

When Should Innovation Be Licensed?

To answer question, basic questions must be resolved; definitions are a must

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My assigned subject is, "At What Stage of Development Should an Innovation Be Licensed?" I would first like to redefine my subject matter by clarifying two points: First, what do we mean by "Stage of Development". Secondly what is meant by "Innovation".

The following diagram represents the problem:

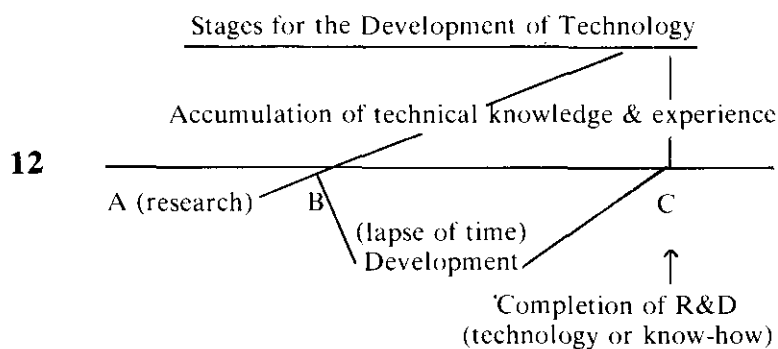


Figure 1

This diagram presents the process leading to the completion of new technology. It begins with Research at the Point A. Technical Development starts at Point B and ends in the Completion of New Technology at Point C. After Point C comes commercial production (manufacture and sale) based on the completed new technology.

What is important in this case is that a technology, whatever the kind, can generate maximum profit only when it is utilized to the maximum extent. How, then, can a technology be utilized to the maximum extent? Here arises importance of licensing.

Now, let us return to the two fundamental terms to be clarified.

With respect to the terminology, "Stage of Development", the diagram previously referred to above is that it shows "Development" to be a component of "Research & Development". That is to say, it is at the stage prior to the completion of technology or know-how. This Japan definition, then, makes it possible according to Japanese concept of technology divided into two parts (incomplete and complete technology) to consider the possibility of licensing of each component separately.

So far, the licensing of technology has been primarily limited to that of completed technology. Recently, however, partly due to increased reliance upon R&D in Japan and partly for the purpose of economizing R&D spending it has come into practice to transfer technical information available in the course of R&D between parties. This is especially true of recent technology development.

From Know-How '74

When I was working at the Power Reactor and Nuclear Fuel Development Corporation of Japan, I handled several contracts for the acquisition of useful technical information from the U. S., Britain, Canada, France, etc. Such information was to be utilized in the Corporation's own R&D. I know of several cases of a similar kind now being experienced by private enterprises also.

In all such cases it is of utmost importance to have the spheres of responsibility of both parties clearly defined. The licensor may evade his responsibility to make appropriate applications for his noncompleted technology. To the licensee the question is how best to utilize the technology and whether he has sufficient capability to utilize it in a practical sense. For, however excellent the technology is in itself, its merit depends upon the capability of the licensee to utilize it.

The concept of "Development" is meant by us to mean that period from the completion of technical research through the period up to the commercialization of the technology and beyond including conception of know-how and technical improvements.

My other point for clarification is the term, "Innovation". The Know-How '74 visitor's brochure refers to Know-How '74 as "the 2nd International Forum for Innovation and Licensing". The brochure also states that "major industries from 20 countries offer licenses, know-how and advanced technology."

In this light the technology to be taken up for licensing is assumed to be completed technology, i.e., the technology at and after Point C in the diagram. Actually, however, an invention is often made in the course of R&D and even patents are established at this time. Licensing of such inventions and patents is also possible and common.

When such innovation is announced in terms of patent or when the novelty and economic merit of the new technology are convincingly explained by the innovator himself, the possibility of licensing arises.

Therefore, technological development can take place during various stages of R&D and can be defined as an innovation or generally, "A change which has been made" or "New methods which have been brought in". It,

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tiveness of such work in certain fields.

Maximum Profitability

It is nonetheless essential to have these studies made since they provide a picture of the characteristic features of competitive R and D, showing the directions that are taken and those that are abandoned and also, in the light of the geographic coverage of the patents applied for, the economic importance attached to these R and D directions.

If collected at a sufficiently early date and carefully analyzed and synthesized, information of this kind has considerable value in view of its direct or indirect implications for the firm's own R and D program in which the projects to be chosen and, as mentioned above, the avenues to be explored or abandoned will be decided with this information in mind.

Such a policy seems to us essential if maximum profitability is to be obtained from the capital invested in R and D, since it will prevent the exploration of blind alleys and the investigation of problems whose solutions have already been found. It will save the company from being outdistanced and help it to steer its R and D program so as to ward off the danger that competitive R and D results might present, or else to come to agreement with the competition in order to ensure profitability from results already required.

Once the market research has been done and therefore the potential markets clearly defined, it is clear from the outset that the choice among these three alternatives is predetermined by the firm's size; in other words, the extent to which it is represented in other countries in terms of production units or marketing networks.

A highly pragmatic attitude is essential in taking this decision based upon a strictly objective analysis of the direct or indirect implications of each option.

Forward-looking comparative figures must be calculated extremely carefully taking into account not only the expenditures which are necessary in each case and the expected return on investment but also the various forecast increments in the firm's short-, medium-, and long-term cash flow.

It is also obvious that not only competitive but also political situations in relation to each of the possible alternatives must be taken into account, since it is clear that they will often affect and even, in many cases, eliminate certain options.

The possibilities in countries with a liberal and capitalist economy, for example, are not all the same as those in the socialist economies. They are also dependent on the level of economic and technical development in the country concerned, their range often being very different in countries with a high technical and economic potential as compared with the developing countries.

To conclude, this question needs to be tackled with imagination, bearing in mind that brain is one of Europe's most valuable raw materials that is often inadequately exploited and turned to too little account.

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therefore embraces a wide scope. Innovation does not simply refer to invention, patent and know-how, but includes all kinds of new technical information that may become available in the course of R&D. This information may be the object of licensing.

"When can a new technology be licensed profitably?"

A study should be made to determine the best time for licensing by considering the content of the new technology, the licensing policy of the party who owns the technology, and his capability to package the technology for licensing. The licensing formula must be organized so that it is of practical use to the licensee.

Holding Companies in Luxembourg

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industrially use the patent, which obviously is not permitted to a holding company, even through sublicensees, and on the other hand the fact that, according to the traditional interpretation of the law on this matter, a patent is only acceptable as an investment of a holding company for the reason that it constitutes a *valeur mobilière* in the broad sense, i.e. a right embodied in a transferable title.

In the practical field, this may lead to the question whether instead of granting a license, the parties may use other legal forms of temporary or conditional transfer, for example whether it is permitted for the holding company to purchase the patent itself from another company under the proviso that the holding company has an option to resell the patent to the vendor after a given time and under the further proviso that such other company has the option to repurchase the patent from the holding company after expiration of that same time. If any one of the options is exercised, this will have resulted, from a purely economic point of view, in temporary transfer of the patent to the holding company and this may achieve the purposes which the parties would have otherwise tried to achieve through a license obtained by the holding company, depending on the way the repurchase price is set up. It would seem that such a construction is acceptable as long as the retransfer is not automatic but depends on the actual exercise of the option by at least one of the two parties.

Trademarks

Traditionally, and on the basis of the spirit of the law and of its preparatory documents, the administration admits the holding of trademarks by holding companies, subject however to the condition that the relevant trademark, under its original legislation, can be validly transferred without the business of the vendor being transferred at the same time. It should be recalled that a certain number of legislations, including Luxembourg law