

MEASURING ORGANIZATIONAL CULTURE IN CONSTRUCTION SECTOR - FINNISH SAMPLE

Ms Johanna Nummelin, Researcher, M.Sc.

johanna.nummelin@vtt.fi

VTT Technical Research Centre of Finland

Lämpömiehenkuja 2, Espoo, P.O.Box 1000, FI-02044 VTT, Finland

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. Cultures' manifestations are visible (e.g. language, clothing, and values), but often the attention is arrested only on the 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. The emphasis in this paper is on the one hand in organizational culture and more focused in organizations acting in construction sector. On the other hand this survey consists of only Finnish construction related companies, which gives even more focused viewpoint to Finnish national culture.

This paper consists of two parts. First, the Hofstede's dimensions of national cultures have been updated concerning Finnish national culture. Hofstede's work 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. Finns are very homogenous group from their ethnical background. According to Hofstede's survey, 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. Current situation is presented in the paper.

Second, the organizational culture of construction sector companies has been investigated with the Organizational Culture Assessment Instrument developed by Cameron and Quinn's (1999). 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. Same method has been used in other countries at the same time period. This paper contributes to international co-operation among CIB TG-23 members and at the same time promotes the Finnish research concerning the management of cultural diversity in global construction projects.

Keywords: Finnish construction sector, organizational culture

INTRODUCTION

Fast changing business environment requires companies to be in 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 – also the underlying values need to be changed. Otherwise people will continue working in a same way than they are used to. Change is not just adopting new systems and methods, but it requires changes in underlying assumptions and values, hence organisational culture. 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 organisations. 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 organisational culture, are proved to be the most important element of competitiveness.

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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. This paper includes an update of these results that concerns Finland.

In Finland the OCAI (Organizational Culture Assessment Instrument) questionnaire was conducted among the members of The Confederation of Finnish Construction Industries (RT). RT is a central federation, through which about 2 000 companies are organised. The member companies of RT employ close to 50 000 people. The questionnaire itself was realised through Internet. The link to the questionnaire was sent to 600 person, out of which 200 responded. The language of the original OCAI is English and the questionnaire was translated into Finnish. The translation was checked by two Finnish professionals of organisational studies, who are comfortable by using both Finnish and English, as well as familiar with the terminology. Because the respondents do not have academic background, the use of colloquial language was also needed.

UPDATING THE HOFSTEDE'S DIMENSIONS

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. Following Table 1 introduces the Finnish scores in the Hofstede study at 1980 and in the fourth column the indication of current situation. 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 coattails 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.

BASIC PRINCIPLES OF OCAI INSTRUMENT

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 organisational design, stages of life cycle development, organisational quality, leadership roles and management skills. Organisations are functioning in fast changing environment, which requires organisations to change as well. To be able to change the organisations need to know their current situation and the direction, where they want to be in the future.

Several studies show that organisational culture is one of the most important factors creating company's competitive advantage. The culture can be defined in several different ways and often there are even opposite or competitive values in the background of an organisation. Competing Values Framework is one theoretical model to explain organisational culture.OCAI-instrument does not include everything that can affect on organisational culture, it has been used in more than a thousand organisations and it has been found to predict the organisational 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 organisation's culture is in line with the organisational 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 organisation affect the answers. Respondents from different organisational units might give very different answers; hence they have different view of the culture in the organisation. However, usually only one of the main clusters becomes more dominant than the others. Culture also changes over time without conscious efforts.

