

Contemporary organizational theory in the management of construction projects

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CONTEMPORARY ORGANIZATIONAL THEORY IN THE MANAGEMENT OF CONSTRUCTION PROJECTS

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Organizational theory has moved from a focus on structure to a focus on culture. The aims of modern construction project teams can often be helped by the understanding offered from organizational theory, yet projects and firms still seem to fail, despite an enormous amount of learning about how successful organization work. The aim of this research is to investigate why it is that firms and projects seem not to apply in practice the understanding that exists in the literature of organizational theory.

Keyword: human factors, management theory, organizational structure, organizational culture, project management.

ORGANIZATIONS AND MANAGEMENT

Organizations

Organizational theory developed from analyses and descriptions of structural factors, typified by the work of writers such as Weber and Taylor. Nowadays, the focus of organizational theory seems to have shifted to organizational culture. This approach, however, is not new. It started in the late 1930s with writers such as Mayo and Barnard, both of Harvard. In various ways, both challenged ideas put forward by Weber and Taylor (Peters and Waterman 1982: 5). For some theorists, such as Maslow and McGregor, the organization was a system composed of interest groups, interacting and interdependent which were responsible for shaping and achieving the organization's goals. This theme has been taken up by many researchers since. The problems are, first, none of the ideas has yet become mainstream; they have had little or no effect on business practice. Second, and more important is that all this research fails to depict the variety of linkages observed in excellent companies: operations characterized by thousands of experiments; all resource allocation done by internal competition; hundreds of small units; everyone in close contact with the customer.

It is clear from the literature that definitions of organizations emphasize the individual, the workforce, and its culture. For Watson (1994), "organizations are sets of ongoing human relationships utilizing various technologies in which people cooperate to achieve tasks which would otherwise not be possible, either at all or from an equivalent resource base". According to Dawson (1996), organizations are associations of people aiming to achieve collective or individual objectives. They are also defined as social systems which are self-organizing and comprise diverse people with diverse and variable interests (Bennis 1996).

In this context, it seems widely held that the imposition of a structure on an organization, without proper attention to interaction between individuals from which (and for which) the structure is created, is an error. According to the contingency view of organizations, what is appropriate in one environment might be completely

inappropriate in another (Bowey 1980). Organizations cannot be conceived without regard to human issues.

It becomes important, then, to define organizational culture. According to Watson (1994), an organization's culture represents a set of meanings, which define what is good and bad, right and wrong and what are the appropriate beliefs and actions to be shared and taken by its members. Culture is thought of from two points of view, official and unofficial. The official culture of an organization is the system of meanings, values and norms espoused by the managerial dominant coalition. The unofficial culture or cultures of an organization are its beliefs, values and norms (Watson 1994). Dawson (1996) supports the view that culture is "shared values and beliefs which create distinctive patterns of thinking and feeling within organizations".

In the sense of its utility/application, culture is seen by Watson (1994) as created by people to help them to avoid the disorder and chaos that would otherwise encroach upon their realities. He asserts that it is relevant for every organization to create a culture resonant with its goals. Indeed, it is more important in such consensual groupings.

It is important for the success of the organization that employees identify with its culture, because it is the only way for their involvement with the company to occur (Goldsmith and Clutterbuck 1985). The adequacy and dominance of its culture is an essential quality of excellent companies. (Peters and Waterman 1982). It is not a coincidence, then, that excellent organizations are defined as those "which have strong cultures in which people were directed more by shared values – articulated by the leaders and absorbed by the employees – than by rule books, commands or formal procedures" (Peters and Waterman 1982).

There is still the need to find out how organization structure relates to organization culture. There are clearly interactions between them. What is not known yet is how these occur (Goldsmith and Clutterbuck 1985).

The change from an industrial society to a knowledge society is one of the greatest changes since the industrial revolution and creates increasing demands on organizations' ability to transform information into knowledge (Lindgren and Wallstron 2000, Armistead, Meakings and Beamish 2000, Hislop *et al.* 2000). Profound changes face organizations these days. Therefore, there is an increasing need for an understanding of the way that organizations react to their environments. Large organizations are becoming more global and "the greater the reach of the organization, the more important knowledge management would appear to be. Knowledge management has three facets: technical; human and organizational" (Edwards and Kidd 2000). Edwards and Kidd concentrate on the latter two aspects, and identify organization culture and trust as problematic issues in the organizations, stating that "these apply even within a single organization, and may be correspondingly worse where explicit formal partnerships between two or more organizations are involved".

