

## CHAPTER III

### PROBLEMS OF ESTABLISHMENT

The successful establishment of a motor vehicle assembly industry and the subsequent manufacture of parts and components is undoubtedly of considerable interest to both the public and the would-be-assemblers. The industry, to be successful, must be viable, and to be viable, it must be based on sound economic reasoning. The public and the motor trade are inextricably bound together by a common interest. The motor trade are vitally interested to the tune of some \$50,000,000, which they are asked to "sink" or "swim" into the proposed assembly industry.<sup>1</sup> The public are also considerably interested - or they should be - as present car owners and prospective car owners are also going to be asked to invest - either a reasonably increased amount of purchase price in locally assembled cars, or, more than could be termed a reasonably increased price to pay for the establishment of this industry.

To avoid any possibility of the problems set out in this chapter being misconstrued, let me hasten to point out that I am not giving reasons to support a conviction that this industry should not be embarked upon. Far from it, the proper development of such an industry can undoubtedly considerably enhance the prosperity of any industrial economy.

This brings us to the first and most crucial problem facing the industry. There is one essential common denominator which spells success or failure for the motor vehicle industry the world over, and this common denominator becomes an essential prerequisite for the successful establishment of a motor vehicle assembly industry such as we are considering. And this common denominator - this essential prerequisite - is VOLUME.

#### Volume of Production

Volume is the link in the chain of problems, and is, in itself, the solution of these problems.

One obstacle to economic development is the small size of the local market, that always tends to keep down private investment incentives. This obstacle is especially illuminated in our

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<sup>1</sup>Speech by Mr. I.G. Hepworth, Chairman, Malaysian Motor Vehicle Assemblers Association in Kuala Lumpur on June 13th, 1966.

motor vehicle assembly industry. The joint market of Malaysia and Singapore is estimated to be about 33,000. The present programme of the Government for this industry would exclude the market of Singapore. According to the Malaysian Motor Vehicle Assemblers' Association the Singapore market represents 25% of the original 33,000 unit market. Therefore we have to deduct some 8,250 units, leaving an annual market of only 24,750 units.

In addition to this factor, however, this all important question of volume becomes even more critical when the real crux of the problem is appreciated. Trucks have been assembled here in a knocked-down condition for some time. For this reason, therefore, the Government's assembly policy primarily affects the setting up of assembly plants for passenger cars. This finally reduces the original 33,000 minimal sized market for economic assembly to a total of only 19,000 units per year within Malaysia on which to base a car assembly programme. According to Government sources there had originally been 19 applications to assemble here. This means a mere 1,000 units per plant spread over the original 19 applications - and even this 19,000 volume assumes the ultimate inclusion of the Borneo territories in the assembly programme.

If, for any reason, the Borneo territories were not included in local assembly - and there are higher costs involved for them than anyone else - then we come down to a States of Malaya market of some 16,000 units. And 19 applications into 16,000 units just "won't go". However, it has been said that the Borneo territories will ultimately be included, and so we rest on 19,000 units, only a little over half the original 33,000 unit market.

It has been said that 33,000 vehicles per year is a minimal sized market for economic assembly, and I have shown that in this Malaysian (presuming ultimate inclusion of the Borneo territories) assembly programme, we are really talking about a mere 19,000 vehicles per year. The first question that springs to mind is, "why is 33,000 a minimal sized market for economic assembly?" Here is the answer.

It has been known through actual assembly experience that 3,000 vehicles per year is the minimum volume necessary for the economic operation of an average sized assembly plant<sup>2</sup>, and by average size, we mean the average type of plant that will have to be erected for operation in a 33,000 market. It might be added that, for one or two of the plants, 3,000 units would mean a below bread-even, in other words, a loss operation. However, on the other hand, one or two others could possibly operate economically at a figure below 3,000.

