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# Industrial Cooperation as an Instrument of Development Policy

by Christian Uhlig, Bochum\*

**The spectacular opening of the People's Republic of China to the capitalist world market and the flourishing state of East-West cooperation – up to the Afghanistan crisis – show that cooperation with more advanced industrial countries in selected fields is seen as a promising means of speeding industrial progress. Essential for the industrialization and modernization of less developed economies are – apart from convertible finance – the transfer and diffusion of technical and organizational know-how from countries in a more advanced state of development. The opportunities for industrial interstate and inter-enterprise cooperation between partners from developing and industrialized countries are analysed in the following article.**

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Industrial cooperation is a concept relating quite generally to cooperation between states or private enterprises in the sphere of industrial production but has of late been applied increasingly to the cooperation between the East and the West. The UN Economic Commission for Europe defines industrial cooperation in a wide sense as a business relationship between two partners from different economic systems which extends beyond the purchase and sale of goods and services and comprises a number of complementary or mutually accepted measures. These may concern the sphere of production, technology transfer, marketing, etc.<sup>1</sup>. In a narrower sense the term may be understood to relate only to specific forms of working together such as for instance the adaptation and coordination of manufacturing activities of the two sides in the form of coproduction involving mutual parts supplies or of specialization. Some authors even presuppose that the balancing of the mutual contributions is essentially achieved by way of real compensation<sup>2</sup>.

Under the aspects of development policy the wider definition is preferable. In this case however the discussion does not focus on the problem posed by the difference between the economic systems but on the analysis of an instrument for bridging development differentials between national economies and for efficient utilization of the resources available on a world scale or in a certain region. The principal object is cooperation on a partnership basis in the sphere of production, so much so that it would be more precise to

speak of industrial production cooperation. This kind of cooperation is complemented by cooperation schemes in other functional spheres of the enterprises in question, especially in the sphere of research and development (R and D), marketing or finance.

## Cooperation on an Inter-Enterprise Level

The cooperation can be effected on an interstate or inter-enterprise level. Interstate cooperation involves arrangements on cooperation agreements as well as special cooperation, for instance on projects, between technical-scientific exchange institutions. Cooperation on an inter-enterprise level is however most important. This industrial production cooperation can take various forms, including for instance:

- ☐ Licence cooperation, including franchising and leasing, possibly connected with arrangements for compensatory deliveries of goods produced through such cooperation;
- ☐ Consultancy cooperation involving management and technical aspects;
- ☐ Subcontracting relating to processing and supplies of parts;
- ☐ Coproduction in the form of mutual parts deliveries or full specialization; as well as in particular

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<sup>1</sup> Economic Commission for Europe (ECE): Analytical Report on Industrial Co-operation among ECE Countries, Geneva 1973, p. 2.

<sup>2</sup> Cf. N. Leise: Die industrielle Ost-West-Kooperation (The industrial East-West cooperation), Forschungsberichte des Instituts für Außenhandel und Überseewirtschaft der Universität Hamburg, No. 7, Hamburg 1976, p. 29; K.-E. Schenk et al.: Industrielle Ost-West-Kooperation (Industrial East-West cooperation), Stuttgart-New York 1977.

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□ Cooperation in joint bi- or multilaterally organized ventures with various forms of participation and possibly specific arrangements concerning compensatory deliveries of produced goods (production sharing).

Barter deals find a place in this scheme as a preliminary form of international cooperation. They do not relate to a portion of the joint production but to other products of the partner country which are offered as a return. Barter deals are playing an important role in transactions concerning investment goods which are often settled through "switching houses"<sup>3</sup>.

The forms chosen in a particular case depend upon circumstances; it often happens that several forms of cooperation are combined. Joint ventures are for instance often licensees of the foreign partner or conclude special delivery (subcontracting) agreements or management and technical assistance agreements with him. The cooperation between the partners may also show differences in intensity. In some cases – for instance in simple barter deals, licence cooperation, franchising, consultancy cooperation and subcontracting – cooperation by way of customary market relations stands to the fore. In other forms of cooperation – for instance in coproduction, production sharing and especially in joint ventures – there is a much higher degree of technical and entrepreneurial interlinking. An essential aspect of all forms of industrial cooperation is the planned discretionary decision of both sides in favour of cooperation on a contractual basis over the longer term.