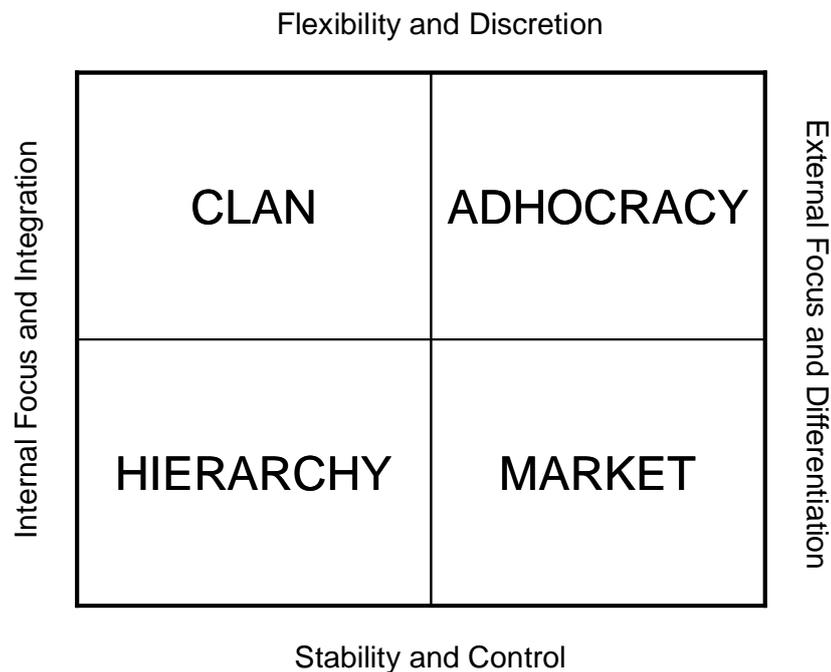


Figure 1 The Competing Values Framework (Cameron and Quinn 2006)

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 organisations are seen effective by their members, when the organisation is adaptable and changes when ever

needed. This can actualise for example by constantly changing organisational structure or product mix. On the other hand, the governmental organisations are often seen effective, when they act stable and predictable. Organisations can also be viewed effective when their internal characteristics are coherent, hence the organisation acts consistently. On the other hand, some values when an organisation acts strongly along the external influences.

The area in upper left is been described as CLAN culture (Figure 1). These types of organisations 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 organisations have typically this culture. In adhocracy culture, the environment forces the organisations 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 organisation.

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 organisational units and even between individuals. The last quadrant in lower left represents HIERARCHY culture, which is very typical for organisations in the public sector and relatively old organisations. This type used to be the ideal form of organisation, because it is stable and consistent. However, the relatively faster changing environment emphasises nowadays other cultural elements. On the other hand, for example governmental organisations still need to act predictable and reliable. The rules and procedures need to be same for all employees.

The execution of the research

The Internet link to the questionnaire was sent to 600 RT members, out of which 200 responded. The questionnaire included two parts; first respondents were asked to evaluate current situation, then the preferred situation in the near future. Parts included following six items: I Dominant characteristics, II Organisational leadership, III Management of employees, IV Organisation glue, V Strategic emphases, and VI Criteria of success. Each item had four alternatives, which correspond with the four cultural types. The common way of using the OCAI tool is by formal interviewing. Here the level of analysis was the construction industry, not individual companies. To ensure the amount of responses as well as saving time, the Internet was used. 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

The 200 respondents are all from member organisations of RT. Some of the organisations act internationally or are Finnish sub-units of international organisations,

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%). The respondents rated each of the four alternatives by very important (1), important (2) and not important (3). The analysis consisted the amount of “very important” responses. The alternative, which had gotten the most of “very important” responses, was rated as 3, second most got 2, third 1 and fourth 0.

Results by sub-industry classification

The following Figure 2 represents the results from housebuilding sub-industry. The respondents viewed current organisational culture as MARKET type in concerning items I and II. The CLAN culture was most mentioned in items III, IV and V. In item VI the HIERARCHY culture was mentioned most often. The preferred situation is quite unanimous. The CLAN culture was mentioned concerning five out of six items. Only in the VI item, 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.

