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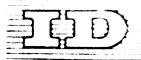
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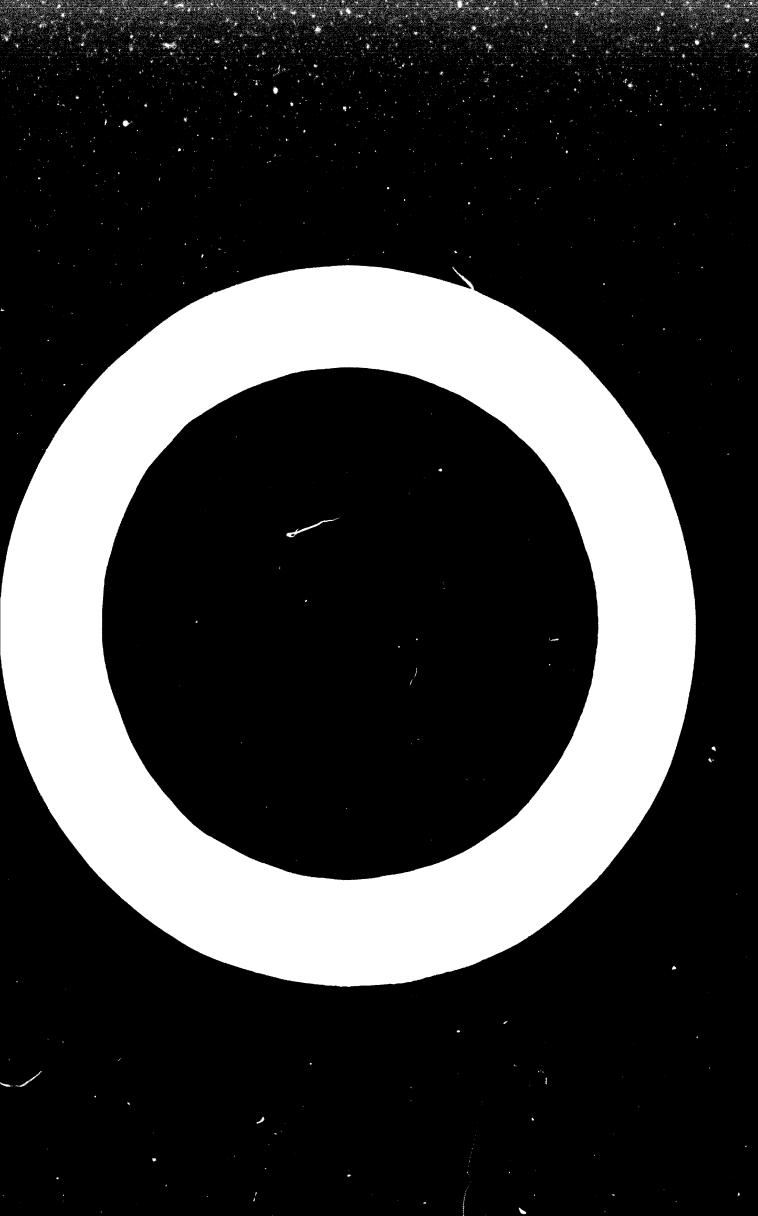
## SUBCONTRACTING IN THE ARGENTINE CAR INDUSTRY

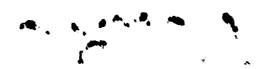
by

Michel Lenoble
Technical Adviser, Société d'Aide
Technique et de Coopération (SATEC), Paris

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### INTRODUCTION

Argentina's car industry is a particularly noteworthy example of the way in which subcontracting arrangements between car assembly firms and their suppliers can be used for speeding up the industrialization of a country.

Before 1959 Argentine industry played only a small part in the automobile sector. There were only one or two assembly lines in existence in the country and the factories were mainly concerned with the manufacture of spare parts for imported vehicles.

But Laws No. 14,780 and 14,781 of 1959, by offering many advantages to investment from abroad, encouraged the manufacture in Argentina of vehicles which had previously been imported.

