The Prediction of Financial Performance in Dependence on the Type of Organisational Culture

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Abstract

Purpose of the article: Knowing the factors that affect organisation’s performance is a prerequisite for successful management. But it should be remembered that these factors do not act separately and that it is always necessary to examine the manner in which they interact and the level of synergy they can create. Our paper is based on the assumption that these requirements can be met by applying a typology of the organisational culture (OC).

Methodology/Methods: Here we evaluate the return on assets (ROA) indicator in relation to different types of the OC based on four-dimensional Harrison and Handy’s model in 194 organisations operating in the Czech Republic, using quantitative methods including multiple regression analysis.

Scientific aim: The aim of the paper is not only to find a response to whether there is a relationship between the different types of organisational culture and the financial performance of the organisation. We also want to point out at the possibilities of deeper analysis and interpretation of the factors that the typology of organisational culture includes.

Findings: Our results show that there is a positive significant correlation between the task type of the OC and ROA and a negative one between the power type of the OC and ROA.

Conclusions: This suggests that selecting the task type of the OC may lead to improvements of financial indicators, but there are also other factors that must be taken into consideration.

Keywords: organisational culture, Handy’s typology, task type of the OC, financial performance, ROA

JEL classification: L20, M21
Introduction

The use of knowledge on organisational culture (OC) is one of the important and yet not fully appreciated tools of managerial work. In the transformed organisations of the CEE countries, the issue of the OC related to work with human resources has become the subject of much research, yet up to now many aspects and characteristics of the OC have not been sufficiently analysed in research studies coming from this region (Lukasova, 2004).

Our paper therefore focuses on one of these areas, i.e. on the possibility of using the OC typologies to identify its impact on selected variables. We are aware that each typology means a certain degree of simplification, and that there are not always “pure” types. In agreement with Doty, Glick (1994), we are convinced that typology can be a good theoretical basis for exploring the problem. If a particular type of culture prevails in the organisation, one can expect that the behaviour of organisation’s members is governed by a set of values, norms and beliefs that differentiate this organisation from others, and that the forms of behaviour driven by this culture will yield results different from those of an organisation with another type of culture.

Among many typologies used in this area, we chose the typology outlined by Harrison (1972), which was later adapted by Handy (1976). The advantage of this typology lies in linking the OC with the structure of the organisation and thus capturing social dynamic processes related to the ways by which the members identify with the organisation. The aim of our research was to assess which type prevails in the surveyed organisations and if it has some impacts on the financial performance of the organisation.

1. Theoretical Background

The OC is generally considered to be a complex phenomenon that forms the basis of the organisation and shapes and influences other organisational variables (Deal, Kennedy, 1982). Most authors consider the OC to be a diverse set of elements, however, the primary basis for defining the OC is the word “shared” (Ashkanasy et al., 2010; Schneider, 2000; Glisson, James, 2002). The diversity of definitions is mostly due to the different perceptions of OC contents (Eldridge, Crombie, 1974; Deal, Kennedy, 1982; Meyersson, Martin, 1987; Furnham, Gunter, 1993; Purcell et al., 2003; and others). A comprehensive overview of OC definitions and its impact on performance can be found in Abu-Jarad et al. (2010). With regard to the objective of our study, we use the concept of Handy (1976, p. 176), who understands the OC as different “sets of values and norms and beliefs reflected in different structures and systems”.

The main domain of interest in the OC is driven by the need to identify factors that would allow performance prediction (Lim, 1995). Studies of this type are based on different characteristics of the OC and various concepts of performance (Kwantes, Boglarsky, 2007), but most often they focus on financial performance and draw attention to the importance of results-oriented culture (Saffold, 1988). Kotter, Heskett (1992) investigated and confirmed the influence of OC’s strength on performance, Marcoulides, Heck (1993) assessed the OC by a set of different variables, and they found a certain degree of impact on performance at all of them. Ogbonna, Harris (2000, 2002) examined the relation of four types of the OC to performance depending on the environment. In their conceptual framework, they demonstrated a major link to performance in the competitive and innovative type of the OC. Also, other studies confirm the relationship between the OC and performance (Dolan, Garcia, 2002; Schneider, 1995; Flynn, Chatman, 2001; Martin, 1992; Schneider et al., 2002; Boyce et al., 2015).

