A Comparative Study of the Alliance Experiences between MNE’s Taiwanese Subsidiaries

Dr. Ching-Sung Wu, Graduate Institute of International Business, National Taiwan University
Dr. Su-Houn Liu, Graduate Institute of Information management, Chung Yuan Christian University
Chun-liang Chen, Ph.D. Candidate, Institute of International Business, National Taiwan University
Sheng-Hsiung Chang, Ph.D. Student, Institute of International Business, National Taiwan University

ABSTRACT

For those Western multinational enterprises (MNEs) such as HP and IBM under the pressure of ongoing E-Business transformation, strategic alliances can be a very useful way. In this paper, we compare two MNE subsidiaries (HP and IBM) in Taiwan to analyze their e-service alliance strategies and the similarities and differences. We find that Taiwanese firms are interested in forming strategic alliances with MNEs, and they have particular interest in forming horizontal alliances aimed at accessing new markets and exchanging resources, sharing risk, achieving economies of scale. We find the size of Taiwanese firm which alliance with MNE’s subsidiary is approximately large firms, and the large domestic firm will likely undertake the non-equity type alliance. We argued that alliance can be classified into three distinct types for MNE subsidiaries in a developing country: TYPE A: Market Seeking, TYPE B: FSA Enhancement and TYPE C: Substitute.

Keywords: Strategic Alliances, E-Business, comparative study, HP, IBM

INTRODUCTION

Accompanying the explosive growth of the Internet in the recent years, one of the fastest growing technology sectors is e-business solution. For those Western multinational enterprises (MNEs) such as HP and IBM under the pressure of ongoing E-Business transformation, strategic alliances can be a very useful way. Strategic alliances can be defined as purposive strategic relationships between independent firms that share compatible goals, strive for mutual benefits, and acknowledge a high level of mutual dependence (Mohr and Spekman, 1994). Gulati (1995) defines an alliance as any independently initiated interfirm link that involves exchange, sharing, or co-development. Strategic alliances have become an important form of business competition, drawing wide-ranging studies in the literature (Hagedoorn, 1993; Harrigan, 1985, 1995; Kogut, 1988; Osborn and Baughn, 1990). Strategic alliances are a popular strategy for firms for sharing risks and exchanging resources, accessing new markets, achieving economies of scale and obtaining synergy and competitive advantages (Dacin et al., 1997). They may also serve as an exchange arrangement for partners to learn and acquire from each other the technologies, skills and knowledge that are not available within their own organizations.

The majority of technology sources for Taiwanese firms are from more advanced countries such as The USA, Japan, and Europe. Therefore, Taiwanese firms are more attractive to forming international alliances to gain technology transfer from outside (C-J. Chen and W-Y. Wu, 2005). Academic interest on strategic alliances has increased immensely in the last several years. Although most studies on strategic alliance focus on advanced countries where strategic resources are abundant, such alliances are also useful for firms in developing countries as a mean of gaining access to new technologies and new markets. Gilroy (1993) attributes the success of some East Asian developing countries to interfirm linkages established by indigenous firms with counterparts in the more advanced countries. These linkages provide technologies, entrepreneurial and managerial know-how and market access, to aid an export-oriented development strategy. However, to study on the strategic alliances in the e-business sectors is a recent phenomenon. And little has been done in Taiwan in comparison the e-business alliance experiences of different MNE’s subsidiaries. The question we would like to ask, then, is: (1) Why would firms in advanced countries, with all their strategic resource
assets, wish to ally themselves with firms from developing countries, which seemingly, have little to offer? (2) How about the Taiwanese firms performances to enter international strategic alliances, and what form of alliances would they undertake? (3) What are the similarities and differences of the two MNEs subsidiaries’ alliance experience?

The purpose of this paper is to elucidate the typology of MNE’s E-business strategic alliances and to use it to explain the strategic alliances adopted by firms from a developing country, namely Taiwan. This paper will also emphasizes, form the partner perspective, the alliances firms from a developing country catch the opportunities to ally with MNEs in advanced countries. The rest of this paper is organized as follows: The following section will elaborate the conceptual model that drove this research as well as some of the theoretical foundations for the study. Following presentation of our independent analyses, what form of alliances would they undertake and then we compare the two firm’s strategies differences. And finally, in the last section, discusses the implications and conclusions from the research.