### Importance of Cooperation

Consideration of the various forms of industrial production cooperation shows what an important role this cooperation plays in the relations between Western industrialized countries and developing countries, in what is known as the West-South relationship. The type of market, the level of development and the interests of the parties determine which forms of cooperation are chosen in the particular case. Generally speaking, subcontracting and consultancy cooperation are gaining in importance, as does licence cooperation. Where appropriate conditions exist cooperation in joint ventures is making progress. Coproduction and production sharing are less frequently used forms of cooperation but there are important exceptions, for instance in the raw materials

sphere, textile processing and the optical and engineering industries.

Industrial production cooperation plays an important role for many developing countries in regard to the East-South dimension, especially in combination with barter deals and bilateral clearing under trade agreements. Attempts have been made to promote or at least discuss initial steps towards a trilateral cooperation between West-East and South, in particular through UNCTAD<sup>4</sup>. The developing countries are also attaching considerable importance to the concept of cooperation in regard to the intraregional sphere, for instance in the ASEAN, under the Andean Pact, in the Arab common market or in the relations between the OPEC states and other developing countries. Through discussion and coordination it is hoped to lay the foundations for joint industrial development marked by economical resource utilization. In regard to the West-South relationship the industrial cooperation aspect occupies an important place in the Lomé conventions between the ACP states and the EC, in Lomé II even more than in the earlier convention.

### Motives

The motives of the developing countries for the initiation of industrial production cooperation with enterprises from industrialized countries vary according to the special conditions in the different countries. In addition to general economic objectives such as improvement of the employment situation and the balance of payments over the medium and long term mention may be made of the following motives:

#### (1) The transfer motive:

- Procurement of foreign exchange capital from other countries;
- Improved and selective transfer of technology, management and marketing know-how and other specialized knowledge;

#### (2) Mobilization and training motives:

- Mobilization of local capital and its direction into directly productive areas;
- Development of local entrepreneurial talent;

<sup>3</sup> Cf. also F. Schuster: Gegen- und Kompensationsgeschäfte als Marketing-Instrumente im Investitionsgüterbereich (Reciprocal and compensation transactions as marketing instruments in the investment goods sphere), Berlin 1979.

<sup>4</sup> Cf. UNCTAD: The Scope of Trade-Creating Industrial Co-Operation at the Enterprise Level between Countries having Different Economic and Social Systems, New York 1973; K. Bolz, P. Plötz: Bericht über die industriellen Kooperationsbeziehungen zwischen der Bundesrepublik Deutschland, den sozialistischen Ländern Ost-Europas und den Entwicklungsländern (Report on the industrial cooperation relations between the Federal Republic of Germany, the socialist countries of Eastern Europe and the developing countries), Hamburg 1975.

☐ Educational effects on personnel, especially skilled workers, by provision of technical and organizational instruction;

☐ Diffusion of modern technologies and investment methods through interactive processes under cooperation arrangements;

(3) Structural motives:

☐ Lessening of the dependence on imports through import substitution;

☐ Export diversification and access to developed markets;

☐ Diversification of the sectoral and regional structure of the economy;

☐ Improvement of the horizontal and vertical integration of the domestic economy;

☐ Increased intensity of competition in internal markets, i. a. in relation to the state enterprises which often operate uneconomically;

(4) General economic-policy motives:

☐ Improved control and orientation by national objectives and interests through national participation in cooperation enterprises;

☐ Improvement of the position of the local economy and society in the face of foreign economic influences;

☐ Increased economic self-reliance and safeguarding of the national sovereignty in the economic sphere.

To sum up, international cooperation arrangements are expected to broaden the native production basis while making extensive use of indigenous resources. Access to the experience of qualified partners in other countries is to provide specific technical and organizational knowledge and skills without creating undue economic dependence.