Within the CEE, we can mainly observe the discussion of the outcomes reached in
the research of human resources management and its impact on the performance including similarly interpreted results covering particular CEE countries and their national cultures (e.g. Szewczyk, Lobos, 2012; Poor et al., 2011). Among the best-known studies of organisational performance in countries with different cultures, we can name the work of Denison et al. (2004). In most of these studies, economic efficiency or financial performance is used and measured by the various profitability ratios (Wei et al., 2014; Sørensen, 2002), such as the return-on-assets (ROA) or return-on-investments (ROI), or by sales indicators (Boyce et al., 2015), mostly represented by sales growth (Denison, Mishra, 1995; Kotrba et al., 2012). Lukasova (2015) summarizes the results of the existing knowledge of the influence of the OC on performance and concludes that several key factors have to be taken into account in this relationship. In particular, these are the conditions of the external environment which the organisation has to cope with, the field in which the organisation operates and its mission and vision. All this is linked to the strategy chosen to achieve organisation’s goals and to the level of organisation’s development. On the other hand, O’Reily III et al. (2014) claim that, despite the widespread interest in the possible effects of the OC on corporate performance, this relationship is not so clear and they point out at the possible obstacles in the form of rigidity and routine in strong cultures. However, Chatman et al. (2014) brought evidence that it is the content of OC, not only its strength, what matter.

This summary of findings suggests that for examining the impact of the OC on organisational performance, the OC needs to be conceptualised in such a manner which regards the complexity of this construct and enables to identify the key factors that can influence this relationship. We believe that OC typologies can be used for this purpose if they meet the basic conditions posited by Doty, Glick (1994, p. 243), i.e. they have the character of “complex theoretical systems developed to predict variance in dependent variables”. Unlike classical theories, which mostly describe linear relationships or interaction of the observed elements, Doty, Glick (1994) argue that appropriately formulated typologies capture more complex formulations of first order elements generating synergy. Although the interest in applying knowledge about OC typologies prevails at the turn of this century, over the past few years, we have still been able to find studies dealing with these issues (Russo et al., 2013; Yesil, Kaya, 2013; Acar, Acar, 2014; Guzak et al., 2017).

For the purpose of our study, we chose the Handy’s (1976) typology of OC consisting of four types that are based on a description of the organisation’s structure, but they also map the relationships between the members of the organisation and thus they allow to take into consideration the socio-psychological aspects that are the source of the dynamic processes in the given structure. This enables to identify the origin of working energy, including ways of managing it. Although this is one of the oldest typologies, we see its contribution in taking into account the elements of organisational design and the distribution of power, which, within the CEE region, may be the factors that can still be influenced by the history of the planned economy, compared to developed market economies.

Handy (1976) postulates power, person, role and task culture. Power culture is characteristic by individualism and centralised decision-making based on the need to maintain influence rather than rationality and logic. This culture is described as a web with a central source of power – a spider. The effectiveness of such organisations depends primarily on the capabilities and competencies, but as well as whims, of this central power, and is often measured by the final results, regardless of the means by which they have been achieved. Although these organisations may be strong and efficient in fast response
to external conditions, their weakness lies in competitive atmosphere based on the need to fight for the boss’s favour. This may lead to disaffection of staff in middle layers, their low working morals and turnover.

According to Handy’s (1976) work, person culture emphasises individuals in the organisation and their involvement in achieving their goals. The organisational structure of this type can be represented as a cluster of individuals without their clear arrangement. In the business environment, this is an unusual type because most organisational elements and attributes are tolerated here only when they serve to individual interests of members, who decided to join together to enhance their opportunities to do what they want, to satisfy their needs. This is typical for professional chambers, which provide some back-up for their members, but this also applies for specialists, consultants or freelancers, who have a certain position in an organisation but do not feel tied to it, they just want to do their job.

The role culture is a bureaucratic stereotype. Its structure is formed by clearly defined positions based on the division of labour and the expertise of members. In Handy’s (1976) concept, it is described as a Greek temple, where pillars represent functions or specialities and are the source of organisational strength. The co-operation between these pillars is coordinated from the top (the roof of the temple) by procedures and rules. The crucial factor in this culture is the job description that rather strictly prescribes a role for an individual. Any deviation from the role is undesirable as it can endanger the stability of the pillar and thus of all the system. This culture forms a stable environment where people feel safe and secure. But for those who are creative and innovative or ambitious and power-seeking, working in such conditions may be frustrating. Role culture organisations can be successful in a stable, predictable environment but cannot cope well with changes and demands on flexibility.

