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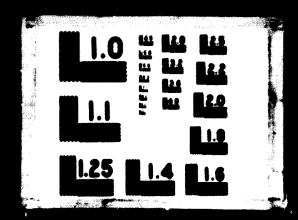
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Distr. LIMITED 10/WG.113/15 16 August 1972

ORIGINAL: PROLICE

United Nations Industrial Development Organization

Regional Seminar on Machine Tools for Countries in Latin America 16 to 25 October 1972 Buenos Aires, Argentina 26 to 27 October 1972 Sao Paulo, Brasil

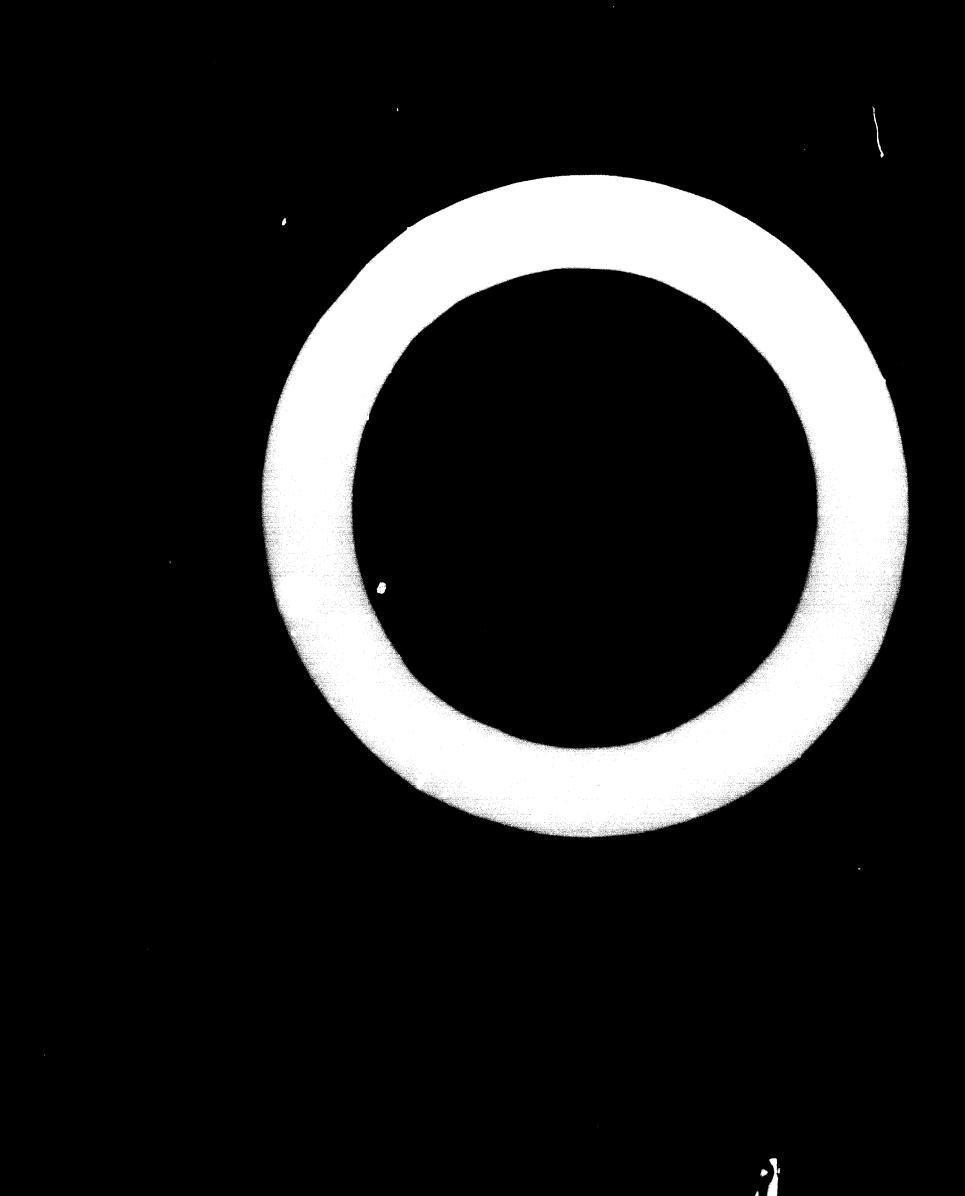
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INTRODUCTION:

