

ATTITUDES TO MANAGEMENT AND THEIR EFFECT ON PROGRESS

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In order to compete successfully in the new millennium, the overall performance of construction companies must be higher. Winning companies must unlock the potential of their people. A very important category of external risks to a project is that of the human resources involved for the completion of the project. This study evaluated the importance of human resource management issues such as good organizational culture, job satisfaction, communication within the group and motivation of employees to the performance of the company. The time for completion of projects was used as a measure of the performance of the companies under investigation. This paper presents the findings of a survey study into construction management aspects. The survey, which covered different construction projects across Greece and England, provides an indication of how the performance of a company can be affected by the human resource management issues mentioned above. The survey results provide a quantifiable measure relating to delays that the more unsatisfied the employees were with their group communication, their overall motivation and the company's organizational culture, the higher the delays that occurred in completion time of a project. The results also suggest that bad communication is the most important reason for employees to be unproductive.

Keywords: attitude, personnel management, performance.

INTRODUCTION

As we enter the new millennium, construction provides work for 7% of all male employees, and for one in four of all self-employed people (Druker and White 1996). In addition it generates employment in a range of activities in associated areas of the construction industry. It is a key industry in terms of its size as an employer and, moreover, it is one that will not go away. Unlike some other industries, which seem set to decline and never to be revived, construction will continue to be an important European employer in the new millennium.

The level of new orders for construction work is dependent on the wider economy and on the choices available to the industry. The balance of activities within the construction industry may vary over time. What is important is that the companies that are operating in this industry will stay competitive, in an environment where competition is set to rise. A factor that plays an important role in the competitiveness of a company is the overall performance of the company itself, and one way that performance can be measured is by the time of completion of a project. A successful construction company should normally deliver its work on time. Amongst the many risks for things to go wrong in a project, resulting in a subsequent time delay, one major factor is the performance of the labour force within the company.

There has been a significant change in the language and the practice of management over the last decade. Ideas imported from the United States of America have seen a

shift in the terminology of human resource management (HRM) to a clearer focus on the relationship between business requirements and labour behaviour (Guest 1987). Competitive pressures have led to greater concern with quality and productivity and a new emphasis on the contribution that can be realized with more positive workforce attitudes. The central contention of these debates is that the new competitive environment requires a more strategic and concerted approach to personnel management. Commitment from a labour force is more effective than compliance. People should no longer be treated as a “cost” but as the company’s greatest “asset” (Peters and Waterman 1982).

This paper outlines how a labour force can cause delays on a project and presents the results of a survey within construction companies in Greece and in England. The survey, which was sent to the employees of these companies, provides an indication of the effect that human resource management issues such as job satisfaction, employee motivation, group communication and organizational culture, had on the completion time of the projects.

METHODOLOGY

To conduct the survey, the method of data collection chosen was by use of a questionnaire. This method has advantages as it has very low cost of data collection and processing. Designing a questionnaire is not simple and a standard procedure recommended by Hibberd (1990) was adopted.

Firstly, the aims of the research were made clear to a number of organizations to find those that expressed an interest in the results. The companies approached were selected to give representation of the construction industry in Greece. Involving some of the best possible companies in the recent years, which employ a large percentage of the construction labour force.

The companies that were interested had to be involved in similar type of projects in order to have a similarity of samples. The type of works includes pavement, road construction and construction of small industrial units. Also, it was very important that the projects under investigation have a relatively small time scale, as a longer time scale is, likely it is that some interference or outside event which may affect the time for completion of the project. So, all the projects under investigation had a completion time from 4 to 12 months, a relatively medium to small period time.

After discussions with the interested companies, it was decided that a postal questionnaire would be the most practical method to conduct the survey. The questionnaires were sent by the company to each specific project during the various phases of the project. An on going collection of data throughout all phases of the project was therefore achieved. Completed questionnaires were then collected by the company itself. Each response was grouped according to the project and the phase of the project. In addition to the responses from their employees, the companies provided all the project’s necessary information such as fact sheets, GANT analysis, original time charts and final time charts with delays (if any) of each project.

