

MEASURING ORGANIZATIONAL CULTURE IN CONSTRUCTION SECTOR - FINNISH SAMPLE

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ABSTRACT

Multiculturalism brings new challenges to project execution in global market place than to projects executed in the home market area. Project participants come from different national and ethnical backgrounds in addition to other cultural divergence (e.g. professional, industrial, and organizational). Culture is a particular group's response to its environment and it is expressed by group's individual members (Hofstede 1997). Cultures' manifestations are visible (e.g. language, clothing, and values), but often the attention is arrested only on these visible issues, ignoring the fact that every culture has 'hidden' values and beliefs that even a member of that culture cannot describe. Cultures have several dimensions; visible artifacts, values and basic assumptions (Schein 1985).

The purpose of this paper is to describe the underlying values of the construction sector in Finland. This knowledge can be used in practice, when there is a need to for example implement safety regulations to the whole industry or move to more effective practices. The focus is, on the one hand, in organizational culture and, more focused, organizations acting in construction sector. On the other hand this survey consists of only Finnish respondents from a Finnish construction related companies. This gives even more focused viewpoint to Finnish national culture. The paper consists of two parts. First, the organizational culture of construction sector companies has been investigated with the Organizational Culture Assessment Instrument developed by Cameron and Quinn's (1999). The tool is based on the Competing Values Framework. The questionnaire was translated to Finnish and conducted together with The Confederation of Finnish Construction Industries RT. The questionnaire was web-based and sent to around 600 respondents.

Second, the characteristics of a Finnish national culture have been summarised from several sources. For example Geert Hofstede's work (1980) has been regularly quoted also among Finnish researchers and this paper includes a literature survey of that material extended by the knowledge gained through previously conducted case studies. This paper promotes also the Finnish research effort concerning the management of cultural diversity in global construction projects.

Keywords: construction sector, Finnish, organizational culture

INTRODUCTION

Fast changing business environment requires companies to be in a constant change. This is nowadays true in all fields of business activities. The rapid change is becoming a bigger challenge. Forming organization into a new structure or changing business strategy does not happen easily. Change is not just adopting new systems and methods, but it requires changes in underlying assumptions and values, hence organizational culture. In this paper, there is the assumption that culture is something an organization has (cf. culture is an element that organization is, Smircich 1983). To be able to change, one must know the values affecting to the current situation. Several studies have tried to explain the success of the successful organizations (e.g. Kotter and Heskett 1992). Elements like competition, monopoly position or high market shares have been proved in practice to not explain success very well. The basic assumptions and values, hence organizational culture, are proved to be the most important element of competitiveness (Cameron and Quinn 2006).

Competing values framework (Quinn and Rohrbaugh 1983) is only one theory that tries to explain organizational effectiveness (see more Cameron 1986 and Cameron 2005). Cameron and Quinn (2006) see organizational culture something that organization has (cf. Smircich 1983). The framework emphasizes multiple perspectives and types of measures to evaluate the effectiveness of the organization. Hence, there is no universal model of effective organization. This basis is also supported by contingency theory (e.g. Lawrence and Lorsch 1967). There is an on-going international research effort to understand on industry level of what kind of “valueset” (if there is any) guides nowadays more and more global way of business actions in construction sector. The Organizational Culture Assessment Instrument (OCAI), which is based on the competing values framework, was seen to suit well for the international survey, as well as being available for researchers all around the world (see more about the reliability and validity of OCAI in Cameron and Quinn 2006).

In this paper, the organizational culture has been bound to national culture and a specific industry (construction) that are considered here relatively constant (cf. McSweeney 2002). Also the situational effects on culture are dismissed here, because the ultimate purpose is to understand underlying values on general level (in the future also the national differences), not related to single cases or events. Also, the type of generalisation of an average tendency (used in this paper) has been criticised (McSweeney 2002), but it is believed to be the best available method so far.