Nevertheless, it must be pointed out that too small a plant cannot turn out the quality of product which the Government -

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<sup>2</sup>Mr. I.G. Hepworth

and certainly the public - would expect. There are certain basic machineries and equipments which are essential for this purpose, and which too small a plant could not afford. Here again I would add that locally assembled vehicles can most definitely match the quality of imported vehicles provided, that the volume is there to pay for the necessary equipment.

And so, balancing the larger and small and the average, we arrive at a figure of 3,000 units per annum for economic operations. Divide 3,000 into 33,000 and we come up with only 11 plants - even in this 33,000 market, which includes Singapore. BUT we have 19 applications! Further, if we consider the size of market, we are really talking about Malaysia alone, the figure of 19,000 already mentioned, 3,000 into 19,000 - so now we are down to 6 plants! BUT, again, we have 19 applications.

The automobile industry in India, according to Harvey Stockwin, is at a cross-roads - either it expands and reduces the cost of production by a larger volume of output, or continues to stagnate, even with a considerable reduction of imported components. The Indian automobile industry has gradually increased output, with output to-day at about 70,000 units (passenger cars and commercial vehicles). It is true that India's industry is not confined to assembly alone but also of manufacture of parts, so that most of the manufacturing processes take place within India, the foreign element being very small. But this example would serve to illustrate the fact that volume is of vital necessity for a viable motor industry.

Now we take the case of the Spanish motor vehicle industry, whose production figures are given in detail for the year 1963 in Table 8. The economic journal 'MOTOR BUSINESS' expressed that the figures given in that survey suggest that the size of plant and volume of output of vehicles in Spain is, with one or two exceptions, below the economic optimum and much too small by international standards. This is particularly true of commercial vehicle production. To counteract the tendency towards small scale production, the Spanish authorities prescribed a minimum for the size of new plants. According to the Official Gazette of March 1963, new factories for the manufacture of motor cars can be established only if their production is over 75,000 units a year (more than double our total national, including Singapore, consumption). For trucks and buses the minimum is 8,000 units.

Here, again, is another example of a motor industry which serves to show that volume of such great importance for the economic production of motor vehicles. The average output of a model in the commercial vehicles section is about 3,540, and still it is considered below the economic optimum!

Coming back to the Malaysian scene now, perhaps we can see why the question of volume is absolutely vital.

- We do not know who all the 19 applicants for local assembly are - the Government had only indicated the total number. But 10 members of the Assemblers' Association definitely want to assemble, and, two others, although not members, have also indicated their intention to assemble. So here alone we have 12 assemblers - and 12 into 33,000 gives a per plant potential of only 2,800 vehicles per year - below the minimum economic average of 3,000 units! And 12 into 19,000 - it just "won't go"!

Now, it has been said that some of the original 19 applications for assembly will probably fall away - will be withdrawn due to circumstances. With the state of affairs as just outlined, some of them must be withdrawn; it is economically untenable for all 19 to remain.

It has also been said that it may be necessary to limit the number of assembly plants to be allowed into Malaysia to assemble. This has only been suggested as a possibility and so the motor trade does not know .....

- if this will happen
- when it will happen
- what the limit will be
- who will be allowed in and who will be excluded.

There are questions of vital importance to the trade. Despite what might be thought to the contrary, members of the motor trade have been actively working towards assembly, as their very existence in this economy might depend on it. But there are certain factors which they must know in order to implement plans. This factor of limitation of numbers or no limitation is one of them.

In August 1964, the trade spent a tremendous amount of time in compiling their original applications for assembly under the (then) joint policy. It is now August 1966 and a lot of things happen in the motor industry over a period of some two years.

Vehicle costs and tooling costs change, models on the market then have now been replaced, penetration or market shares change, franchises change, assembly techniques change, and a host of other things. Assembly is a very complicated and intricate operation. Equipment has to be ordered - such equipment as weld-guns, plant installations and many, many more - and some of this equipment takes up to 12 months and longer to obtain after placing of orders.

All these factors, and many more, are specifically and basically affected by one thing - and again we come to it, - volume!

