Integration *versus* subcontracting The case of the French automotive industry (1945-1970)¹

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Abstract

Today's car manufacturers resort widely to subcontracting, but the origins of this practice are not recent. From the beginning of the twentieth century, the car manufacturer Louis Renault committed the production of some components to external suppliers, although the company is often presented as a comprehensive model of vertical integration. This article aims to describe the evolution of subcontracting within the Renault firm from 1945 to the 1970s. This family business company constitutes a relevant case study because of its history. During the interwar period, Renault became the leading French car manufacturer. The company then undertook a broad diversification of its business activities (towards the production of tractors, airplanes, buses, tanks...), but finally chose to focus on its core activity: the automotive business. In addition, this firm's history is particularly interesting due to its close links with the history of France in the 20th century (Fridenson, 1998; Sardais, 2005). During this century, the political, economic and social events affecting France strongly influenced the company's activity and constituted crucial turning points in its history (war production, nationalisation, privatisation...). The study of Renault's archives, such as activity reports and internal memoranda, allow us to distinguish four stages in the evolution of the company's externalisation policy. The nationalisation of the firm, at the end of World War II, constituted an interlude in its history. Under state control, the firm's managers started to reflect on the possibility of a subcontracting policy. However, this debate was interrupted by strikes in the Billancourt factories. A real subcontracting strategy was implemented from the 1950s, after being hotly debated by the firm's stakeholders. A great number of memoranda on the subject reveal a passionate debate on the advantages and disadvantages of subcontracting. The premises of this policy were not clearly affirmed, but they constituted the beginning of an irreversible process.

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Introduction

Outsourcing is a phenomenon that is frequently discussed in the economic, social and political news media. Often connected with relocation and consequently suspected of endangering jobs, it has often had a bad press despite studies revealing more mixed effects³, yet the trend has continued inexorably, even extending to public services⁴. In fact, far from being new, the phenomenon is part of a cycle with a long history. The aim of this article is to trace the history of outsourcing⁵ through the study of an emblematic sector, that of the automobile, and in particular, of the French company, Renault.

The history of the automotive company Renault can be compared with those of other manufacturers, such as Ford or Fiat. These firms were established under the Second Industrial Revolution on the initiative of either one man, or groups of engineers or self-educated persons passionately fond of technology. Initially, the automotive industry was characterised by the small-scale production of cars, sold to rich customers. Nevertheless, it rapidly became a field where major managerial innovations were introduced, in order to allow the large-scale production of vehicles. In the aftermath of the Second World War, many car manufacturers that were previously highly integrated, producing most of the components used in production themselves, gradually resorted to subcontracting. This industrial strategy was initially motivated by the wish to reduce the production cost of vehicles and it has been implemented to a greater extent since the beginning of the 1970s (Loubet, 1998). Suppliers gradually became partners and their presence in all stages of the production process, from design to assembly line, increased.

The period between 1898 and 1920 was characterized by the transition from very limited production (10 vehicles per year) to mass production that was only affordable with the use of outside suppliers. In 1898, Louis Renault created the *«Société Automobile Renault »* with financial help from his two brothers. To make his vehicles better known in a highly fragmented sector, he took part in car races in France and Europe. Although this strategy rapidly paid off since Renault vehicles scored many victories, it was only when the company won the contract for Parisian taxis in 1905, that its small-scale production became industrial (production rose from 1,179 to 5,100 cars between 1905 and 1910). Moreover, Renault's status changed from fitter to manufacturer when it started making its

³ Report of the Economic Analysis Committee, Désindustrialisation, délocalisations, Bibliothèque des rapports publics – La Documentation française, http://www.ladocumentationfrancaise.fr/brp/notices/054000102.shtml.

⁴ See for instance: Walker D, *Report recommends easier outsourcing, The Guardian, Wednesday July 2 2008* ["A draft of her report (written by business economist Deanne Julius), due to be published on July 10, says the time is ripe for "significant expansion", provided public bodies impose fewer conditions of a "social or environmental kind" in contracts"] or Reilly P., Tamkin P.(1997), *Outsourcing: A Flexible Option for the Future?*, IES Reports, No.320.

⁵ This merits a more wide-ranging approach because starting with the paternalist policies of the 19th century, subcontracting has also involved such varied activities as accommodation, health, staff restaurants, maintenance, information technology, invoicing, recruitment, etc.

own engines (Loubet, 2000). At the same time, heavy demand for ancillary products such as utility and commercial vehicles led Louis Renault to diversify his production. This trend gathered considerable momentum during the First World War when the Renault factories were given over to production for the armed forces whilst continuing to manufacture automobiles. This was how the Billancourt factory came to manufacture rockets, guns, canons and tanks as well as tractors, lorries, and utility and leisure vehicles. Diversification was accompanied by a desire for independence from the various suppliers and this was embodied, at the end of the War, by the implementation of a strong policy of vertical integration.

In the interwar period, this industrial policy was continued, enabling Renault to control the entire production process from the extraction of raw materials to the production of capital goods and finished products with the exception of a few rare products such as car windscreens. Renault therefore constituted a highly integrated industrial unit, as its Director declared in 1933: *«The Renault factories form a whole. They are self-sufficient, using raw materials they manufacture everything »* (Fridenson, 1998, p.31).

The story we are about to retrace took place over the years 1945 to the 1970s. It was then that subcontracting really took off at Renault. We will try to determine the factors that triggered and fostered the process, as well as those that curbed it since the recourse to outside suppliers did not occur in a straightforward linear manner and the question of doing or having done was constantly being raised even if it mean re-integrating the manufacture of certain products. At the end of the article, we will detail the contributions we have made: historic, in a field which has been the subject of very few studies of this type, but also more general (on the economic effects of subcontracting) and theoretical (on client-supplier relations).