The questionnaire was designed according to the recommendations of Hibberd (1990) and consisted of a series of fixed choice questions. Fixed choice questions constrain the answer by providing response categories for the respondent to choose between. Their advantage is the speed and the simplicity with which they can be filled in. It was very important to produce a questionnaire that would need only a few minutes to be filled by the employees on site and be easy to complete. With the use of fixed choice

questions, the employees had only to tick a response from those on offer, which was a very easy and fairly quick task to do on site. They required no writing and quantification is straightforward. This resulted in a high number of responses from the employees on each project. The main disadvantage in this case is that fixed choice questions might constrain the response of the employees. We might lose the spontaneity and expressiveness and perhaps the introduction of bias by forcing them to choose between given alternatives that might not have occurred to them.

Consideration was made regarding this point and questions so constructed to try to eliminate the problem as much as possible, through the use of scales. Scales are a specialized form of fixed choice question, where the response categories are arranged in continuous order, and were used to measure attitudes (Hibberd 1990).

MEASURING ATTITUDES

An attitude is a personal orientation towards something. In its simplest form, it is whether you are for *or* against something; going a bit further, people can be described as being *mildly* in favour, or *strongly* against something.

One method of measuring attitudes involves assigning numbers to people according to how strong their attitudes are. Social psychologists such as Dr Oppenheim have devised sophisticated methods for measuring attitudes. However, attitudes can be usefully measured, albeit in a rough-and-ready way, by providing ordered response categories to a question (Hibberd 1990). For example:

How good or bad are communications between you and your line manager?					
Very bad	Bad	OK	Good	Very good	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

These can be converted into numeric representations as follows; Very bad = 9, Bad = 7, OK = 5, Good = 3, Very good = 1, Don't know = 0.

With the responses numbered from 1 to 9, the higher the number the more “anti” the attitude. The responses could be numbered the other way round—it makes no difference, as long as it is consistent. Since there are two opposite end points in this scale, it is called a bipolar scale (Hibberd 1990). Attitude scales are usually bipolar.

One of the requirements of response categories is that they should be exhaustive. There are two sorts of people who must be specially considered. The first is the person who sees both sides, and whose attitude comes between agree and disagree. These people lie on the midpoint of the scale, and so a midpoint category should be provided such as NEITHER AGREE NOR DISAGREE, or more simply OK, NEITHER, or NEUTRAL. The second is the person who doesn't have an attitude. This person may never have considered the question, or may not feel in a position to judge. In that case, the only honest response is don't know, and this should be provided as a response category. This response should come after the other categories and be numbered accordingly. However, the number doesn't fit into the scale itself and for that reason, the DON'T KNOW response is conventionally numbered 0. It is also a good idea to separate it from the other responses by a blank line or a bit of space to indicate that it is separate from the rest.

Attitude scaling: the Likert technique

In this investigation, attitude scales were developed using the Likert technique, named after its originator, social psychologist Likert (1932). The technique is attractive because it is relative simple. The procedure is as follows:

Table 1: Distribution of surveys and responses

Project	No. of distributed surveys	No. of responses received	Response rate
1	55	49	89%
2	98	83	85%
3	62	54	87%
4	69	55	80%
5	114	81	71 %
6	81	68	84%

Step one:

A large number of statements were produced to work from, of the sort that people could potentially either agree or disagree with, according to their attitude. Obvious statements of fact or belief were not included.

Step two:

Once this pool had been generated, they were presented in the form of a trial questionnaire to a pilot sample of 25 civil engineering personnel.

Step three:

The responses from Step Two were scored. For each respondent, every item is given a score from 1 to 9 as above. In the survey, for each respondent this results in a score for each question plus a total score.

Step four:

The final scale can now be put together from the selected items, and it is ready for use. In its final form it is administered in the same way as it was in step two. A respondent's attitude score is the total of his or her scores on individual questions. The items are scored in the same way as they are in step three. This score should represent the overall attitude towards the subject under investigation.

RESULTS

Profile of the different project sites

A survey questionnaire has been distributed to 13 different projects. The majority of them taking place in Greece (10 in total) and the rest in England (3 in total). Each project was analysed separately but all project sites were chosen to lie within similar topographical, demographic and geological conditions. The topographical conditions were small hills or flat ground conditions with geology rated at medium severity in order to avoid extra risks for any delay due to unforeseen ground conditions. The project locations were chosen to be in areas where the demographic conditions were similar. The results in this paper outline the analysis of the data for the 6 projects which have been completed to date.