The members of the Assemblers' Association have meanwhile unwrapped, warmed-up, dusted off and gone through detail by detail, the August 1964 submissions - which have to be completely re-worked if the market falls below the minimal 33,000 already mentioned, as all cost data and everything was based on such a market.

The important point is that all these factors have a direct bearing on the setting up of plants. They affect the size of the plant, the type of equipment to be installed, etc., etc. It is clear, therefore, that if the number of plants is going to be limited, it is vital for the would-be assemblers to know, as said before,

- when it will happen
- what the limit will be
- who will be allowed to assemble.

Then there is another problem we have which also requires settling, because it also affects the setting up of plants. This is the definition of C.K.D. (Completely Knocked Down) vehicles (as announced in Customs Notice No. 16 of 1964) which differs on a number of points from the Assemblers' Association's view of what constitutes C.K.D. (C.K.D. is merely all the various component parts sent out in a "pack" for assembly at the location.)

Various meetings, correspondence, etc. have taken place between the motor trade and officials of the Customs and the Ministry of Commerce and Industry, in an endeavour to settle the question of the definition of C.K.D. The first meeting took place in January 1964, and now, over 2½ years later, it is still not settled.

The problem is quite simple; the current definitions in the assembly business is known as a category "B" pack, whereas in all locations all over the world that have started an assembly industry, they have started by using what is termed a category "A" pack. These two are defined as follows :

#### C.K.D. Definition

##### Category "A" Pack :

A category "A" pack is a completely knocked down unit with the exception of certain specialized components sub-assembled in the source supply country. This enables average assembly plants of the 3,000 volume already mentioned to obtain the advantages of cubic saving and

local assembly privileges, yet does not entail the high costs related to specialised personnel to check critical dimensional measurements and safety items and the high expenditure on product engineering and other equipment, which is not justified at average volume plants.

Category "B" Pack :

A category "B" pack is a completely knocked down unit which is sourced to assembly plants whose high volume (and by this is meant some 20,000 units per year) justifies expenditure on a complex and highly skilled organization with all necessary specialised equipment. It is completely self-sufficient in all aspects of the motor assembly operations relying only on source company for the initial design and specification of the product.

A study of the definitions above will make clear the fact that, as no plant here is going to be set up to produce 20,000 vehicles a year, a category "A" pack is what is required.

As further information, Ford of Britain currently ship out C.K.D. packs to 13 countries all over the world. Out of these 13, 10 countries take category "A" packs, namely Holland, Elre, Thailand, Pakistan, Portugal, Philippines, Singapore, Rhodesia, Italy and Venezuela. And these countries have been assembling for some time. And as we know, Italy is one of the leading manufacturers of motor vehicles in Europe.

In other words, a category "A" pack is an internationally recognised pack for average assembly plants - General Motors, Chrysler, British Motor Corporation (B.M.C.) and others all have these packs. This being so, the question is can we not agree that in starting up an assembly programme, we also start up in the same way, and gradually move to more complicated and sophisticated programmes. The aim, again, is to establish a viable motor assembly industry under the present circumstances. This is important because it affects the type of equipment that will have to be installed in our plants, and it is important to know now, because of the lead or delivery time.

Now, there is another subject which has an affinity with the possible limitation of plants - that subject is contract assembly. This means a number of different makes of car being assembled in one plant.

As noted from the market figures dealt with earlier on, even under the minimal sized market for economic assembly, this is a possibility. I mentioned 12 plants known to be interested - and 12 into 33,000 is only some 2,800 vehicles per annum - below the 3,000 minimal economic average.

There are difficulties in contract assembly - technical difficulties - but in a market of 33,000 it could possibly be done.

However, contract assembly needs volume; a market of only 19,000 does not have that volume.

There are tooling costs for example. Tooling costs for a new model of car run around, and sometimes beyond, some \$300,000. The model life may only be (on the average) three years. So this cost must be written-off at around \$100,000 per year - and this type of write-off takes volume to make it pay.