The immediate post-war period: tentative but determined beginnings

Despite caution bordering on distrust linked to the security of supplies, the fear of dependency and concerns over price and quality levels, from 1945 onwards, Renault was subject to strong constraints that were to lead it down the road to outsourcing.

The reasons for caution

After the War, Renault was characterised by a high level of integration and diversification:

« *Régie Renault presents a typical example of vertical concentration, since its manufacturing cycle is based on raw materials (coal, cast iron, standing timber, rubber, copper ingots, etc.)*

and includes the manufacture of most of the parts needed for motor vehicles which it then assembles from start to finish » [Annual Management Report, 1945, p.13]⁶.

This industrial strategy did not seem to be questioned by the new Chairman and Managing Director, Pierre Lefaucheux, appointed head of the Renault factors after the Liberation. Despite difficulties in obtaining supplies and the dilapidated state of the factories at the end of the War, he declared:

« This policy has raised, and will continue to raise, protests on a daily basis from companies wanting to become or once again become, suppliers for the Renault factories. Without wishing to open a debate on the advantages of, or justification for, vertical concentration, we would simply like to observe that:

- As a result of their large-scale production, our secondary workshops have been able to install more modern and more advanced equipment, and to work with lower overheads than most of the smaller, more run-down outside companies;
- during 1945, our difficulties in obtaining supplies were more acute in the case of the few fittings we bought in from outside, than for those we made ourselves.

Personally, I am therefore against reducing our activity in favour of lesser companies in the independent sector » [Annual Management Report, 1945, p.13-14].

The accent was therefore placed on the quality of plant, costs, and security of supplies. Outside suppliers were not considered able to give sufficient guarantees on these various aspects.

Although Lefaucheux expressed his hostility towards using outside suppliers, the strategic choices Renault had to make raised complex problems. The diversification of its activities during the War (increase in the number of civilian products, tractors, lorries, planes and military vehicles, rockets, guns and tanks) called the rationale of resource-hungry vertical integration into question. Moreover, those in charge of industrial planning⁷ wanted Régie Renault to specialise in the production of lorries because of its close links with Berliet, which had met the same fate as Renault after the Liberation⁸. Lefaucheux was against this. Although he wanted to rationalise the industrial tool, he was not in favour, at first, of abandoning certain products and continued to pursue the same vertical integration policy by creating the *Société Nouvelle de Roulements* in 1946. Moreover, difficulties in obtaining supplies and the high cost of raw materials reinforced the company's wish for independence:

⁶ Renault's Reports were consulted in the *Archives Renault*.

⁷ Post-war planning Commission in charge of (flexibly) programming production. See: Scott B., Macarthur J. (1969), *Industrial planning in France*, Harvard University Press and Fourquet F. (1980), *Les comptes of la puissance Histoire of la comptabilité nationale and du Plan*, Ed. Encres.

⁸ Nationalisation after collaborating with the Nazi regime.

« Our supplies departments have often met with serious difficulties in obtaining the raw materials and fittings we do not make ourselves from our outside suppliers. They have had to employ unwavering perseverance and zeal to obtain the necessary deliveries in time⁹. [...] the Régie suffers from its heavy dependence on certain outside companies who have not understood the imperative need for French industry to make technical advances in order to lower its costs whilst at the same time improving quality » [Annual Management Report 1946, p.29].

In an uncertain strategic context, the management of Renault stuck to its basic beliefs: security of supplies at a controlled cost, independence and, what were to be the key factors of the sector's success for a long time to come; technical expertise, quality and costs¹⁰. The caution, even distrust, brought about by the first pressures (these are not very explicit) to outsource on the part of suppliers or indirectly, the Planning Commission, are therefore part of the company strategy itself. However, other constraints were to emerge.

Mass production and pressures to outsource

1947 saw the beginning of mass production with the 4CV, which was to be at the origin of an initially timid change of policy as regards the use of outside suppliers. When he became Director of the Renault factories, Lefaucheux wanted, on the one hand to create an industrial complex adapted to mass production, and on the other, to launch a cheap car (Loubet, 2000). The 4CV, the new model chosen by Lefaucheux despite opposition from the entire management team, was destined to implement this strategy. Its launch was rapidly a resounding success both on a commercial and industrial level to the extent that the maximal production threshold was quickly reached. Armed with this success, Lefaucheux chose to expand the range of vehicles offered by Régie Renault rather than to count on an increase in production volumes which would imply true mass production.

In the circumstances, the use of outside suppliers became inevitable since Renault had neither the facilities nor the funding needed to apply such diversification at every stage of the value chain. Since the production of the 4CV took up most of the company's own resources it was decided to call upon outside suppliers for the other products. Certain products, such as the bodywork for vehicles other than the 4CV were, for example, entrusted to outside suppliers close to Régie Renault such as Chausson Carrosserie (Loubet, 2000). At the same time, the production of certain parts needed for all vehicles and traditionally manufactured within the company was transferred to

⁹ The Annual Management Report of 1946 states in fact, that « the price of materials and that of the fittings purchased from outside amount respectively to around 19% and13% of our cost price » (p.29).

¹⁰ Delivery times have not yet been mentioned.

outside suppliers after discussions on the validity of maintaining such production when buying the parts might prove more profitable. This was the case with dynamos:

"We have been able to give up making our dynamos ourselves since a French manufacturer having made efforts to modernise, can now supply us with these products at a lower price than that which we could obtain ourselves with the plant at our disposal" [Annual Management Report, 1947, p.21].