The concept culture is often defined unified way. However, for example organizational culture differs from national culture. Organization’s members have a possibility to join and leave the organization, hence the influence of organizations culture, but same could be argued not to happen concerning national culture (Hofstede 1997). The nature of, for example, national and organizational cultures is different. On the other hand there is a debate if the organizational culture can be treated as a one entity. Especially the large multinational companies, which are geographically dispersed can have many sub-cultures (Alvesson and Berg 1992).

There is a relation between the two above-mentioned cultures. Earlier research has found that at the national cultural level, the values are in a bigger importance compared to organizational cultural level, where the practices have the major role (Hofstede 1997). In fact, how a specific culture can be separated as an objective of a research? Hofstede (1997) claimed that when most of the factors (e.g. organization, occupation) are same, the national culture is a rational explanation for unfolding differences. Here these two cultures are not separated resulting the overall organizational culture in Finnish construction sector.

Meyerson and Martin (1987) differentiated three perspective for cultural change: integration, differentiation, and fragmentation. All these elements are present in organizations. Cameron and Quinn (2006) look culture from integration perspective. Hence people in organization share a common culture. They rationalize this by the view that the strenght of culture is its ability to bring people together (positivistic view). Differentiation and fragmentation perspectives consider organization culture as a collection of many competitive sub-cultures or an ambiguous and unknowable entity (Meyerson and Martin 1987).

Geert Hofstede conducted his famous research about cultural differences already during 1960's and 1970's and the results were published at 1980 (Hofstede 1980). Lots of data were analysed and as a conclusion four cultural dimensions were found that had variation across the nations. In his later studies Hofstede found a fifth dimension, which has been widely discussed since. In this paper, the description and analysis of Finnish cultural values is based mainly on the Hofstede's study, which is the only large-scale research that includes also Finland.

The environment affects on organizations (Scott 2001). Especially construction has been, and still is firmly, a local business. Yet, the amount and size of the "megaprojects" has increased (e.g. Miller and Lessard 2000, Flyvbjerg et al. 2003). The players on this field are becoming international and this way the globalization affects also on construction sector. This is a preliminary attempt to reveal the underlying assumptions and values that is needed in order to know in what direction the whole industry is going.

MEASURING THE ORGANIZATIONAL CULTURE

The competing values framework

The Organizational Culture Assessment Instrument OCAI –tool is based on the theory about Competing Values Framework developed by American researchers Kim S. Cameron and Robert E. Quinn (Cameron and Quinn 2006). The purpose of the theory is to help understand organizational phenomena, such as organizational design, stages of life cycle development, organizational quality, leadership roles and management skills. Organizations are functioning in fast changing environment, which requires organizations to change as well. To be able to change the organizations need to know their current situation and the direction, where they want to be in the future.

Several studies relate to the assumption that organizational culture is one of the most important factors creating company's competitive advantage (e.g. Kunda 1992). The culture can be defined in several different ways and often there are even opposite or competitive values in the background of an organization. Competing Values Framework is one theoretical model to explain organizational culture. OCAI-instrument does not include everything that can affect on organizational culture, it has been used in more than a thousand organizations and it has been found to predict the organizational performance. The theoretical model is based on several indicators of effectiveness, which differentiate from each other by two dimensions, hence forming four main clusters (Figure 1). First criteria of effectiveness emphasises flexibility, discretion, and dynamism from stability, order and control. The second dimension differentiates an internal orientation, integration and unity from external orientation, differentiation and rivalry. There are no right or wrong answers. More important is that organization's culture is in line with the organizational phenomena mentioned above.

The answers indicate of what the employees think of being the contributors of efficiency. The elements like the age or size of the organization affect the answers. Respondents from different organizational units might give very different answers; hence they have different view of the culture in the organization. However, usually only one of the main clusters becomes more dominant than the others. Culture also changes over time without conscious efforts.