The task culture is a type of project management and teamwork based on flexibility and efficient use of human resources. Its structure resembles a net where the knots represent project teams or work groups formed just for a specific task (Handy, 1976; Ghinea, Bratianu, 2012). Their members have a wide range of autonomy in decision-making and control over their activities, which implies a high degree of identification with objectives of the organisation. Organisations based on this culture are highly adaptable and flexible. They are successful where it is necessary to respond quickly and creatively, with sensitivity to changing external and internal conditions. They offer a working climate that corresponds to the current ideal of individual freedom, democratic approach to work relationship and the opportunities for self-realisation. But the emphasis on flexibility takes its toll in the form of reduced opportunities for specialisation of organisation members. Under conditions of limited resources, efforts to their stricter control are being made, competitive struggles between team leaders are emerging, individual goals gain priority over organisational ones and there is a tendency towards transition to the power type of culture.

Taking into account these findings, we formulated the following main research question for our study:

**RQ: What type of the OC according to the Handy’s typology influences the financial performance of the organisation?**

### 2. Research Objectives and Methodology

Our research into the typology of the OC in selected organisations operating in the Czech Republic was based on data collected within the period 2011–2012. Representatives of the top management of randomly selected organisations were asked to fill in a semi-structured questionnaire allowing the respondent’s
own response. The questionnaire included questions covering the field of culture and its type. The rate of occurrence of individual types of the OC by Harrison (1972) and Handy (1976) was assessed on a five-point ordinal scale, where the value 1 was low and the value 5 meant a high-level of a given type of the OC. In addition, for each scaled response, a text response was also required, justifying why a given scale level was selected. The questionnaires were distributed in the paper form. When transcribing the questionnaire into an electronic form, we checked if the text responses were consistent with the selected value on the scale. Only those questionnaires with consistent scaled and text responses were included in the study. In addition, data describing the organisation itself, i.e. data on size, ownership structure and the sector of the national economy in which the organisation operates, were recorded.

Finally, the research sample consisted of 194 organisations for which all the necessary data were complete. Table 1 introduces the research sample. The organisations in the sample were of all sizes (6 micro, 42 small, 61 medium and 85 large ones) and they had both domestic and foreign owners in the form of both natural and legal persons. There were 118 organisations (60.8%) under domestic control, and 76 (39.1%) foreign organisations included in the sample. In the period under review, these organisations operated in 15 different sectors, out of 21 sectors included into the CZ-NACE classification. Manufacturing organisations belonging to the sector C formed 40% of the sample and 17% of included organisations were engaged in the retail and wholesale business (sector G).

Table 2 provides a basic overview of how the representative of an individual type of the OC was rated by the respondents. It should be noted that for each organisation, it was possible to assess the degree of representation of all OC types. Moreover, Table 3 shows the descriptive statistics according to the most frequently represented five sectors and also the overall values reached for each type of culture. The highest level was on average reached by the task culture (Table 3), to which the majority of respondents awarded the highest rating (5 points), while the low occurrence (1 point) was not find even at one organisation included in the analysis (Table 2). The task-oriented culture also had the highest occurrence within the selected five industries. Vice versa, the power culture had the lowest average occurrence, with the lowest occurrence being shown in ICT businesses.

Furthermore, we connected the OC’s data from the questionnaire with financial

<table>
<thead>
<tr>
<th>Branch</th>
<th>Micro (≤9)</th>
<th>Small (10–49)</th>
<th>Medium (50–249)</th>
<th>Large (≥ 250)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1 (0.5%)</td>
<td>15 (7.7%)</td>
<td>27 (3.9%)</td>
<td>35 (18.0%)</td>
<td>78 (40.2%)</td>
</tr>
<tr>
<td>F</td>
<td>0 (0.0%)</td>
<td>1 (0.5%)</td>
<td>6 (3.1%)</td>
<td>3 (1.5%)</td>
<td>10 (5.2%)</td>
</tr>
<tr>
<td>G</td>
<td>1 (0.5%)</td>
<td>12 (6.2%)</td>
<td>6 (3.1%)</td>
<td>14 (7.2%)</td>
<td>33 (17.0%)</td>
</tr>
<tr>
<td>J</td>
<td>0 (0.0%)</td>
<td>2 (1.0%)</td>
<td>4 (2.1%)</td>
<td>11 (5.7%)</td>
<td>17 (8.8%)</td>
</tr>
<tr>
<td>M</td>
<td>2 (1.0%)</td>
<td>4 (2.1%)</td>
<td>7 (3.6%)</td>
<td>6 (3.1%)</td>
<td>19 (9.8%)</td>
</tr>
<tr>
<td>Others</td>
<td>2 (1.0%)</td>
<td>8 (4.1%)</td>
<td>11 (5.7%)</td>
<td>16 (8.2%)</td>
<td>37 (19.1%)</td>
</tr>
<tr>
<td>Total</td>
<td>6 (3.1%)</td>
<td>42 (21.6%)</td>
<td>61 (31.4%)</td>
<td>85 (43.8%)</td>
<td>194 (100%)</td>
</tr>
</tbody>
</table>

