

## Alliances Increasingly Important in Internationalisation Strategies of Finnish Firms

### THERE HAS BEEN A RECENT SURGE IN INTERNATIONAL ALLIANCE ACTIVITY

The internationalisation of firms is a salient feature of ongoing globalisation. Traditionally firms have primarily internationalised through foreign direct investments (FDI), of which mergers and acquisitions have played a major role. Nonetheless, barely a day goes by now without the announcement of a major international strategic alliance in the press. The recent increase of international alliances is also well documented in the research literature, and undoubtedly indicates that alliances are becoming important in the internationalisation strategies of firms. In this context an international strategic alliance might be defined as a publicly announced collaborative agreement between firms from different countries of origin, which is characterised by a bilateral commitment to reach a common strategic goal in the field of R&D, production or marketing. Defined in this way, alliances delimitate a subset of inter-firm collaboration that excludes buyer-seller relationships, subcontracting agreements, licensing, franchising, and buyback agreements where the partners often have opposing goals.

In the theoretical literature alliances are usually interpreted in terms of transaction cost economics, whereby the focus is on equity-based joint venture as a specific type of alliances. Through joint ventures firms partially internalise their collaboration with other firms and thereby have better possibilities to monitor and reduce the costs associated with various uncertainties embedded in such collaboration. These costs might for example relate to uncertain outcomes, opportunistic behaviour of the partner, or lack of mutual trust more generally (Caloghirou et al., 2003). Empirical research has nonetheless shown that the recent increase in



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international alliances to a major part has been due to looser non-equity based alliances. Further the increase is foremost concentrated to high-technology fields which are characterised by higher technological and market uncertainties, and hence also higher costs of collaboration. Typical examples of such technological fields include ICT, biotechnology and new materials (see Hagedoorn (2002)).

In this article we focus on the internationalisation of Finnish firms as viewed through alliances. Previous research has largely taken the perspective of FDI and shows that these types of investments have grown significantly throughout the 1990s and early 2000s. This is also reflected in the rising share of turnover, employment and R&D that Finnish firms have generated abroad (see e.g. Ali-Yrkkö et al., 2004 and Lovio, 2004). These developments have recently sparked a broader discussion on the threats and opportunities associated with the related partial relocation of production and R&D to multiple geographical sites abroad. Far less, however, is known about the development, nature and challenges of internationalisation of Finnish firms through alliances.

This article relates to ongoing research on the position of Finland in the globalisation of innovative activities. It draws on a new database on alliances of 22 large Finnish firms.<sup>1</sup> The database contains information on the extent to which these firms have been involved in alliance since 1995, on the nature of the alliances and the partner firms. It enables analyses on various issues pertinent to alliance activity, and it has also been complemented with in-depth interviews. In this article we will report and discuss some first insights based on econometric analysis of 417 international alliances contained in the database. The data, the definitions and methodologies used, are described in greater detail in a recent ETLA discussion paper (Palmberg and Pajarinen, 2005).

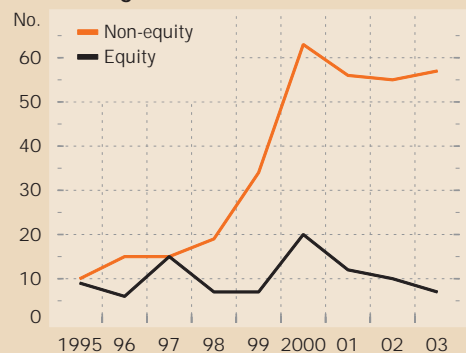
#### **NOKIA DOMINATES BUT INTERNATIONAL ALLIANCES ARE ALSO COMMON IN TRADITIONAL SECTORS**

Information and communication technology (ICT) is a good example of a sector in which the compatibility between technologies and products are of crucial importance to firms and consumers alike. As a consequence firms very often have strong incentives to collaborate in order to standardize technological and product interfaces, even though they might be outright competitors. This type of inter-firm collaboration is, by necessity, bilateral and strategic, and thereby contributes to the increase in the alliance activity of firms over time. Largely due to these same reasons Nokia has, already in the early phases of standardisation of the GSM mobile telecommunications system, been actively involved in international alliances, especially with US and European partners (Palmberg and Martikainen, 2005). From the viewpoint of Finland, the alliance activity of Nokia also shows up in a rapid increase in the number of newly formed alliances over time. A further general observation is that the lion's share of all international alliances comprise of looser non-equity-based alliances. This observation is in line with available research on alliances found abroad. Looser non-equity based alliances typically comprise of R&D

agreements, cross-licensing, second sourcing or joint marketing agreements.

Despite the dominance of Nokia in these figures, the number of international alliances has also grown significantly in many other more traditional sectors, such as the forest-based, metals/engineering and chemicals sectors. Sectoral differences in the extent and nature of alliances activity is usually explained by the characteristics of the related technologies and markets. In the ICT sector the role of standardisation is paramount and explains the pervasiveness and particular mode of alliances. Another feature of many newer high-technology sectors is a high degree of uncertainty due to discontinuous technological change, shorter product life cycles and rapidly changing competitive landscapes. In these contexts alliances can contribute to facilitating technological complementarities between firms, to risk pooling, and to shortening development times of innovations. In the more traditional sectors alliances typically contribute to cost reductions through product rationalization or other mutual arrangements, and thereby also reduce risks. Alliances often also offer new avenues for market access, which reduce the need of firms

**The Growth in the Number of Newly Formed International Alliances of Large Finnish Firms**



Source: The Etlatiето database of international alliances (SAFIF).

ETLA S05.2/f203

to commit themselves to extensive longer term investments into new production and sales units. Still, it appears that equity-based alliances are relatively more common in the more traditional sectors when compared to high-technology. As suggested earlier, these types of alliances are usually considered as an extension of FDI, and thus can be taken to represent internationalisation in its traditional mode.

