

CULTURAL DIFFERENCES AND THEIR INDICES

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Abstract

The current study compares employees' work-related values and attitudes in large Norwegian multinational business organizations. The study is based on an analysis of survey results. The survey covered 446 employees from 6 business units, located in Norway, Thailand and Tanzania. The data comes from questionnaires, completed by these employees. Their work-related values and attitudes are compared with their background parameters, such as nationality, the organization, business unit, sex, age, and education years. The analysis of the data reveals that nationality is the main element, determining the differences in work-related values and attitudes, and therefore supports the theory of cultural divergence.

Introduction

People's values and attitudes are usually different, and such differences may partly indicate their cultural backgrounds (Ronen, 1986, P.130). The most common way to study values and attitudes is by asking people's opinions about some defined issues. A questionnaire using standard questions is one of the recognized instruments in such studies (Adler, 1984). The answers from different people are analyzed and mapped according to their demographic backgrounds. There are quite a few of cultural studies using such approaches, especially for business organization and management studies (England, 1975; Hofstede, 1980; Tayeb, 1988). Many theories and hypotheses are presented, proved, or argued using such approaches and their data bases.

One of the critical issues is how to use these data bases, which present different people's values and attitudes, to prove or argue different theories of culture. The current study examines the attitudes of people employed in multinational business organizations, and attempts to discover their cultural backgrounds. A questionnaire with standard culture-free questions was used as the study instrument. The individual answers indicate a person's attitudes, which again reflect his/her personal values. Correspondingly, the answers from a group of people indicate group attitudes, and reflect their own values. Different employee groups are classified according to their demographic backgrounds, and also the differences of attitudes and values found their cultural backgrounds.

The current report consists of the following parts: Definitions of key terminology and presentation of some arguments (convergence vs. divergence) in the theory of culture; Methodology; Conclusions; Discussion.

Definitions of key terminology and presentation of some arguments (convergence vs. divergence) in the theory of culture

The study of culture is becoming an even more popular issue today. Many scholars use the term "culture" in their studies and research. Many theories and schools of thought try to give their own explanations, definitions, and arguments regarding culture. However, there is no unique standard providing an entire and complete definition of the term "culture". This perhaps is not surprised since the study of culture is still in an infant phase (compared with mathematics, physics, or the other natural sciences). Studies in such a phase still largely depend on the discovery of fact, rather than logical deduction. Another important point is that many studies of culture are largely based on American models and thought, published by American scholars (Sekaran, 1983; Ronen, 1986, p. 55), and this probably gives a trend to "Americanize" the studies of culture. It is therefore important to introduce other aspects and arguments into this arena of culture, to enrich the discussion of culture, and to provide a more complete definition of culture.

The current study introduces its own definitions of values, attitudes, and culture. The definitions provide, not only the author's understanding of these terms, but also a frame of reference and established norms for the current discussion.

Values - belief, conscience, idea, a mental standard or norm of a person. For example, freedom, equality, discipline, responsibility. Usually values are established by a person's early learning and they are not easily changed.

Attitudes - meanings, opinions, or viewpoints using by people who want to express their belief, or their idea, standards or norms. Attitudes can either be expressed by a person (personal opinions), or a group people (group opinions). An attitude can also be crossed by several values. For example, the attitude "I enjoy my work" may indicate both the value of responsibility and the value of freedom (at work). A typical example of attitudes can for instance be that people like their circumstances around them or not, or people agree or disagree on one particular issue or others, or some one prefers being associated with or others not.

Culture - a complex system or order which is emerging among a group of people who have common values and attitudes, and other social elements, such as rules, customs, and traditions. Culture always reflects a group people, as small as a family, or as large as a nation, even as a religion group which somehow larger than a nation, e.g. cultures from Islam, Christianity, or Buddhism.

The relationships between values, attitudes, and culture can be presumably considered as the follows:

Culture possibly *causes* people's **values** which again *determine* their **attitudes**.

Adler and Doktor (1989) analyzed main conclusions from a great number of cultural studies for business organizations and management, and found out there are mainly two categories among them. These are named for the theory of cultural convergence and the theory of cultural divergence, respectively.

The theory of cultural convergence assumes that organizational behaviour, culture, or other non-technical elements, such as working relationships, leadership style, decision process and structure would keep approximately the same from one country to another, no matter where a large multinational business company operates in the world. Among its theoretical supports (Cole, 1973; Negandhi, 1979, 1985), there is for instance an argument named for "common industrial logic". The thought is based on the assumption that the development of technology the domestic company brings the same consequences toward its employees and employees from the overseas subsidiaries. Hence, the argument believes such a development will smooth out cultural differences from one country to another.

