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INSTITUTIONAL FACTORS AS CRITERIA FOR BUSINESS ENVIRONMENT IDENTIFICATION

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Abstract

The paper focuses on the analysis of business environment in the context of performance measurement. Performance measurement is useful for an organization when it fits into the external and internal environment of the organization. The first requirement is to identify the business environment in order to analyze performance measurement. Institutional theory identifies internal and external environmental factors as institutional factors, according to which the behaviour of an organization could be disclosed and researched. This shows that according to the institutional factors internal and external environment of organization could be revealed. The methods of comparative analysis and synthesis of scientific literature were applied for the analysis of business environment. The criteria list for the identification of internal and external environment was systematized. Theoretical assumptions and data from expert research of institutional factors for business environment identification in the context of performance measurement are developed, presented and analysed.

Keywords: institutional theory, business environment, performance measurement.
JEL Classification: M40, M10.

Introduction

Today organizations are confronting unprecedented radical changes to which they must adapt in order to survive. Given the increasing challenges in the competitive environment, it is evident that successful organizations constantly have to adapt to changing conditions. It was noticed that importance of performance measurement has been growing in the changing and complex business environment and the internal potential of an organization (Bourne, *et. al*., 2000; Sharma and Bhagwat, 2007; Mathur *et. al*., 2011). Performance measurement provides information about the internal environment of the organization and ensures learning processes and feedback, which, in turn, allow for steady performance improvements and adaptation to external environment (Franco-Santos, *et. al.*, 2007; Brudan, 2010; Fukushima & Peirce, 2011). Performance measurement is useful when it corresponds to the external and internal environment of the organization. The first requirement is to identify the business environment in the context of performance measurement (Taticchi, Tonelli & Balachandran, 2008; Vänttinen & Pyhältö, 2009; Taticchi, Tonelli & Cagnazzo, 2010).

Identification of the business environment in the context of performance measurement could be analyzed according to different views, perspectives and theories. According to the rational perspective and the contingency theory, the main purpose of the research is to explore under what circumstances in the specific environment performance measurement works best (Wickramasinghe & Alawattage, 2007) and to identify corresponding factors. Critical perspective and its theories (Marxist approaches, political economy, post-modern approaches) examine the interplay between the organization and the broader socio-economic and historical context. The main deficiency of these perspectives is that most studies are limited by a few general factors/contingencies. The interpretive perspective with institutional theory develops new insights by providing case studies and practical researches, also reports a wide range of institutional factors to explain the different performance measurement consequences (Mole, 2004; Wickramasinghe & Alawattage, 2007). In order to analyze business environment in the context of performance measurement, the institutional theory was employed. It is demonstrated that institutional theory identifies internal and external factors in the specific environment as institutional factors, according to which the behaviour of an organization could be revealed and researched. This shows that according to institutional factors, the internal and external environment of an organization could be recognized. The methods of comparative analysis and synthesis of scientific literature were applied for the analysis of business environment in the context of performance measurement. The criteria list for the identification of internal and external environment is systematized. Theoretical assumptions of institutional factors for business environment identification in the context of performance measurement are developed.

The **research problem** of this article is formulated as a question: what institutional factors could help to identify business environment in the context of performance measurement?

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The aim of this paper is to reveal institutional factors for business environment identification in the context of performance measurement.

The paper consists of two parts. The development of theoretical assumptions from institutional theory point of view is presented in the first part of the paper. In order to point out the list of institutional factors, quantitative research was performed. The **objective of the research** was to ground the main institutional factors which are important in the context of performance measurement. Research (*expert survey*) results are presented in the second part of this paper.

Theoretical background and assumptions

The literature has identified three branches of institutional theory, namely: (1) Old institutional economics (OIE); (2) New institutional economics (NIE); (3) New institutional sociology (NIS), where the NIS adopts a broader, multi-dimensional approach for focusing on issues of external (macro) and internal (micro) organizational contexts (Hussain and Hoque, 2002). The NIS has contributed significantly to the understanding of the relationship between organizational structures and the wider social environment in which organizations are situated.