Apart from characteristics of technologies and markets, many firm level features will also affect the extent and nature of their alliance activity. It can partially be understood as a type of strategic game in which firms weigh the advantages and disadvantages of the conceivable outcomes of alliances against each other based on their respective position in technologies, markets and value chains. For smaller firms non-equity based alliances might offer a flexible means to align themselves with larger firms in order to enter new markets abroad due to their comparatively lesser financial resources to engage in equity-based joint ventures. Firms also differ in terms of their technological competencies and patent portfolios, and these differences might influence the behaviour vis-à-vis alliances. Broader cultural and societal traits of firms with an origin from different countries might also have their effects in this context.

#### **THE DETERMINANTS OF INTERNATIONAL ALLIANCE ACTIVITY**

In the empirical part of the analysis we focused on explaining the reasons behind the preference of large Finnish firms to choose looser types of non-equity alliances, and thus also seek to interpret the recent surge in international alliances that we observe. Our starting point was in the various types of collaborative tasks that firms undertake in alliances under the assumption that they embody different trade-offs between specific uncertainties related to the particular task as the subjects of the alliance, as well as to uncertainties general characterising the broader environment in

which this task was undertaken. Towards this end we classified the alliances into three primary types, differentiating between R&D, production and marketing alliances. In R&D alliances firms develop a certain technology or innovation together by exchanging R&D inputs and other resources. In production alliances the collaboration centres on coordinated, or joint, production of individual, components, products or complete product systems. Marketing alliances cover joint promotion or marketing efforts. This might, for example, concern products which might be functionally connected to each other.

According to the results firms have a higher propensity to organize R&D- and marketing-related collaborative tasks through looser non-equity alliances when compared with production. This can be interpreted to indicate that as the international R&D and marketing activities of firms have grown in importance the related uncertainties have driven firms more frequently into alliances as a new avenue in internationalisation. This interpretation assumes that uncertainty is higher in R&D and marketing-related tasks, when compared with production where the input and output configurations of products already should be well-known and relatively stable. Conversely, the results show that the preference of firms to opt for traditional equity-based alliances in production-related tasks and suggest that alliances contribute less to their internationalisation efforts when compared with traditional, equity-based, modes.

We also classified alliances according to the technology fields that they covered to take into account different technological and market characteristics. The preference for looser types of non-equity alliances in the ICT sector was confirmed further, and assumedly relates to broader environmental characteristics of this sector. In the more traditional forest-based, and engineering sectors firms tend to prefer equity-based alliances. These sectoral differences are also compatible with available research from

abroad. Further, we attempted to measure the differing technological position of the partners – as measured by the number of granted patents at the US patent office – under the assumption that this should affect their alliance behaviour. A general result was that firms with asymmetrically differently sized patent portfolios tend to prefer looser non-equity alliances over equity ones. This could be interpreted as an indication that such asymmetries repel firms from dedicating irreversible equity-investments in the face of the risks associated with collaboration with a technologically stronger partner.

In order to account for broader cultural and societal traits of firms, we assigned country codes to each alliance partner based on its primary country of origin by the location of headquarters. The results point towards the importance of such factors in the preferences of firms vis-à-vis alliances. Specifically, non-equity alliances are more common with European or US firms, while equity-based alliances are more common with Asian firms. This holds true especially in the case of Chinese partners.

#### **CHALLENGES IN THE MANAGEMENT AND APPROPRIATION OF ALLIANCE ACTIVITY**

From a broader vantage point the increasing alliance activity of large Finnish firms is in line with the growth in their R&D expenditures, as well as internationalisation in general. Through international alliances these firms have, above all, sought to establish new commercialisation opportunities and avenues on the global markets. This is also reflected in the content of their alliance agreements. Finnish firms often offer their technological competencies in exchange for market access and global retail channels, which tend to be controlled by large foreign multinational firms. It is also noteworthy that both our statistical analysis and complementary interviews point to the fact that most firms perceive international alliance activity as a new and distinct activity, which appears to be relatively unrelated to their FDI and associated mergers and acquisitions of foreign firms. For

this reasons it also raises new challenges in the internationalisation strategies of the firms.

Perhaps the most significant challenges relate to the sharing of the outcomes of the alliances. In vertical alliances, where the division of labour between firms of necessity is clearer, it is often easier to come to a mutually beneficial agreement on this issue. However, in horizontal alliances between competitors in the same sector the challenges are far greater. This concerns especially alliances that aim for the collaborative developments of new technologies or innovations. In these cases the firms often have to engage in extensive and demanding negotiations over the distribution of possible intellectual property rights (IPRs) which arise during collaboration. Accordingly, an important topic for further research is how well positioned Finnish firms are in such negotiations; there are some publicised cases in which the Finnish partner firm has drawn the shorter straw.

The management and appropriation of alliance activity is also challenging in many other respects. Even though alliances often are motivated by attempts to mitigate risk and add flexibility in the strategic intent of firms, the combination of competition and collaboration might be irresolvable in many instances. Firms have to increasingly carefully analyse their competitive position in the value chain of different technologies and product groups in order to identify areas and tasks in which this type of inter-firm collaboration is viable. This is true especially in the ICT sector where firms are driven into increasingly multilateral and complex alliance constellations. In this sector it seems that the locus of competition, to a growing extent, is shifting from the firm-level toward such larger constellations of alliance networks. This trend is especially clear in the battle for next generation standards, and this battle also involves powerful national interests due to the significance of the rapidly developing markets in countries like China and India.

## FOOTNOTE

<sup>1</sup> The database also covers alliances of the most important smaller firms in the ICT sector, based on a slightly different methodology.

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