LITERATURE REVIEW

Familiarity Matrix Analysis and Strategic Alliance Typology

Roberts and Berry (1985) introduced the concept of the Familiarity Matrix as a vehicle for assessing the appropriateness of various ‘new business entry’ alternatives such as internal development, alliances, joint ventures, acquisitions and minority equity investments. The matrix focuses upon the positioning of a proposed business development along the two axes of technology and market familiarity to the company. The firm’s primary current business by definition utilizes its ‘base technology’ on behalf of its ‘base market’; any potential endeavor may be close to or distant from those bases. To explain why certain forms of strategy are preferable under different conditions of familiarity with markets and technologies, the three possible degrees of familiarity with a technology (base, familiar, new) and with a market (base, familiar, new) are analyzed. Figure 1 depicts this matrix.

Xie & Johnston (2004) proposes a two-dimensional classification scheme for strategic alliances based on the previous studies conducted by Rangan and Yoshino (1996) and Nanda (2001). This typology uses equity/non-equity distinction as one dimension, and horizontal (scale) and vertical (link) as another to categorize alliances into four groups, as illustrated in Figure 2:

1. Equity-scale alliances (Type I).
2. Non-equity-scale alliances (Type II).
3. Equity-link alliances (Type III).
4. Non-equity-link alliances (Type IV).

This classification scheme seems to be able to better capture the unique characteristics of alliances under each category within the framework of this study. The dimensions is general enough to categorize a plethora of alliances in place and yet not to overwhelm the practitioners with too much information in the scheme. This scheme will be used in this study to analyze the strategic alliances cases conducted by the subsidiaries of HP and IBM in Taiwan.

Strategic Alliance Motives

Kogut (1988) summarizes three main motivations behind the formation of strategic alliances: firstly, high transaction costs resulting from small-number bargaining; secondly, strategic behavior aimed at enhancing a firm’s competitive position or market power; and thirdly, a quest for organizational knowledge or learning when one or both partners desire to acquire some critical knowledge from the other.

Dunning’s eclectic paradigm of international production incorporates internalization theory and adds two other dimensions needed to explain international activity. A firm must perceive that, in addition to Internalization advantages (I), it possesses Ownership advantages (O) and there exist Location-specific advantages (L) of the host country before it will set up production activities abroad. Ownership advantages must enable subsidiaries of MNEs to more than offset the disadvantages that confront firms penetrating foreign markets (Hymer, 1960; Kindleberger, 1969). MNEs are companies that have the following characteristics: high levels of R&D relative to sales, high levels of product differentiation, and a large share of professional and technical workers within their workforce. These constitute the most
significant Ownership advantages of MNEs. For those Market-Seeking MNEs this study intends to explore, the most significant Location-specific advantages for them may refer to the existence of international transport and communication costs, to a more favorable domestic business environment. In this study, the authors believed that since the distribution of those country-specific resources and capabilities is uneven, companies from native country will have a location advantage over MNEs from other countries.

Empirical studies have shown that individual firm attributes such as size, age, competitive position, product diversity and financial resources are important determinants of the structure of strategic alliances (Shan 1990; Shan et al., 1994; Powell and Brantley 1992).

Research Methodology

The scope of the research question, coupled with the exploratory nature of the study, made a case study methodology appropriate. We decided to study the strategic alliances cases from two major IT related MNEs in Taiwan, HP and IBM. We choose HP and IBM two companies to study because they are both critical players in Taiwan’s computer related industry. Both firms have recently undertaken major efforts to broaden into software and services, especially in relationship to the Internet. In focusing upon their alliance efforts, we examined the alliance activities of HP and IBM in Taiwan over the past five years, utilizing various industry and company web sites and the Securities Data Company (SDC) database. We complemented that data gathering with personal interviews at both companies to clarify company intentions and activities.