The theory of cultural divergence, in contrast, argues that a multinational business company would have different organizational behaviour, culture, or other non-technical elements from one country to another, according to each particular country's local conditions. One supporting argument comes with a reason that nation or other local (non-organizational) culture has the far greater influences toward organization's behaviour, culture, or other non-technical elements, than a mother company's organizational culture does. Consequently, no matter how influential the domestic company's organizational culture is, it has to be modified by local conditions when applying its overseas subsidiaries. Huge data bases and analysis (Hofstede, 1980; Laurent, 1983; Bass & Eldbridge, 1973) were used to support such a theory.

On theoretical level, both cultural convergence and cultural divergence have their own, good, and reasonable arguments. Both arguments have their own supporting data and study findings. It seems no one is better than the other. Nevertheless, the current study intends to use its own independent data materials to provide fact for one or the other arguments.

Methodology

The survey method was used for collecting of data. The questionnaire was used as the study instrument. All questions are designed with consideration of culture-free and translated into local languages, *i.e.* Norwegian, Thai, and Swahili. Five-point Likert scale was used to indicate degrees of respondents' opinions.

The study is based on comparisons of employees' different values and attitudes, analyzed according to those employees' demographic backgrounds. Thus, the variation of responses from different employee groups are mapped, and such variations should indicate the most important cultural elements, distinguishing people of different cultural backgrounds.

Three large Norwegian multinational business companies were involved in the survey. Each company had two business units participating the survey. A domestic unit, located in Norway, and an overseas subsidiary, located either in Thailand or Tanzania. The notation used for the companies, business units, and countries is as the follows:

The three large Norwegian multinational business companies:

C_1 , C_2 , C_3 .

The three countries which involved in the survey:

NO - Norway, TH - Thailand, TA - Tanzania.

The six business units which participated in the survey:

C_1 has B_{1NO} in Norway and B_{1TH} in Thailand,
 C_2 has B_{2NO} in Norway and B_{2TH} in Thailand,
 C_3 has B_{3NO} in Norway and B_{3TA} in Tanzania.

In total 730 questionnaires were sent to the employees of the 6 business units, and 446 of them were returned. The response ratio was 61%. The distribution of responses from the 6 business units broken down according to countries and companies is illustrated in table 1. The questionnaire contained 71 questions. Among them, 62 questions covered the issues of values and attitudes (dependent variables), and the remaining 9 questions indicate employees' demographic backgrounds (independent variables).

Table 1. *Distribution of responses from 6 business units broken down according to countries and companies (Total 446 responses)*

Country \ Company	C_1	C_1	C_2	C_2	C_3	C_3
Norway - NO	$B_{1NO} = 53$		$B_{2NO} = 74$		$B_{3NO} = 14$	
Thailand - TH		$B_{1TH} = 137$		$B_{2TH} = 111$		
Tanzania - TA						$B_{3TA} = 57$

Factor analysis was applied to study the primary data from the responses. The purpose was to reduce the number of dependent variables, and explore the latent dimensions (Rossi, Wright & Anderson, 1983, p.269) which presumably reflect employees' cultural backgrounds. The employees' demographic backgrounds were grouped into 6 variables: sex, age, education in years, business unit, and company. The company variable indicates an employee's organizational belonging, and nationality.

Conclusions

All 446 respondents were grouped into categories of sex, age, education years, business units, companies, and nationalities. Their responses to the 62 questions covering values and attitudes (dependent variables) are scored with degrees indicating how much they agree or disagree to the statements in the questions. Scores are calculated and grouped via the factor analysis. The factor loading was chosen to be 0.3, and "varimax rotation" and "pairwise orienteering" techniques were used in order to extract the latent dimensions and compensate missing cases, respectively.

In total 20 indices were found by the factor analysis in the first instance. Many of them had overlapping questions and were therefore eliminated (Wu, 1991, p.132). There were 9 remaining indices to indicate latent dimensions of employees' cultural backgrounds. These 9 indexes are:

- | | |
|---------------------------------|------------------|
| 1. Task performance orientation | 6. Equality |
| 2. Socio-emotional orientation | 7. Security |
| 3. Achievement orientation | 8. Individualism |
| 4. Traditionalism | 9. Modesty |
| 5. Stress avoidance | |

Hence, employees' values and attitudes are dimensionalized into 9 indices. Notwithstanding, the 9 indices only represent a part of the employees' cultural background. In fact, there may be hundreds and thousands of indexes or dimensions indicating people's cultural backgrounds in real situations.