Let us look at the small potential assembler who may have half his sales in Singapore and half in Malaya. Combined, it may be possible for him to join in a contract assembly consortium. In a divided market he may have insufficient volume to justify in either area, hence he "goes to the wall." Not only does he "go to the wall," his business, the product, the product availability in the area, the staff, and many other elements associated with his business also "go to the wall."

Another point - an outside independent company might possibly consider coming into business in contract assembling for several makes (as mentioned in Chapter II, an Australian firm is already considering this) - but only if the volume is sufficient. Even the total 33,000 market is small for an independent. It will be interesting to know on what basis the Australian firm mentioned is considering contract assembly in Malaysia.

In addition to the volume factor, there is the question of the various makes combining themselves. Not so easily done. For example, Ford and General Motors would hate to combine with each other - neither of them would be happy.

What else depends on this all-important and vital factor of volume? Local content. This means the use of locally manufactured component parts in the locally assembled car. Almost above all else, does local part manufacture depend on volume. A motor car consists of about 15,000 parts, and, in line with our assembly programme, would involve the putting together of about 1,500 parts. At the same time there are over 490 different types of models of cars and trucks sold both in Malaysia and Singapore to-day. Imagine a local part manufacturer's nightmare in sorting out that lot! The manufacturer would have to manufacture just a few of every item. Here again, such parts cannot be manufactured unless there is volume to back it. If these parts are manufactured in small lots, it would only mean higher costs. This is experienced in India, where producers of cars and trucks complain that the prices of indigenous components and accessories are nearly double those of imported items. The effect of these difficulties on the final product is discussed in the next chapter.

Under any assembly programme the cars that sell at, say, 5 or 6 per month cannot be assembled for economic reasons. This would be problem enough in a market of 33,000 units. But then how much more of a problem in a market of only 19,000? As though this

was not enough of a problem, yet the assemblers still have to meet local contents requirements laid down (as shown in Chapter II), or be penalised.

### Competition From Singapore

On the 30th of May, 1966, the Singapore Government announced its own local assembly policy programme. The Singapore assembly programme, in broad outline, is very similar to the Malaysian programme. The rate or level of Tariff Protection is exactly the same as the rate proposed for Malaysia. The Malaysian import duties are to be effective not later than 10 months from February 24th, 1966, while Singapore's import duties are to be effective not later than 14 months from May 30th, 1966. This puts both the programmes on par with each other. Under the earlier joint venture it was realised that, once the applications were in, a majority of the assembly plants would be in Singapore or Jurong, for reasons of cost, convenience, better infrastructure, an efficient port, etc. With the constitutional change (separation) and with each territory establishing its own assembly programme, they are to be considered as competing against each other. No doubt, the would-be assemblers would prefer to have a joint-market, with a free flow of vehicles across the causeway, but political considerations have rendered this out of the question for the moment. Singapore still retains this more advantageous situation and therefore is one better than Malaysia. But, again, Malaysia has a far better lead in the larger market - 24,750 units, as against 8,250 units for Singapore. This factor alone would induce most assemblers to operate in Malaysia, rather than in Singapore. I have already indicated why volume is of such paramount significance. But then there would still be the marginal cases, whose sales in Singapore is just about the same as that in Malaysia, who are to be considered. Also, in establishing their plants, the assemblers would have to project their plans into the future. There might be expansion of markets which could possibly be in favour of one, or both, of these territories. For example, with the end of confrontation, Indonesia might be a potential market. So, with these thoughts in mind, the assemblers will have to decide, not by present market considerations alone, but the future, and to see if the policy of one territory has any advantage over the policy of the other territory. And, indeed, when going through the details of the two programmes, we can see some distinct differences :

First of all, we know that a progressive assembly tax has been introduced in both territories in order to stimulate the progressive manufacture and utilisation of local component parts. Those assemblers who fail to meet the Government's minimum requirements of local content for both passenger and commercial vehicles would be liable to pay this tax.