Follow the prior work of Ghandour, Swartz, Grenek & Reoberts (2004), we analyzed the HP and IBM e-services alliances using the Familiarity Matrix first. In focusing upon their alliance efforts, we examined the alliance activities of HP and IBM in Taiwan over the past eight years, utilizing various industry and company web sites and the Securities Data Company (SDC) database. The co-authors, with both technical and business experience in related industries, coded each HP and IBM alliance for positioning on the technology and market familiarity axes and complete the matrix. We then try to classify those strategic alliance cases into Xie and Johnston’s classification typology. Experts from both companies were interviewed in order to identified equity/non-equity dimension, and horizontal (scale) and vertical (link) dimension. We complemented that data gathering to clarify company intentions and activities. Following presentation of our independent analyses, we then compare the two firm’s strategies and draw some conclusions.

Cases and Analysis

1. IBM’s e-Service Alliances

According to Ghandour et al. (2004), IBM would like to service the most customers and applications in the e-business economy by leveraging its core competency in ‘data handling’. However, IBM has neither the resources nor the time to deliver every component of a complete solution in-house and therefore seeks industry-leading alliance partners that can provide the parts that are missing.

1.1 Familiarity Matrix Analysis of IBM

We analyzed the IBM e-services alliances in Taiwan using the Familiarity Matrix as shown in Figure 3. Based on the previous studies conducted by Ghandour et al., we considered IBM’s ‘base technologies’ to include its services group, its database software, and its networking and Web hosting expertise. The ‘base market’ was defined as the markets in which IBM was currently participating in Taiwan that has closed related to e-business transformation.

From the IBM Taiwan alliances Familiarity Matrix, we learned:

1. Five of the twelve alliances were primarily extensions of IBM’s existing technology base to local unfamiliar markets. We have notice the same alliance form exit also on HP Taiwan (seven out of twelve). For these alliances, IBM’s objective seems to be focused on leveraging its existing firm specific assets (FSA) which was developed in its host country (USA) and finding new business opportunities that open up new markets via strategic alliance with domain expert in local Taiwan market.

2. Four of the twelve alliances (TSMC, UMC, SynnexI, and ACER) involved a base market and base technology for IBM. These alliances targeted mainly on substitute internal process with external partners’ service. The alliances appear to be quite strategic in nature, with the goal of adopt the changes on transaction cost.
According to our interviews with expert from IBM Taiwan, IBM decide to replace internal process on IC foundry (UMS, TSMC), PC peripheral manufacturing (ACER) and local after sales service with external partners since they perceive that the reduction in transaction costs resulting from the replacement of the external imperfect markets will be greater than the costs of organizing such activities internally. Alliances are formed because IBM believed that through the alliance agreement, it can not only ensure the service quality, but also can reach a better deal for itself.

3. As mentioned earlier IBM has used its alliances with other e-service providers to gain rapid entry into the e-services market. As shown on the Familiarity Matrix, none of the IBM alliances involves its new unfamiliar technologies. It is clear that IBM is positioning itself as the preferred provider of e-services technology in these alliances. By forging partnerships across many applications and a large number of players, IBM’s goal is to speed the advancement and adoption of its core technology in Taiwan.

1.2 Common Characteristics among the IBM Alliances

Five out of twelve alliances were identified as marketing in nature involving reciprocal marketing and branding alliance. All of them are Type II (non-equity-scale) type of alliances in our classification scheme. 50 percent of all the alliance types identified are Type IV (Non-equity-Link), involving Logistic base alliance, Joint product development, OEM agreement and licensing agreement. For all twelve alliances, only one (KGT, Type I) involved Equity Investment from IBM. No Type III alliances exist in IBM Taiwan. For IBM, equity investments in Taiwan belong to an exceptional form of business entry.

2. HP’s e-Service Alliances

Unlike IBM, Hewlett Packard (HP) is a relatively new entrant into Internet-based technologies and services. As part of its efforts to redirect its energies HP launched an aggressive e-services campaign in 1999. Ghandour et al. (2004) find in their research that HP has entered into numerous partnerships since it launched its e-services campaign. Due to its late start and lack of previous experience in e-services, alliances have enabled HP quickly to enter and develop its e-services business. Through the alliances HP has gained access to new products, services, technologies and customers.

2.1 Familiarity Matrix Analysis of HP

From the HP Taiwan alliances Familiarity Matrix (Figure 4), we learned:

- Seven of the twelve alliances were primarily extensions of HP’s existing technology base to local unfamiliar markets. In Taiwan, both HP and IBM are marketing seeking MNEs who want to leverage alliances as a way to enter new market opportunities. By leveraging its existing firm specific assets (FSA) which was developed in its host country (USA), HP’s major alliance partners are those domain experts in local Taiwan market such as TTN, TBC etc.