Institutional theory as theoretical approach of management studies shows that institutional theory identifies internal and external environmental factors as institutional factors (economic constraints, competition; copying best practice from others, accounting standards/financial legislation, socioeconomic-political institutions' pressures, professionals, top management/corporate culture, organizational strategic orientation and organizational characteristics), according to which the behaviour of an organization could be disclosed and researched (Hussain & Hoque, 2002). The analysis of different institutional factors groups showed that institutional factors perform in different ways. Two groups of institutional factors – economic and coercive – perform irrespective of an organization and other two groups – normative and mimetic – depend on the reaction of an organization (Zattoni & Cuomo, 2008; Analoui, 2009; He & Baruch, 2009; Gstraunthaler, 2010). According to this aspect it could be stated that institutional factors could perform in two levels: (1) organizational level, (2) environmental level and help to recognize internal and external environment of an organization. If institutional factors influence could be analyzed in organizational level, it means, that institutional factors influence organizational systems too. This lets to prove the expediency of institutional factors analysis in the context of performance measurement. According to institutional factors the list of factors for identification of internal and external environment and performance measurement could be prepared (see Figure 1).

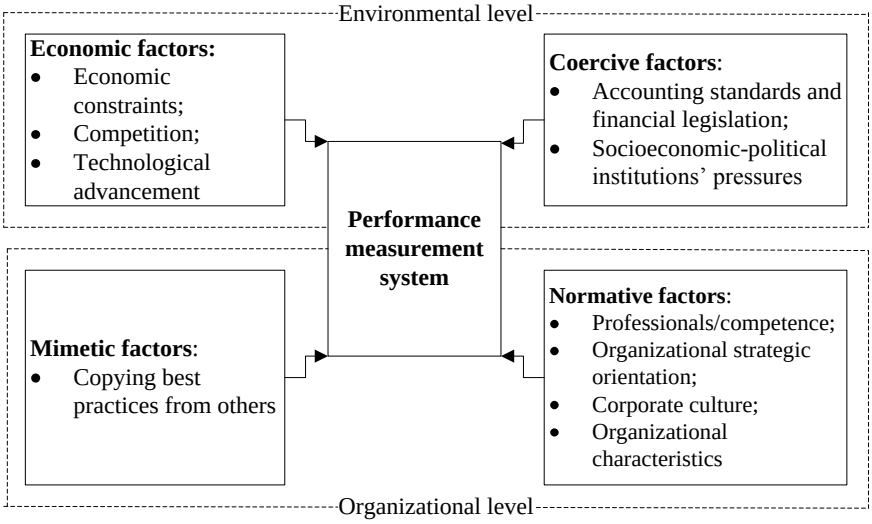

Figure 1. The list of institutional factors in the context of the performance measurement *(Bansal & Roth, 2000; Davidson & Worrell, 2001; Hussain & Gunasekaran, 2002; Hussain & Hoque, 2002; Khadaroo, 2005; Tsai, 2006; Campbell, 2007; Lozano & Valles, 2007; Länsiluoto & Järvenpää, 2008; Järvenpää, 2009)*

These are briefly discussed below:

