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**III****The Role of Communication in the Construction Industry**

Le rôle de la communication dans l'industrie de la construction

Die Rolle des Informationsaustausches in der Bauindustrie

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SUMMARY

A substantial part of the construction industry operates on an international basis. This paper discusses the objectives of communication and in particular the role of communication in the construction industry, both nationally and internationally. The problems associated with this, such as communication failure, are considered in relation to nationality, distance, time and other factors.

RESUME

Une grande partie de l'industrie de la construction est active sur les marchés internationaux. Les objectifs de la communication sont examinés et, plus précisément, le rôle de la communication dans l'industrie de la construction, du point de vue national et international. Des problèmes tels que la rupture de communication sont considérés par rapport à la nationalité, distance, temps et autres facteurs.

ZUSAMMENFASSUNG

Ein beträchtlicher Teil der Bauindustrie operiert auf internationaler Basis. Der Artikel bespricht die Wichtigkeit des Informationsaustausches in der Bauindustrie auf nationaler und auch internationaler Ebene. Fehler im Informationsaustausch und die sie verursachenden Faktoren werden aufgezeigt.



INTRODUCTION

This paper deals with communication in the construction industry with particular reference to the international nature of design, procurement and construction. The prime objectives of communication are dealt with. The differences of nationality and structure of organisation and the influence which these have, together with speed, cost and quality, on various types of communication is considered. The contribution which this communication makes to the solutions for the organisation of the design and the construction process is also examined.

A substantial part of the construction industry of most developed countries now operates on an international basis. This involves crossing national boundaries regularly with all the problems of communication between people and between organisations which this entails. In addition, the construction industry within any country is and always has been of a fragmented nature. Design and construction tend to be separated, and are carried out by different organisations. The employers or owners tend to be divorced from the construction industry and this causes problems in the interpretation of the requirements of the employer and designers and the aspirations of suppliers and contractors. When national boundaries are crossed, then the national differences between employers, designers, contractors, suppliers and working methods, will become apparent. These national differences will vary between the users of the service which the construction industry provides and the various organisations which go to make up the industry. The personal, professional and commercial aspirations of the various organisations, both within and between various countries are different. The differences between the different organisational structures which occur between different countries merely increases the problem which communication, if it is good, helps to solve. If communication is bad, then it can only serve to make matters worse.

OBJECTIVES OF COMMUNICATION

The words communication and community share the latin root 'communis' which could be defined as a state of sharing. This is a good point to commence an examination of the objectives of communications, since the successful outcome of any enterprise relies upon the participants jointly striving to achieve a common goal.

The objectives of any communications system related to the construction industry falls into one of three categories. Firstly, so as to direct the activities of other people, groups of people or organisations concerning the methods they should employ or the tasks they should undertake. On most construction projects this takes the form of directing sub-consultants, contractors, sub-contractors and the like, about the tasks they are to perform. Secondly, to inform others about decisions which have been made which affect their work. The coordination of design falls into this category and is probably the most important communication category used during the design phase. Lastly, it is used in order to obtain information. This is usually the category of communication upon which decisions are made.

Whichever of these categories is used, it is important to avoid giving too much information of the wrong kind. It is equally important to avoid giving too little information of the right kind. A balance therefore has to be sought somewhere between these two extremes. In any event, communications must pass direct without constraint and the balance referred to above must be such so as to enable decisions to be made and information to be absorbed and disseminated accurately. In the construction industry, this is often necessary so as to optimise some aspect of time, quality or cost relating to the project being considered. It is also used to check and, if necessary, modify other peoples perception of problems and to promote a fast response when this is required by the situation.

WHAT HAS TO BE COMMUNICATED AND BY WHOM

The three primary objectives of communication have already been commented upon. From these it is clear that the substance of the communication is usually intended to solve a number of problems. In addition, the information about decisions affecting others requires to be communicated in concise and intelligible form. Directions to others should be clear and factual and the reason for the decision should be communicated also. The clarification of problems and situations and the appeasement of the various parties involved is another important communication function. This is the case in the construction industry and particularly so when communicating across national boundaries.

