The Use of Consultants

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The world is becoming more and more complex and so are pulp and paper factories. No single person, he may be even so experienced, can any more overlook and penetrate the parameters of a pulp and paper mill. It has to be a team work and a well organised team work. But sometimes a problem may arise that no one in the team is capable of solving because it is too special. The only possibility is to leave it to a specialist, if there is one. Here consultants come in, people who have gained a lot of knowledge experience in a very narrow field.

But there are also other occasions when consultants are called in. The ordinary team may very well be able to fulfil the task on hand but they are too short in number and have to assume that time and money could be lost because of that. This situation occurs when a new mill or a new section of a mill has to be engineered. In this case consultants are called in to relieve the ordinary team from at least part of this extra burden. The ordinary company team has, if so, started a close cooperation with another team and the outcome of the project will depend upon how well this cooperation works. It is a most unusual misunderstanding that by retaining a consultancy firm one gets access to a number of specialists who are able to answer all questions which will arise during the implementation of the work. It is not so, because there are no experts who off hand know the answers. I would rather say the consultant is the one who asks the questions. He has organized all kinds of projects before so he knows what questions to ask and how to find the answers. It is in fact the organising capacity of the consultant which is valuable to the client much more than his knowledge of details.

Although it might bring about some constraint it is of much help if the consultant has adopted a firm procedure how to start, implement and conclude a work for a client. By going through this list of steps everything will be taken care of in its right time and nothing will be forgotten. Some consultants have these steps well defined and codified and they improve their system continuously, others have them less codified but still built into their practice.

So if we assume that the client is well organized and the consultant is equally well organized the first step will be to organize the cooperation between them. Sometimes there are subconsultants or co-consultants involved also. It has to be decided who is going to do what, how are the other parties to be informed, who is authorized to decide what, which standards will be practised for drawings correspondance, enquiries etc. Nothing is more dangerous than to leave the consultant without sufficient instruction and supervision. By settling all this at an early stage much irritation and ineffectivity will be eliminated.

Often consultants are retained to carry out feasibility studies. I have an impression that feasibility studies very often are intended only to be a document to prove to the financial institutes that the project is feasible. But however important that may be, even more important is to show to the company and its directors if the project is feasible and to find the most economical of a number of possible alternatives. To be of real value, therefore, the feasibility study has to be realistic as far as all figures and other particulars are concerned. In order to be realistic it has to be worked out in some detail. Tentative tenders have to be asked for and preliminary assembly drawings and structural drawings in a small scale have to be made so that the scope of the project can be evaluated. Such feasibility

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studies are rather costly and time consuming but this time and money are not wasted. Suppose that the study shows that the project is nonviable or rather dubious. It is not better to shelve the whole idea after having spent say 2% of the investment cost than to loose much more money at a later stage. In the opposite case, when the study shows that the project will yield good profit, practically nothing is wasted. Preliminary tenders and drawings will be a good guidance when the definite work is to be carried out and the whole feasibility study will serve as a reference through the engineering and later the commissioning of the plant. It can serve as a reference because it consists of technical fnformation and figures which have been collected from reliable sources. It is therefore advantagous if the study is well deposed as a manual to be consulted time and again during the implementation of the work. The text of the study can instead be limited to a mere framework.

One early step is to work out specifications for the tendering of main equipment. The object of a specification is to get comparable quotations. To achieve this the scope of the delivery has to be clearly confined. The requested performances should also be listed together with technical guarantees, because the comparison of tenders should of course, not only be based on the price but also on performance and operating costs. The consultant should be so organized and trained that he can do all this job and only put forth his findings and recomendations for the client's fixed decision and for the finalizing of the contract.

One important part of the project work is to assure that machines and buildings are standardized as much as possible. Such details as doors, stairs, platforms, rails, drains, foundation for pumps and motors, cable trays, supports for pipes etc. can be standardized.

The consultant should also see it that pumps, electrical motors, valves, instruments etc. are standardized as much as possible to facilitate maintenance and repair and keeping of spare parts. Consequently the suppliers of main machinery should specify these items but not offer and deliver them. It is much better to buy all the motors, instruments etc. in big lots.

It sometimes happens that the consultant undertakes to perform expediting services. Expediting is to trace the activities of the suppliers down to the details. If so it should be mentioned in the contract that expediting is going to be performed and that all kind of information would be made available to the controller. His work starts a couple of months after the order has been placed. The supplier is asked to present the drawing work carried out, the orders placed with sub-suppliers and so on. The expeditor should not accept oral information but ask to get the evidence put on the desk. Later on, the expeditor has to visit the sub-suppliers and repeat the procedure mentioned earlier. The sub-supplier may in turn have his sub-suppliers. As the final delivery is the sum of many details, assembled from different workshops, it is not unusual that not only the buyer but also the supplier will gain from the expeditor's work.

It is essential that the engineering office, either it be the client's or the consultant's has all information regarding the project properly filed. The filing system should be centralized and technical files should be available to every body. To simplify the retrival of information a general index number system should be introduced and each file should contain only one index number or a group of related numbers.

Technical information arises from five sources. Calculations made by engineers drawings from the drawing office, exchange of ideas and data from letters, telephone calls or meetings. It is quite common to file correspondence and drawings. However, it is just as important to preserve information from the three other sources, which means that calculations should be done in writing, notes should be made after telephone calls and minutes of meetings should be compulsory.

In India where industry is developing at fast speed consultants will probably play an increasing

roll. It is therefore essential that consulting offices lay great stress on the organizing of their work so that they can offer prompt and accurate services to the industry. And it is equally important that the clients understand the roll of the consultants and establish firm contact and well defined procedures in the cooperation with the consultant.