In the Malaysian programme, local content is measured by the deletion allowance in C.K.D. and S.K.D. packs provided to the assembler by the basic manufacturer. This deletion allowance to-day, would mean the tyres, tubes and batteries that are absent



from the pack, because locally made ones are used. In the Malaysian programme, the only way to meet the local content requirement would be by incorporating Malaysian-made parts, components and accessories into locally-assembled vehicles.

In the Singapore programme, local content is measured by the deletion allowance in C.K.D. and S.K.D. packs provided to the assembler by the basic manufacturer and/or agent (F.O.B. value) of Singapore-made motor vehicle parts, components or accessories. In other words, Singapore assemblers can meet the local content requirements in any one of the following 3 ways :-

- a) By exporting an equivalent amount (F.O.B. value) of Singapore-made motor vehicle parts, components or accessories (i.e. car radios, air conditioners, etc.) for supply to their own overseas associated organizations, their overseas basic manufacturers or the associated organizations of their basic manufacturers, or
- b) By incorporating Singapore-made parts, components and accessories into locally-assembled vehicles, or
- c) By combining (a) and (b) to attain the required percentage of local content.

This arrangement in the Singapore programme makes it more attractive to would-be assemblers because it is easier to fulfill the local content requirement. A present day assembler may only have 4 items of local origin to incorporate in his vehicle, and this may not add up to the required percentage in value. But this need not necessarily penalise him, because he can still escape the assembly tax by exporting some tyres, tubes and batteries to his basic manufacturer or their associates. In Singapore, therefore, the assembler has a better chance of fulfilling the conditions laid down by Government. Further, this arrangement also stimulates the export of locally made parts, components and accessories. This, therefore, acts against the Malaysian assembly programme.

Next, we will find that assembly tax in Singapore would probably be lower than in Malaysia. The assembly would be based on the 'value of the vehicle'. The rate to be charged is the same for both territories, while the value of the vehicle is bound to be lower in Singapore, because in Singapore the 'Direct Materials cost of Vehicle' will consist of the following elements of direct manufacturing costs :

- 1) Costs of raw materials and of semi-finished or finished articles delivered at the assembly plant; and
- ii) Costs of fuel, other utilities and materials necessary for manufacture delivered at the assembly plant.

In the Malaysian programme, a further item is added to 'value of vehicle' :

- (iii) Wages and other workers' benefits for labour participating directly in the production of the vehicle.

With this additional item, the total 'value of vehicle' would be higher, and so the tax payable would be proportionately higher. This, again, is another setback of the Malaysian assembly programme. In addition to this poor comparison against Singapore, our method also works against the employment of labour; the assemblers would be compelled to employ as few as possible, and only where absolutely necessary and irreplaceable by machinery. This in turn would work against the aim to create employment opportunities in the economy.

On the other hand we find that the percentage of local content required by the Malaysian programme is lower than that required by the Singapore programme :

TABLE 7

LOCAL CONTENT REQUIREMENT IN MALAYSIA AND SINGAPORE

Maximum Time Permitted From The Date Of Announcement	Percentage of Local Content That Must Be Attained.		Percentage of Local content That must Be Attained.	
	Malaysia		Singapore	
	Passenger	Commercial	Passenger	Commercial
2 years	8%	17%	8%	17%
4 years	12%	21%	13%	22%
6 years	16%	24%	18%	26%
8 years	20%	28%	22%	30%

This would, at first sight, give the impression that the Malaysian prospects would be slightly enhanced, because the demands on the assemblers is slightly restrained as compared to that of Singapore. But a study of the method of computing the percentage of local content in the two territories would enlighten us as to the true picture.