My comments on the subject of international licensing and cooperation will be based more on actual experience in this field than on theoretical day dreaming and charitable ideals. The field of economics is governed by cast-iron rules, one of them being that you cannot spend more than you earn and another that money and talent go where they find profit and security. A national economy which ignores these basic principles may get political charity but will not find constructive cooperation. In other words, if a capitalist businessman or engineer takes an interest in a developing country he expects to make a profit and not a loss. If I use here the ominous word capitalist it is intentional. I mean that sort of capitalist as we understand it in the Federal Republic of Germany where the "Soziale Marktwirtschaft", literally translated the "Social Market System", has pushed our economy forward through the incentive of personal gain, controlled by competition and tempered by social laws and considerations. Guided by this spirit the industrialists of our country approach international joint ventures and cooperations with the conviction that no business can endure which favours only one of the participants. No fly-by-night operator can survive internationally. If we want to succeed we have to build up our reputation as reliable businessmen who look after the interests of our oversess partner as much as after our own. We expect the same from our friends abroad.

HOW DID THE MACLINE TOOL INDUSTRY DEVELOP IN EUROPE?

What is the best way to start a machine tool industry? Historically, in the old industrial countries the demand for machine tools developed in easy steps in harmony with the gradual growth of industry. Talented craftsmen set up a small workshop

and developed machine tools on the crial and error method. Many fell by the way iide, but each probably contributed a little to the improvement of machine tools. The few who survived the trials of teething croubles and economic crises gave their name to world-renowing machine tool corporations. It is interesting to observe that in our days this process of talented people starting and developing small ventures is still going on as every visitor to machine tool exhibitions will know.

To recommend such a process of survival of the fittest to the developing countries will not do as this takes time - the industrial actions medded almost a century - and the question is how to find a shortcut. Simple basic machine tools are now-e-days standardised to such an extent that for their manufacture the need of human skill is not more as necessary as in the early days, so that mass production methods can be applied. In this way huge plants have been started, especially in the socialist countries, but we have also examples of successful ventures in South America and India which cover the basic demand of standard machine tools.

As in every economy, in every business, the secret of success lies here also in the art to manufacture the right product at the right time and at the light place. This a few successful companies did in South America, but the right time for the simple garage machine is gone and particularly Brazil and Argentina are developing a need for the more sophisticated machine tool fit for the large Automobile Companies and their suppliers. The change-over from making standard machines to the modern industry's requirements of solving the customers problems is more difficult than is generally assumed. Here, again, human skill and the knowledge acquired by difficulties overcome is required. The so-called de-bugging process seems to be inevitable in our industry and it has its merits, because this is the surest way of acquiring machine tool know-how. The sum-total of difficulties overcome is really the essence of the word tradition. To transfer this tradition requires more

than finance. What is needed, is an investment in the training of people and not least, in time.

It is questionable whether factories making simple machine tools are the best basis for a modern machine tool plant. It is a fact that regions, famous for simple handicraft (Punjab-India), are quite unsuitable, because the tradition of individual craftsmen will not lend itself to the discipline of integrated manufacturing methods.

On the other hand, the large new plants in the state-planned economies will also have much difficulty in changing over from mass production to the fine art of problem solving. The mass production of simple machine tools is an easy and profitable business. Expenditure for Research and Development is insignificant and selling is self-supporting through distributors, provided you have a ready market, as used to be the case in the planned economies and colonial empires.