Source: Authors’ own study.
Note: The table presents only the branches represented by at least 10 organisations. Branch Description: C – manufacturing industry; F – construction; G – wholesale and retail; repair and maintenance of motor vehicles; J – information and communication activities; M – professional and scientific activities.
performance results of the organisations. The financial data for 2012 were thus obtained from the publicly available annual reports of the surveyed organisations, or, where necessary, they were calculated from the data obtained from the organisations themselves. The ratio of return on assets (ROA) was used to express financial performance. This financial indicator is recommended e.g. by Šiška, Lízalová (2011), who tried to select the most appropriate financial indicators for financial performance measurement.

Due to cross-sectoral differences, ROA was standardised, specifically by using its percentage point difference from the national average by industry. The national average ROA values by industry are publicly available on the Ministry of Industry and Trade (2013) website. The value of ROA standardised in this manner is hereinafter referred to as “stROA”. Its positive or negative value indicates an above-average or below-average organisation in relation to the ROA reached in the specific sector (the industry’s branch according to the CZ-NACE classification) and the given year. The zero value of the stROA is reported by an organisation that has the ROA value at the same level as the national industry average, which in our case did not occur. Table 4 provides
an overview of the number of above-average and below-average financially-performing organisations by sector. The ratio of above-average and below-average organisations in the sample is 46:54.

In order to answer the research question RQ examining the link between financial performance and considered four types of OC, we used a multiple regression. All statistical analysis was performed in R software of version 3.4.1 (R Core Team, 2017).

3. Results and Discussion

The linear model has the stROA variable measured in percentage points (p.p.) as a response. Let us recall that by this standardisation we have adjusted the ROA values from the potential impact of the type of industry. The four main explanatory variables express the degree of focus of the OC on the power, on the task, on the role and on the person. Furthermore, the ownership and the size of the organisation enter the model as control variables. Due to the small number of micro-enterprises, we have merged micro and small businesses into one group in the following analysis. Thus, the ownership is represented by one dummy variable (0 – domestic / 1 – foreign major owner) and the size of the organisation is represented by two dummy variables indicating middle or, respectively, large organisations (i.e. the reference category was small organisations). The regression analysis results in the form of point estimates for regression parameters and the related confidence intervals and tests are presented in Table 5.

P-values for the main OC explanatory variables (presented in the first four rows in Table 5) demonstrate that the financial performance of the organisation, expressed in terms of return on assets (stROA), depends

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>Confidence Interval</th>
<th>P-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>−2.32</td>
<td>(−4.38, −0.26)</td>
<td>0.027</td>
<td>**</td>
</tr>
<tr>
<td>Task</td>
<td>3.67</td>
<td>(1.00, 6.34)</td>
<td>0.007</td>
<td>***</td>
</tr>
<tr>
<td>Role</td>
<td>−0.80</td>
<td>(−2.99, 1.38)</td>
<td>0.468</td>
<td></td>
</tr>
<tr>
<td>Person</td>
<td>0.85</td>
<td>(−1.28, 2.98)</td>
<td>0.431</td>
<td></td>
</tr>
<tr>
<td>Ownership</td>
<td>4.77</td>
<td>(−0.28, 9.83)</td>
<td>0.064</td>
<td>*</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td>0.010</td>
<td>**</td>
</tr>
</tbody>
</table>

Source: Authors’ own study.
Note: Marking *, **, resp. *** indicates statistical significance at 10 %, 5 %, and 1 % level, respectively.