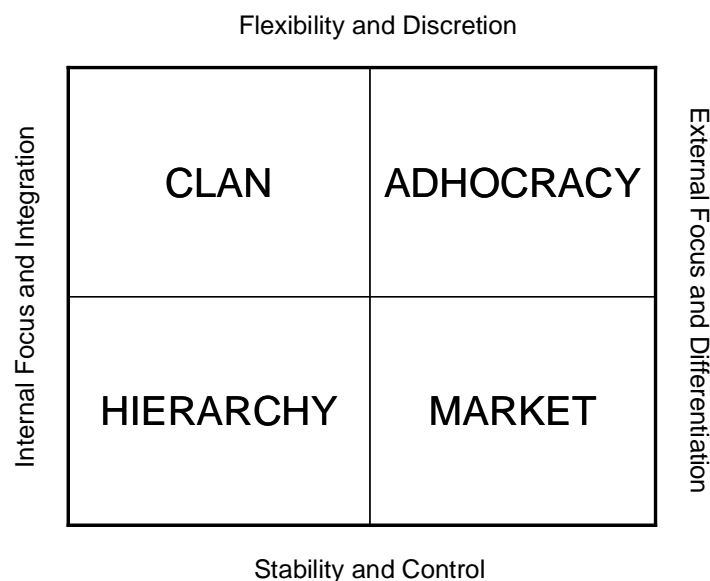


Figure 1 The Competing Values Framework (Cameron and Quinn 2006)

The four major culture types

The four main clusters of effectiveness (major culture types) are called CLAN, ADHOCRACY, HIERARCHY, and MARKET (Figure 1). These types differentiate among the dimensions mentioned above. For example some organizations are seen effective by their members, when the organization is adaptable and changes when ever needed. This can actualise for example by constantly changing organizational structure or product mix. On the other hand, the governmental organizations are often seen effective, when they act stable and predictable. Organizations can also be viewed effective when their internal characteristics are coherent, hence the organization acts

consistently. On the other hand, some values when an organization acts strongly along the external influences.

The area in upper left is been described as CLAN culture (Figure 1). These types of organizations are like extended families that have shares values and goals. The employees are committed to the company as well as the company to its employees. The work is done by teams that can have quite autonomous roles and the customers are seen as partners. The ADHOCRACY culture describes the effectiveness criteria in upper right corner (Figure 1). Young organizations have typically this culture. In adhocracy culture, the environment forces the organizations to be very flexible in their actions. Employees are motivated to be innovative, creative, and entrepreneurial. Unlike market culture, the power has been separated between individuals and teams. However, the external factors guide the development of this type of organization.

In the lower right corner is the MARKET culture (Figure 1). The activities are externally oriented, but the power is centralised unlike in ADHOCRACY. The effectiveness of this type of company is viewed through, for example, profitability and market shares. The main values are competitiveness and productivity, which are measured also between the organizational units and even between individuals. The last quadrant in lower left represents HIERARCHY culture, which is very typical for organizations in the public sector and relatively old organizations. This type used to be the ideal form of organization, because it is stable and consistent. However, the relatively faster changing environment emphasises nowadays other cultural elements. On the other hand, for example governmental organizations still need to act predictable and reliable. The rules and procedures need to be same for all employees.

The realization of the survey

The Internet link to the questionnaire was sent to 600 white-collar workers in Finnish construction companies, out of which 200 responded. The representativeness of the sample has limitations, which are dealt at the end of this paper. The questionnaire included two parts; first respondents were asked to evaluate current situation, then the preferred situation in the near future. The respondents gave their answers based on their feeling about the issue. The questionnaire has been divided into six dimensions. These dimensions have been obtained from the framework called a psychological archetype developed by psychological theorists (e.g. Mitroff 1983). It has been pointed out that people make sense of the world around them in a similar way. Cameron and Ettington (1988) give more thorough explanation between the framework and OCAI-instrument.

The six dimensions are as follows: I Dominant characteristics, II Organizational leadership, III Management of employees, IV Organization glue, V Strategic emphases, and VI Criteria of success. Each dimension include four alternatives (Cameron and Quinn 2006), which correspond with the four cultural types. The respondents rated each of the four alternatives by being either very important (1), important (2) or not important (3). The analysis consisted the amount of “very important” responses. The alternative, which has gotten the most of “very important” responses, is being rated as 3, second most 2, third 1 and fourth 0. The common way of using the OCAI tool is by formal interviewing. However, because of the time constraint, the Internet was used. On the other hand, the need was to gain overall

picture of the values in construction companies in Finland. The use of computers and Internet is very widely spread in Finland. In practice, everybody has the opportunity to use Internet freely.