The main motives of the industrialized countries may be summed up as follows:

(1) Defensive strategy of safeguarding markets:

☐ Continued access to markets including newly emerging trade zones;

☐ Safeguarding of licence rights, patents, trademarks and other technological know-how;

☐ Utilization of technologies which are running out in the company's own country;

☐ Safeguarding supplies of inputs, for instance in the raw material sector;

(2) Offensive strategy of market extension:

☐ Internationalization of production in markets previously served by exports in conjunction with utilization of local locational advantages;

☐ Possibilities of production for export to third markets or to augment home production;

(3) Utilization of locational advantages:

☐ Economies from lower wage, transport and local raw material costs;

☐ Favourable financing facilities through local capital participation and credits;

☐ Use of incentives offered by the state, such as subsidies, tax relief, infrastructural advantages, "industrial estates" or free zones;

☐ Use of local know-how to improve the access to the local market, for instance in regard to public contracts, and contact with the local bureaucracy;

(4) Political-tactical considerations:

☐ Integration in the social conditions of the host country, for instance through joint ventures, and thereby improvement of the company's image as a "partner" in the country;

☐ Risk reduction by participation of a partner and protection against nationalization;

☐ Legislative constraints which make cooperation arrangements imperative.

Foremost among factors prompting enterprises from industrialized countries to conclude cooperation agreements is the wish to safeguard or extend their market. More attention has also been paid of late to the utilization of cost advantages through employment of cheap production factors in the developing countries.

### **Transfer of Technologies**

Many developing countries are concentrating increasingly on the forms of cooperation involving a higher degree of interlinking, especially the joint ventures, in the hope of thereby encouraging long-term commitments by the foreign partner and participation of native elements, with the result of increased diffusion effects and better control over foreign business activities including the resource transfer. This is reflected by more rigorous statutory regulation of direct investments in branch and subsidiary enterprises. Joint ventures with various

forms of national participation have to be set up in their place. Many host countries, such as India, Brazil and the ASEAN and Andean states, are now pursuing a "fade out" strategy of gradual transition from partly foreign to national capitalization; the foreign partner retires in the end except when new technological processes can be brought in from outside. In Egypt it has been common practice since the initiation of a liberal policy towards foreign investors to authorize chiefly joint ventures which help to surmount technological bottlenecks and, besides, earn by their exports the foreign currencies which they need.

The more advanced developing countries attach special importance to the transfer of technologies and technical know-how. Special stipulations are made for this purpose, and special opportunities are given to the partners, for instance by encouragement of joint ventures linked with other forms of industrial cooperation such as the bringing in of licences or technical assistance and management contracts. The financial cooperation pure and simple (equity joint venture) thus turns into the – under development aspects more interesting – "complete package" joint venture which performs a variety of functions. The life-time of these "complete package" ventures may be limited.

### Production for Export

Most developing countries are giving high priority to the aim of channelling part of the joint production into exports and therefore try to encourage cooperation agreements coupled with barter deals, purchase contracts for the produced goods or certain export marketing strategies. Some of the partners from industrialized countries have however little interest in such arrangements which they fear may jeopardize their own export positions in third countries or hamper the disposal of their own output in their home markets. This kind of linkage is however sometimes forced upon them by statutory export impositions or encouraged by export subsidies and preferential tariff rates in trade zones. The partners from the industrialized countries have on the other hand a growing interest in voluntarily taking delivery of part of the joint production, for instance of certain raw materials or of components for consumer goods with high demand elasticity which can be made cheaply in factories in developing countries; such opportunities exist, especially in the textile, optical and electronics industries.

What concrete evidence is there of industrial production cooperation?

As far as intraregional cooperation is concerned, the evidence is so far almost entirely negative. Cooperative adjustments and joint ventures have been achieved only in a few cases either in the Andean Pact area or among the ASEAN countries or in the Arab common market, and the industrial cooperation envisaged under the first Lomé convention has not yet progressed beyond a few initial steps including the foundation of a joint Centre for Industrial Development. For this reason Lomé II provides for improvements in this field.

In regard to industrial cooperation in the West-South dimension it is to be noted that the concrete information about application of the various forms of cooperation is scanty. Specific field studies are scarce, and the official statistics relate merely to the whole complex of "direct investments".

### Interests Held

It has been calculated that in 1975 German firms (excl. the textile and clothing trades) held interests in 1,051 enterprises in developing countries; 732 of these firms employed approximately 383 000 persons<sup>5</sup>. These figures relate to all direct investments however; separate figures for joint ventures cannot be given. The principal industries involved were chemicals (311), mechanical engineering (190) and electronics (130). Striking is the strong regional concentration of the German investments. Brazil (267), Mexico (63), Argentina (52) and the developing countries in Europe (295) accounted for almost 65 % of the number of German investments in developing countries. South and South-east Asia (171; India alone 80) were prominent among the remaining holdings. The figures of German cumulated direct investments in developing countries for 1977 confirm these statistics<sup>6</sup>; a notable feature of these figures is that the German cumulated direct investments (excl. oil) in African and Asian countries amount to barely 10 % of the total. The direct investments of the USA in developing countries show a similar structure.