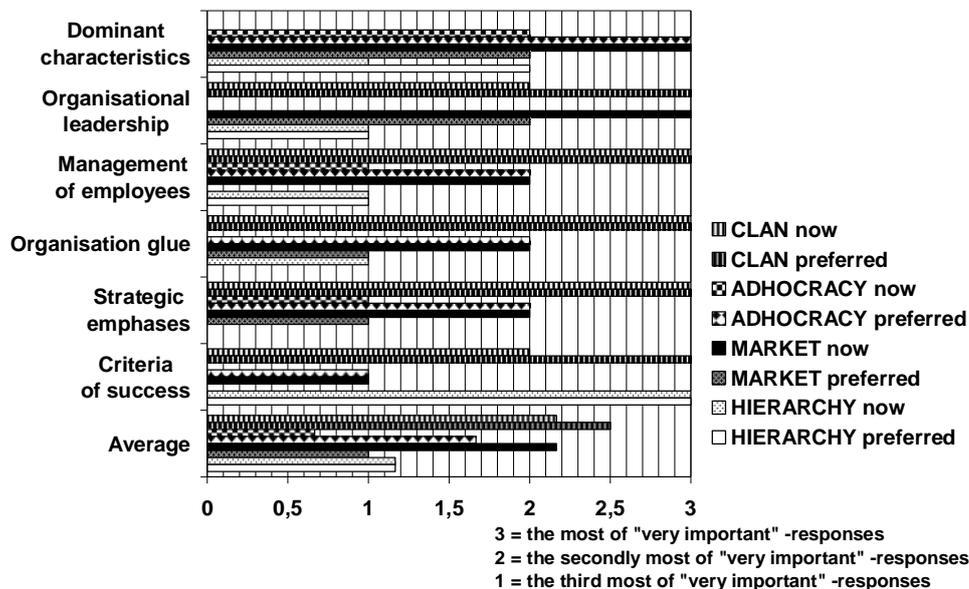


Figure 2 Organizational culture in housebuilding sub-industry

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 items I and IV. The

CLAN culture was strongest in items II and V. The ADHOCRACY culture was emphasised in item III and the HIERARCHY culture in item VI. The preferred situation was again seen more like the CLAN culture. Only in item I, the ADHOCRACY culture dominated and in item VI, HIERARCHY culture.