The comparison between the internal production cost and the price of buying materials and fittings of equivalent quality encouraged the transfer of part of the production process to an outside manufacturer. Moreover, this way of thinking was part of a wider policy aimed at rationalising and simplifying the industrial tool of Régie Renault. Caution remained its watchword, however:

"Despite our wish to simplify the running of our company by ceasing to make many products ourselves, we cannot find the quality or price we obtain from our own workshops elsewhere and are forced to admit that the Renault factories' policy of vertical integration still largely pays off and that we will pursue it despite all the disadvantages it may entail and that we well know, for as long as our potential suppliers have not made the necessary efforts" [Annual Management Report, 1947, p.21].

Renault therefore remained faithful to internal production but had begun to feel the need to outsource. Despite these reservations, external purchases increased significantly from the middle to the end of the 1940s.

	1946	1947	1948
% of outside purchases present in the cost price	32%	40%	50%

Table 1 – The rapid increase in external purchasing

Over these years, the price of materials and fittings rose sharply as a result of inflation. The high cost of materials and in particular of steel industry products¹¹ was a recurring theme in the memos and reports of Régie Renault and constituted a real curb to outsourcing. Moreover, the prices applied by certain suppliers sometimes proved higher than those on the world market. Over and above these reasons for caution, Renault urged its suppliers to improve the prices and quality of their products so that the move towards subcontracting could continue. It is true that as a result of

¹¹ In the annual management reports of Régie Renault, numerous criticisms were levelled at the steel industries, accused of favouring the international market to the detriment of the domestic market by voluntarily imposing high, and therefore profitable prices on French companies in order to trim those applied to foreign companies (Cf. Annual Management Reports of 1945 to 1949).

its high level of vertical integration and its production rhythms, the Régie possessed a certain power of negotiation. At the same time, other factors were influencing the change of policy.

Foreign Models

From the outset, the automobile sector had always been prime territory for managerial innovation and in particular, for ideas from America and Britain. At the dawn of a decade characterised by an increasing openness to foreign markets, the experiments of American and British manufacturers were models that encouraged outsourcing. Reports of foreign experiments by Renault managers laid the emphasis on two procedures with the same objective: the reduction of manufacturing costs. The first procedure involved the standardisation of parts for all the different vehicles manufactured, the second aimed at closer cooperation between manufacturers and suppliers, since the latter could then benefit from bigger orders if certain parts were standardised. But the directors of Renault remained ambivalent with regard to outsourcing. The Reports of foreign experiments were punctuated by alarming declarations on the state and the future of a French automobile industry that was incapable of rivalling its British competitors:

« The French automobile industry is still suffering from deficiencies in too many branches of French industry, even the most powerful of them. For its part, it is guilty of not having made its suppliers' task easier, by not having standardised its parts and fittings models enough (...) it would be preferable for French manufacturers to work more closely together to simplify the work of their suppliers and make it more productive by reducing the number of models and formats they require » [Annual Report, 1948, p.24].

The *Régie* placed the blame in particular on suppliers who had not made the investments needed to modernise their equipment without which the cost price of vehicles could not be reduced on account of the high cost of materials and salary increases. Standardisation was also at the heart of the problem:

« The manufacturers AUSTIN, FORD, ROOTES, STANDARD and VAUXHALL will take immediate steps to accelerate the use of common spare parts and fittings for their models and to develop standardisation in general (...) But French manufacturers have only to follow such a striking example. And for them, I fear it is a question of life or death » [Annual Management Report, 1948, p.24].

These various elements reveal the indecision of the Renault managers, torn between the needs of the moment and their distrust of the suppliers on the one hand, and on the other, a complex situation that was a mixture of international competition (and the beginning of «coopétition $>^{12}$), the high

¹². A combination of competition and cooperation.

cost of the input (raw materials, manpower, etc.), the production of long runs and standardisation. Another factor that was to prove crucial in the end was the impossibility of investing heavily singlehanded.

Outsourcing driven by the volume of investments

We have seen that the recourse to outside suppliers was mainly governed by calculations in terms of cost price. But other factors were at the root of the process. The start of mass production of the 4CV, followed by that of the Dauphine, as well as the manufacture of other leisure and commercial vehicles called for the mobilisation of major production resources, both human and material. The extent of vertical integration that still characterised Régie Renault at the time made the high level of resources needed to implement mass production programmes all the more evident. Outsourcing therefore became a necessity. Moreover, as a result of the diversity of products, the lack of space in which to assemble certain vehicles in the Renault factories at Billancourt¹³ also provided a reason to look outside:

«Certain manufacturing tasks were entrusted to a factory in Alsace that had been hit by financial difficulties as a result of the farm tractor crisis (...) we entrusted the stamping and assembly of 300kg car bodies to a manufacturer specialising in such work, who also produced the shells for the 'Colorale' series and several components of the bodywork for the Frégate. This policy, new to our brand, of calling on outside help, was not adopted without hesitation, nor achieved without problems. It was not easy for us to find suppliers who we could be certain would respect our own assembly rhythms and whose prices were not too different from ours (...) we called upon fittings manufacturers (electrical material, spark plugs and complete units such as gear boxes, universal joints, steering systems, brakes, and moulded aluminium parts) to a far greater extent than in the past. There was a risk, in fact that we would not be able to launch our new private car, the Frégate, if we relied on our own resources alone.» [Annual Management Report, 1950, p.19].

This statement from the Chairman and Managing Director highlights the increased use of outside suppliers. Compared to the first steps in this direction taken immediately after the War, the motives prompting this process seem to have changed. The arguments of Lefaucheux, who is no longer demanding a purchase price strictly lower than the production cost in order to subcontract the production of certain products, have altered slightly. The process can now take place as long as the prices applied outside are not too far removed from those obtained by Régie Renault. The increase in the pace of production and the continued diversity of the various ranges of vehicles necessarily

¹³. Renault's original production site, near Paris.

entailed an increasing need for resources that Renault could not meet independently. Although the cost price of manufacturing a vehicle still remained a determining factor in the decision to subcontract, the impossibility of completing certain manufacturing programs with the existing resources made outsourcing an indispensable policy. Although this consisted in the first instance of entrusting certain very specific production processes such as part of the manufacture of the 'Colorale' and 'Frégate' vehicles to specialist suppliers, the process accelerated very rapidly with the move to outsourcing highly standardised products such as fittings (brakes, spark plugs etc.).