Clearly, those connected with a construction project will be working within an organisation at various levels. These various levels in the hierarchy of an organisation will generate various types of information. In other words, the type of communications transmitted will vary depending upon the level in the organisation of those doing the communication.

Care needs to be taken in international construction so that the right category of communication is undertaken by the right people at the appropriate level in an organisation. If care is not taken, then the differences in organisation between similar firms in different countries gives rise to considerable problems, and possibly communication failure. Another important feature of communication is failure to transmit the origin of the cause of the communication and the consequences of effect. In this sense, it is important to transmit the cause of changes or the origin of information and to indicate some knowledge of the effect that this will have on the work done by others.

WHEN COMMUNICATION HAS TO TAKE PLACE AND IN WHAT WAY

A certain amount of personal judgment is necessary in order to determine what information or decisions are to be communicated. Communication, in various situations may be necessary but this may not be known at the time the matter is being considered. The reason for this of course being that without prior knowledge of the need to communicate, no stimulus to inform or direct will be present. There is therefore the danger referred to earlier of over-reacting and sending too much information to the wrong people just in case it is required. In some organisations the problems associated with the wrong people sending directions, often for the same reasons, is also present. However, the consequences of not communicating is to take the risk of not keeping people sufficiently well informed or of not providing adequate direction.

The decision as to what is to be communicated and to whom will be taken more easily if an effort has been made in the early stages of the enterprise to create a community of the individuals and organisations participating.

Speed and timing are also important considerations. The speed with which it is possible to communicate by electronic device, means that the style of communications has changed and there may be a tendency to leave decision-making later than one would otherwise. On large construction projects, the amount of information to be transmitted is considerable and the number of decisions to be conveyed to other organisations, large. With the problems of communicating across national frontiers, the cultural and other differences calls for constant checking that those who require it receive the information they need, and the direction and decisions which they require are also given. The need for communication is the same throughout both the design and construction phases, and it is also important that the way in which this communication takes place is compatible with the expectations of those receiving them. The factors which generate the cause and the subsequent effect, referred to earlier, also affect the timing of communication and to whom it is directed.

The types of communication most used and probably most relevant to the construction industry are:-

- (a) verbal
- (b) written
- (c) visual

The choice of method to be used in particular circumstances should be carefully considered having regard to the objective of the communication, its content, to whom addressed and the required timescale of response.

Some countries have a strong verbal tradition and to communicate with them only in writing would be counter-productive. This demands a certain amount of mobility, and in these situations discussions between two or more people is probably the best form of communication. In any case, when dealing across national frontiers, the written word is no substitute for discussion, and a telephone discussion is no substitute for face-to-face discussions. This alleviates the problems of misinterpretation, either deliberate or otherwise, and enables other peoples perception of problems to be accurately interpreted and remedies found which are acceptable to all. Clear and concise verbal communication on a regular basis is essential in these circumstances. Technology, however, is changing the style of human communication. More and more communication is being carried out by electronic means. It might be argued that such developments make it possible to communicate over much greater distances with a wider range of people. They also tend to lack the richness of the potential which face-to-face communication offers.

Written communication should also be clear and concise particularly if it is to be read by people whose first language is not the same as that used in the communication. Long texts with little or no object should be avoided as should the unselective issue of such material. Construction projects, even the smallest, generate large quantities of data and the issue of it all to everybody regardless of whether they need it or not should be avoided.

The construction industry also relies heavily on the visual presentation of information as a communication method in the form of drawings. The comments made above concerning the issue of everything to everybody, also applies here.