This theme, according to Lanzara and Patriotta (2000), is central in organization studies, to the consolidation of a managerial perspective, which establishes the organizational culture. Raub and Ruling (2000) say that this focus is important for the workers to help on the creation of organization values, which means its culture. Knowledge becomes organizational when members of an organization exercise their judgement in the course of their work by taking into account both the situatedness of

their action and the generalizations provided to them by the organization, in the form of generic rules (Tsoukas and Vladimirov 2000).

The work on organizational culture has traditionally been developed within firms (see, for example Edwards and Kidd (2000)). Construction projects are typically undertaken by a loose coalition of firms, or a temporary multi-organization (Cherns and Bryant 1984) which may require that lessons learned from within firms (intra-firm situations) need to be adapted in order to explain and understand projects (inter-firm situations).

Uncertainty and risk

For Loosemore (1996), uncertainty is defined as the difference between the information required to perform a task and the information already available and/or transmitted in the organization. Risk, in this context, figures as an uncertainty that can be measured. Risks have been described as unpredictable resourcing needs, which occur during a construction project. Because of the uncertainty of construction activity, risks appear as unexpected problems and, that's why responsibility in construction projects is always important and constantly reviewed (Loosemore 1999).

In project organizations, high levels of uncertainty occur. These levels are higher than those in permanent organizations (Loosemore 1994). Problems inevitably arise during the progress of a project. Such problems demand extra resources, and the fact that someone has to pay for them influences the behaviour of people involved in the process (Loosemore, 1994).

Construction is an inherently uncertain and risky activity. One of the problems to be dealt with by the participants is how to deal with this characteristic. The uncertainty of the process influences all those involved in a construction project, but only some of them are subject to risk: those who are responsible for some aspect of the process. The risk-takers are faced with diverse variables and events, which can influence project success. The positive aspect of risk taking is important since in successful organizations risks are converted into opportunities (Loosemore 1994).

For construction projects, then, the "temporary presence of chaos is explained by the temporary organization theory, in which temporary organizations experience greater levels of uncertainty than permanent organizations" (Smithers and Walker, 2000). For this reason, risk management is crucial in all construction projects. Doing this, potential pitfalls can be foreseen and methods to reduce them and to deal with them can be planned in advance. As construction projects are so variable, this often becomes difficult (Loosemore 2000). Therefore, projects require strategies for dealing with risk and/or uncertainty, more than firms do.

Management

The earliest definitions of management were provided by scientists such as Fayol, who states that the task of management is to forecast and plan, to organize, to command, to co-ordinate and control. Some theorists, such as Follet define management as the art of getting things done through people (Watson 1994).

In the 1960s arose the idea that strategy must be followed by structure. Until the end of the 1970s, this view was considered a universal truth. The idea was important, and enough to cause a revolution in management practice that was directionally correct, but when it was conceived what was most clearly captured was that a strategy of diversification leads to a decentralized structure (Peters and Waterman 1982).

The evolution of management theories can be explained in various ways. The schemes to describe this evolution, elaborated by scientists such as Scoot, of Stanford contrast to the prevailing view today. Management theorists before the 1960s did not pay attention to the environment, competition, the market, or other factors external to organization. It was a 'closed system' view of organizations. That view centred on what to do to optimize resource application paying attention only on what was going on inside the organization. It was almost 1960 before theorists began to consider that external events shaped internal organization dynamics. Taking account of the effects of external forces on the organization, then, started the 'open system' era (Peters and Waterman 1982).

Four distinct eras of management theories can be distinguished (Peters and Waterman 1982):

1900-1930: closed-system – rational actor era (Weber and Taylor)

1930-1960: closed-system – social actor era (Mayo, McGregor, Barnard, Selznic)

1960-1970: open-system – rational actor era (Chandler, Lawrence, Lorsch)

1970-?: open-system – social actor era (Weick, March)

In the first era, there is the scientific school of thought, founded by Taylor (1911). This school of thought was based upon the assumption that all uncertainty (internal and external) could be controlled, and that production could be totally planned, standardized and mechanized. Organizations were seen as "goal-seeking, machine-like entities with parts working in harmony towards a commonly recognized set of objectives". Taylorists believed that crises were caused by internal conflict between workers and management and that managers were responsible for not allowing this to happen. Most fundamentally, the scientific school assumed that there was one best way to organize, which was an inflexible approach (Loosemore, 1996).