In particular, this legislation gave customs protection to all goods manufactured in Argentina by new industries on condition that the integration of their production adhered to the programme laid down by the State.

Thus, during the first few years of their existence, the assembly plants were able to carry on importing many of the parts that they needed, but the number was soon reduced by regulatory decrees. From 7 per cent of the FOB value of vehicles in 1965, the proportion was reduced to o per cent in 1967 and to 5 per cent in 1968 for private vehicles; percentages for commercial vehicles have remained higher.

After 1959, approximately twenty makes of car were authorized to set up assembly lines in Argentina. At the same time, the sales of vehicles assembled in Argentine increased suiftly and reached 194,536 units in 1965, including 34 different models of car and 32 commercial models.

But beginning in 1966 sales stopped increasing and fell back slightly. In 1968 an improvement has been noted and the annual average should be in the neighbourhood of 190,000 vehicles.

To keep up with the fast rise in orders and to integrate production at the rate fixed by the law, the assembly firms have had to seek the cooperation of small and medium-sized firms either as suppliers or as subcontractors.  $\frac{1}{2}$ 

In fact, the assembly enterprises have never carried out more than a third of the manufacture in their own factory, and most of it has been farmed out to other firms.

Thus at the end of 1968 the car industry in Argentina included approximately.

10 assembly plants;

2,000 small and medium-size enterprises, suppliers or subcontractors to the above.

This paper, compiled followin, an enquiry conducted by the Investigation Centre for Methods and Techniques in Small and Medium-Sized Enterprises (CIME) of the National Institute for Industrial Technology (INTI) with the aid of:

The Under-Secretariat of State for Industry;

The main car assembly plants in Argentina;

Twenty heads of firms selected from amon, st the suppliers or subcontractors of these plants;

sets out problems which have arisen during Argentina's experience in subcontracting and the solutions which are at present being applied or are desirable.

We have limited curseres to the automobile sector because it is most representative both of the effects of the Law of 1959 and of the systematic use of subcontracting.

is supplier manufactures his own products and distributes them through his own distribution network. A subcontractor, on the other hand, works on orders from other firms, carrying out a process on their behalf or manufacturing individual parts.

### I. SUBCONTRACTING AND ASSERBLY PLANTS

Subcontracting offers such advantages to assembly firms that the latter are making increasingly systematic use of it.

In Argertina our assembly plants found it particularly advantageous.

in the country without have to make all the necessary investments for establishing the integrated production systems demanded of them.

It enabled manpower and plant already in existence in Argentina to be fully utilized swiftly within the flexible framework of small and medium-scale enterprises.

At the same time it sived assembly plants from havin, to bear the burden of market fluctuations alone, by permitting them to pies on to the subcontractors the technical difficulties and the financial cost of the various modifications introduced into the manufacturing programmes.

Lastly, it was possible to keep down the cost of newly manufactured parts as a result of the relatively low fixed costs or subcontracting onterprises.

However, the subcontracting system was not without its drawbacks for the assembly plants.

The first difficulties between monufacturing enterprises and suppliers arose from delays and irregularities in the delivery of warts. Often the two disadvantages were combined because rejects compounded the delays.

To counter this, quality control departments at assembly plants had to perform the difficult task of specifying to subcontractors the standards to be met, and sometimes to as ist them in applying these standards. These requirements, which were new for Argentine industry, had profitable results for enterprises accepting the discipline involved.

To meet the difficulties, several of them purchased licences in order to benefit from technical assistance given by forcian enterprises and thus achive quality of an intermetional standard.

Others managed to establish such effective quality centrol of their own that the assembly plants could rely on them completely.

Moreover, most of the subcontractors previously working more or less on a workshop basis became accustomed to working to industrial standards.

Alongside the work of quality control departments, some assembly plants granted their subcontractors technical assistance in the form of visits by engineers, invitations to visit the assembly plants, and courses conducted by their own at ff.