Making sophisticated machine tools is quite a different thing. Whatever profit accruentust in the first place be ploughed back into RLD. Marketing amounts to free of charge consulting to solve the customers problems. Service of the complicated equipment is a costly business and needs experts in Mechanics, Kinematics, Hydraulics, Electronics, and this on a world-wide basis. Profits become smaller with the more sophisticated product. You have to build up a large team of enthusiastic experts, and the best possiblity here seems to be to select the few men in the plant who show skill and enterprise and start an entirely new venture after such men have undergone training in a modern factory under a cooperation scheme. There is also the possibility to assist young independent entrepreneurs in a similar training procedure for starting a more sophisticated industry.

All this leads to the advantages of sceking some sort of cooperation with an old-established company known for its ability to make modern complicated machine tools. For such cooperation it is essential to analyse the reciprocal interests in international cooperation.

ENTEREST OF THE DEVELOPING COUNTRY IN COOPERATION

Obviously, the developing country wishes to take a shortcut to industrialisation avoiding the trial and error development of the older countries which I mentioned. There is no doubt that it is much less coacly to acquire a proved manufacturing process than to develop one, and it would be senseless to try and invent something which others had already developed before to perfection. Apart from the know-how of manufacturing, experience in sales and service is an essential component which the young countries too easily forget. The machine tool buyer expects to be trained in the use of the expensive instrument which he gets, he requires spare parts, continuous service and attention. The confidence of the machine tool buyer in the product is an essential item in the machine tool world. It is expressed in the trade-name which, built up over decades, has a great market value. No machine tool maker can afford to have the name of his machine degraded by poor quality and vervice. The standard of the product must, therefore, be protected by quality controls in any sort of cooperation.

INTEREST OF THE OLD-ESTABLISHED CAPITALIST COMPANY IN COOPERATION

The interest of the old-established machine too! manufacturer in giving away the know-how is on the nurface, less easy to define. In fact, there has been adverse criticism that we give away lightly the know-how and tradition which had been built up over generations in order to generate competitors abroad and destroy our export markets. Modern industrialists with a forward view do not share such negative sentiments. It is a fact that the old kind of colonial country with its mono-type agricultural economy was a very poor market for machine tools. In pre-war years little Switzerland took more from us than the whole of India. That means, we machine tool builders at least have a solid interest in the rapid industrialisation of more countries. Further, the cost of research and development is becoming ever more prohibitive and must be apportioned to a growing turn over. This again can only be attained through world-wide manufacture and sale on the basis of a commen renearch and development center. Another point is that exporting machine tools in the oid-established way is becoming more
and more a thing of the past. Standard machine tools are being built in most countries which used to be markets of Europe
and the USA, and our only chance to keep the wheels of internations' business turning lies in cooperation, in solving the
more complicated technical problems of our customers abroad,
helping them build machine tools with our know-how and in the
central manufacture and supply of the more complicated machine
groups and components. Possibly, we can integrate the production
of our cooperators overseas into our world sales organisation
watching over quality and service standards in order to safequard the name of the product in their and our interest. That
could be done in afranchising agreement.

One point which seemed attractive for us and for our friends abroad has so far not come up to our expectations. That in the shifting of complete productions to countries with a lower wage lovel than ours, and serve our markets from overseas. There are many explanations for this. The main reason seems to be the low wage level itself which does not force the industrialist to economiss on man-hours. Also, productivity abroad is much less than ours as long as the skill of the worker is lower. There is ofton no incentive system and the plant is less coordinated. Very many machine components which, mass produced, can be bought in Europe cheaply over the counter are available overseas and must either be made specially or imported, both at higher cost. Also, in many countries with planned economy, there is a laborious rod tape system of applications and licenses which makes modern manufacturing methods almost impossible. This lattor has been particularly obstructive in regard to delivery dates. In the integrated modern industrial world a mac-hine must arrive as planned or a whole production line may come to a standstill. As a result of all this, manufacture of our high-grade products abroad takes a long time to build up and needs firstclass experts from the old company as supervisors.

WHAT TO DO TO MAKE COOPERATION ATTRACTIVE FOR THE OLD-ESTABLISHED COMPANY?