At the end of the 1980s, the review of management responsibilities was encouraged by changes in organizational structure, which happened through mergers, acquisitions and decentralization. Organizations started to manage the workforce according to a survival strategy. Only the more skilled employees were retained, with the rest being managed at a greater distance. Competitive pressures in domestic and in global markets have changed the desired focus in the management of the employee behaviour towards the commitment with the customer and business requirements. Implications of these developments were discussed in debates about human resource management" (Druker, White and Hegewisch 1996). The argument, then, was that people should no longer be treated as cost, but as a company's most important source of reward and the concept of competitive advantage started to be developed (Peters and Waterman 1982, Goldsmith and Clutterbuck 1985).

In the 1980s, a social change started to occur within British companies, where the profit motive started to be re-asserted with great strength, and yet where the human values of work were creating an awareness that good levels of performance and profit are achieved more from making the most of the people in an organization than from any other resource (Goldsmith and Clutterbuck 1985). On the other hand, one of the complaints against American managers is that they don't take enough interest in the people they manage (Peters and Waterman 1982).

The effective manager is viewed as someone who motivates other people and administers resources in order to achieve the company's objectives. He/she is

supposed to know how to motivate people to be creative and self-disciplining (Goldsmith and Clutterbuck 1985). But according to a survey carried out by Druker, White and Hegewisch (1996), some people still see construction managers as being concerned only with cost and production. They are meant to be more influenced by the value of harder personnel issues and it is not easy to achieve credibility for softer issues.

Watson (1994) believes that the traditional concepts of management as an activity involving planning, controlling, commanding had long represented little more than idealized aspirations of management writers who saw the world as a much more malleable and controllable place than it really is. He emphasizes that his own understanding of the role and purpose of managerial work is that it is most usefully regarded as an activity, which contributes to the leading of the organization to a long-term viability. He sees management as “the simple process of running an organization so that the variety of people who want something out of it will go on supporting it in such a way that it is able to continue its existence into the future – but that this is made to seem more difficult because there is such an enormous variety of people, inside and outside the organization, who want something from it” (Watson 1994).

Personnel managers describe their industry as a people-oriented business, with the key to competitive advantage being effective team-work and human initiative. “In our market, work is awarded on the basis of the team of people we propose to the client. Managing the personnel function in construction means managing the most vital corporate resource, commented one typical respondent” (Druker, White and Hegewisch 1996).

From what has been discovered in the literature, it seems that the answer to the construction problems would be a good management practice. It can prevent problems, but it is known that total prevention is impossible. Prediction makes it possible to plan strategies in advance and make good responses. As there are limitations on preventive and predictive abilities, unexpected problems and opportunities are inevitable (Loosemore 1994).

Improving the management style experienced on construction sites is a challenge facing the industry. It can be done through increasing recognition, increasing planning effectiveness and decreasing the chaotic nature of a project. “This should be supplemented by increasing awareness and reduction of stress-inducing factors. This may be a function of the industry being highly cost-competitive, with low profit margins leading to extensive cutting of corners” (Smithers and Walker 2000).

People and communication

Discussions of management psychology have long focused on the Theory X or Theory Y, the value of job enrichment, and, now, quality circles. These don't go far toward explaining the magic of the turned-on workforce in Japan or in the American excellent company, yet useful theory does exist. Some psychologists, such as Becker, supported the view that man was driven by an essential ‘dualism’; “He needs at one and the same time to be a conforming member of a winning team and to be a star in his own right” (Peter and Watterman 1982).

Burns and Stalker (1961) became convinced that management systems could be seen in two typical forms: the mechanistic and organic models. Yet, they noted that neither model is necessarily efficient or inefficient. It all depends on the nature of the environment surrounding the organization.

The way people interact and do their work is, most of the time, a response to environmental factors. If they are motivated, the expected results are good levels of performance in doing their job. In his work, Loosemore (1996) shows that, despite the fact that little regard was shown for the human aspects of the organization in the last decades, the situation has changed in the last few years. Behavioural factors have become a concern in the analysis of organizations. “The recognition of formal interest groups, the acceptance of instability and the need for adaptive capabilities in organizations, was a major advance in management thinking. It is a perspective which continues to shape management theory today” (Loosemore, 1996).