Responses were received from all different sites. Table 1 summarizes the breakdown of surveys from each different project. To achieve high response rates, in order to make the survey more representative and useful to the company, letters were sent to all employees along with the questionnaire explaining the need for completion and the benefits to be gained. Completed survey questionnaires were wanted back by a senior staff of each company. Senior staff in the companies involved took direct responsibility for ensuring that collection of survey questionnaires was undertaken.

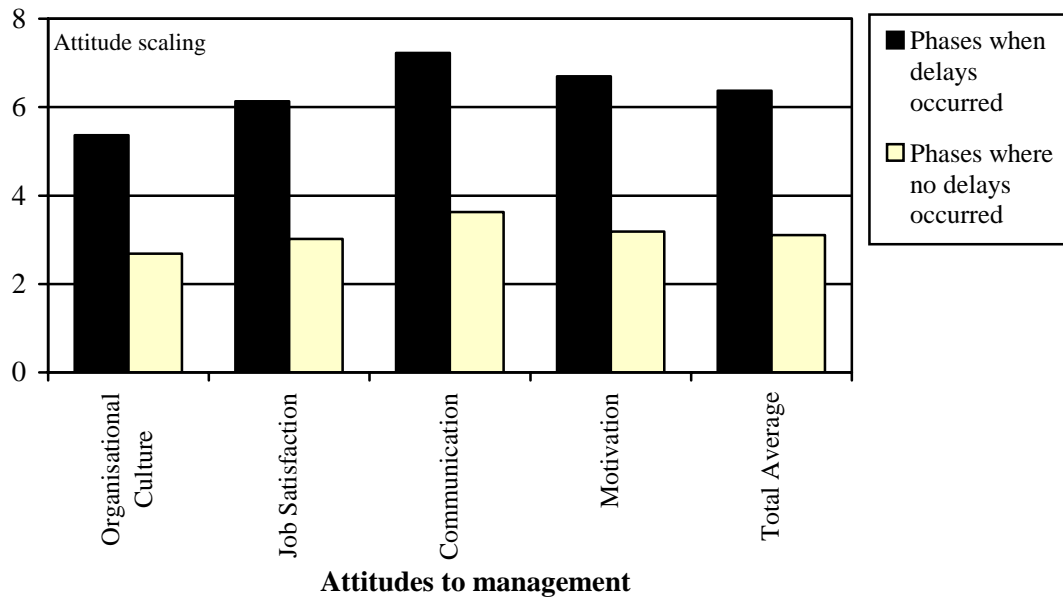


Figure 1: Average of scaling numbers to attitudes of management

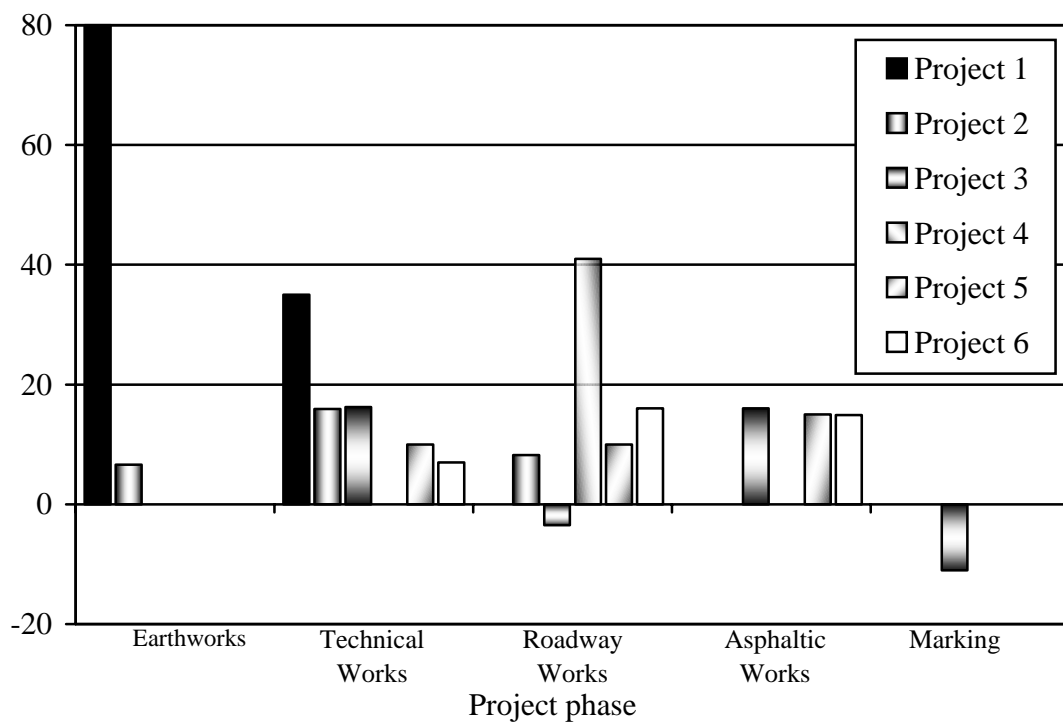


Figure 2: Projects delays by phase

GRAPHICAL REPRESENTATION OF RESULTS

Before the start of the statistical analysis of our survey, a series of checking operations was performed on the complete data set. This was necessary in order to eliminate some of the more obvious errors that may have crept in during the preceding stages. Each data set will suggest its own checking procedures, but typically we may start by running frequency distributions on our main sampling variables. So, if the fieldwork records suggest that we should have 22 males and 2 females in our sample, are they