Further analysis was concentrated on the comparisons of 9 indexes vs. different respondent groups. Subsequently, employees' cultural backgrounds (indicated by dependent variables) vs. their demographic backgrounds (represented by independent variables) were compared. Such comparisons provide correlations between different employee groups and their demographic and cultural backgrounds (Hofstede, 1980). Table 2 shows the correlations in detail. The technique of comparison used is AONVA - ANalysis Of VAriance, and the measure between dependent variables and independent variables is expressed by an *F* test, with significance *p* (Nie, et., 1975, p.400). "ns" indicates "not significant".

Table 2. Correlations between different employee groups of their cultural backgrounds (by 9 indices) and demographic backgrounds

Employee groups \ Indexes	Index 1	Index 2	Index 3	Index 4	Index 5	Index 6	Index 7	Index 8	Index 9
Sex <i>F</i> (1, 409), <i>p</i>	11.90, <.0001	12.73, <.0001	1.93, ns	3.19, <.05	1.87, ns	5.30, <.01	0.99, ns	0.21, ns	1.64, ns
Age <i>F</i> (2, 438), <i>p</i>	22.18, <.0001	7.43, <.001	0.62, ns	4.39, <.01	1.34, ns	7.68, <.001	0.24, ns	2.14, ns	0.66, ns
Education years <i>F</i> (2, 443), <i>p</i>	7.67, <.001	4.68, <.01	10.28, <.0001	1.05, ns	5.91, <.01	2.04, ns	1.87, ns	0.53, ns	3.26, <.05
Business units <i>F</i> (5, 441), <i>p</i>	187.63, <.0001	25.41, <.0001	24.60, <.0001	7.75, <.0001	5.50, <.001	18.25, <.0001	2.54, <.05	5.01, <.001	5.38, <.001
Companies <i>F</i> (2, 443), <i>p</i>	21.49, <.0001	32.94, <.0001	38.25, <.0001	7.58, <.001	2.74, ns	32.44, <.0001	1.37, ns	8.22, <.001	3.11, <.05
Nations <i>F</i> (2, 443), <i>p</i>	386.00, <.0001	50.14, <.0001	49.38, <.0001	5.54, <.01	2.34, ns	41.36, <.0001	0.78, ns	4.49, <.05	11.00, <.0001

In general, the correlations show that employee grouping according to business unit, company belonging, and nationality gives more significant differences than grouping of sex, age, and education in years. Index 5 - **Stress Avoidance** and index 7 - **Security** seem to make little difference between employee groups, except grouping according to education in years and business unit.

The important conclusion is: Grouping according to nationality gives the most significant differences for the most of indices (see their *F* test and *p*). This finding is the essential conclusion of the current study: Based on an independent survey and its indices, our analysis shows, that cultural differences are primarily caused by nationalities, rather than company belonging. The correspondingly theoretical interpretation is: Cultural divergence in this case is more important than cultural convergence among people (employees from the current sample) in large multinational business companies.

The groups of business units were not directly compared with company and nation groups, since they had different number of groups (see table 2 where business units (5, 441) vs. companies or nations(2, 443)).

Discussion

Hofstede (1980) in his cross-cultural study analyzed huge data collections (more than 100 000 responses), and identified 4 dimensions of culture. They are: Individualism; Power distance, Uncertainty avoidance; Masculinity. The 4 dimensions are well-recognized by researchers and are frequently mentioned and used in many other cultural studies.

He made a comparison of employees' work-related values and attitudes from 66 countries in the world, and concluded that nation groups gave rise to the most significant differences in culture. This survey is still considered as one of the most extensive and fundamental cross-cultural examinations. The study concluded that cultural divergence is the most important effect in a multinational business organization. Thus, the divergence of national culture is more effective than the convergence of organizational culture, even in a multinational business organization.

The current study has undertaken the factor analysis independently and collected data independently, from Hofstede's cultural study. Therefore, the study extracted 9 indices which are different from Hofstede's 4 dimensions. This means that the current study, with its own independent factor analysis and sampling, has introduced new and independent indices as measure of culture, though the generality of the current survey is debatable. The conclusion of the current study follows the conclusions of Hofstede's cultural study, namely, that national culture is the most important effect for a multinational business organization.

As mentioned previously, there may be hundreds and thousands of indexes or dimensions to indicate people's cultural backgrounds. Any cultural study using questionnaire survey approach will have difficulties in covering these indices or dimensions completely. Only a small portion of these indices or dimensions will be extracted or determined from the research studies. With different questions, samples, technique for factor analysis, or the time effect of the study, the study findings such as indexes, dimensions, etc. will probably change from one study to another.

Nevertheless, the main conclusions of the current study and Hofstede's cultural study agree each other. Both studies support the theory of cultural divergence, though the measure indexes and dimensions of culture were different.

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