THE ANALYSIS OF THE RESPONSES

Background of the respondents

Some of the organizations act internationally or are Finnish sub-units of international organizations, but only one of the respondents was not Finnish by the nationality. Around 80% of respondents were men and 94% of all indicated to being Christian. As a comparison, 80% of Finns are Christian and belong to the Finnish Lutheran Church. The next biggest is Finnish Orthodox Church (1,1%), whereas 13,5% do not belong to any religious communities. 7% of the respondents were over 60 years old. Major groups were 51-60 years old (almost 40%) and 41-50 years old (almost 40%) respondents. The rest were 40 and under. The educational backgrounds varied a lot from basic training to licenciate.

The answers were divided and analysed by two different classes; first classification was by the sub-industry consisting housebuilding (50%), construction products (30%) and other (20%, e.g. special contractors, machinery rental service). The other classification was by the size of the company; over 500 employees (60%), 100-500 employees (30%) and under 100 employees (10%).

Results by sub-industry classification

The Figure 2 represents the results from housebuilding sub-industry. The respondents viewed current organizational culture as MARKET type in concerning dimensions I and II. The CLAN culture was most mentioned in dimensions III, IV and V. In dimension VI the HIERARCHY culture was mentioned most often. The preferred situation is quite unanimous. The CLAN culture was mentioned concerning five out of six dimensions. Only in the VI dimension, the HIERARCHY culture was most mentioned. In the current situation the CLAN and MARKET cultures were as strong, but in the future, the values related to CLAN culture will strenghten.

The responses in the construction product sub-industry varied only a little from housebuilding sub-industry. The Figure 3 shows the results in construction product sub-industry. The MARKET culture was strongest considering the dimensions I and IV. The CLAN culture was strongest in dimensions II and V. The ADHOCRACY culture was emphasised in dimension III and the HIERARCHY culture in dimension VI. The preferred situation was again seen more like the CLAN culture. Only in dimension I, the ADHOCRACY culture dominated and in dimension VI, HIERARCHY culture.

Figure 4 represents the responses from other construction related sub-industries indicated also the strong role of MARKET culture (dimensions I, II and III). The CLAN culture dominated dimensions IV and V, whereas the HIERARCHY culture was strongest in dimension VI. The preferred situation emphasised again the CLAN culture (dimensions IV and V). The ADHOCRACY culture was strongest in dimensions I, III, and V, and the HIERARCHY culture in dimension VI.