In the Malaysian programme, the percentage of local content is equal to the total deletion allowance divided by the total vehicle value. The percentage of local content will be calculated thus :

$$\frac{\text{Total value of deletion allowance}}{\text{Total value of vehicle}} \times 100$$

This is very simple and straight-forward, and should pose no problem. The Singapore programme calculates the percentage in a more complicated way, and which is to be done once every three months :

$$\begin{array}{r}
 \text{( Total value of )} \\
 \text{(deletion allowance )}
 \end{array}
 +
 \frac{
 \begin{array}{r}
 \text{(Total export F.O.B. value of )} \\
 \text{(Singapore-made parts, compon- )} \\
 \text{(ents and accessories during )} \\
 \text{(the 3-month period. )} \\
 \text{(Number of vehicles assembled )} \\
 \text{(during the 3-month period. )}
 \end{array}
 }{
 \text{Total direct materials cost of vehicle.}
 }$$

In the Singapore method we see that consideration is given (as mentioned earlier) to parts, components and accessories, of local origin, that are exported. This raises the value of the numerator in the formula. At the same time the value of the vehicle is lower because labour costs are omitted, and therefore, the denominator is reduced in value. This two-fold process of increasing the value of the numerator and reducing the value of the denominator helps to increase the percentage of local content in the Singapore programme.

Therefore, though the percentage requirement for local content in Singapore is higher, the formula for computing the local content percentage makes up for the disadvantage. In fact, I think, with a modest export of parts, components or accessories, Singapore assemblers can more than make up for the higher percentage requirement.

This is another factor that can affect the Malaysian assembly programme adversely.

We come now to the quantitative restrictions that the two Governments have imposed to protect their respective assembly industries. Both have based their quotas on their 1964 and 1965 average imports, but the quotas imposed vary very slightly. The quota for commercial vehicles for both territories is 80% of the average semi-annual proved retained imports during the years 1964 and 1965. The difference lies in the quota for passenger cars; Malaysia's quota is 110%, while that of Singapore is 100% of the importer's semi-annual proved retained imports during the years 1964 and 1965. These restrictions are to be based over 6-month periods and to be reviewed periodically. Looking at the restrictions as they stand to-day, we see that, for passenger cars, Singapore gives greater protection to assemblers than Malaysia. What the future situation will be, we cannot say, but would-be assemblers are likely to favour Singapore for the greater protection that they would enjoy. Here again the Malaysian programme is at a disadvantage, though it will be easier to make good in this case.

The Malaysian programme has called for applications but has not yet set any time limit. Even whether there will actually

to any limit is not known. All that the Government notice has said is that "the number of assembly plants that may be established may be limited by Government, if necessary." So far no individual plans and project proposals to the Singapore Economic Development Board (EDB) not later than three months from the date of the statement (May 30th). It has also been stated that the number of assembly plants that may be established in Singapore will be limited by Government. Thus we see that the Singapore Government seems to be more definite about their plans. At the same time, though Singapore has a very small market, the fact that the number of plants is going to be limited and that there is a time limit for submission of plans, indicates that there would probably be just a small number of assembly plants in Singapore; and these few might be just as well off as the 12 or 19 assemblers in Malaysia. With this situation, the advantage of volume in Malaysia may not be such a great advantage after all! And potential assemblers who have two thoughts about assembling in Singapore, might be induced to grab the opportunity while they can, or else lose their foothold permanently. The indefinite nature of the Malaysian assembly programme is another problem to the establishing of the industry.

Finally, we will consider the rate of Ad Valorem Registration Fees of the two territories. Tables 9 (a) and 9 (b) give the A.V.R.F. rates for Singapore and Malaysia respectively. For both territories, the A.V.R.F. rates for locally assembled vehicles and imported C.B.U. vehicles of non-Commonwealth origin, are the same. Therefore they are at par with one another up to that point. Coming to imported C.B.U. vehicles of Commonwealth origin, we notice the difference between the territories. While Malaysia charges the same rate for imported C.B.U. vehicles of Commonwealth origin as she charges for her locally assembled vehicles, Singapore charges 5% extra for both passenger and commercial vehicles. This has a two-fold effect in Singapore. First, it discourages import of C.B.U. vehicles of Commonwealth origin because of higher A.V.R.F. to be paid - the same effect that a "tariff wall" would produce. Secondly, it acts as an inducement for Commonwealth manufacturers to assemble in Singapore to take advantage of the lower A.V.R.F.