Another factor was to reinforce the *Régie*'s change of industrial strategy. The acceleration of production rhythms in all the various programs called for major investments that Renault could not make alone. The maintenance and modernisation of industrial plant calls for continuous investments and Renault's financial resources could not cover these expenses particularly since it wanted to diversify production. The turning-point leading to subcontracting had therefore been reached.

In 1950, as a result of the success of these first experiments in outsourcing, Lefaucheux expressed his wish to continue the process that would allow Renault to increase its production volume and enter into international competition without placing undue strain on its financial resources by making heavy investments.

« The current experiment has been satisfactory so far and we are anxious to pursue the same policy as our major foreign competitors which would allow us to increase production without increasing our investments beyond the limits of our resources » [Annual Report, 1950, p.19].

The limitation of investments therefore became a recurring argument put forward by Lefaucheux to justify the continuing use of outside suppliers for certain manufacturing processes.

For one thing, the mass production of the Dauphine required a great deal of space in which to set up the assembly lines. So the need for space was added to material and technical needs. The Billancourt factories were much too cramped to absorb all the production processes despite continually extending the buildings. In these circumstances and in order to avoid extremely heavy investments, the subcontracting process was intensified:

«These calls on outside help, and those we have already launched in other fields (in particular, light, pressure cast metals) have been dictated by the problems we encountered ourselves either in financing, or in extending the physical boundaries of our existing plant. In this way we have been able to avoid buying new dishing presses and extra pressure casting machines and extending our aluminium foundry » [Management Report, 1951, p.24].

The increasing use of outside suppliers and the need for space dictated by production volumes were combined in the move to the provinces of the Billancourt manufacturing processes, the latter retaining only the production of vehicles – an early form of relocation. This is how all the

production processes relating to bearing techniques came to be transferred to a Renault factory in Annecy. The decongestion of the Billancourt site continued in 1952, despite strong opposition, with the building of a factory in Flins (40 kms west of Paris), where the manufacture of the 300kg van was transferred. The *«forge and thermal treatment processes and the machining of many parts and* units, in particular, the back axles of all [our] vehicules » [Annual Report 1951, p.24] had previously been transferred to new buildings in Le Mans (200 km from Paris). So the « decongestion »¹⁴ of Billancourt became a necessity justifying on the one hand the relocation to the provinces of certain production processes, and on the other, an increasing recourse to outsourcing. The early 1950s therefore marked a major turning-point in Renault's industrial strategy. Although the use of outside suppliers had hitherto been absent from management reports, this policy, described by Lefaucheux as *«vertical disintegration »*¹⁵ was distinctly present at the beginning of the decade. The results of a study on the characteristics of Régie Renault's suppliers were published in the Annual Management Report of 1951. This study aimed to «see whether a rational criterion existed that would enable us to orient our searches [for suppliers] in the future ». This study highlighted the fact that the *Régie*'s suppliers were mostly SMEs. However, Lefaucheux did not wish to draw any conclusions from the criterion of size¹⁶ and preferred to place the emphasis on the extent of the investments these firms made in terms of research and development. In his opinion, it was only through investments of this kind that companies could offer highly specialised products of high quality, able to rival foreign manufacturers (Loubet, 2000). When this report was being written, foreign competition was not a major concern because of the ambient protectionism. However, the creation of the European Coal and Steel Community in 1951 was to open up new opportunities in the outsourcing process.

From 1950 to 1970: a deliberate strategy

From the 1950s on, recourse to outside suppliers proved to be inextricably linked to Renault's strategy and led to the reorganisation of client-supplier relations. The internationalisation of the *Régie* gave momentum to the subcontracting process.

¹⁴ The 1951 Annual Report clearly mentions the wish to decongest Renault's original site.

¹⁵ Cf. Annual Management Report 1951, p.24.

¹⁶ Lefaucheux made a quick comparison of the French and American industrial fabric regretting that a spirit of small enterprise still existed in France: « There are many giant firms in America. More than 90% of small companies live very well because they have rejected the so-called « artisan » spirit. They have specialised in a single product or category of products (...). This schema of a small, highly specialised, highly competitive company is not widespread enough in France where the idea of a small-scale craftsman all too often still rules, whereas another attitude should be developed without delay » [Annual Management Report, 1951, p.25].

A place and a role to be defined within the organisation

The subcontracting process, which began tentatively immediately after the War, was then considered as necessary on account of the company's ongoing deconcentration strategy. In 1954, the halt to the manufacture of tyres, the production of which had begun in 1934, was a clear indication of this. Louis Renault had wanted to manufacture tyres from the very beginning to avoid being dependent on the tyre firm Michelin, but manufacture had finally to cease in the face of foreign competition which had obtained a far better quality-price ratio through subcontracting and a higher level of supply than the Régie could provide. Symbol of a historic decision, the halt to the production of tyres heralded the implementation of a real policy aimed at rationalising the industrial tool, the immediate consequence of which was the increasing use of subcontractors. The opening up of the frontiers was to reinforce this trend:

«In 1954, the Régie pursued the policy it had implemented over the preceding years to perfect manufacturing processes, reduce prices and create good conditions under which to tackle competition in view of the deregulation of intra-European trade (...). The activities of the various departments of the Régie were constantly being revised. It was following one such examination that the manufacture of tyres was gradually abandoned. In addition, the manufacture of a greater number of parts and fittings was subcontracted» [Management Report, 1954, p.25].