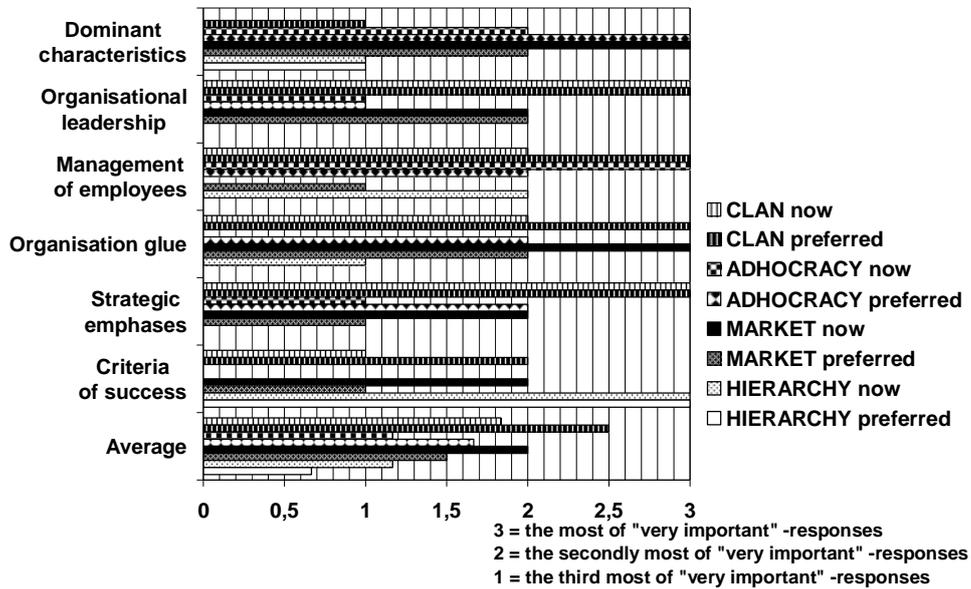


Figure 3 Organizational culture in construction product sub-industry

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

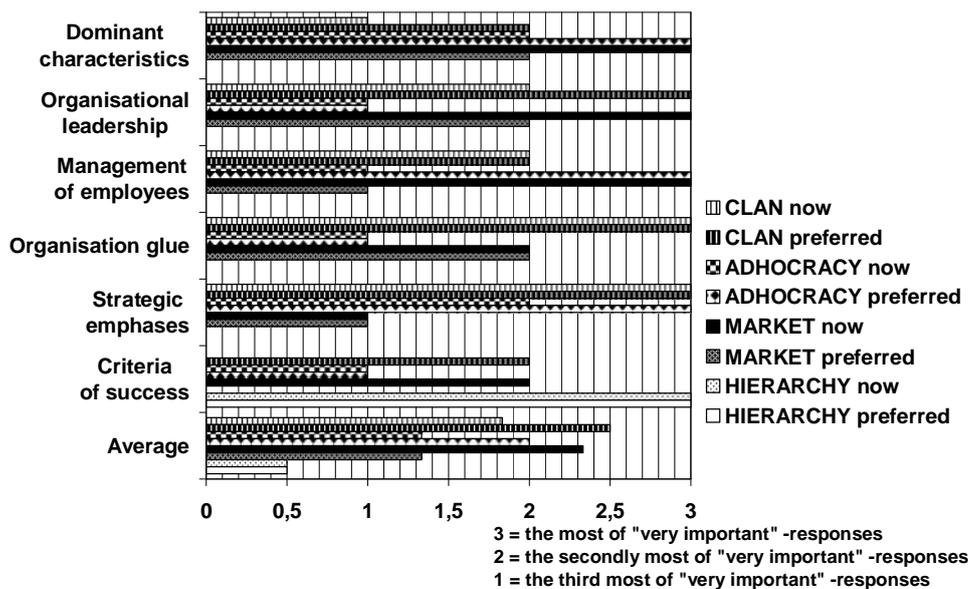


Figure 4 Organizational culture in other construction related sub-industries

Results divided by amount of employees

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

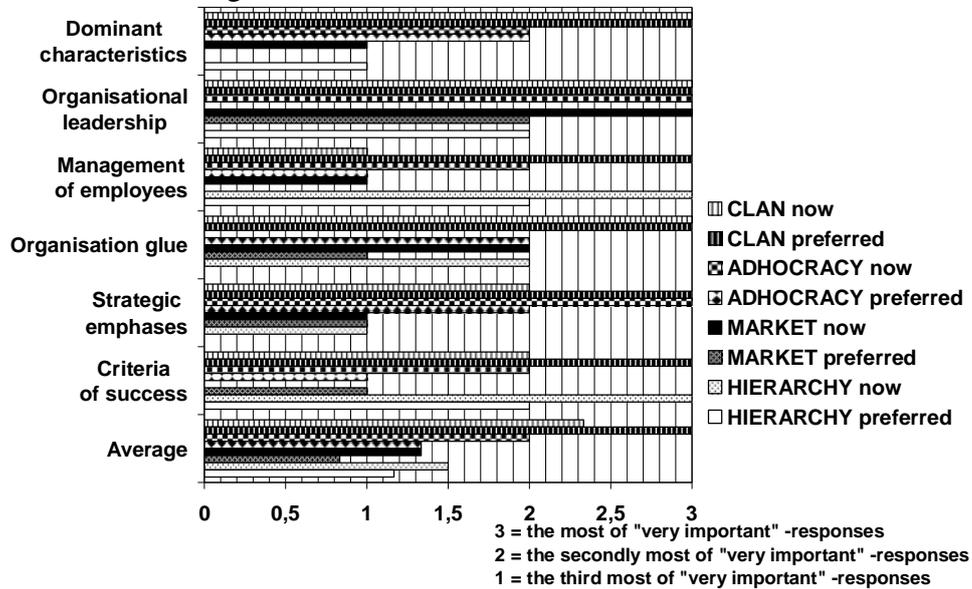


Figure 5 Organisational culture in companies employing under 100

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

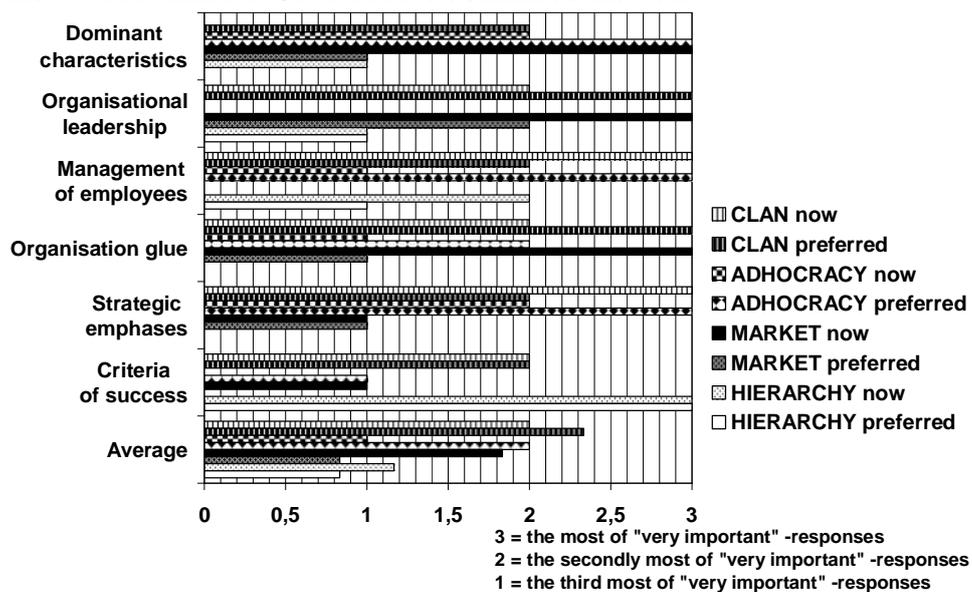


Figure 6 Organisational culture in companies employing 100-500

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 (items I-V), whereas the HIERARCHY culture dominated the item VI. The preferred situation followed the familiar pattern, where the CLAN culture was strongest (items II-V). The ADHOCRACY culture was seen the strongest in the item I and the HIERARCHY culture in the item VI.

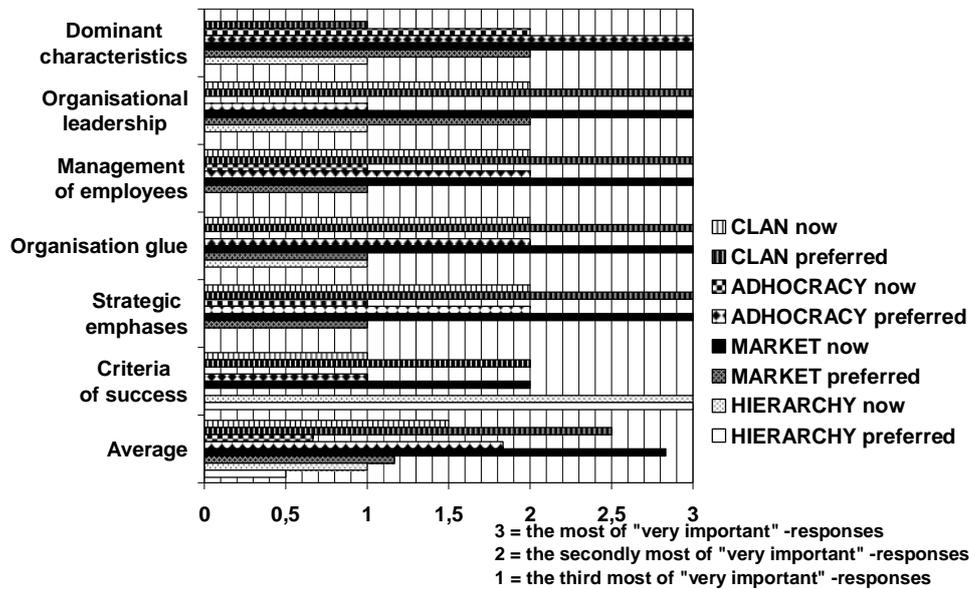


Figure 7 Organisational culture in companies employing over 500

The sensitivity analysis

The method presented here was not exactly as the original OCAI analysis. First of all the level of analysis is on the industry level, not a single organisation. 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.

CONCLUSIONS

Hofstede did advanced study that despite several efforts has not completely been replicated even today. This study focused only on one national culture and its development during the last decades. 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 nations business environment.

The organisational culture in Finnish construction sector, based on this study, is very market oriented. 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 the tools and procedures exist 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, CLAN culture the values 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.

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 be tenable:

- the respondents in the higher managerial positions evaluate the organisational 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

Big 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 item VI, Criteria of success.

REFERENCES

Cameron, K. S. and Quinn, R. E. 2006. *Diagnosing and Changing Organizational Culture*. Revised Edition, Jossey-Bass, US. First published by Addison-Wesley in 1999.

Hofstede, G. 1980. *Culture's Consequences - International Differences in Work-Related Values*. Sage Publications, US.

Hofstede, G. 1997. *Cultures and organizations: software of the mind*. McGraw-Hill, London. First published by McGraw-Hill International, UK, 1991.