- Three of the twelve alliances were for which both market factor and technology factor are both new but familiar to HP Taiwan (ITRI, QSI, and STC). All of them involved collaborate on the development of critical applications and services in Taiwan and Asia market. While ITRI, QSI, STC engaged in its own base area of competence, these alliance helped HP gain resources to joint development technologies and know how on local markets (RFID, wireless city and banking CRM). For HP too, conducting such alliance may provide the MNE to gain an access ticket into a promising market, in another word, turn a location specific resource into valuable firm specific asset.

- As shown on the Familiarity Matrix, none of the HP and IBM’s alliances involves its new unfamiliar technologies. HP in Taiwan also positioning itself as the preferred provider of e-services technology in these alliances. But compare to IBM, HP emphasize more on seeking chances to enhance its core technology on e-Services by alliance with local companies in Taiwan.

2.2 Common Characteristics among the HP Alliances

Seven out of twelve alliances were identified as marketing in nature involving Reciprocal marketing and Co-marketing. All of them are Type II (non-equity-scale) type of alliances in our classification scheme. HP prefer co-marketing as a major alliance type for type II alliance, while IBM prefer Reciprocal marketing which required more interaction between partners. Only two alliance types identified are Type IV (Non-equity-Link), involving Joint product development and Logistic base alliance. For HP in Taiwan, there are three alliances (ITRI, QSI, STC) involved Equity
Investment. There is also no Type III alliances exist in HP Taiwan, but for HP Taiwan, equity investment is more favorable compare to IBM Taiwan.

**RESEARCH FINDINGS**

From the alliance typology we use in this paper, equity/non-equity distinction as one dimension, and horizontal (scale) and vertical (link) as another to categorize alliances into four groups, we can find some interesting points. Firstly, in our empirical study, sixteen out of twenty-four (16/24) alliances were identified as horizontal (scale) type of alliances in our classification scheme, i.e. Equity-scale alliances (Type I) and Non-equity-scale alliances (Type II). We find that Taiwanese firms are interested in forming strategic alliances with MNEs, and they have particular interest in forming horizontal alliances. This conclusion is a little difference with the Taiwanese firms has no particular interest, or ability, in forming horizontal alliances aimed at controlling competitive uncertainties (Homin Chen, 2002). Secondly, we find the size of Taiwanese firm which alliance with MNE’s subsidiaries is approximately large firms, twenty out of thirty-three (20/33) alliances partners were identified as large firms. And we can find (from Appendix) the large domestic firm will undertake the non-equity type alliance, i.e. Non-equity-scale alliances (Type II) and Non-equity-link alliances (Type IV). It is contrast to the argument ‘the larger the domestic firm, the more likely the alliance will be an equity joint venture.’ (Homin Chen, 2002) We think due to the different firm’s size, firms will have their special strategic alliance behavior.

Thirdly, in their host country (The USA), alliances on e-service are a strategic decision that influence mainly by the MNE’s strategic goal. Whereas the HP strategy is to attempt to establish its technology infrastructure as the standard e-services infrastructure on the Internet, IBM aims to position its IBM Global Services, rather than its technology, at the center of this ecosystem. This difference cause HP to signal that it will continue to use alliances for ‘catching up’ with more nimble competitors who are ahead in the technology race. IBM in another way, has signaled its commitment to continued use of alliances via its ‘Business Partner Charter’, equity stakes in smaller partners, and intellectual property sharing and considers alliances not as a means of ‘catching up’ but rather as a necessary part of delivering total ‘solutions’ to customers.

In an international prospective, HP and IBM both as a market-seeking MNE in Taiwan, exhibit different alliance pattern compare to their parent. Our study indicates that the exploration or exploitation of preemptive opportunities in a developing country requires action and responses at a local level, and that in turn means that HP and IBM had to delegate power to subsidiaries and show strategic flexibility during operations (Figure 5).