These figures demonstrate convincingly that most direct investments go into countries with attractive market potentialities. This is a fact which applies even more strongly to cooperation in joint ventures. Besides,

<sup>5</sup> Cf. F. Fröbel, J. Heinrichs, O. Kreye: Die neue internationale Arbeitsteilung (The new international division of labour), Reinbek 1977, p. 289ff.

<sup>6</sup> Cf. H. Krägenau: Internationale Direktinvestitionen, Ergänzungsband 1978/79 (International direct investments, supplementary volume 1978/79), Hamburg 1978, p. 160ff.

the investment climate in a particular developing country and its policy in regard to foreign participation in local enterprises play a weighty role. The explanation for the stagnation of German investments in India for instance is to be found in the highly restrictive policy of the Indian Government towards foreign investments and the unfavourable view which the outside world takes of the investment climate in the country. Foreign firms will respond positively to a more liberal attitude, as adopted in Egypt since 1973 (the German cumulated direct investments in Egypt rose from DM 20 mn in 1972 to DM 150 mn in 1977), but it has to be recognized that the participation in joint ventures tends to revive only very slowly<sup>7</sup>.

### Licensing Agreements

An assessment of the quantitative importance of other forms of industrial production cooperation must also rely on estimates based on annual global figures. The German royalty income from developing countries rose between 1970 and 1975 from DM 118 mn to DM 202 mn (that is almost 27 % of all German royalties from abroad); in 1978 they were down to DM 142 mn (a mere 11 %). The metal and chemical industries were particularly active in this field<sup>8</sup>. A closer view again reveals a strong geographical concentration: 34 % of the royalties from developing countries in 1975 were derived from Brazil, and the sharp fall in 1978 was due to reduced revenues from Brazil following the imposition of restrictions on transfers by the Brazilian Government. About 50-60 % of all annual German royalties from developing countries in 1965 – 1975 came from Brazil and more particularly from metal manufacturing incl. automobile production. A positive correlation seems to exist between the investment interest in a developing country and licensing

agreements. This is borne out by an inquiry among joint ventures in ASEAN countries: of 83 such enterprises 30 had concluded licensing agreements with the foreign partner<sup>9</sup>.

### Subcontracting

The importance of subcontracting in the form of job processing has been stressed of late, especially with regard to the German textile industry<sup>10</sup>. It is pointed out that the special import quota arrangements under the world textile agreement for products job-processed in developing countries favour such contracts. Other industries like electronics, radio and optics are similarly interested. The partner in the developing country can derive considerable employment benefits from such cooperation even though problems may arise regarding the longer-term safeguarding of the production and its linkages with the economic process of the country. The diffusion effects of the training involved should also not be underrated: in Tunisia workers attained after 6 to 9 months about 75-85 % of the European standard performance<sup>11</sup>. This kind of cooperation is liable to make developing countries more sensitive to crises because it is subject to cyclical fluctuations and can easily be terminated. It must therefore be regarded as a transitory form of industrial cooperation – albeit an important one in the early development phase – except when it evolves into a specializing division of labour under long-term prearrangements<sup>12</sup>.

### Consultancy Cooperation

Management consultancy cooperation and technical assistance contracts are also frequently encountered. The 83 ASEAN enterprises approached in connection with the mentioned inquiry for instance had concluded 24 management contracts and 33 technical assistance contracts. The partner in the developing country has obviously an interest in such arrangements because they help to diffuse know-how. To the partner from the industrialized country they can be useful as an institutional reinforcement of his minority interest and as a means of lessening his capital risk. It also happens in practice that all management functions are handed over to specially experienced consultancy firms. As for the extent of barter deals in the form of production sharing, it can only be noted here that the mentioned ASEAN enterprises had concluded 23 export agreements with their foreign partners which included guaranteed acceptance of product deliveries or export commitments. Similar stipulations are made for the authorization of joint ventures under the

<sup>7</sup> Cf. M. Lange, C. Uhlig: Die Politik der industriellen Produktionskooperation in Ägypten. Forschungsbericht im Institut für Entwicklungsforschung und Entwicklungspolitik (The policy of industrial production cooperation in Egypt. Research report in the Institute of Development Research and Development Policy), Ruhr University, Bochum 1980.