By shedding some of its manufacturing processes, Renault increased its use of outside suppliers, whose numbers continued to grow. In 1955, these suppliers, now called *« sous-traitants »*, i.e. "subcontractors" in the Régie's reports, numbered $3,000^{17}$ and further considerable increases were planned for the following years as a result of the ever-wider application of this strategy.

The number and strategic importance of the subcontractors within the Régie obliged the latter to consider the role and the place they should be given within the organisation. In 1957, during an internal conference on the organisation of production, the manager of the Manufacturing Departments suggested that, in view of the high level of competition and a situation that vacillated as tastes in cars changed, Renault should include subcontractors in the organisation of its production processes. The aim of this was to *«alert all the suppliers of steel, sheet metal, fabric, tyres, fittings, and glass so that they will be equipped to deal with our production cycles »*¹⁸. The Report also states that researching a manufacturing program requires a time-span of 3 to 5 years, during which the management defines the program and the cycles. The use of subcontractors was planned from this program onwards so that external supplies could be provided under the conditions laid down by

¹⁷ Cf. Annual Management Report 1955, p. 27.

¹⁸ Report on a technical conference held on 31 January 1957 on the organisation of production made by the head of the Central Office of Manufacturing.

the manufacturing research office. The integration of subcontractors into the production program would seem to indicate changes in the relationships between Régie Renault and its suppliers. By becoming suppliers of the Régie, subcontractors were committing themselves to a relationship of dependence and authority. The signature of a specifications document indicating the terms of the order placed *Régie Renault* and the subcontractor in a relationship of controller-controlled. This was a bureaucratic mode of control (detailed specifications followed by specifications of the products and working procedures of the subcontractors) made possible by the heavy degree of dependence of the subcontractors on the Régie (Donada and Nogatchewsky, 2006).

In 1960, the reorganisation of the Quality Department within Régie Renault confirmed these changes in the relationship with suppliers. A « central technical reception department » was set up whose job was to *«monitor the quality of the parts, units, fittings, raw materials, semi-raw* materials, and machining work provided by the outside suppliers »¹⁹. Amongst its various tasks, this department, which was directly attached to the supplies department had to *«ensure that the* specifications were respected by checking the supplies either on the supplier's premises before delivery or on reception in our factories for confirmation series parts, pre-series parts and series parts »²⁰. It was given a great deal of latitude and «could carry out all the inspections on the quality of supplies from outside » as well as making unscheduled visits to any of the factories belonging to the Régie's suppliers. These inspections were recommended in order to «determine the extent to which they [the suppliers] are capable of producing quality supplies or to advise them on the organisation of quality in their factories 21 . It can therefore be said that subcontractors were almost completely assimilated by the Régie, since it was at liberty to carry out checks on working procedures and the quality of the supplies.

Because of the development of subcontracting and since it had only recently been introduced, the quality control of parts from outside suppliers acquired considerable importance to avoid the reasons for its implementation and in particular, the reduction in cost price being called into question on account of quality defects. For example, an internal document, dated April 1960 and sent to all the staff in the Quality management team, set out on the one hand an organisation chart of the unit and on the other, all the remits and tasks of each of its departments. A description of all the quality control processes for parts produced by subcontractors was given, highlighting its importance in the production programs.

The Quality Department was not the only entity in Régie Renault to undergo radical reorganisation as a result of outsourcing. In the face of a sharp increase in supplies from outside, a redistribution of

¹⁹ Appendix III of an internal memo dated 19 April 1960 to the heads of the quality department

²⁰ Appendix III of an internal memo dated 19 April 1960 to the heads of the quality department ²¹ Appendix III of an internal memo dated 19 April 1960 to the heads of the quality department

responsibilities between the Purchasing and Manufacturing departments was carried out in order to define the field of operations for each of these departments. The aim of this reorganisation was to identify a single contact for external suppliers so as not to hinder the smooth running of the production programs:

« The objective is that the factories deal with reminders; claims and all other problems with the suppliers that mean either side taking a stand in one way or another will be dealt with exclusively by the Purchasing department. It has to be understood that the hierarchy of the factories should not have any direct contact with the suppliers that could be interpreted by them as a stance on the part of the RNUR and undermine the united front presented by the RNUR to the outside world » [Memorandum n° 1 110 to the Directors of the Purchasing and Manufacturing departments, September 1969].

Confirmation of the new policy

The organisational changes brought about by the acceleration of the « vertical deconcentration » process in the Régie were emblematic of the strategic turning-point in Renault's industrial policy. From hereon, the new strategy was taken on board as an internal document listing the reasons for the move to subcontracting attests. Six reasons are put forward to justify the move to external production:

« the limitation of investments; subcontracting gives a certain flexibility as regards staff; the advantage of separating long and short runs; it is highly likely that certain products or techniques will never reach a turnover high enough to enable them to bear the research costs or methods they require; the high salaries in the automobile industry and our non-discrimination between Paris and the rest of France weigh heavily on our cost prices compared to those we might obtain from provincial suppliers; the salutary effect of competition should not be underestimated» [Internal memorandum n°611 of 28 January 1964 to the directors of the D.G.F].

These six arguments can be grouped, as this memorandum states, into two more general motivations corresponding on the one hand to a lack of capital, and on the other, to the wish to lower cost prices. Ever pragmatic, the directors of Renault identify, in the same memorandum, the constraints linked to this strategy; it is a question of *« the use of certain categories of staff that the disappearance of certain production processes would make difficult, design and manufacturing methods* [and once again] *self-sufficiency* ». However, these reservations seem fairly useless in the face of the degree of outsourcing reached by Renault. It is the details of outsourcing that are now under discussion.