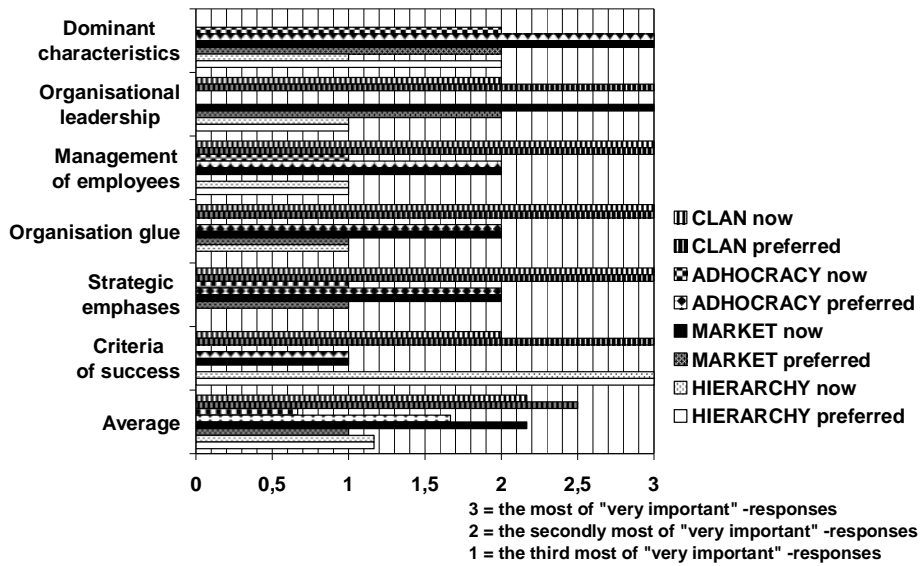


Figure 2 Organizational culture in housebuilding sub-industry

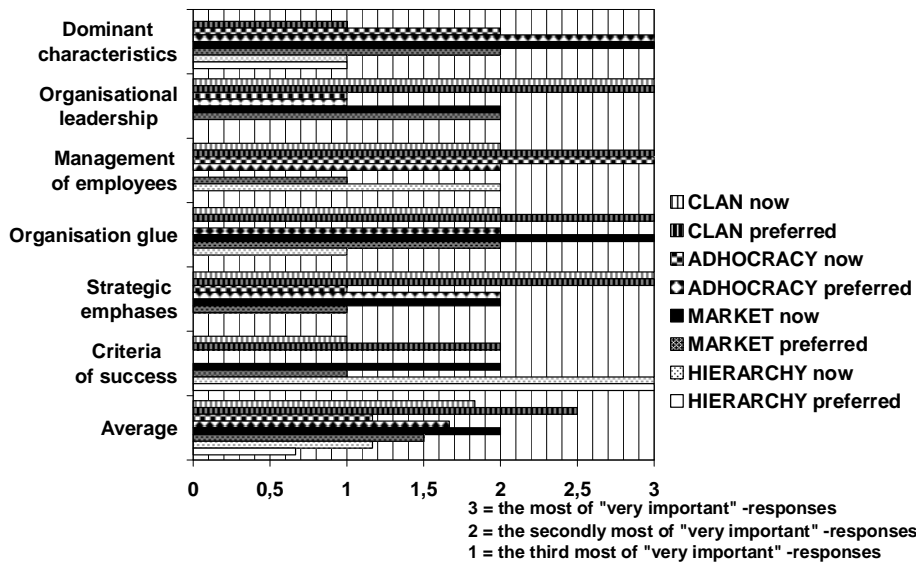


Figure 3 Organizational culture in construction product sub-industry

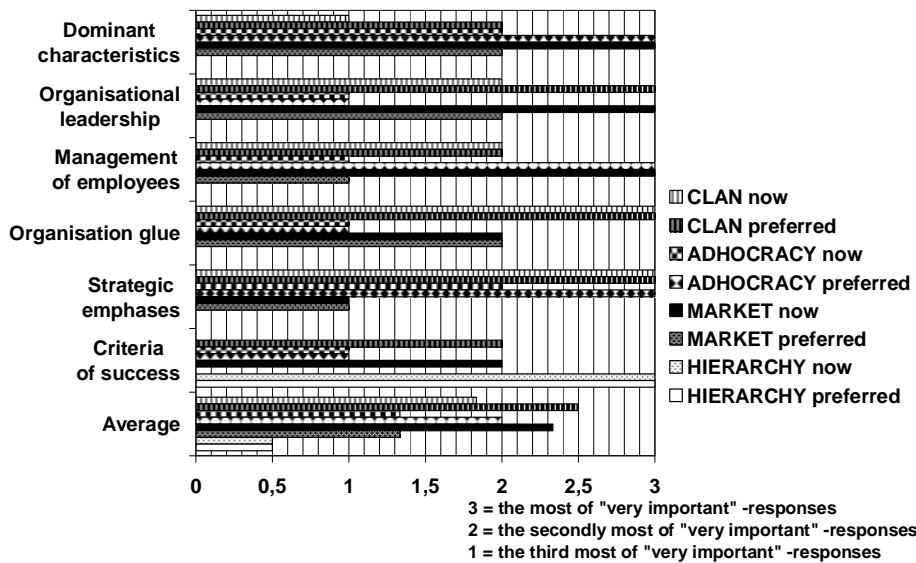


Figure 4 Organizational culture in other construction related sub-industries

Results divided by amount of employees

The Figure 5 represents the situation in companies that employ under 100 person. In the I and IV dimension the CLAN culture was the strongest. In the dimension II and V the ADHOCRACY culture was strongest, but in dimension II the MARKET culture as well was strongly emphasised. The HIERARCHY culture was strongest in dimensions III and VI. The preferred situation strenghten the position of CLAN culture, which is the strongest in all of the dimensions.