Many factors characterize the organizational environment. These factors can vary from the organizational structure itself, through the level of salaries to the incentives towards the workgroups. The environmental factors have big influence on the expected performance of employees. Loosemore (1996) raises an important aspect, as he identifies the performance in an organization as depending on the communication between groups.

“Communication is defined as the sending of information (message) and its receipts. It is assumed that the transmission of the message will lead to some change in the receiver” (Dawson, 1996). As it is also the knowledge which originally resides with one team being given to a second team, is important that the message can be transmitted as accurately as possible. It is important that people share information in order to reach a mutual understanding (Loosemore, 1996).

Communication flow is important. Giving and receiving instructions is directly connected with the performance of the worker. It is also important to transmit the culture of the organization, which plays a fundamental role in its success. Successful companies have a living culture that adjusts and assimilates new ideas; learns from its experiences and develops new responses to situations. A good communication flow is a positive response to the changes in the environment, experimented with by the companies. A good communication flow also plays an important role in decision making, which is an important determinant of the success of an organization (Goldsmith and Clutterbuck 1985)

Motivation and levels of performance

The need to pay attention to the social and psychological aspects was established, in Britain, after the Second World War. In the 1950s there was already the idea that the important issue in an organization was neither to adjust people to technology, nor the opposite. The idea was to organize the interface between people and technology, in order to achieve the best match. In 1960s, there was already concern about job re-design according to socio-technical principles. Workers’ perceptions of their roles were already being discussed at that time. Studies to improve productivity and job satisfaction were being conducted. There was already the idea that the worker is human (Trist 1980).

In their work, Goldsmith and Clutterbuck (1985) mentioned that there is a limit to how much extra productivity can be gained from incentives to the workforce. It is not very rewarding to concentrate only on the expected levels of performance. Traditional attempts to increase productivity by investment in new technology are also not the solution. It has been illustrated that higher productive efficiency does not necessarily create higher profits. By concentrating on profitability rather than productivity, organizations showed employees’ that their performance affects the whole progress,

and not just their own job. In the cases that the employees identify themselves with the overall corporate goals; they share objectives and values.

Excellent companies change working methods according to strict rules, replacing it by everybody's contribution. They motivate their workers by treating them decently. In fact, what has the impact on levels of performance is the attention given to the employees, and not the work conditions themselves (Peters and Waterman 1982). The same authors say that "treating people – not money, machines or minds – as the natural resource may be the key to it all (good levels of performance)".

As motivation became the concern, many definitions of it emerged. Perhaps the nearest is that from Herzberg (1959), who said that "it is only when one is a generator of one's own that we can talk about motivation. One needs no outside stimulation. One wants to do it". According to Dawson (1996), motivation is about behaviour; and it is what makes individuals put their efforts towards the achievement of specific goals.

Smithers and Walker (2000) have carried out an investigation which suggests that the environment and culture in which the employees work (in all industries) affects their motivation. They recommend variables or incentives that, in their research, have shown to have a positive influence on motivation.

Bresnen and Marshall (2000) state that motivation is an enormous subject, encountered in a wide range of different approaches and theories. But most contemporary motivation theories share a central concern with the individuals, their subjective perceptions and preferences, "in particular with the different values they may place upon the same reward or punishment and the varying perceptions they may have about the probability of achieving such outcomes". They affirm that behaviour modification approaches assume that "the motivating power of rewards and punishments can be taken as given, and more or less, at face value" (Bresnen and Marshall 2000).

Smithers and Walker (2000) identify the construction process as largely "a 'people' management business. The construction industry is complex, dynamic and uncertain, and requires highly motivated workers. The issue of employee motivation is important as it establishes a substantial foundation for high performance levels and less unproductive time".

Recent developments in the construction industry

In the report of the National Audit Office (2000), about how the procurement and delivery of construction projects in the UK can be modernized, with benefits for all of the parties in the construction industry, there is clear concern about human factors. In analysing the steps required in order to achieve better construction performance, the need to pay attention to human factors figures strongly. It is stated in the sense that a learning culture on projects and within organizations must be developed, the relationship between the clients and contractors (partnering) must be improved, health and safety must improve, and a better integration in all the stages of the construction process is necessary (National Audit Office 2000: 5). Again the workforce is considered important when it is mentioned that the weakness of the development of the skills of the employees is a limitation to improvements in construction performance. There is a need for training, and for this, a cultural change is important (National Audit Office: 9, 28). People and cultural issues also figure in the list of

different countries' approaches to improve the performance of their construction industries. (National Audit Office: 3).