<table>
<thead>
<tr>
<th>Difference</th>
<th>Estimate</th>
<th>Confidence Interval</th>
<th>P-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium vs Small</td>
<td>7.05</td>
<td>(−0.18, 14.28)</td>
<td>0.058</td>
<td>*</td>
</tr>
<tr>
<td>Large vs Small</td>
<td>9.16</td>
<td>(1.94, 16.38)</td>
<td>0.009</td>
<td>***</td>
</tr>
<tr>
<td>Large vs Medium</td>
<td>2.12</td>
<td>(−4.42, 8.65)</td>
<td>0.725</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ own study.
Note: Marking *, resp. *** indicates statistical significance at 10 %, and 1 % level, respectively.
on the type of power (p=0.027) and task culture (p=0.007) at the 5% level of significance. According to the point estimates, with an increasing rate of the tasks type, the return on assets (stROA and even ROA) is increasing (an increase of 3.7 pp. on average) adjusted to the other explanatory variables. On the other hand, with a growing power culture, there is an average decrease in ROA of 2.3 pp. Furthermore, the influence of different types of the OC on financial performance does not differ significantly according to the size of organisations, since the potential interaction of size with the types of culture was statistically insignificant (F test for the sub-model: p=0.924). However, the size of the organisation itself affects the return on assets (F test for the sub-model: p=0.010).

Table 6 thus presents post-hoc multiple comparisons for the organisation’s size effect using the method proposed by Hothorn et al. (2008). The obtained results indicate that the average ROA of the small organisations differs from the large organisations. To complement (see Table 5), the statistically significant difference in financial performance between foreign and domestic organisation has not been tightly proven (p=0.064).

Since most of the organisations under review are operating in a dynamic, competitive environment requiring flexibility, it is not surprising that financial performance in our sample is linked to the task culture, which corresponds to the existing theoretical knowledge (Handy, 1976; Lukasova, 2015). This type can be described using a network or matrix structure associated primarily with teamwork. However, if we think about the fact that the surveyed organisations have a prevailing orientation at the manufacturing industry, where the character of the division of labour requires rather a workgroup arrangement with a determined workflow algorithm, this result seems to be contradictory. But if we take into account the holistic nature of the typological approach and consider the surveyed environment as an organic whole, in which structural and dynamic elements are linked to a varying degree, we can conclude that the character and management of human resources may be a key factor of success. From this point of view, the task culture could be described as an organismic (versus mechanistic) system based on democratic values, where the leadership style promotes employees’ identification with the organisation’s goals and synergy development. In modern terms, this is the case for organisations usually applying management by objectives or Herzberg’s (1987) concept of job enrichment.

Compared to that, social dynamic factors in the power culture, which, according to the results of our research, is associated with rather low financial performance, are characterised by an autocratically controlled environment, strongly dependent on the ability (or incompetence) of the main source of power. Subordinates usually do not have enough space to exercise their skills, which may lead to a lower level of identification with the organisation and the loss of motivation. A position in the organisation depends on good relations with the boss, which usually leads to competition for his favour, creation of purposeful coalitions, or other forms of internal competition that drain the energy needed for work performance.

In the other two culture types, i.e. the person and role culture, no statistically significant relationship to financial performance was found. However, trends, though insignificant, appear: role culture has a rather negative impact on ROA, and person culture, on the contrary, tends to influence ROA positively. But it should be noted that these types are characteristic for some family companies or appear in non-profit organisations that were not represented in our sample.

The presented study also has its limitations. The just-mentioned restriction on profit-oriented organisations is one of them. In addition, the inclusion of individual companies in the sample was based on...
the willingness of top management to answer questionnaires, which may distort the presented results. The same applies to the simplified assessment of the occurrence of different types of culture on the five-point scale. Nevertheless, our analysis allowed a mix of individual types in the organisation, i.e. each organisation could be described by the means of four values characterising the degree of each culture type. The obtained sample was very heterogeneous not only as to the size but also to the economic activity of included companies. Our methodological approach sought to adjust the results against these distractions.

Conclusion

The aim of our research does not simply consist in mere verification of relations between the financial performance of the organisation and the type of its culture. We wanted to point out at the opportunities offered by applying typologies in this field. We believe that the type of culture embodies the organic interconnection and the synergy of various factors that contribute to the performance of the organisation in the given environment, thus allowing for a wider understanding of the context of the problem under consideration. However, it is necessary to abandon the mechanical interpretation of the results and to analyse more deeply what elements and their relations can hide under the obtained results. Thus, in our opinion, the typology approach can be used to primary detection whether there is a relationship between the types and the variable under consideration and, on the basis of these findings and their consistent analysis, possibly generate other additional working hypotheses to verify the partial impact of specific elements captured by the primary research. This approach will also allow OC typologies to be used as a form of benchmarking in managerial practice.

Acknowledgements

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