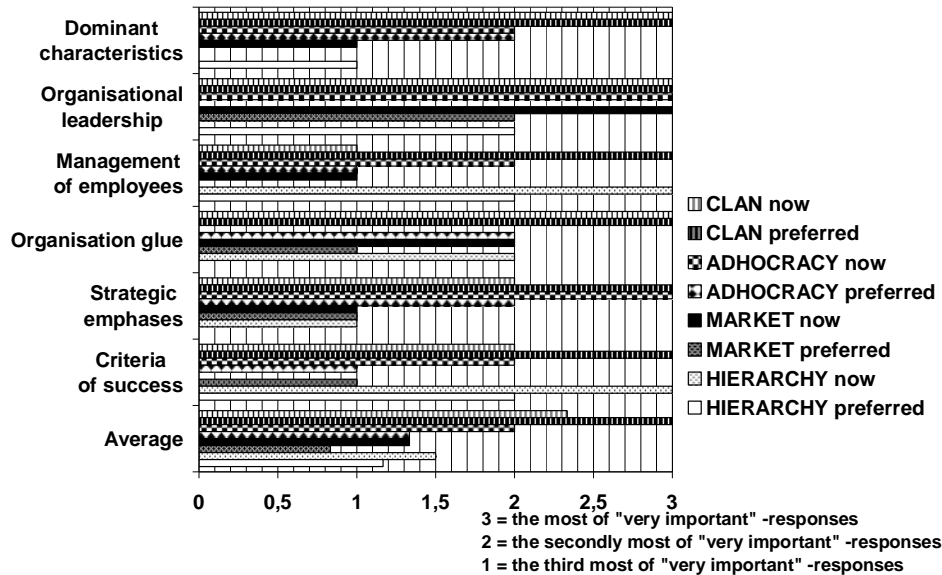


Figure 5 Organizational culture in companies employing under 100

Figure 6 represents the responses from companies that employ 100-500 persons. The MARKET culture was the strongest in dimensions I, II and IV, whereas the CLAN culture was the strongest in the dimensions III and V. Again the HIERARCHY culture was dominating the dimension VI. In the preferred situation the CLAN culture was dominating the dimensions II and IV and the ADHOCRACY culture was emphasised in the dimensions I, III and V. The HIERARCHY culture dominated the dimension VI.

