Emerging Asian ICT global players: natural born collaborators or stuck with aliens?

Monika Golonka

Kozminski University, Warsaw, Poland

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Emerging Asian ICT Global Players: Natural Born Collaborators or Stuck With Aliens?

Monika Golonka
Department of Management, Kozminski Business School, Warsaw, Poland
monikagolonka@kozminski.edu.pl

Abstract

Researchers studying firm’s strategy have begun to recognize the role of alliances, alliances portfolio and alliances networks in access to the partners resources and it's impact on a firms' performance, industry competition dynamics, and industry structure. Nevertheless, most studies have focused on firms’ alliance portfolios analysis based on single country only, mainly US Banking or Software Industry. The real “explosion” of alliances is the phenomena clearly observed in a global ICT Industry. ICT Industry is the one of the fastest-growing Industries directly shaping global communication and leading changes in many other market sectors. In this undoubtedly pioneering domain of changes caused by digital convergence, convergence of products and services we can observe an extreme growth of meaning of interfirm cooperation - alliances, alliance portfolios and alliance networks, as well as mergers and acquisitions. On the example of 30 leading global ICT giants and 10,247 alliances in their alliance portfolios, this study empirically tested and supported hypothesis that ICT firms from more “collective” cultures, or cultures characterized by “relational mindset” are more willing to cooperate with culturally diverse partners, forming multiple weak alliances (exploration alliances) then firms from individualistic cultures. The question appears that are they “natural born” collaborators or they stuck with existing Western giants on the global market? Quantitative analysis results have been illustrated by two examples of firms’ alliance portfolios: one from China and one from France.

Introduction
The main objective of this study is to answer the questions: are global ICT players from cultures characterized by high level of collectivism (Hofstede 2005) and “relational perspective” (Chen and Miller, 2011) – e.g. emerging economies like China and India, more open for collaboration with partners from different cultures then firms from individualistic cultures - “Western” (Gupta, 2009, Chen and Miller, 2010)? or “transactional perspective”? And what kind of alliances they tend to form?

Current study may help explain how leading global ICT firms create their alliance portfolio*. The observations may provide deeper understanding of paths of global development likewise the future market leaders from collective, emerging Asian countries, primarily China and India.

An exploration alliance strategy, based on weak ties (Contractor and Lorange, 1988, Lavie, 2006), in a global ICT Industry has been increasingly important and effective for the last 10 years (Golonka, 2011). In the ICT Industry firms are being forced to quickly acquire complementary resources, to test new options, strategies scenarios, products, services or solutions as well as business models. As time to market has become a crucial success factor there is no enough time for forming costly, strong alliances, with fixed scope, duration and cost. During the last 10 years (2000-2009), 30 leading global ICT firms have established over 2000 new alliances, which is approximately 34 percent of the increase to the current number - over 10 000 ties. More then 70 percent of ties are exploration (weak) alliances. In the analyzed sample an average number of weak ties has increased of 55 percent, while number of strong (exploitation) ties has increased only of 0,56 percent.

One of the most interesting phenomena at present is alliance strategy of global players from emerging economies (BRIC- Brazil, Russia, India, China). It has become extremely important in the context of emerged global ICT giants from China and India. Strong evidence exists that informal institutions such as cultural factors influence firm level characteristics such as firm’s organizational culture, intra-organizational processes, strategy and performance. Culture has been seen as a one of the most significant barrier in mergers and acquisitions, alliances, organizational change. National culture that shaping firm’s organizational model can

* By alliance I mean all cooperative agreements or in other words, interfirm ties. Alliance portfolio is an ego-centric network, where the focal firm (ego) creates ties with its partners (allies).
also influence the interfirm relationships and firm’s alliance strategy. Some researchers argue that “Eastern, relational mindset” affects organization, leadership and strategy (Cheng, Miller, 2010, 2011), thus creating relationships, competing and cooperating shall be affected by cultural factors. Explaining such phenomena can provide understanding of ways of alliance creating and managing by global players from different cultures.