INFLUENCE OF DISTANCE, NATIONALITY & ORGANISATIONS

The problems of communicating over distances are great. The problems of communicating across national frontiers are even greater. Some of the reasons

for this are:

- (a) psychological barrier
- (b) nationality
- (c) time differences
- (d) language

The methods available range from telex, telephone and various transportation systems. However, despite these methods, there is a tendency for people to be preoccupied with their own in-house problems thus forgetting the problems of others in the process. This can occur particularly when dealing with other countries. In these circumstances, it is also difficult and expensive for face-to-face discussions to take place; and electronic means are no adequate substitute. The telephone, for example, cuts out most non-verbal cues. Television may communicate information and may stimulate, but demands a passive receiver who cannot interact. Electronic communication does not offer nearly the same potential as does direct interpersonal contact for social contact and self-expression.

The question of who communicates with whom in various organisations referred to previously is largely dependent upon the differences of the organisation structure. The more different the organisation, the more difficult it is for communication to take place on a like basis with staff of the same level of seniority.

A further problem concerns the number of communication links. On a small construction project involving, say, 5 different organisations there will be 20 two-way communication links to be kept open and checked regularly to ensure that they are properly used. On a large project with, say, 10 organisations there will be 90 such two-way links. The use of branch offices, in both cases, will increase these numbers. Whilst it is possible to estimate the number of communication links to be maintained, it is important to draw a distinction between those required for control and monitoring of performance and those needed for dissemination of information. Once again attention in the early stages of the project will minimise the risk of setting up unnecessary links.

COMMUNICATION FAILURE

Communication failure takes place when one person or organisation is unable to transmit the message they desire in order to communicate with others. Communication failure lies often at the root of conflict during both design and construction. Quarrels and disputes, mutual hostility and arguments may all result not only from different needs and interests, but from failure to share each other's experience, and inability to see the situation as the other does. In other words, communication failure which is a common feature of the construction industry.

Communication will fail when:

- (a) it is not understood
- (b) it is not accepted
- (c) it is not acted upon

Failure of understanding and acceptance may arise from an ineffective communication. This could be a result of inadequate vocabulary, inarticulateness, or inhibition due to nervousness or conflict. It may also arise from a failure to be sufficiently sensitive to the experience and attitudes of the person being communicated to. Incorrect assumptions may also be made about

the knowledge which other people possess. Such failures are unlikely to provoke the action required. Lack of action may, however, also arise from the absence of positive motivation in the communication.

If the information comes too rapidly or in too great a profusion, it may overload the organisation or the people in it and they will not be able to adequately synthesize and categorise it all. The input may be distorted by the receiver's expectations, his attitudes or personality processes. It may be coloured by imagination and what he wishes or fears to see and hear. This is often the case on large complex construction projects where overruns on time and cost make unwelcome news.

The situation where people do not share the same language and/or non-verbal conventions, or where as a result of difference of experience or genetic makeup they do not share the same concepts, has been referred to. Obviously, where two people speak different languages, communication is inevitably much impoverished. The degree of impoverishment will vary depending on the language concerned – some being closer and having more overlap with each other than others. Partial barriers may also be set up when both parties speak the same language but with different dialects. Some non-verbal behaviours have different meanings in different cultures. Such differences may lead to communication by gesture and movement being misconstrued or not understood.

Even when both language and conventions are shared, there may still be differences in the concepts available to each organisation. This kind of communication failure may be particularly problematic as the lack of shared meaning is not readily apparent.

EFFECTIVE COMMUNICATION

One of the prime tasks of construction management on international projects is to overcome problems in communication. Whilst there is no panacea for these problems, the following summary of preparations is offered as a guide to more effective communication.

Conception of the Project

- (a) Make an effort to create personal relationships between the principal participants, with the aim of identifying mutually acceptable goals.
- (b) Consider carefully the communication links between participants which are actually needed and ensure everyone understands how the network is to operate.

Preparing to Communicate

- (c) Establish the objective of the communication and its value (Do I need to communicate?)
- (d) Assemble all the known facts
- (e) Evaluate the recipient's background, knowledge of facts, personal objectives and likely pressures imposed by the project
- (f) Assemble the relevant material in a logical order having regard to the recipient's current standpoint. Discard all that is superfluous
- (g) Find an introduction to arouse interest, appropriate illustrations for the main points and a conclusion to promote the desired reaction.