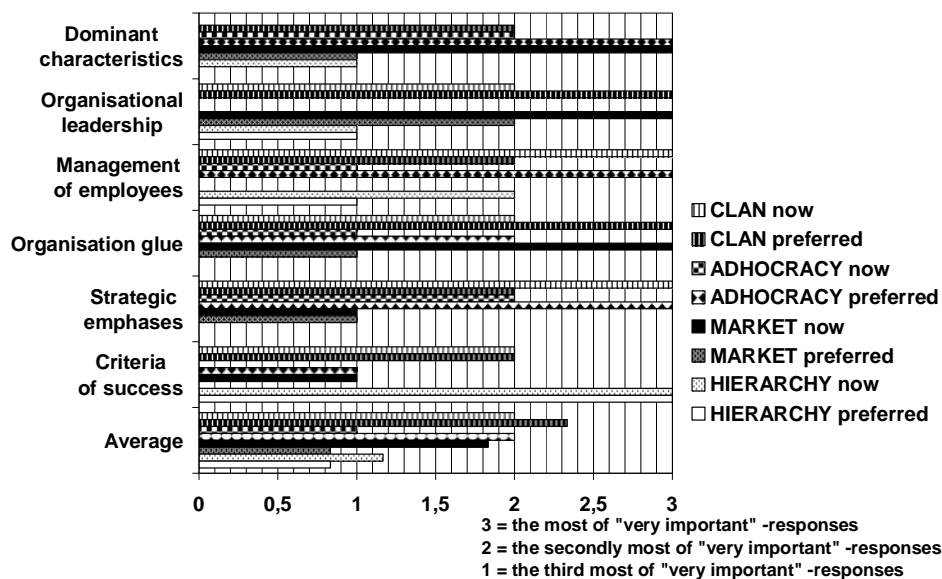


Figure 6 Organizational culture in companies employing 100-500

The Figure 7 includes the responses from companies that employ more than 500 persons. This group was relatively big compared to the last two groups. The MARKET culture is emphasised the most (dimensions I-V), whereas the HIERARCHY culture dominated the dimension VI. The preferred situation followed the familiar pattern, where the CLAN culture was strongest (dimensions II-V). The ADHOCRACY culture was seen the strongest in the dimension I and the HIERARCHY culture in the dimension VI.

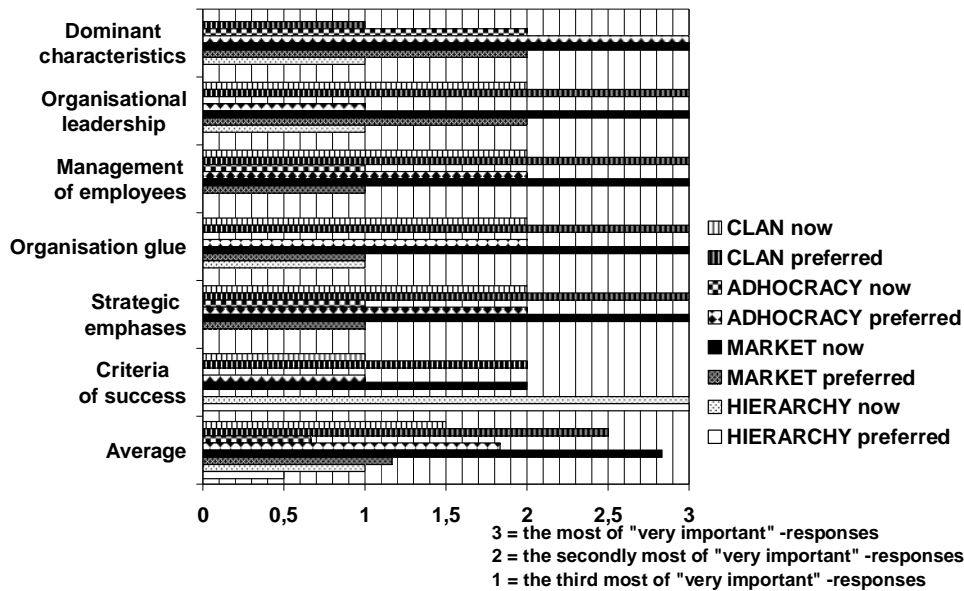


Figure 7 Organizational culture in companies employing over 500

The sensitivity analysis

The method presented here was not exactly as the original OCAI analysis. First of all the individual respondents answered in relation to their own organization, but the results are used to valuate the underlying values of the whole industry on a national level. An average tendency is believed here to give relatively real picture about the current, as well as the preferred situation in the industry. The classification into two different parts gives a bit more detailed information about the responses. Even if the respondents were asked to estimate the alternatives with three part category, only the "very important" –responses were analysed in this study. The results are not analysed by using actual statistical methods, but the purpose here was to get an idea what is the current situation in Finnish construction sector. These results will be then compared to the international results.

FINNISH NATIONAL CULTURAL CHARACTERISTICS

Culture as a concept has been described in many ways. One of the most used definitions is that culture is a particular group's response to its environment and that it is expressed by group's individual members. On the one hand culture can be differentiated from human nature, and on the other hand from personality, but exact boundaries cannot be determined. Culture is shared ideas of acting, thinking, and feeling - these are not inherited but learned (Hofstede, 1991). It takes time for a group

of people to learn a common set of ideas. Most of people do not recognize their own behavioral background, which is the basis to learn how to respond to cultures of others.