In fact, although there has been considerable theoretical discussion on cultural factors and numerous implications for strategy, leadership and organization, there is little empirical evidence to date. There are still several gaps, theoretical and empirical, in this research area. Based on quantitative analysis of ICT global players alliance portfolios (10,247 alliances and 7,258 unique allies), this research show two different ways of alliance portfolio creation.

The findings contribute to the understanding of differences in collaborative strategies of global firms originated from different cultures – Western: more individualistic and Eastern: collective. This study provides several theoretical and practical implications for researchers and managers even though it doesn’t provide complete explanation of presented phenomena. I believe that the analysis begins to offer an explanation for cultural factors impact on firm’s alliance portfolio strategy. Future research, based on both quantitative and qualitative research methods should provide explanation of the phenomena in a greater depth.

The paper is structured as follows. First, I explain the context of emergence of global ICT giants in terms of competitive and cooperative strategies - such as alliances, alliance portfolios and networks - as well as informal institutions: cultural factors. Second, the hypotheses based on the literature analysis have been provided. Third, I provide a description of method used in quantitative part of a research and results of analysis. Then, the illustration of the results has been presented; the description of two opposite cases in term of culture of origin – global ICT companies; one from China and one from France.

Discussion and hypothesis

Currently, particularly in global Industries as ICT Industry, alliances, alliances’ groups and networks are seen as the one of the most effective methods to acquire
necessary resources, including knowledge, abilities, and also relationships with business partners and customers (Dyer and Singh, 1998, Gulati, 2007). The emergence of multinational ICT giants from emerging markets and establishing their competitive advantage worldwide is associated with forming alliances with partners and potential competitors (Low, 2007, Yanging, 2007).

One of the major factors that affect firm’s corporate culture, strategy, processes and performance is national culture. Culture is generally understood to serve two critical functions: external adaptation and internal integration (Schneider, 1989). Strong evidence exists in the literature on the influence of national culture on firms’ strategic choices (Kogut and Singh, 1988), internal processes and decisions (Rugman and Collinson, 2009), or organizations’ members’ values (Chang, Wong, Koh, 2003, Ralston, Holt, Kai-Cheng, 1997), as well as interfirm cooperation (Child and Faulkner, 1998, Lee, Li, Shenkar, 2008) and firm’s performance (Ghamewat, 2001, Versakelis, Kessapidou, 2002). Corporate culture do not depend on a national culture alone, but strong evidence exists that the cultural dimensions still influence the structure and function of organizations (Hofstede, 2009), and lead to different implicit models in people’s mind of what organization should be (Varsakelis et at, 2002, p.269). Corporate culture to some extend is shaped by national culture and values of the firm’s founders (Morosini et all, 1998, Veraskelis et all, 2002). Global firms need to constantly monitor the impact of cultures on their global activities and projects (Bing, 2004).

There are several concepts in the literature describing differences between “East” and “West” in the context of approaches to forming and maintaining relationships. Well established in the literature is Collectivism versus Individualism construct (Hofstede, 1988-2009), however, it is worth to mention also Exclusionism versus Universalism (Minkov, 2011) (correlated to Individualism/Collectivism), Relational versus Transactional mindset (Cheng and Miller, 2011), or West versus East (Cheng, Miller, 2010), and West versus Dragons (China), and Tigers (India) (Gupta, 2009).

Collectivism and individualism seems to be the widely studied dimension in cross-national business relationships (Williams et al., 1998). Individualism-collectivism concerns the relationship between the individual and his/her group (Hofstede, 2005; Triandis, 1986). In a collectivist culture, a person gives higher priority to the group’s interest and norms than to his/her own interest, while in an
individualistic culture, a partner pursues achieving their own interest and disregards others' welfare (Hofstede, 2005). Members of an individualistic culture, value individual freedom and interests, and endorse competition (Hsu, 1985). Eastern, relational mindset affects organization, leadership and strategy (Cheng, Miller, 2011). According to Kumar and Das (2011), individualism–collectivism may affect legitimacy dynamics in international alliances, during alliance formation stage, operation stage, and alliance outcome (Kumar, Das, 2011). The ability to collaborate, as well as ability to non-linear thinking (Vance et al, 2008), and the tendency of collectivist network to maintain harmony, even with dissimilar partners (Terawatanavong and Quazi, 2006) may be useful in forming relationships with different partners and creating culturally diverse alliances portfolios by firms from collective cultures. Thus, first hypothesis of this study has been formulated as follows:

**Hypothesis 1:** The ratio of ties with cultural diversified allies in focal firms' alliance portfolios is positively associated with a level of collectivism characterizing the focal firm’s culture of origin.

According to March (1991) types of firms’ strategies accomplished within alliances with other companies are related to the strength of ties. Based on the strength and purpose of ties two groups of alliances have been distinguished in the literature: weak ties (exploration alliances) and strong ties (exploitation alliances).

Exploitation alliances often go beyond the short-term benefits by creating solutions to problems in the long term. In exploitation alliances firms were able to transfer quality and useful knowledge (Krackhardt, 1992). In such relationships only interested strategic partners (allies) who are valuable are directly connected with real, measurable commitment. Within this kind of relationship, partners learn about one another’s organizations and become more dependent on their partners, building mutual, relational trust (Larson, 1992, Krackhardt, 1992, Kogut, 1988).

Exploration alliances are often preferred in order to gain access to the latest information and are connected with the possibility of "penetrating" the network of alliances. Exploration strategy is usually not associated with a relationship involving joint capital (Koza and Levin, 1998). This strategy allows for the research of new, uncertain, risky sectors, testing rules and strategic choices (Lant, Millken, and Batra,
The essence of exploitation is to enhance and expand existing competencies, technologies, and paradigms (March, 1991).

Both types of ties can be useful to gain adequate resources. Some studies show that during the collaboration firms were able to acquire useful knowledge from their partners to develop relationships with other market players independently from the partner (Palakshappa and Gordon, 2007). Since exploitation alliances require mutual understanding, relational trust, building long-term cooperation with strong commitment, the cultural differences between “Eastern” and “Western” ICT players may be a significant barrier. Especially that effect of trust on interfirm cooperation is stronger in the collectivist culture than in the individualist culture (Terawatanavong, Quazi, 2006). According to Gitelson, Bing, and Laroche (2001) over 80 percent of mergers and acquisitions fail in terms of achieving the benefits for shareholders due to the cultural differences. However, “Eastern” giants can still get the access to other firms’ resources by establishing weak (exploration) alliances. Therefore, I posit the second hypothesis as follows:

_Hypothesis 2: The explorative alliances ratio is positively associated with the level of collectivism of focal firm’s culture of origin._

**Procedures for collecting data**

I choose all leading global ICT firms, based on SIC codes, press analysis and Industry reports (TBR, Ovum, Gartner, 2007-2009). Finally, the list of selected firms has been confirmed by Industry Experts. In order to ensure complete coverage of alliances the database of alliances has been created. The data were obtained from SDC Platinum Database. Following Anand and Khana (2000) and Lavie (2007), I compiled records of ties formed by each focal firm, then complemented and corrected the data by searching publicly announced alliances in press releases and corporate web sites of focal firms. In total, 10,247 alliances and 7,258 unique allies have been defined, from which only about 60% was reported in SDC Platinum. Prior to 2000, the US played a primary role in shaping the global ICT industry. After year 2000, the EU as well as the Asia and Pacific region has become increasingly relevant on the global scale (European Commission of Information Society and
Media, 2010). Thus, the alliance data for my analysis cover a 10-year time period, from 2000 until 2009. In the sample there are focal firms originated from USA (13), UK (2), France (4), Sweden (1), Canada (1), Finland (1), Korea (1), Japan (2), China (2), and India (3). For each focal firm and for each partner firm I coded additional data, namely, the alliance status, type of alliance, firm’s name, firm’s country of origin. Subsequently, for each country of origin I coded cultural dimensions obtained from Hofstede’s model (Hofstede, 2009), namely individualism and collectivism, also related to relational and transactional perspective (Chen and Miller, 2011), and exclusionism/universalism (Hofstede, 2009, Minkov, 2011). For each alliance I coded the type of tie, based on the description of its status, purpose and scope (Contractor and Lorange, 1988). Following Lavie and Rosenkopf, (2006), Lavie (2007), and Yamakawa et al (2011), all identified alliances have been grouped into two categories: weak (exploration) ties (included marketing agreements, license agreements, selling, and service agreements) and strong (exploitation) ties (capital alliances, joint ventures, production joint ventures, R&D alliances, and multiple agreements with the same partner).