For these 24 alliances formed by HP and IBM in Taiwan, we classified them into three distinguished types:

**TYPE A: Market Seeking**

50% of their alliances (12) are applications of MNE’s existing technology core developed in their host country to utilize in local unfamiliar markets. Under these cases, IBM and HP used alliances when a dependency situation arises and the MNE subsidiaries rely on irreplaceable resources controlled by local companies in order to enter an attractive but inaccessible domestic market. Since Type A alliance are market oriented, all of them are Type II (non-equity-scale) alliances in Xie’s classification scheme. Among them HP prefer co-marketing while IBM prefer Reciprocal marketing which required more interaction between partners.

**TYPE B: FSA Enhancement**

Taiwan today has the most broadly based IC foundry and PC industry in Asia outside of Japan. These location specific advantages create some opportunities for MNEs such as HP and IBM to enhance their core competence through alliance with Taiwanese companies. Our results are consistent with a view of capability development that is inherently evolutionary in nature. Four alliances involved collaborate on the development of critical applications and services in Taiwan and Asia market. While Taiwan partners engaged in its own base area of competence, these alliance helped HP and IBM gain resources to joint development technologies and know how on local markets. Conducting such alliance may provide the MNEs to gain an access ticket into a promising market, in another word, turn a location specific
resource into valuable firm specific asset. Most of Type B alliances (four of six) are Type I (Equity-Scale). For HP in Taiwan, there are three alliances (ITRI, QSI, STC) involved Equity investment while IBM has only one. For HP Taiwan, equity investment on scale advantages is quite favorable compare to IBM Taiwan.

TYPE C: Substitute

According to our investigation, MNEs may decide to alliance with local service provider when they perceive that the reduction in transaction costs resulting from the replacement of the external imperfect markets will be greater than the costs of organizing such activities internally. For a MNE that already so familiar with the service, to form an alliance is a better choice then procure the service from open market. Both company believed that through alliance based on know how and intellectual property sharing to partners, they can ensure the service quality, and also reach a better deal for themselves. Since Type B alliances are aimed on substitute non-core internal process with external service, all of them are Type IV (Non-equity-Link) type of alliances in Xie’s classification scheme. Compare to HP, IBM in Taiwan developed more Type C alliances (4:1), involving Logistic base alliance, Joint product development, OEM agreement and licensing agreement.

CONCLUSION

We find that Taiwanese firms are interested in forming strategic alliances with MNEs, and they have particular interest in forming horizontal alliances aimed at accessing new markets and exchanging resources, sharing risk, achieving economies of scale. We find the size of Taiwanese firm which alliance with MNE’s subsidiaries is approximately large firms, and the large domestic firm will likely undertake the non-equity type alliance. We argued that alliance can be classified into three distinct types for MNE subsidiaries in a developing country: TYPE A: Market Seeking, TYPE B: FSA Enhancement and TYPE C: Substitute. The MNE subsidiaries form these alliances for different purpose. A second contribution of the paper is the use the typology developed by Frnak Tian Xie and Wesley J. Johnston (2004) to distinguish among alliances and to explicate alliance motivations and performance on impact of e-business transformation. Thirdly, since MNE headquarters’ e-business strategy differences cause HP to signal that it will continue to use alliances for ‘catching up’ with more nimble competitors and IBM has signaled its commitment to continued use of alliances via its ‘Business Partner Charter’, and considers alliances as a necessary part of delivering total ‘solutions’ to customers. The findings of this study fill the gap in the literature that is lack of exploring the similarities and differences of the alliance experiences between different MNE’s subsidiaries.

Finally, it is worth noting several limitations of our study as well as avenues for future research. In addition to the obvious limits on generalizability inherent in a study set in a single country and time period, our results must be considered preliminary due to the combination of small sample size and inherently complex phenomena. Given the still limited understanding of the phenomenon by researchers and the apparent ascendance of the concept in the practice of multinational management, it is clear that further research on centers of excellence is warranted.