What then is to be done, to make it attractive for the oldestablished machine tool company to give their know-how to the younger countries? I would repeat here a sentence of mine at a Conference of Asian Development Countries earlier in the year whon I said:

If we had a country with the market potential of India and the spirit of enterprise plus freedom of movement of Singapore that would be an ideal combination for the benefit of both countries.

I, myself, am convinced that as far as machine tools are concerned cooperation between capitalist entrepreneurs in the old and the young country helps the national economy better than public development schemes from Government to Government on the watering can principle. This because the private entrepreneurs are forced to maintain a profitable production, endeavour to satisfy the market better than their competitors and have a long-term aim to keep up their reputation. This, provided the infra-structure of transportation, power supply, communications etc., has been built up, and here the principles of the planned economy have their rightful place and the official schemes of development aid have been basically beneficial.

I could imagine, however, that Government oriented development aid used as an incentive to profit oriented entrapreneurs could multiply the effects of international schemes and attract the best talents of the giving and the receiving country. To condemn the profit motive as exploiting keeps efficiency out. Joint vantures between the public sector in a young country and private companies could provide an interesting solution to many problems, but need much mutual understanding. If the "industry belongs to the people", as a Minister of a Socialist country said to me recently, this does not preclude commercial deals with private industry, and we shall find ways of overcoming dogmas and ideological barriers through novel ideas of cooperation.

Cooperation between the old and the young industrialized countries resembles in a way the generation problem in the family between father and son. The old and matured conomies, proud of their experience, tend to over-estimate their know-how, have too little faith in the progressive young nations. The young countries resent what they consider the arrogance and colonialism of the old. They have a tendency to run before they have learnt to walk and often take off into an industrialisation beyond their means of finance, experience and market. To start manufacturing NC machines in a country which needs service stations for tractors would be a case in point.

Cooperation between old and young needs tactful handling and the Asiatic art to avoid loss of face of the partner. The slogan "Business is People" applies here even more than normally and the selection and training of suitable staff for this purpose is elementary.

We realize the immense growth potential of Latin America. The basis for a successful cooperation is mutual trust and confidence in each other even in cases of conflicting interests. Latin American countries are no longer in a dependent or inferior position in the world economy, but can be and must be equal partners, partners in a cooperation where both sides know "You can't have the cake and eat it".

METHODS OF COOPERATION

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The simplest way of cooperation is licensing and in my view it is the worst in our context. Licensing works between partners who are both industrial experts, but simply to hand over patents, drawings and assembly instructions to an unskilled licenser and forget the deal, will not assure a product suitable for the young country and worthy of the name of the licensor. It is often criticised in developing countries that they are not being licensed the latest technical developments. This is a wrong view in my opienion. If you must have licensing, an old

well-proved product, thoroughly de-bugged, is often more suitable than a very new one full of teething troubles. Moreover, the market of the new country will normally have better use of the proved product than the sophisticated one.

Still, a few words may be said in regard to licensing. There is no standard prescription for License Agreements. Each one has to be drawn up to fit the particular situation. Many learned books exist with full details, but to my mind these are useful only as check-lists, so that every aspect finds consideration. Things like the definition of Patents, Know-how, of New Developments during the time of cooperation are elementary as well as the confidential nature of the know-how vis-ā-vis third parties.

It has been suggested as useful to have a Controlling Agreement in addition to the License Agreement in order to assure a regular check on machines to be produced and their quality, controlling of payments due and of sales statistics, checks on the timely transfer of know-how and assurance of continuous aupply of alteration and improvement drawings. Provision must be made to prevent the Licensee from taking over the know-how and delay manufacture until the Agreement has expired in order to escape piece royalties. A useful procedure is a clause in the Agreement that developments of the Licensor are stopped at halftime of the Agreement unless its durition is extended. This makes for continuity.

It is nocessary that all aspects are considered in the Agreement, but success is only guaranteed to such cooperations where the purtners - once the contract is signed - will never have the need to look at their paragraphes again. It is always a greater advantage to give a few thousand dollars when in doubt to the partner than to lose millions by going to the courts.