Finns are very homogenous group from their ethnical background. According to Hofstede's survey (1980), which has been conducted already several decades ago Finns have low power distance, medium uncertainty avoidance, high femininity compared to masculinity and Finns are more individualistic than collectivistic. Also Tixier's (1996) study emphasises the last dimension. Following Table 1 introduces the Finnish scores in the Hofstede study at 1980 and in the fourth column the indication of current situation based on the subjective valuation of the author. The fifth dimension was defined later and it included only 23 countries. Finland was not among them.

Table 1 Finland's scores according to Hofstede study (Hofstede 1980)

Dimension	Score rank	Score (scale)	The preliminary indication of the cultural development
Power distance (PDI)	46/53	33/(11-104)	≈
Individualism (IDV)	17/53	63/(6-91)	↑
Masculinity (MAS)	47/53	26/(5-95)	↓
Uncertainty avoidance (UAI)	31/32 / 53	59/(8-112)	↓
<i>Long-term orientaton (LTO)</i>	-	-	(↓)

The overall development in Finland has closely followed the development in Western neighbours Sweden and Norway. During the 1990 Finland tooked the leading position in business on the coat-tails of Nokia. Already during the 1980, the influence of US has been strong in Finland. Finnish culture has moved towards more individualistic, masculine and risk taking dimensions. Power distance was already on relatively low level and it seemed to stayed at that same level. The original level of LTO is unknown, but "the quarter economy" has left its marks also to the Finnish society by shortening the durability of, for example, products and relationships. The conclusions drawn here, hence cultural indications, are preliminary results of several years study investigating the role of culture in large and multinational projects conducted by Finnish companies.

CONCLUSIONS

The overall organizational culture in Finnish construction companies, based on this study, is very market oriented. The elements of the national culture support this result (e.g. IDV, UAI). The key elements are the productivity and competitiveness. Individuals are rewarded when the financial result is good or new market shares have been won. Also the internal competition between units and individuals is hard. The

power has been centralized, and there exists several tools and procedures for different purposes. The external market environment guide the actions, but it is seen also as a threat.

The preferred situation among the respondents is also very clear. People in the industry would like the culture be as the CLAN culture. Compared to the current situation, the values will emphasise more the internal focus and integration. The employees are the most important resource for the company and their welfare is important. The customers are like partners, where the success of the company is measured by how satisfied the customers are. The changes in environment mean new business opportunities and are seeing as a part of everyday life. Even if the nature of the CLAN culture can be seen as a collectivistic, the focus is still in the closest working environment. Hofstede (1991) defines individualism as taking responsibility also on the family and those in the close relationship.

The responses addressed relatively clearly only one cultural type. This means that construction industry is operating quite effectively. Effectively in a sense that the values of people are congruent. Because the positions of respondents were not clear, the following trends might tenable:

- the respondents in the higher managerial positions evaluate the organizational culture more often as CLAN culture than the respondents in the lower levels
- MARKET and HIERARCHY cultures are usually relatively stronger than ADHOCRACY and CLAN cultures. The change from the latest two to the first-mentioned requires more investments than other way round

Large part of the respondents were from companies that employ more than 500 employees. The construction sector in Finland, as well as other countries, consists of big amount of small companies. However, the big companies have relatively more power compared to the whole industry, so these results are relatively tenable. Notable in the results is the role of ADHOCRACY culture. In the companies that employ under 100 persons, the trend of this culture is opposite than in other groups. Also the HIERARCHY culture was without exception the strongest in the dimension VI, Criteria of success.

Hofstede did advanced study that despite several efforts has not completely been replicated even today. The national culture in this study was treated more like a context, even if changing slowly. Finns as other nationalities are more and more influenced by globalisation. Coping with other cultures as well as taking advantage from multiculturalism will definitely give the competitive advantage to the companies in the construction business.

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