A document attached to the memorandum of January 1964 states that the *«decision to outsource having been taken, it now remains to define the form it should take in practice »*. Two solutions were envisaged: the first was purchasing, that is to say *«asking others to make all the efforts needed to obtain a product or use a technique »*; the second is sub-contracting, that is to say *«retaining the industrial ownership of the product to be made and consequently, the research technicians, with the chance to revoke the decision to outsource »*. In the latter case, the general managers still have two possibilities, one being to subcontract to a company that is completely independent of the Régie; the other to subcontract to an existing subsidiary or to create one. Ways of outsourcing therefore remain to be defined in the case of future subcontracted processes. Although purchasing had hitherto been favoured in order to limit internal investments, the constitution of subsidiaries was now being envisaged since it would also help attenuate fears cantering on labour policy.

A memorandum concerning the *«*Human implications of the move to outside manufacturing *»* dated 18 February 1964 followed on from the preceding document and examined the social constraints of outsourcing. The notes made on the first page of this document by one of its recipients reveals the tone of its contents, *«attached are ideas given in a meeting on a policy of moving to outside manufacturing. They are not especially encouraging and in all these problems the point of view of the D.C.P.R.S.²² is no fun for the others ! <i>»*²³. Indeed, this document, after having examined the consequences of subcontracting in human terms, concluded with the following recommendations: *«a change such as this is therefore especially delicate, in particular in the older factories. It would seem therefore, that from the point of view of labour policy, the move to subcontracting should be spread over time [and] and for each type of manufacturing process, be thoroughly examined from the point of view of the various human problems a departure may bring with it <i>»*. In view of the usual strikes at Billancourt and since it made Renault one of the main bastions of trade unionism in France, the labour policy was the subject of a great deal of attention but did not seem to be able to check a process that was considered definitive.

In the mid-1960s, regional planning policies provided yet more grounds for the subcontracting process. Indeed, industrial concentration in the Paris region had hitherto been justified by many factors such as the proximity of manpower resources, access to a major consumer market and access to raw materials and subcontractors. Nonetheless, the political will to relieve congestion in this region and to remove industrial centres from Paris was expressed in strong incentives to relocate. Created and developed around Louis Renault's workshop in 1898, the Renault factories were

²² Central Department for Staff and Labour Relations

²³ Internal memorandum dated 18 February 1964 entitled : "Human implications of the move to outsourced manufacturing ».

radically reorganised: decentralised factories and subsidiaries were created, manufacturing processes were transferred to provincial subcontractors, space was made available in Billancourt and the manufacture of certain secondary products related to automobile manufacturing were abandoned. Political measures for regional planning created an opportunity for the new Chairman and M.D., Pierre Dreyfus, to rationalise still further Régie Renault's industrial tool.

Outsourcing driven by internationalisation

Appointed in 1955 to succeed Pierre Lefaucheux at the head of Régie Renault, Pierre Dreyfus²⁴, who had been Vice-Chairman since 1948, has often been described as *«the internationalist »* (Loubet, 2000). The American market was one of his first targets from the late 1950s onwards. Although the introduction on this market of the 4CV and the Dauphine was a resounding commercial success from the point of view of the number of vehicles sold²⁵, it was also a financial drain on account of the many technical problems that arouse due to the unsuitability of Renault cars for American motoring (Loubet, 2000). Despite this mixed success, the internationalisation movement gathered momentum from the lessons learnt in America. Indeed, the technical problems responsible for this failure forced Renault to change its policy. Henceforth, vehicles were no longer exported in their finished state but were assembled on arrival. Thus was Renault's presence increased in Europe and South America and its arrival in Spain was the first real success of its international strategy.

The internationalisation of trade increased competition between French and foreign manufacturers. Consequently, Dreyfus started looking for European allies for the *Régie*. Talks were begun with Volkswagen and Alfa Roméo at the beginning of the 1960s but came to nothing. According to Loubet (2000), the failure of this lay in the Regie's statutes which made it impossible for manufacturers to have shares in Renault's capital²⁶. Finally, the search for international partners resulted in Franco-French cooperation in 1966 with the French manufacturer, Peugot and took the form of a «technical collaboration » that reinforced the company's outsourcing policy once again. Indeed, in a bid to limit the frantic competition, the directors of these two firms agreed to greater standardisation of parts between the two brands and tried to implement a common purchasing policy so as to benefit from bulk. An internal document dated May 1972 presents the first conclusions from this partnership with regard to the common purchasing policy:

«As far as the purchasing offices are concerned, work on standardising the specifications has begun. A certain number of spare parts have already been standardised, enabling suppliers to

²⁴ He was to remain there until 1975.

²⁵ In 1959, Régie Renault sold more cars in the United States than Volkswagen (Loubet, 2000).

²⁶ It was a public company.

work on bigger series and to lower their prices. The most spectacular result of this policy is the joint choice of a type of seat belt.

This initiative will only really bear fruit when the future models of each of the manufacturers designed in accordance with this policy are being manufactured» [Peugeot-Renault Partnership Document, 1972, p.2].

Within the framework of this partnership, two entities, the «department of coordination and purchasing research » and the «common purchasing commission », were created to identify the materials, semi-finished goods and capital goods that might be needed and to coordinate purchasing policies. The seat belts are a good illustration of the gains to be obtained through centralising the purchases of these two manufacturers.

All in all, the partnership between the two was beneficial, bringing with it an average increase of 51% in production between 1966 and 1971²⁷.