But prices remain the most deliente problem for assembly plants and subcontractors.

The cost of Argentine car components is much higher than that of European or American components.

1968 prices for vehicles manufactured and assembled in Argentina are about double European prices.

This places the Argentine car industry in a weak position, within the country itself as well as on the world market, where it is scarcely competitive.

The purchasing departments of assembly plants have therefore been systematically trying to make subcontractors lower their prices.

They work partially by persuasion, discussing with the heads of enterprises the autoblishment of their manufacturin cours, and partially by utilizing the pressure of conscittion or threatening to import parts from Europe or the United States within the percentage levels allowed by the law.

The general assessment by the assembly plants of their subcontractors is that while they have been satisfied with the quality of the parts being delivered to them in 1968, they now refuless consider that their prices are still too high.

Relation setween seembly plants and their subcontractors vary according to their traditions and the respective managements.

The two most extreme attitudes are either a deliberate attempt to subject the cubs ontractors to competition or, on the other hand, to ahoose the best succentileter or subcontractors and co-operate closely with them.

Although in relity policies are not that all areaut, positions adopted by the algor firms and be traced back to one or other of these two attitudes.

# II. SUBCONTRACTING AND SMALL AND LEDIUM-SIZED ENTERPRISES

The introduction of subcontracting in the automobile industry was not simply the result of a deliberate decision by the contracting factories to use the system but also of the apecial circumstancer imposed on them by the Argentine State when it give permit, ion to a large number of foreign firms to establish plants in the country.

Since there were too many of these firms for them to be absorbed by the internal market it became difficult for each of the new enterprises to make investments, opertunities for amortizing invested capital being limited.

Therefore necessity, as much as policy, led the assembly factories to utilize Argentine industry for manufacturing the parts which they required.

The first enterprises that offered themselves were naturally those which had already been manufacturing spare parts for imported vehicles. The change in their market was generally beneficial to them since previously they had been working without any concern for quality.

Other enterprises which became involved were those working in other branches of industry, for example those manufacturing household electrical appliances, railway vehicles or agricultural machinery. These enterprises found in the passenger our sector a rapidly and stendily a veloping market offering orders of a more or less regular nature opposed over the whole year, whereas their previous markets had been more subject to uncertainties and irregularities.

New enterprises also emerged, set up to manufacture vehicle parts which up till then had been imported.

All such firms had to make great efforts in order to adapt to the methods and quality requirements of the cur industry. Some of them were obliged to drop out; but those which overcame the obstacles benefited from the industry's remarkable development and the different forms of assistance rendered it by the State, particularly through protective terrifice.

Thus, out of 2,000 subcontractors at the present moment working for the car assembly plants, it can be said that most of them originated in small firms, number in, no more than 10 workers 10 or 15 years ago.

It is also noteworthy that the expansion of these enterprises has most frequently taken above under the control of someone who was originally a skilled worker. Derin, the enquiry it transpired that the managers or owners of 15 out of every 20 enterprises were workers who had set themselves up at their own expanse with the savings of their families or friends.

These firms were normally too small initially to benefit from external assistance. They therefore obtained plant and equipment little by little using their own runds and/or credits advanced by machinery suppliers. Later on, when they had reached a contain linancial standing, they availed themselves of the various types of loans advanced them by the banks, but always with a great deal of coution.

Unfortunately their investments were carried out in a haphazard manner as and when orders from the assembly firms came in, with the result that the different subcontractors participating in the same manufacturing stages are now often over-equipped. The plant surplus plus the fell-off in sales has meant that a portion of the plant available works at less than 60 per cent of its total capacity.

There has never been any attempt at co-ordinating investments on the part of either the assembly plants or their subcontractors.

It is true that a horizontal subcontracting system has grown up among the subcontractors themselves, but only on an empirical basis and only for certain specific jobs like painting or heat treatment. There have never been any central agencies for subcontracting, for example, to rationalize the purchase and utilization of machinery.