These advantages are not realized in Malaysia. The A.V.R.F. is not utilised against Commonwealth motor vehicle manufacturers to induce them into local assembly in Malaysia.

And that was the last advantage that assemblers would find in Singapore over Malaysia.

Having finished with the problem of competition from Singapore, I will proceed to other problems of lesser stature, but still bearing great significance to the economy and the people involved.

## Financial and Technical Problems

Money to finance plant operations is a necessity. Some industries require such large investments that only great corporations can afford to finance them. In general, capital is mobile, and will become available at locations where it can be invested at a profit.

At the same time, the assembly industry being very intricate, technical know-how is a must. This industry can be classed under heavy industry, and more than anywhere else technical knowledge at the technician's level, but also at the managerial level, in order to establish a successful assembly industry.

It is very important for the Government to generate local financial resources by establishing financial institutions which could loan funds at rates that would be within the means of the industry. Except in Singapore, the scope of present industrial promotion policies and institutions is still quite limited in this region. However, the Malaysian Government has made loan or equity capital available to private firms through autonomous or semi-autonomous institutions. Such capital funds are channeled through the Malayan Industrial Development Finance Ltd. (MIDFI) in Malaya, and the Borneo Development Corporation Ltd. (BDCL) in the Borneo states.

However, the tendency is towards motor dealers to establish plants in conjunction with the basic manufacturers. Experience has shown that, due to lack of financial and technical resources, certain under-developed and developing countries rely on European and North American firms. B.M.C., Pectes, General Motors, Ford, and many others have found foot-holds in many parts of the world, like Spain, India, Thailand, Singapore, etc. On an international level, Government should restrict the import of foreign capital and control by foreign companies.

To illustrate this point let us examine the experience of Spain. Spain lacks the financial and technical resources necessary for the development of an efficient motor industry, and most Spanish motor manufacturers rely in one or both these respects on assistance from European or North American firms. Royalties for know-how, patent rights and licences are estimated to represent 4.4% of the production cost of the 600D seat model. By comparison, the equivalent average figure for the United Kingdom motor industry is estimated to be only 2.8%.<sup>4</sup>

Agreement with stronger and larger foreign companies are undoubtedly necessary in the initial stages of development. Today, however, Spain is progressing beyond this stage, and the dis-

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<sup>4</sup>"Motor Business No. 37, EIU.

advantages of drawing too heavily on technical and financial aid from the manufacturers in the more advanced countries are beginning to be appreciated.

In the first place, there is no guarantee that the requisite proportion of the earnings of the associated overseas companies will be re-invested so as to improve the efficiency and to speed up the development of the local industry.

Secondly, as the local industry proves to be profitable, the number of agreements with foreign companies tends to increase as large European and North American motor manufacturing organizations seek one by one to secure a foothold in the country. As a result there is a danger that the industry will remain broken up into an unduly large number of units.

Lastly, although the high Spanish import tariff is the main reason why foreign firms are trying to link up with local firms, their success in jumping the tariff wall has lessened the pressure and the desire to see the tariff reduced. There is a danger that the Spanish tariff may outline its usefulness and remain too high for too long. Spanish motor vehicle manufacturers, sheltered by the high protective tariff, look solely to the domestic market, and the time is approaching when the industry ought to be exposed to the harsher wind of international competition and become less parochial.

Here we see how lack of financial and technical resources could drive one to foreign aid. But this foreign aid itself brings with it certain undesirable factors that are bad for the country and industry in the long run.

### Technicians

The labour force of the automobile industry is comprised to a surprising degree of unskilled or semi-skilled workers,<sup>5</sup> for many operations of the industry are at least semi-automated. At the same time it is not all that easy. As Mr. I.C. Hepworth says, assembly is a very complicated and intricate operation. The car has to be properly assembled to the exact specifications of the source manufacturer.