Variables

The dependent variable in this study is Culturally diverse alliances ratio. This is the measure of total share of partners in firm’s alliance portfolio from different cultures then focal firm, opposite in terms of individualism/collectivism culture dimension (Hofstede, 2005, 2009).

\[
\text{Culturally diversified alliances ratio} = \left(\frac{\text{Total number of alliances with partners originated from opposite cultures in term of individualism/collectivism index} \times 100\%}{\text{Total number of alliances in alliance portfolio}}\right)
\]

The one of the explanatory variables in this study is Collectivism index. I used one of the cultural dimensions measured by individualism/collectivism index

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1 Nardon and Steers (2009) analyzed the five existing cultural dimensions models in literature, created by: Hofstede (2001), Hall (1990), Trompenaars (1998), Shwartz (1994) and also GLOBE project, the study conducted by House, Hanges, Javidan, Dorfman and Gupta (2004) concluding that all existing models serve to amplify, clarify the Hofstede’s five dimensions model. According to Peng (2005) and also Nardon and Steers (2009) the Hofstede’s model of national culture dimensions is still the most influential.
identified for each focal firm, obtained from Hofstede’s model of cultural dimensions (Hofstede, 2009) for each focal firm and for each partner firm based on their country of origin. For each partner firm I coded the level of collectivism, taking collective countries as characterized by individualism index up to 50 and individualistic countries as countries with individualism index above 50 (Hofstede, 1980).

Second explanatory variable in this study is the Exploration alliances ratio. I used a ratio, as the total number of exploration alliances over the total number of alliances in focal firm’s alliance portfolio.

\[
\text{Explorative alliances ratio} = \frac{\text{Total number of exploration alliances} \times 100\%}{\text{Total number of alliances in focal firm’s alliance portfolio}}.
\]

Controls
The study is focused on leading (in term of size, significance due to the industry reports and industry experts, and SIC qualification) global ICT vendors. However, the size of the firm is normally used in an empirical estimations assuming that it affects profitability due to economies of scale. I used Firm size variable by taking the logarithm of the focal firm’s employees in a given year. I controlled also Firm age (taking into account that well-established firms originated from mature economies usually were incorporated earlier then global players from emerging markets) measured by subtracting the year the firm was incorporated from the alliance contraction year; the numbers of year the firm had been in operation. I controlled Alliance portfolio size calculating the logarithm of the total number of alliances in focal firm’s alliance portfolio. I controlled the inter-industry variation (by using four-digit SIC codes).

Results

I reported descriptive statistics (means, standard deviations), and correlations of the variables in Table 1.

Table 1. Descriptive statistics and correlation matrix.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Std Dev.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
</table>

8
Observed modest overall level of correlation indicates that there is no threat of multicollinearity in this study. However, in order to avoid potential multicollinearity in my estimations, I did not include all variables in the same regression. I entered the variables sequentially. Firstly, I provided control variables. Secondly, I provided direct effects. Finally, the additional variable was provided to the regression. Missing values were treated with case deletion. The regression model shows very good adjustment; the explanatory power of the full model (Model 3) reached 77 percent.