This Franco-French agreement did not diminish the desire for internationalisation. Although *Régie Renault*'s subcontractors had mainly been selected from the domestic market, the trend to internationalisation was now affecting them. In 1972, the Management Report stated that within the framework of international activities, Renault had increased its purchases of materials, parts and units from abroad, developing new purchasing channels in Mexico and Yugoslavia²⁸.

The partnerships agreed with French and foreign manufacturers ²⁹ were also an occasion for Pierre Dreyfus to redefine the organisation chart of *Régie Renault* and to identify the remits of each department. The Purchasing Department was one of the eight big departments that were directly attached to the presidency³⁰. With a view to formalising the various fields of activity and responsibility in these eight big departments, the tasks of each were clearly laid down:

« The Purchasing Department is responsible for providing Régie Renault with everything that it does not make and is responsible to the Manufacturing Department. It outsources or, possibly procures, within the framework of compensation operations with certain countries, the materials and products to be incorporated in the manufacturing processes as well as capital goods and general products with the exception of civil engineering, property and advertising. It discusses specifications in agreement with the competent technical departments and chooses the suppliers and subcontractors. It does this in conditions of consistency and security of supply such as will ensure a level of quality that conforms to the specifications and

²⁸ Cf. Management Report 1972, p.20.

²⁹ The Peugeot-Renault partnership expanded in 1971, to include Volvo for the manufacture of engines. However, collaboration between the two French manufacturers did not last due to the entry of Citroën into the Peugeot Group in 1974.

³⁰ Cf. Appendix 1 of memorandum n°2 044 dated 24 October 1973, entitled: Régie Renault – General Organisation.

under the most competitive economic conditions possible. It prepares, for the future, the conditions which should enable the needs of the company to be adequately met. Its Technical Reception Department prepares, checks and if need be corrects, the quality of the products it buys» [Appendix 2 of memorandum n°2 044 of 24 October 1973, entitled: Departmental Missions].

Besides all these remits, the Purchasing Department was also involved in the preparation of the company's industrial policy and more particularly, in decisions relating to changes in manufacturing methods in consultation with the manufacturing department.

The Purchasing Department therefore acquired an important place within the Régie as a result of the continuing growth of its activity. Indeed, the Annual Management Report of 1972 emphasises that the cost of purchases increased that year by 12.5% compared to 1971³¹. The increase was mainly due to bulk buying since average price rises remained moderate as the Report states. The continuing changes in subcontracting can be explained by the increase in production volumes brought about by the opening up of new markets as well as by the pursuit of a policy of vertical deconcentration. A report on the origin of the parts for the Renault 14 clearly highlights the importance of the suppliers in the production of the brand's vehicles: bodywork (Sollac, Usinor and Chatillon-Commentry), gear boxes, suspensions, steering systems, brakes, electrical equipment, leather parts and windscreens (Saint-Gobain) were machined by various outside suppliers. The high degree of vertical integration that characterised the Renault factories after the War was now definitely a thing of the past.

A sign of the growing importance of the Purchasing Department was that it was divided into four sub-sections: raw materials and wrought products, bodywork and petrochemicals, electrical and mechanical equipment and finally, industrial equipment and supplies. These sub-sections were themselves divided up into 5 or 6 sections depending on the type of material, part or unit³². This new form of organisation shows that the use of subcontractors involved just as much activities with little added value as those requiring a high level of specific technical expertise. Moreover, the nature of the relationships between Renault and its suppliers depended on the nature of the link between them. Questioned about the consequences of subcontracting if production slowed, the manufacturing director cited two possibilities; one where a contract exists and one where there is no contract between these two parties:

«When there is no contract linking the Régie with an outside supplier, it is generally the latter who bears the drop in production. When a contract is signed, the R.N.U.R. tries to arm itself in advance

³¹ Cf. Management Report, 1972 p.20.

³² Internal memorandum n°767 dated 17 December 1975.

against the drop in production by planning a reduction in subcontracting that is greater than the fall in production in its own workshops » [Statement by the director of manufacturing to the company's central committee in June 1970 and transcribed in a special number of the internal review, "Inter-cadres" in 1970].

The relationships between Renault and its suppliers could therefore be contractual in nature, but even in this case, the ramifications of a drop in production were borne first by the subcontractor. Although closely dependent on its subcontractors, Régie Renault positioned itself as a principal (this is only natural, a client is called a principal). In 1972, a *«Guide for suppliers »*³³, explaining the organisation of the purchasing department and those in charge of the different section within this division, was edited by Renault in order to *«formalise and manage »* the relationships of the Régie with its suppliers. As the only point of contact with the subcontractors, the purchasing department was responsible for choosing them in the first place after consultation with the Research Department³⁴. In 1973, the purchasing manager could therefore affirm that Régie Renault had used the same suppliers for a decade, therefore displaying a desire to cultivate loyalty intended to limit a rise in the cost price of vehicles whilst at the same time guaranteeing continual advances in the quality of materials, parts and other fittings.

In the 1970s, subcontracting seemed to be fully developed and assimilated by Régie Renault. However, the emergence of difficulties in obtaining supplies rapidly raised questions on the possibility of reintegrating production processes that had previously been subcontracted. This was the case in particular in 1974 for braking equipment. Because of the various problems encountered with the principal supplier of braking equipment, *«the hypothesis of the partial integration of* [our] *braking equipment by the R.N.U.R., which could take place in* [our own] *factories (in France and in Spain), for compensation operations and whilst taking account of* [our] *existing agreements w*³⁵. This project was studied for one model of vehicle in order to analyse the possibility of reintegration. However, the project did not include the stopping of all external supplies for this type of component in that a *«second source of supply must be maintained from a traditional supplier w*. A memorandum from the financial department followed, demanding a study of three aspects: the expected cost price, profitability and funding³⁶. The case of the Régie Renault braking equipment

³³ The existence of this guide was revealed in the article-interview with Régie Renault's director of purchasing published in "*L'information du véhicule*", 1973, n°26, September, pp.33-48.

