural and temporal oriented factors. As observed, the way CBAs consider and integrate the proposed CSFs during its life cycle will impact the overall outputs which are also considered in the model as key performance indicators. The model serves as a reference guide for IME to look forward to create and manage successfully new potential CBAs.

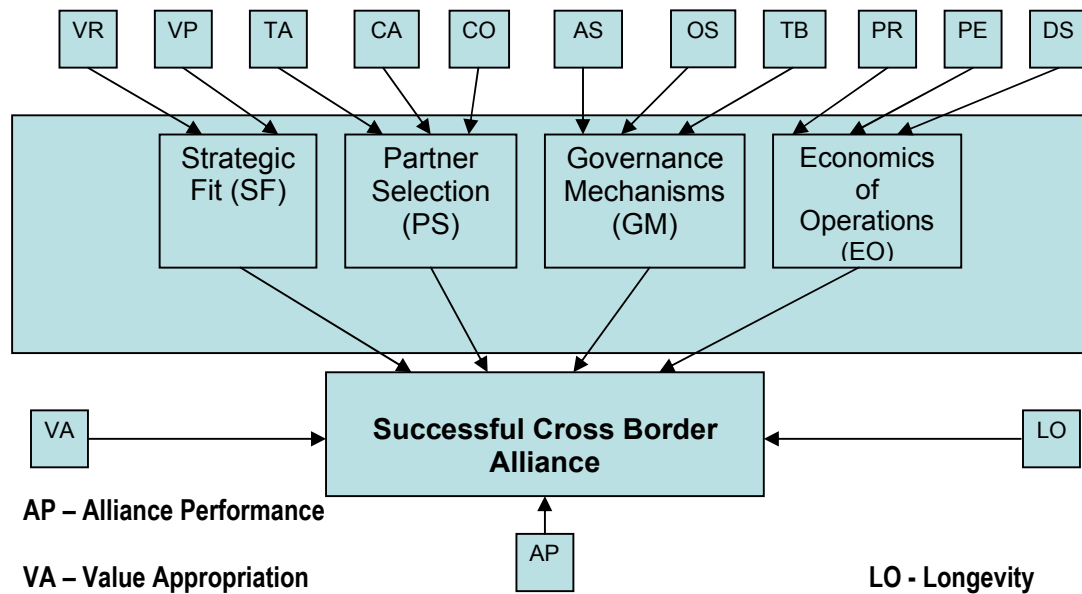


Figure 2: Proposed model for Critical Success Factors for Cross Border Alliance of IMEs

SF:STRATEGIC FIT	PA:PARTNER SELECTION	GM: GOVERNING MECHANISMS	EO: ECONOMICS OF OPERATION
<i>VR: Value Creation</i>	<i>TA: Trust-ability</i>	<i>AS: Aligning Strategically</i>	<i>PR: Pricing</i>
<i>VP: Value Capture</i>	<i>CA: Capability</i>	<i>OS: Organization Structure</i>	<i>PF: Performance Focus</i>
-	<i>CO: Commitment</i>	<i>TB: Trust Building</i>	<i>DS: Developing Staff</i>
Key Indicators for to measure success in CBAs of IME alliances			
VA: Value Appropriation	AP: Alliance Performance	LO: Longevity	

Table 4: Critical Success Factors for Cross Border Alliance of IMEs

8. Limitations

Some limitations of this study are the following:

a) Theoretical replication (poor performance or absence of the factors (here-*CSFs*) when phenomenon (*successful CBA*) is not likely to occur (Yin, 2003 a, b) is not done. It would have been confirmatory if some unsuccessful alliances of IMEs are also studied and reviewed for the absence of these factors. All factors are affected once conflict arises in one of the factors and when not properly dealt.

b) Further confirmatory studies could be done based on survey.

- c) The effect of mediating factor absorptive capacity (Cohen and Levinthal, 1990) of these organizations is not taken into account.
- d) The effect of other factors such as learning intention, alliance management capability (Parise and Henderson, 2001) needs to be addressed
- e) This paper is built on four case studies of Indian companies in Chennai only. Companies A and C have manufacturing units across the country and hence their experience can be representative to the IMEs in the Indian Scenario. Furthermore, the authors feel that for an emerging country like India, these factors hold good anywhere in the nation for alliances of IMEs.
- f) Another identified issue is that the case studies are based on “older” CBAs. We had taken a stand that CBA should at least 5 years old to get reliable experiences of companies for our case studies. A future research could include case studies of different CBAs formed in different ranges of time and analyze how their different life cycles impact on the proposed framework and CSFs.
- g) We dealt firms in their own individual setting. The effects of clusters and associated social network relationships on the alliance were not considered¹⁶.

9. Conclusion

Indian Manufacturing Enterprises (IMEs) have benefited from Cross Border Alliances (CBAs) in sharpening their competences to become part of supply chain of global OEM companies. Based on the case studies of four companies from South India, we have identified eleven critical success factors (CSFs) for successful CBAs *in IME alliance context* and are grouped into strategical, environmental, structural and temporal oriented factors. Further, the success of alliances is interpreted not only in terms of financial and market achievements, but also on continuous value creation of the alliance, value capture for sharpening its competence and appropriation of value for global business later. Future studies could be done to validate these CSFs and the nature and extent of value capture and appropriation process that benefits IME's transition from “people-cost arbitrage” to innovation (Ref-B).

10. Acknowledgements

This research was funded by **Swiss Innovation Promotion Agency – CTI International** under the project **SwissMAIN**. The authors would like to thank the **Swiss Innovation Promotion Agency – CTI International** for the funding provided to realise the SwissMAIN Indian Pilot. Special gratitude is given to **Mr. Duruz from Mallefer and to Mr. Voirol from Bosch Sapal**, industrial partners of the project, who provided their business requirements to develop the scenarios. We also sincerely thank **Prof. L.S. Ganesh** from the **Indian Institute of Technology in Madras** for supporting this Indo-Swiss research and the **15 Swiss and Indian firms located in India**, which participated actively in the project during the face to face interviews. A thank you note is also given for their important contributions to **Luca Canetta and Michel Pouly** from the **Swiss Federal Institute of Technology, Lausanne (EPFL)**, institution leader of the SwissMAIN project, and to **Prof. Claudio Boër**, from the **University of Applied Sciences of Southern Switzerland (SUPSI)** for his important advises and support while Myrna Flores lead the Indian Pilot while working at the **CIM Institute of Southern Switzerland (ICIMSI)**.

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Ref.-A: http://www.krannert.purdue.edu/departments/gscmi/downloads/DR_ISB_NSF_NYU_Purdue-GlobalizingIndianManufacturing.pdf Based on “**Globalizing Indian Manufacturing – Competing in Global**

¹⁶ http://india.gov.in/business/industry_services/small_medium_enterprises.php

Clusters are defined as sectoral and geographical concentration of enterprises, particularly, small and medium enterprises, faced with common opportunities and threats which give rise to external economies; favour the emergence of specialized technical, administrative and financial services; create a conducive ground for the development of inter-firm cooperation to promote local production, innovation and collective learning. Clustering and networking has helped the small and medium enterprises in boosting their competitiveness. India has over 400 SME clusters and about 2000 artisan clusters.

Manufacturing and Service Networks”: Report on the summit on Indian Manufacturing Competitiveness by Deloitte Research, the Indian School of Business, New York University and Purdue University with support from the National Science Foundation

Ref-B: <http://in.rediff.com/money/2007/mar/20india.htm> Based on India Innovation Survey jointly conducted by CII and Boston Consulting Group, the innovation is found to be among top three strategic priorities of IME.

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