More often then not, therefore, the heads of small and medium—scale enterprises have succeeded in reaching their present industrial level through their own efforts alone.

However, in spite of the advantages enjoyed by subcontractors in the automobile sector, they have encountered and are still encountering certain difficulties with the contracting enterprises.

The difficulty most frequently mentioned by the subcontractors in their comments is the insufficiently line batches ordered from them and the very large number of different parts comprising the orders. These two factors prevent them from planning their activities cheed and from lovering their manufacturing costs as they would like.

The subcontractors are well aware of the demands of the market but they consider that technical and commercial studies should make possible a reduction in the range of products and more accurate forces, to.

Furthermore, they think that batch orders placed are small because some assembly firms deliberately give orders to a number of subcontractors simultaneously to keep them competitive.

They admit the need for competition but would like it to be limited to a number of more qualified enterprises which would then receive larger orders for each type of product.

Finally, the subcontractors consider that terms imposed on them by the assembly plants are often hard and that settling up periods are too long and place an undue burden on their reserves.

In fact, the opinions of the subcontractors about the assembly plants vary according to the extent of the relations they have with each of them.

Some of them are closely linked to single clients, but most of them, in order to safeguard their independence, try to maintain ties with as many assembly firms as possible.

### III. SOLUTIONS: ADOPTED OR ENVISAGED

Despite its imperfections, the system of subcontracting used in the sutomobile sector in Argentina has been an important factor in the country's industrial by lepment.

Fig. this development continues to encounter difficulties which could have been voided hid part in consumes now being adopted or envisaged been foreseen at an + . The restage.

First of all, it is estimated that of the twenty or more enterprises which were originally permitted to set up assembly plants in Argentina no more than ten are still in exactance in 1968. And this elimination process has not taken place without social and economic repercussions. The subcontractors workin, for enterprises which closed down found themselves in a difficult situation and some of them were obliged to cease operations as well.

The spare parts market also raises problems, since it is competed for by parts or products manufactured according to standards imposed by the car manufacturing firms themselves, parts or products manufactured without quality control by interpretes selling low-price products, and finally parts or products manufactured by enterpretes which may or may not hold licenses but which are attempting to gain a foothold for their brands both by virtue of quality and by commercial action.

The subcontractors working for all molly plants, having managements more industrially than commercially oriented, enjoy only a small share in this market although it is much lar, in than the assembly components market.

Usually, the only way that subcontractors have any access to the former is via dealers with concessions from the assembly enterprises, who sell on the market opens parts of the same standard as those used in vehicle assembly. In fact, the same parts, manufactured by the subcontractors and bought at the same prices, are used either for assembly or for supplying the market with spare parts.

The situation of the subcontractors is therefore currently to icliows. On the one hand they do not have the advantage of the line operation, instability to assembly firms in the solution of apprentiation, and, on the other hand, access to the spare parameter, which would mean that they could increase the length of production mans and thus mounts their costs, is partly impossible because the apprentiation mank this open to low-prior treducts which are not only other to quality control and off mansacrible profit margins to declars.

But in the long run, if the subscriptions on a stablish or putation for their products (through high-quality work and bulliarty), they can sell both on the spare parts caract and on the components market.

Some enterprises manufacturing buttories, or rokes, on accented as examples but most of these are products water or rry the name of a foreign brand with an intermational reputation, manufactured by the Argentine enterprise under licence.

However, certain Argentine firms in existence are already trying to establish their own brand names and introduce them to the internal market or to the international market.

The difficulties encountered by the obsessely plants and the subcontracting enterprises have already been partially solved.

As noted above, the subcontractors is vehicle a considerable effort to improve quality. A large number of them have even established their own quality control arrangements, enabling them to sell to the assembly plants with 100 per cent guarantees.

On the other hand, the assembly plants have made efforts to improve the terms of their orders and shorten invoice estilement periods.