³⁴ Cf. the interview with the purchasing director of Régie Renault published in *"L'information du véhicule"*, 1973, n°26, Septembre, pp.33-48.

³⁵ Internal memorandum n°1 571 dated 30 May 1974 entitled: "Partial integration of braking equipment by the R.N.U.R."

³⁶ Cf. Internal memorandum from the financial department n°12 820 dated 31 May 1974 entitled: "Intégration partielle d'équipements of freinage par la R.N.U.R."

shows how difficult it is to achieve a balance between doing and having done. It also demonstrates the reversibility of the outsourcing process for certain production processes even when the trend seems well established at global level.

At the dawn of a new decade, the director of manufacturing explained the subcontracting situation in Renault's automobile sector and in particular, with respect to three models, the Renault 4, 8 and 16. The table below sums up the situation for 1969³⁷. A momentum has been achieved and the level of recourse to outside suppliers has stabilised.

	Renault 4	Renault 8	Renault 16	Overall
Suppliers and outside manufacturing	40.3	40.5	4.8	41
Peugeot supplies	0.2	0.1	0.1	0.2
Subsidiary supplies	4.7	5.4	4.7	4.9
Sub total	45.2	46.0	47.6	46.1
Renault supplies (materials + manufacturing costs)	54.8	54.0	52.4	53.9

Table 2 : Percentage of subcontracting for 3 models in 1969³⁸

Discussion and conclusion

In 1945, Renault was a company characterised by vertical integration and one which refused, for reasons related to costs, quality and security of supplies, to use outside suppliers. However, the move by the firm to mass production with the 4CV made the need for outsourcing more pressing. The Régie remained cautious, but other factors were to direct it down this route: the example of foreign manufacturers and above all, the scarcity of capital and space. Outsourcing was therefore a way of « sharing » insufficient resources. Lastly, from the 1950s onwards, Renault resolutely committed itself to this process. The Régie modified its structure as a result, and internationalisation marked the culmination of the change of strategy in the 1960s, then the 1970s. **This article's first contribution therefore resides in giving an account of outsourcing at Renault. It bridges a major historic gap:** outsourcing has been the subject of only a few studies of this type. Some of these involve the automobile industry. Helper (1991) analyses the change in the United States from the 1980s onwards only. Lewis (2003) covers the period 1900-1930 but less from the point of view of outsourcing than that of the constitution of a local network around the town of Chicago.

³⁷ Special number of the RNUR's internal newsletter, «Inter-Cadres », intended for the company's managers and engineers which transcribed the statement by M. Jardon, Director of Manufacturing on the company's Central Committee on 18 and 19 June 1970.

³⁸ We do not have any averages for this period. Figures per vehicle may be less significant.

Besides this historic contribution, two other, more general, contributions appear in this paper. The first concerns details of client-supplier relationships. Over and above the case of Renault, we have been able to see how such a relationship is constructed. **Unstable, it gradually swings from a phobia of dependence on suppliers to the organised dependence of subcontractors on the manufacturer.**

The second contribution concerns the effects of outsourcing: effects within the organisation (see above) and also, more global economic effects. **Outsourcing by Renault resulted in the remodelling of the French, and then, over and above this, the foreign, industrial fabric of suppliers.** By subcontracting certain of its production processes, Renault favoured the modernisation of companies that were smaller and less subject to competition. The subcontracting process was therefore favourable to the updating, in particular in terms of technology, of part of the industrial sector. As Lewis (2003, p. 619) has shown, the automobile industry had the effect of structuring industry in the Chicago region of the United States: *«one mechanical engineer noted: '[As] the automobile industry began to exert a great deal of pressure on machine-tool manufacture and design', machine-tool makers 'found it necessary to make extensive and very expansive changes in their systems of production to meet the rapidly increasing demand for cars' ».* Outsourcing products therefore had a powerful effect on the economy.

Lastly, a theoretical contribution emerges from this paper: with regard to work on outsourcing, the story of Renault pinpoints current subjects of inter-organisational research. Firstly, the question of the various types of outsourcing (purchasing, subcontracting) and related methods of control is raised. In the beginning, Renault chose to buy products from suppliers. The terms « purchase » and « suppliers » are emblematic of the type of relationship that was created. The method of control by the market was then favoured, the criteria being security of supply, quality and price. Then, subcontracting was favoured, with the design of the parts reserved for Renault technicians. Manufacturing alone was subcontracted. The monitoring of these subcontractors was carried out according to a bureaucratic method as described by Van der Meer-Kooistra and Vosselman (2000): detailed specification, standards, rules, direct supervision of the working methods used by the subcontractors, etc.

At the same time, the question of dependence was at the heart of the concerns of the Régie's managers during the years when outsourcing was booming. Obscured in the 1990s by questions linked to trust, researchers have now reintroduced this problem, recognising it as crucial because it has a strong influence on how trade is carried out (Donada and Nogatchewsky, 2008).

Lastly, the history of Renault raises questions on internal structures and their link with interorganisational relationships. Alongside the outsourcing process, the Régie strengthened the purchasing function, which led to the creation of a purchasing department that occupied the same level in the hierarchy as the manufacturing department. It was decided that the purchasing department would be the only point of entry for subcontractors. In most of the work on interorganisational relationships, the companies involved are considered to be «black boxes » and their internal organisation is neglected. Yet an understanding of inter-company relationships is incomplete without a study of the internal structures that fashion these relationships (Donada and Nogatchewsky, 2008). The work of Hakansson and Lind (2004) invites researchers to explore these avenues more thoroughly. The history of Renault sets the example.

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