Penalties are much less effective instruments to assure success than the hope to gain and make a profit by cooperating, and this, incidentally, is true in all business and in politics.

[2] Joint Venture

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Butter than licensing is the Joint Venture where success brings profit to both partners and failure hurts them both equally, and this is the form of cooperation which I try to achieve in the Gildemeister Group. Creat importance is accally attached to the percentage of equity between the partners and thore is no doubt that the 51 % shareholder has more power than the minority one. On the other hand, my experience is that the 49 percenter is never fully interested in the success of the joint venture. He will be reluctant to give all he can of his experience, keep new developments to himself as long as he can und consider his minority investment as a second-class interest. The most efficient ratio is 50 : 50, but it works only as long as both partners maintain a good personal relationship. It requires emstant care, and each partner has to look after the interest of the other as if it were his own. In that case it works splendidly. The precarious 50 : 50 balance has its dangers, of course, it can fail if and when the partners do not make early provision for the generation change. In a 50 : 50 joint venture it is advisable to split up tasks in such a way that interdependence makes it profitable for both partners at all times to continue a good relationship. There is the possibility that the senior partner takes over the world sales whereas the junior partner handles the domestic business, both for the joint venture and for the imports from the old company. Research and development is normally centred in the old country, but its results should be available to the joint venture against an arranged price. A very important aspect, often neglected, is the exchange of personnel. Young experts from the old company, delegated to the joint venture will grow in stature, learn not only to speak the Language, but to handle foreign situations, and develop into potential leaders. Young men from overseas to be trained should be integrated into the production process of the old company and earn their own living by being paid according to their performance. Theoretical courses elone will not accomplish the transfer of know-how is efficiently as practical experience.

Such overseus trainees, intent on progressing, have often become excellent experts fit for leadership not only in the joint venture, but in the group as a whole. It is essential, of course, that they find positions in keeping with their improved knowledge when they return.

(3) 100 % Ownership by the Old Company_

mended as a solution free of problems. No doubt, this gives clearcut responsibilities and authority to build up an enterprise on well proved lines. It requires, however, considerable knowledge of the young country and there is more than a chance of complete failure. I, myself, would not wish to start a machine tool company abroad without participation of local talent and capital. Many countries now-a-days suffer from the relies of colonial resentment, have a fear of what is called economic colonialism and will make difficulties to a 100 % foreign commed-company. We have to take such sentiments into account, whether they make economic sense or not.

FORMICH CAPITAL IN INTERNATIONAL BUSINESS

Historically, foreign capital has worked wonders. European investment originally built up the United States and US investment has given tremendous help to the reconstruction of Europe after the Second World War. If foreign investment were excluded from the international economic scene, prosperity worldwide would collapse, and I feel that young developing countries would be well advised to make it attractive for foreign capital to take an interest in their accountry.

We are aware of a strong economic nationalism in all developing countries. Economic nationalism in itself is not a negative
factor, and Europe has seen a good deal of it, too. Unfortunately,
conomic nationalism is often used - misused, I should say - politically and things are often handled from political considerations rather than along the lines of economic sense. The Latin

origin of the word credit means confidence, faith, trust, and no end of credit is being destroyed through wilful acts of confiscation, nationalisation, socialisation of property. This destroys the spirit of enterprise, discourages capital and talented people from going to developing countries where they are needed most.

BUSINESS IS PROPLE

In conclusion, I would like to say a few words on the slogan that "Business is People". This applies even more in machine tool building than elsewhere. It is true, machine tools are the essential basis for prosperity and economic progress, but more important are the people, the experts who are trained in the manufacture of machine tools and in their use. We find a continuous drain of experts from our machine tool factories into other industries and although the loss of those men hurts us, we do not object, because these men bring their enthusiasm for our product to our potential customers. For the same reason we are propered to encourage our experts to go abroad and assist young and budding industries to grow up.

Rightly handled, the machine tool industry can be very useful in the process of giving to developing economies a modern industrial structure and we Europeans will be happy to help for the benefit of all.



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