REFERENCES


Securities Data Company (SDC) database

<table>
<thead>
<tr>
<th>Market Factors</th>
<th>New Unfamiliar</th>
<th>Joint Venture</th>
<th>Venture Capital/ Educational Acquisition</th>
<th>Venture Capital/ Educational Acquisition</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Familiar</td>
<td>Internal Development/ Acquisition/ Joint Venture</td>
<td>Joint Venture/ Acquisition/ License</td>
<td>Venture Capital/ Educational Acquisition</td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>Internal Development/ Acquisition</td>
<td>Internal Development/ Acquisition/ License</td>
<td>Joint Venture/Strategic Alliance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Base</td>
<td>New Familiar</td>
<td>New Unfamiliar</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 1: Familiarity Matrix

Fig. 2: Strategic Alliances Typology

Fig. 3: The Familiarity Matrix of IBM in Taiwan

Fig. 4: The Familiarity Matrix of HP in Taiwan
Fig. 5: Comparison of HP Taiwan and IBM Taiwan Alliance Strategies
## Appendix I: IBM’s Strategic Alliances

<table>
<thead>
<tr>
<th>Alliance launch date</th>
<th>IBM Partner’s name</th>
<th>Code</th>
<th>No. of Partners</th>
<th>Firm size</th>
<th>Partner’s contribution</th>
<th>Typology of strategic alliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999.10.25</td>
<td>Synnex Technology</td>
<td>SynnexI</td>
<td>1</td>
<td>Large</td>
<td>Deal make Synnex a provider for IBM's PC related after sales service</td>
<td>Type IV : Logistic base alliance</td>
</tr>
<tr>
<td>1999.12</td>
<td>ACER</td>
<td>ACER</td>
<td>1</td>
<td>Large</td>
<td>Joint product development to integrated ACER product with IP transfer from IBM</td>
<td>Type IV : Joint product development · Licensing agreement</td>
</tr>
<tr>
<td>1999.9.25</td>
<td>YAM.COM</td>
<td>YAM</td>
<td>1</td>
<td>Small</td>
<td>Joint promotion on software infrastructure for local B2C Internet portal</td>
<td>Type II : Reciprocal marketing</td>
</tr>
<tr>
<td>2000</td>
<td>IVNET</td>
<td>IVNET</td>
<td>1</td>
<td>Small</td>
<td>Joint project to delivery next generation broker-dealer's web-site (e-broker) for Taiwan’s local stock broker</td>
<td>Type IV : Joint product development</td>
</tr>
<tr>
<td>2000.3</td>
<td>KG Telecom</td>
<td>KGT</td>
<td>1</td>
<td>Small</td>
<td>IBM and KG will collaborate on the development wireless telecomm applications and services in Taiwan and south-east Asia</td>
<td>Type I : Joint venture (equity)</td>
</tr>
<tr>
<td>2000.6.22</td>
<td>Gamania Digital</td>
<td>Gama</td>
<td>1</td>
<td>Large</td>
<td>Joint promotion on network infrastructure and ASP services for internet game</td>
<td>Type II : Reciprocal marketing</td>
</tr>
<tr>
<td>2000.9</td>
<td>Asia major Inc.</td>
<td>Asia</td>
<td>1</td>
<td>Small</td>
<td>Development of a web-based 3D animation editing system</td>
<td>Type II : Branding alliance</td>
</tr>
<tr>
<td>2002.11.4</td>
<td>TRI · Taiwan Fixed Network</td>
<td>TRI</td>
<td>2</td>
<td>Large</td>
<td>project to joint development and marketing campaign on e-business platform for SMEs in Taiwan</td>
<td>Type II : Reciprocal marketing</td>
</tr>
<tr>
<td>2003</td>
<td>UMC</td>
<td>UMC</td>
<td>1</td>
<td>Large</td>
<td>Transfer IBM's IP to UMC, joint development of HD controller IC</td>
<td>Type IV : Licensing agreement</td>
</tr>
<tr>
<td>2003.11.4</td>
<td>YULON Motor</td>
<td>YOLON</td>
<td>1</td>
<td>Large</td>
<td>Joint development of &quot;to be” system, a next generation car-PC with advanced feature.</td>
<td>Type IV : Joint product development</td>
</tr>
<tr>
<td>2003.2.17</td>
<td>TamKong University · I.I.I.</td>
<td>TKU</td>
<td>2</td>
<td>Large</td>
<td>IBM integrated with TKU and III to form an alliance in order to push e-learning applications into high education market</td>
<td>Type II : Reciprocal marketing</td>
</tr>
<tr>
<td>2004</td>
<td>TSMC</td>
<td>TSMC</td>
<td>1</td>
<td>Large</td>
<td>Transfer IBM's semiconductor FAB management related IP to TSMC, TSMC became a major IBM's foundry partner</td>
<td>Type IV : Licensing agreement · OEM agreement</td>
</tr>
</tbody>
</table>