It can be observed that, between 1997 and 1999, different countries such as Australia, Ireland, Japan, and South Africa have adopted approaches regarding people and cultural issues. These approaches include improvement in workplace relations, training skills development, participative management and workplace forums, alternative dispute resolution, health and safety and performance standards.

From what can be observed, several bodies in various countries believe they have the answers. This raises the question about how the impact of their steps can be measured, and which would be the determinants of success.

PROBLEM STATEMENT

As mentioned before, the imposition of a structure on an organization, without proper attention to individuals from which (and for which) the structure is created, is an error. The organizations' environment and workforce must be considered. The organizations' culture must be shaped, created, known and respected by its participants. The communication process is important for the transmission of the culture, for the decision making process, and for the motivation of the workforce.

As mentioned before, the way people interact and do their work is, most of the time, a response to environmental factors. If they are motivated, they are more likely to demonstrate good levels of performance and quality in doing their jobs.

Regarding environmental factors which provide the context for the organization, these can vary from the organizational structure itself, through the level of salaries and motivational factors to workgroups. As construction companies are known to be uncertain and risky environments, good management practice is needed, in order to keep all the characteristics required for success. Moreover, the changes in the study of organizations, seem to imply that managers are really focusing on people, nowadays, especially in regard to motivational factors in the workplace. This raises the question about how people are reacting to these factors.

Recent developments in the theory and practice of management and organizational studies, with the change of focus from organization structure to organization culture, raise several questions that should be dealt with. Some of them, which will be targeted in this research, are: Did organizations become exposed to more risky environments and uncertainty in the last decades? Why don't people and/or companies use what they already know that works (manuals, procedures, systems and training qualifications)? This kind of question was already raised by Watson (1994).

By risky environments is meant: speed of response in required decisions; the needs of workers to retain their jobs; level of salaries in relation to the cost of living; increased expectancies of clients and customers.

A key concern/issue is to examine the links between people (managers and workers), environmental factors and performance.

RESEARCH TO BE CONDUCTED

The main issue of the present research is the workforce, their links, and their reactions to environmental factors. It is known that they are, nowadays, the focus on

organizations – and projects. Organization and project managers motivate people in order to obtain a good response – good levels of performance.

The aims of the research to be conducted are to find out what kind of motivation factors are being applied inside construction projects, and why people so many times don't apply the knowledge and tools they already have, to increase their levels of performance or to solve problems. The research will be carried out following an ethnographic process (methodology). Ethnography, according to Fetterman (1998), can be viewed as an art and a science, through which a group or culture can be described. According to (Watson 1994), a good ethnography contributes to the general body of knowledge about the individual, the social world and informs the practical understanding of all those involved in the process under analysis.

The application of this methodology can be exemplified by the research conducted by Mintzberg (1973) who, in describing his research on the job/function of managers, highlights seven research methods, which are appropriated to investigate managerial work. These are:

- secondary sources (correspondence, interviews with informants),
- interview and questionnaire,
- critical incidences and sequences of activities (descriptions),
- diary,
- activity sampling,
- unstructured observation,
- structured observation.

Some of the research methods mentioned were used also by Watson (1994) in order to investigate managerial work, and behaviour. He states that simple ethnography “is not simple at all but relies on an ability to use language, to observe and to empathize, above all to listen quietly, and to reflect over a long period” (Watson 1994).

The research will start by the selection of the sample. In order to achieve a global understanding, a survey question will be launched. This will be the base of the pilot study. With the results, a questionnaire will be created, tested and applied. From the results, some construction projects will be selected to be analysed in case studies. The case studies will be undertaken with a view to identifying those organizational features that are successful and those that are not, and then assessing the extent to which existing theory helps to explain what happens in practice.

CONCLUSIONS

Research in organizational theory has changed fundamentally with a shift in focus from structure, to culture. Despite tremendous improvements in our collective understanding of how organizations work, firms continue to fail, often by simply failing to put into practice what is already known. There is a gap between theoretical knowledge of how organizations work, and its practical application in business. This research will be designed to ascertain why that gap exists and seek to develop proposals for improving the management of construction projects and construction firms.

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