Table 2. Regression models for Culturally diverse alliances ratio.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.43 (1.77)</td>
<td>-0.06 (-0.28)</td>
<td>-0.15 (-0.76)</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.00 (0.03)</td>
<td>-0.001 (0.008)</td>
<td>-0.03 (-0.25)</td>
</tr>
<tr>
<td>Portfolio size</td>
<td>-0.32 (-1.22)</td>
<td>0.05 (0.23)</td>
<td>0.14 (0.69)</td>
</tr>
<tr>
<td><strong>Main variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collectivism index</td>
<td>0.74 (4.56) ***</td>
<td>0.83 (5.33) ***</td>
<td></td>
</tr>
<tr>
<td>Explorative alliances ratio</td>
<td>0.30 (2.22)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of observations (year-firm)</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
<tr>
<td>Adj. R^2</td>
<td>0.33</td>
<td>0.71</td>
<td>0.77</td>
</tr>
<tr>
<td>F - statistic</td>
<td>1.08</td>
<td>6.63***</td>
<td>7.21***</td>
</tr>
</tbody>
</table>

t-statistics in parantheses. Dependent variable: Culturally diverse alliances ratio. Note: Missing values were treated with case deletion.

*** p<0.001
** p<0.01
* p < 0.05

I report the findings in Table 2. Hypothesis 1 examines the effect of
collectivism index on ratio of culturally diverse allies in firm’s alliance portfolio. I find that culturally diverse alliances ratio is strongly, statistically significant, positively associated with collectivism index of focal firm’s culture of origin ($\beta = 0.74$, $p < 0.001$), which suggest that – the proportion of culturally different partners in firm’s alliance portfolio increases with increase of the collectivism index of firm’s country of origin. Thus, Hypothesis 1 is supported. The result of full model (Model 3) indicates, that the effect intensifies with providing of additional explanatory variable, explorative alliances ratio ($\beta = 0.83$, $p < 0.001$). Hypothesis 2 investigates the correlation of explorative (weak) alliances ratio and collectivism index. In support of Hypothesis 2, the explorative alliances ratio is positively related to collectivism index of the focal firms ($\beta = 0.30$, $p < 0.05$).

Results suggest, that the ICT firms from „Eastern“, collective cultures create alliances with broader spectrum of partners, including partners from different, opposite, individualistic (by Hofstede, 2005) or transactional (by Chen and Miller, 2011) cultures. „Western“, individualistic ICT firms have significantly more similar, individualistic partners in their alliance portfolios. „Eastern“ ICT firms tend to form more weak, explorative alliances with their partners.

In order to illustrate the results I choose two different firms in terms of cultural characteristics. Those are direct competitors, one from France$^2$ (Alcatel - Lucent, individualism index of country of origin = 65), and one from China (Huawei, with individualism index = 10). The increase of alliances number in an analyzed period of time I noticed in case of Huawei 1160 percent and Alcatel-Lucent 52 percent. Alcatel Lucent was founded as Alcatel in 1898, and merged with Lucent Technologies in 2006. Currently, its one of the leading vendors in ICT Industry with revenue 15,99 billion EUR, employing 79,800 people. Huawei was incorporated in 1988 in China, and is the most well-established Asian global vendor with revenue 22,03 billion EUR and 110,000 employees (KPMG, 2010). Currently, both firms compete in the global ICT Industry, trying to take the position of a business partner for their customers in this fast-growing market sector (Low, 2007, TBR, 2009).

The ratio of alliances with culturally diverse partners in case of Huawei is 65 percent, while in Alcatel-Lucent’s portfolio only 31,46 percent (year 2009). Figure 2 shows the the major allies’ countries of origin.

$^2$ Alcatel’s country of origin is France, however Alcatel has merged with Lucent Technologies from Germany in 2006.
Conclusions

Emerging Asian ICT global giants from collective cultures seem to cooperate with more „Western“, individualistic partners, forming often weak, explorative alliances, while „Western“ global ICT players are more likely to cooperate with allies from similar, individualistic cultures.