Large firms refer to firms that employ 250 persons or more; the rest are small firms.
## Appendix I: HP’s Strategic Alliances

<table>
<thead>
<tr>
<th>Alliance launch date</th>
<th>IBM Partner’s name</th>
<th>Code</th>
<th>No. of Partners</th>
<th>Firm size</th>
<th>Partner’s contribution</th>
<th>Typology of strategic alliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000.3</td>
<td>Synnex Technology</td>
<td>SynnexH</td>
<td>1</td>
<td>Large</td>
<td>Deal make Synnex a provider for IBM's PC related after sales service</td>
<td>Type IV: Logistic base alliance</td>
</tr>
<tr>
<td>2000.6</td>
<td>Mico-Johnson Corp. Taiwan Television</td>
<td>MJC</td>
<td>2</td>
<td>Small</td>
<td>Joint development to B2C website aimed on K12 market.</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2001.7</td>
<td>Maya Online</td>
<td>Maya</td>
<td>1</td>
<td>Small</td>
<td>Joint promotion on network infrastructure for internet games</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2001.8</td>
<td>Taiwan Telecom Network · Tatung Company</td>
<td>TTN</td>
<td>2</td>
<td>Large</td>
<td>HP and TTN and Tatung Telecomm joint together to promote their Web-based personal financial management system</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2002.11</td>
<td>SmarTeam Corporation</td>
<td>STC</td>
<td>1</td>
<td>Small</td>
<td>Based on well experienced SmartTeam Corp., The joint project will developed an &quot;one on one CRM&quot; for banking industry in Taiwan</td>
<td>Type I: Joint productions</td>
</tr>
<tr>
<td>2000.7.12</td>
<td>UniSVR International · Cadence Tech.</td>
<td>UniSVR</td>
<td>2</td>
<td>Small</td>
<td>Joint product development to promote Asia’s first internet EDA service</td>
<td>Type II: Reciprocal marketing</td>
</tr>
<tr>
<td>2000.11.28</td>
<td>TBCommerce · TBC Group</td>
<td>TBC</td>
<td>2</td>
<td>Large</td>
<td>Based on well-experienced TBCommerce group. The joint project promote a web-based solution for International trading companies in Taiwan</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2001.3.13</td>
<td>NewType Inc. · Microsoft</td>
<td>NewType</td>
<td>2</td>
<td>Large</td>
<td>Integration of NewType's Internet marketing platform with solutions from both HP (HW) and Microsoft (SW)</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2004.5.7</td>
<td>ITRI (Industrial Technology Research Institute)</td>
<td>ITRI</td>
<td>1</td>
<td>Large</td>
<td>This project form a independent organization to study on RFID application for those Taiwan companies who is the OEM provider for the world market</td>
<td>Type I: R&amp;D alliance</td>
</tr>
<tr>
<td>2005.1.10</td>
<td>ColorPower Inc. · Jasper Huang</td>
<td>CPI</td>
<td>2</td>
<td>Small</td>
<td>project to joint development and marketing campaign on a web-based design system for local clothing companies</td>
<td>Type II: Co-marketing</td>
</tr>
<tr>
<td>2005.2.1</td>
<td>Qware Systems Inc. · Uni-president Group</td>
<td>QSI</td>
<td>2</td>
<td>Large</td>
<td>This alliance forms a team to develop and operate the &quot;wireless city of Taipei&quot; project.</td>
<td>Type I: Joint ventures</td>
</tr>
<tr>
<td>2005.3.1</td>
<td>Foxconn Inc.</td>
<td>Foxconn</td>
<td>1</td>
<td>Large</td>
<td>Joint product development that integrated Foxcom's manufacturing and HP's technology, Foxcom became a major HP's hardware OEM partner</td>
<td>Type IV: Joint product development</td>
</tr>
</tbody>
</table>

Large firms refer to firms that employ 250 persons or more; the rest are small firms.