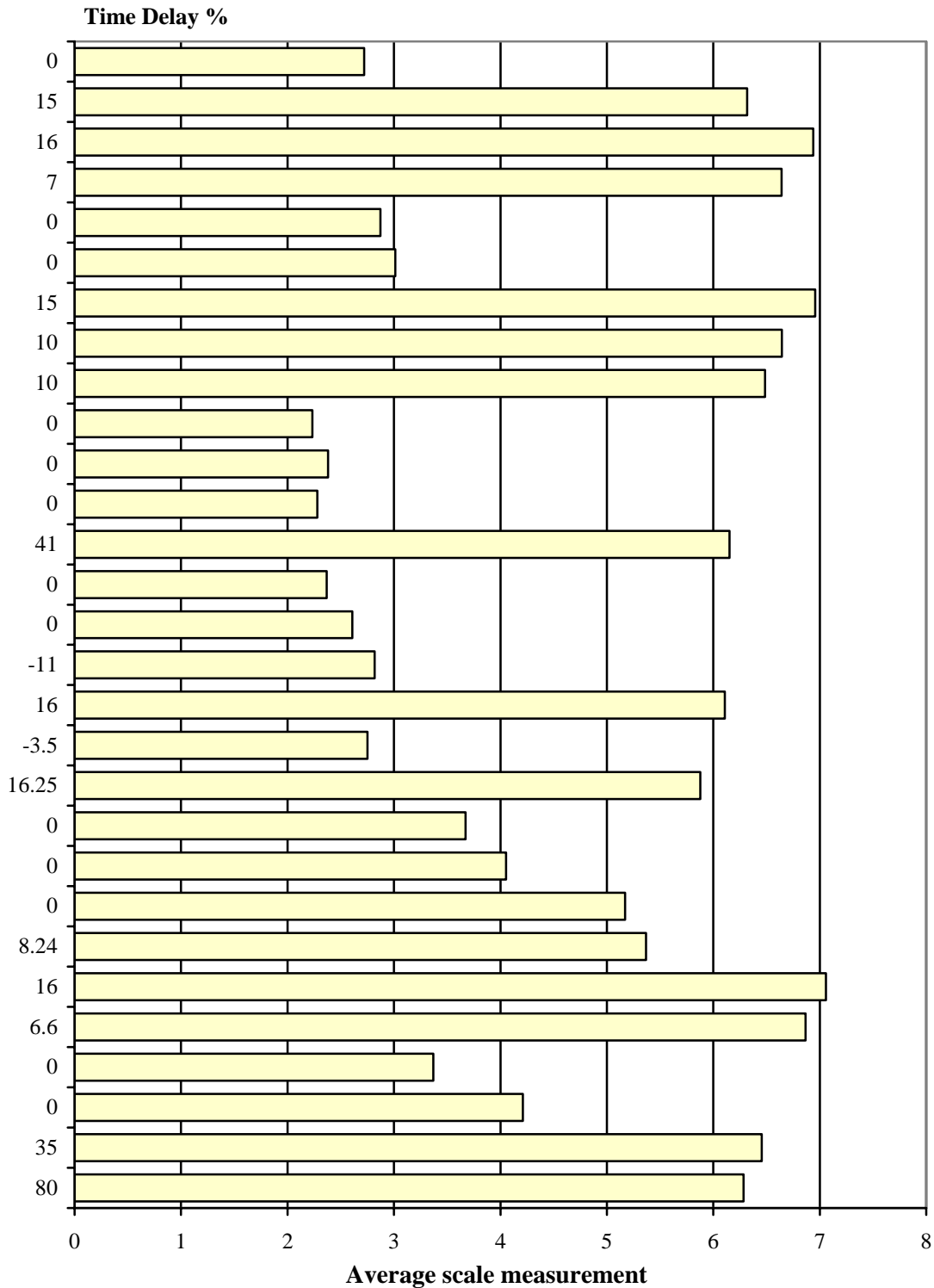


Figure 3: Relation between time delay and average attitude scale measurement

actually there in the data set? We may never get a completely “clean” data set, but it is far easier to anticipate and rectify errors at this stage than later, after we have engaged in complex statistical manipulations.

Looking at the responses received from all phases of the 6 projects now complete, we can draw the graph above. This graph relates to the average Attitude Scaling number

between the first 6 projects under investigation. It is a comparison of the average scaling number in the phases of the projects that had delays, to those phases with no delays. In the graph, the middle point (the OK point) is number 5. Any higher than 5 is resulting to a bad attitude towards the management aspects, in contrary a lower than 5 score is resulting to good attitude towards the management aspects. We can clearly see that employees are not very happy with any of the HRM issues within the company when delays occurred. There is very bad communication between them and the company. Communication has the worst scores throughout all projects. Job satisfaction is very low and their motivation is low as well.

The percentage of answered questionnaires was very high among the employees of the company. They all seemed to be unhappy with the situation in their workplace. That has affected the company, by producing delays in the completion of the works as shown in Figure 2 above. Most of the delays happened during the middle phases of the projects. The percentage of delays varies between 7% to 80%, although the very high delay of 80% of Earthworks on Project 1 was resulted mainly to unforeseen ground conditions. During the last phase of each of the project, we see no delays occurring.

The percentage of answers received when delays occurred were 2% very unhappy, 63% unhappy, 33% neutral and 2% happy. It is clear that the majority of the employees are not happy with the attitudes of management of their company.