It is worth to admit, that one of the reasons of such situation may be the fact, that global ICT firms from emerging economies like China or India have limited number of potential allies originated from similar, collective cultures on the global market. However, the age of firms (control variable in this study) proved to have no significant meaning. Results suggest that Asian (including Chinese and Indian) global ICT players are willing to cooperate with more diverse partners from different cultures, using their abilities to collaborate, maintain harmony within the relationships and networks, explore and acquire the necessary resources to compete in a global scale.

Certain emerging Asian firms have developed their position in other emerging markets firstly, because of various barriers that have prevented them from

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3 The circles’ size indicates the number of allies.
developing in mature economies. Only after building a stronger reputation and forming numerous alliances they were able to expand to the mature markets (Low, 2007). The fact that the firms were practically forced to cooperate with diverse partners to build the competitive advantage globally, is an additional factor influencing the abilities to build and maintain culturally diverse alliances. Possibly this way of development also might have an impact on building skills necessary to acquire and use of “network resources” effectively (Gulati, 2007).

As a result, currently Asian emerging global players may have a certain advantage in terms of competing through cooperating in multinational, cross-cultural markets. Moreover, taking into account the results of several studies (e.g. Green at al, 2005, Bond at al, 2004), showing that there is a significant, negative correlation between individualism level and competitiveness (approval of competition), the cooperation strategies of Asian firms might have a major meaning for their competitive advantage developing.

As observed in the case of alliance portfolios of two presented ICT vendors, one from emerging Asian market, China (Huawei) and one from Europe, France (Alcatel-Lucent), there are significant differences in the choice of allies. The “Eastern” emerging giant Huawei has in its alliance portfolio more then 65 percent of partners originated from different countries and cultures, involving firms both from emerging and mature markets. “Western” Alcatel-Lucent has focused on alliances with firms from similar, mature, and individualistic countries, having only over 31 percent culturally different partners. Both firms have declared global expansion into each market for over last ten years (based on the analyzed secondary data, e.g. reports, interviews with executives, and corporate websites). As a result, from among these two cases, currently Chinese firm has built a much more culturally diverse alliances portfolio as well as strong market presence in almost each country of origin of the allies.

Since there are currently a few global Asian ICT players from India and China, which is the reason why the number of “Western” firms dominates the total sample, and the ICT Industry is one of the fastest growing and rapidly changing sector, the research should be repeated and the development of cooperation strategies of firms from different cultures should be observed in a longer term.

**International and managerial implications**
According to Gupta (2009) and Khanna (2010) the emergence of global leaders from China and India is taking place at a much faster rate than was the case with their predecessors from Japan and South Korea (Gupta, 2009, pp.151). Emerging Asian global ICT players seem to learn from their culture and experiences of their Japanese and Korean predecessors, but also from Western, individualistic “Aliens”, cooperating and competing with them. China and India are changing the rules of the global game, having a transformational effect on competitive advantage (Gupta, 2009). Knowing and understanding of differences in alliance strategies of global giants originated from different countries and cultures seem to be crucial challenge facing researchers in Strategic Management and International Management field. Scholars need to undertake studies to investigate various performance implications of different cooperative strategies and consider the impact of cultural factors on it. Future empirical research may also examine how organizational level factors as managerial decisions, processes and structures affect cooperation strategies and what is an influence of cultures on those characteristics. I hope this study will set the stage for further empirical research relating to both alliances portfolio and cultural dimensions, incorporating additional existing cultural concepts and approaches, e.g. cultural distance (Ghamewat, 2010).

The partnering in a current business environment is one of the most effective ways to acquire necessary firm’s resources. From managerial perspective, creating and managing of alliance portfolio effectively has become one of the most important tasks. At least three key concerns that managers need to address are: how to form and manage alliance portfolio in a global scale, what is the impact of culture of origin on the cooperation strategies, as well as on organizational processes, and what are cooperative and competitive strategies of their global rivals from different cultures.

References