<sup>8</sup> Cf. G. Koopmann, K. Matthies: Transfer of Technology by German Firms, in: INTERECONOMICS, September/October 1979, p. 239.

<sup>9</sup> Cf. D. Ahn: Joint Ventures in the ASEAN Countries, in: INTERECONOMICS, current issue, p. 193 ff.

<sup>10</sup> Cf. U. Schwarting: Strategies for Survival. The Example of the Clothing Industry, in: INTERECONOMICS, January/February 1979, p. 15 ff.

<sup>11</sup> Information from the German Development Corporation (DEG).

<sup>12</sup> Cf. T. K. Morrison: International Subcontracting: Improved Prospects in Manufactured Exports for Small and Very Poor LDC's, in: World Development, Vol. 4 (1976), p. 327 ff.; S. Watanabe: International Subcontracting, Employment and Skill Promotion, in: International Labour Review, Vol. 105 (1972), p. 425 ff.

Egyptian promotional laws. One of the objects here was to supply the Middle Eastern OPEC market but nothing of the kind has so far happened.

Great problems are met in the measurement of technology transfers under cooperation arrangements. They can really only be measured by specific field studies although examples in more advanced developing countries show that considerable positive diffusion effects have in fact been induced in this way. That correlative transfer effects must have taken place is demonstrated by the fact that not only the local content of production has been raised relatively quickly but managements of joint ventures have been largely indigenized and further by the increasing supplies of locally produced high-grade goods to the markets of the states concerned. The rate of transfer of industrial research capacities to enterprises in developing countries should be judged with reserve. Attention should however be paid to Ranis' reference to the

importance of development stages and the related transfer of certain technological concepts from the industrialized to the developing countries. Besides, such transfers need not always be spectacular but can take the form of technical means of production developed in other countries being adapted to the utilization of domestic resources, with the result that the share of local inputs is increased.

Under structural aspects it is a disadvantage that all forms of industrial cooperation on a private-enterprise basis are mainly governed by market conditions, so that many countries with less advantageous market opportunities find it difficult to take part in it. It is also a fact that certain instruments of cooperation are often employed only in such a way that they serve the interests of the partners from the industrialized countries which usually have a stronger market position.

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## COOPERATION

# Joint Ventures in the ASEAN Countries

by Doo-Soon Ahn, Bochum\*

**Many developing countries see in joint ventures a convenient means of pursuing their economic development in their own way without forgoing the benefits to be derived from foreign investment capital and know-how. The following article presents some of the findings of an empirical study by the author in the ASEAN countries. He addressed his inquiries on motivation, advantages and drawbacks of enterprises with local participation to 77 joint ventures as well as 29 fully foreign-owned firms.**

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The "indigenization" of their economies has become an important objective of economic policy in many countries of the Third World. Foreign capital is in general heavily involved in these economies, and the participation of foreign capital in new investments is therefore subjected to restrictive regulations while measures are also taken for "fading out" existing foreign investment projects<sup>1</sup>.

The countries in question start from the premise that foreign investments while indispensable for the

achievement of their development objectives may give rise to dangers, actual or implicative, for their economies and societies. The chief pros and cons of foreign investments as discussed in the literature range from their effects on the economic structure, employment, stability and distribution in the host countries to sociocultural questions and issues of national sovereignty and independence<sup>2</sup>.

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<sup>1</sup> Cf., i. a., R. D. Robinson: National Control of Foreign Business Entry. A Survey of Fifteen Countries, New York and elsewhere, 1976; R. Krämer: Zur Investitionspolitik afrikanischer Länder (On the investment policy of African countries), in: Weltwirtschaft, No. 1, 1977, p. 128ff.; C. F. D. Alejandro: Direct Foreign Investment in Latin America, in: Ch. P. Kindleberger (ed.): The International Corporation, Cambridge, Mass. and London 1970, p. 319ff.

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