In contrast, when no delays occurred in the projects, 1% were unhappy, 23% neutral, 69% happy and 7% very happy. Thus respondents were in favour of the attitudes of management by the company.

In terms of bad attitude when delays occurred, 19% attributed this to organizational culture, 25% to job satisfaction, 25% to motivation and 31% to communication, making communication within the group the highest percentage of bad attitude scale when delays occurred. This indicated that the communication between people in the company was the most likely reason to produce delays in the works of the company.

But communication scored the highest percentage (33%) of bad attitude scale comparing to the other management factors even when no delays occurred, organizational culture scoring 18%, job satisfaction 23% and motivation 26%.

Figure 3 shows that the more unhappy the employees were (in other words the higher the Attitude Scale Measurement number), the more delays occurred in the project. We see some very noticeable changes on the histogram above as we compare the average scale measurement number of the 0% delays on the different phases of the projects investigated to date, to those average scale measurement numbers scored when delays occurred.

CONCLUSIONS

Based on the survey results, the following conclusions were made regarding the relationship between the human resource aspects and the performance of the company:

- A very high percentage (average of 90%) of the employees surveyed replied to our questionnaires. That indicated that the employees and the personnel in the construction industry feel there is the need for HRM aspects to be introduced into the construction management environment.

- The more “unhappy” responses towards the company, the bigger the delays on projects under investigation.
- Bad communication is the most likely reason to score badly in the scale measurement and has proved to have a direct effect on the delay of a project.
- Most of the delays were produced towards the middle of the project and very few at the beginning of it or at the last phase.

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