Thus, in 1968 firm orders have normally been one or two months ahead and provisional orders two to three months ahead.

At the same time, outstinding bills have been settled within 90 days.

Moreover, the assembly enterprises have made efforts to establish a climate of confidence with their subcontinuous. Some of them organise receptions, other invite subcontractors to visit in in factories, and yet others again a still at a structure, the publishment work ion, by their suppliers.

Despite the control of the properties of the control of the control of atill he were the control of the control

This not for information is one of these really limited by contain subscript to a in the intentions of some containing firms to employ subscript to a in the subscript of the Latin American free.

This Association.

This development has rain an number of problems. Should they continue their present activities of net? How they the resources to manufacture council, this complies he ray to them. Here will a manufactured in other countries of longer to the Lotin American are Truck Acsociation? And our tray may investigate in or a much technical as not need to the other countries?

Qualition. It this kind of not snow radionly in the income that the comprovide the nucleosal region information for the type is of them.

This shows the emproved relations of their assemble plants and subcontractors is not amply a ribit of both and depends also on about the from their account tions and the State.

And of this kind is in ay quite eigenificant. Thus business is sociations puttin har ular statistics on the development of the sutomobile industry in Argentina and the world.

Similarly the Association of Argentine Automobile Manufacturare is studying how centain vehicle in its could be standardized for all vehicle makes manufactured in the country.

For their part the public outhorities to a return out a to meint the could be combly along the and outperfactors as even, them in improvement in its inclusions.

The 1 bor to 1 a of Pai, or correspondent in its entirely to crusticity on life reso which by crise arise a life control of case.

Elsewhere, issued now normal flog the Structor industries (elsewhere, issued to a the original industries) reflect amount requirements and the need to also for purers a cof part from outside an atime A large number of subsent retors would like the of this kind to a same forced, without by present mainty result to an in an article supply the competitive prices of be athorized, imports without amount, and continue duties.

All a tion and isplacence of this kind will have its full effect when the current improvement in the concent begins to attimulate the int rhal mirk tion the.

No matter how favourable oursent prospects so, how ver, subcontractors in the car industry on no loner hope to maintain the lab profit many insuch they have enjoyed turing the last 16 pers.

This is why their present policies to direct the foreignous widening on in clients is smon, to without too obly plants, but also towards seekin other commonisties and other markets which they could attilize their investment and experience to the full.

This new approach to next an occurrent to the introctor of the assembly plants, now yet, for the latter's dark object in to lower the cost of their vehicles, which they a nonlate if their succentrators reduce their fixed costs to asking their machinery work. I total expectly, too either by making vehicle parts in long accountion runs or by supplementing the current short runs by turning out other items.

Thus, thanks to the succontractors in the automobile sector, Argentina now possesses a large group of enterprises, of a high technical level, ready to cope with the next stage in its industrial development.

In the view of the many, emerts of their firms, their future will depend grammarily on their own efforts and imposing them, but they readily concede that sooner in factor they will be a construction in the form of predits, soles information of laboratory at consultative a raises so that their enterprises can adopt to the enterprises and adopt to the enterprise should be made to the enterprises.

When skell from whom they expect such least not, includingwers most to quently mention their supplies associations or the atter. However, their desire to make the includes consider colutions of his consider colutions of his considerations of his consider.

Thus, lit is byin, it in a some in worther's subcontracting which subcontracting of a normalized the subject of the subject of

within the sutemobile sector have been shearly positive.

However, the result of the vount of a velocity of large extent to the recurred original velocity, namely:

a relatively is a mark tank tame of both the number of and butants and their purchasin, power;

the portional ray boundly skilled Argentine labour force and the ease with which it assimilates modern techniques.

Unfortunately these monthlians may not be mut with to the same degree in other countries trying a similar approach.

For this remoon, in whereas of the inificulties encountered by Ar, entire and the sclutters which have been introduced or are envisaged; there should be or sensitively at the mean of the should be or sensitively.