So we find that though most technicians do not require intensive training for long periods of time, they still need some experience before they reach some level of efficiency. As assembly industry is a new feature in the economy, it is not easy to find workers with knowledge of what it involves. There are two main sources of technicians at the moment. Firstly, people who were previously employed in firms that deal in sales and repair

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<sup>5</sup>Richard S. Thoman, "The Geography of Economic Activity".

of motor vehicles, like Wearne Brothers, Cycle and Carriage, etc. or from the various small mechanic workshops scattered all over urban areas.

The next source, is certain homes like the Montfort School where certain orphans and juvenile delinquents are trained from a young age in various skills, like carpentry, metal work and mechanical devices. In fact, the Cycle and Carriage truck assembly plant in Petaling Jaya have contacts with the Montfort School from where they recruit their technicians.

These arrangements are all right for a small number of technicians required, but once many firms undertake to assemble locally, these meagre sources will be unable to meet the demand of the industry. As a result of this, workers employed by the plants will take some - about 2 months - before they get the hang of it. This will of course mean inefficiency initially, with the resultant high costs of production.

### Prejudice

One of the most difficult problems that will be faced by the industry is that of prejudice against locally assembled vehicles. Nothing is as good as that made in the home country (country of origin) is the general attitude.

For example, many Japanese makes of motor vehicles are found in the country. And until quite recently, most purchases of motor vehicles were prejudiced against them because the feeling was that nothing was as good as that produced by the whiteman. Lower prices of Japanese makes were not much of an incentive.

Again, we have Volkswagon cars, one of the most popular models in the country, that are assembled in Australia which are sold in Malaysia. Purchases of the Volkswagon usually ask for vehicles which had been assembled in Germany, feeling that the Australians are not so skilled at assembling these cars as the Germans themselves.

This is one problem that cannot be handled physically with assurance of results. Only time and experience can get rid of these feelings. The workings of time is seen in the growing popularity of Japanese vehicles, especially commercial vehicles.

That sums up the salient problems that the Malaysian assembly industry is facing or would face in the near future. It will take a hard struggle to break through victorious.

TABLE 8

## PRODUCTION OF SPANISH MOTOR VEHICLES, 1963

Passenger Cars :

Seat	48,000	
Fasa	25,000	
Citroen Hispania	4,231	
Munisa	2,500	
<b>Total</b>		<b>79,731</b>

Commercial Vehicles :

Enasa (Pegaso)	6,500	
Motor Iberica (Ebro)	5,483	
Barreiros	4,439	
Sava	3,750	
Nazar	1,122	
Karpetan	50	
Citroen	15,200	
Imosa DKW	5,366	
Fadisa Alfa Romeo	2,000	
Isc Borgward	1,000	
Aisa	1,720	
Enasa M. Benz	400	
Roa Tempo	1,000	
<b>Total</b>		<b>48,030</b>

Special Vehicles :

Land Rover	3,250	
Viana Willy	1,554	
<b>Total</b>		<b>4,804</b>

**Total Vehicle Production** : 132,565 units.

Source : 'Motor Business' No. 37, January 1964. Issued  
by the Economist Intelligence Unit, London.



TABLE 9 (a)

A.V.R.F. RATES FOR SINGAPORE

Description (1)	Passenger Cars (2)	Commercial Vehicles (3)
Motor Vehicles Assembled in Singapore	10%	Nil
Imported C.B.U. vehicles of Commonwealth origin	15%	5%
Imported C.B.U. vehicles of Non-Commonwealth origin (i.e. Less than 50% Common- wealth content)	25%	15%

TABLE 9 (b)

A.V.R.F. RATES FOR MALAYSIA

Description (1)	Passenger Cars (2)	Commercial Vehicles (3)
Motor Vehicles Assembled in Malaysia	10%	Nil
Imported C.B.U. vehicles of Commonwealth origin	10%	Nil
Imported C.B.U. vehicles of Non-Commonwealth origin (i.e. Less than 50% Common- wealth content)	25%	15%