- Economic constraints. Many scholars have suggested that economic constraints increase managers' needs for indicators for performance evaluation through organizational systems such as a PMS. The literature in this area suggests that organizations facing a high level of economic uncertainty are likely to use financial measures to a greater extent than non-financial performance measures (Hussain and Hoque, 2002).
- Competition. Reasons for change in several aspects of the organization such as cost, quality and time bases of the new "hyper-competitive" environment are discussed (Nicovich, Dibrell & Davis, 2007; Taticchi & Balachandran, 2008; Phusavat, *et. al*., 2009).
- Copying best practices from others. Hussain and Hoque (2002) describe the importance of linking organizational design, structure and strategy with controls in which PMS become increasingly important. It often tends to copy publicly appreciated best practice PMS from other successful organizations. Such a copying tendency occurs from a desire to gain legitimacy for the operating environments, although the relationship of PMS with strategy and performance can still be absent.
- Technological advancement, especially IT, on the one hand influences needs of the customers, on the other hand stimulates organizations for processes improvements (Burns & Stalker, 1961), for the implementation of new methods (Garengo, Nudurupati & Bititci, 2007; Jones & Kaluarachchi, 2008).
- Accounting standards and financial legislation. Accounting standards and financial legislation on international harmonization of financial accounting may affect the design and use of a PMS. The generally accepted accounting principles (GAAP) and international accounting standard (IAS) committee prescribe national accounting principles/legislation on financial accounting and management accounting, which in turn impact on cost calculation and performance measurement (Modell, 2009).
- Socioeconomic-political institutions' pressures. Organizations voluntarily, or at times obligatorily, follow international organizational standards/quality measurement such as International Standards Organization (ISO) and the United Nations (UN) environmental conditions, and accordingly they adapt with performance measures (including quality and standards). Transnational institutions like the World Trade Organization (WTO) pressure firms to change their PMS practices to make them consistent (Hussain and Hoque, 2002).
- Professionals. Hussain and Hoque (2002) identify professionals as the primary modern shapers of organizational practices. Professional networks are known as prominent sources of isomorphism, as well as the media through which similar management accounting practices are spread from one organization to another. Thus the experience of professionals such as managers may also influence the design and use of a PMS.
- Organizational strategic orientation. According to Bednall & Valos (2005) strategy should be linked to operations via effective costing and PMS in service organizations. Consistent with this literature, an organization's strategic orientation is considered to be an influential force for a PMS design (Crain & Abraham, 2008).
- Top management/corporate culture. Canet-Giner, Fernandez-Guerrero & Peris-Ortiz (2010) argues that the top management is expected to create cultural forms consistent with their own aims and beliefs. These, in turn, influence PMS practice, irrespective of the kind and type of organization.
- Organizational characteristics. Organizational characteristics such as size and nature or type of business may determine the range of possible change in organizational systems such as a PMS (Gomes Carlos, Yasin Mahmoud & Lisboa Joao, 2004). Carlucci (2010) found that larger organizations tend to use a balanced scorecard PMS to a greater extent than smaller organizations. It appears that organizational characteristics (this study includes different kinds and sizes of banks) may affect a PMS design in the organizations.

To summarize, it can be suggested that the environment along with trade practices and various external constituents in a particular society can often influence the behavior of organizations. Apart from their economic or technical reasons, organizational systems may be adopted to comply with external pressures. Additionally, organizations may adopt certain systems, policies, and procedures by imitation and copy one another to demonstrate conformity with institutionalized practices.

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Research method and results

Research method. In order to point out the list of institutional factors for business environment identification in the context of performance measurement, a quantitative research (*expert survey*) was performed. The group of 22 experts (11 experts from Lithuania and 11 experts from other countries, such as Germany, Italy, Great Britain, Finland, Estonia, and Poland) were questioned in order to find out the main institutional factors in the context of the performance measurement.

The survey for a expert research was prepared from 3 main parts: (1) **selection** of factors, influencing performance measurement was analyzed according to listed institutional factors (*Economic conditions; Competition; Technological advancement; Copying best practices from other organizations; Economic-political institutions' pressures; Accounting standards; Management's competence; Organizational strategic orientation; Corporate/organization culture; Organizational characteristics (size, structure, type of business)*) and in this case respondents need to mark influence using Likert scale (*does not form; partly form; form*); (2) identification of the level of an institutional factors **influence** on performance measurement and respondents need to mark influence intensity using Likert scale (*no influence; weak influence; strong influence*); (3) identification of the frequency of **changes** of indicated factors and respondents need to rate changes of institutional factors using Likert scale (*no changes; rare changes; frequent changes*).

The research results were analyzed using compatibility of an opinion of experts, reliability of the questioner, also frequency tables and statistical characteristics (Boguslauskas, 2007; Kasiulevičius & Denapienė, 2008).

Results and interpretation. Resuming research results, it could be stated that results could be used for practical purposes because compatibility of an opinion of experts is sufficient (Kardelis, 2002) - Concordance coefficient (*W*) is significant (Table 1).

Table 1. Values of Concordance coefficient (*W*)

Parts of institutional factors research	Concordance coefficient, W	χ^2_f	χ^2_t	Significance of Concordance coefficient
Influencing institutional factors	0.131	25.962	16.919	significant
Level of influence	0.161	31.961	16.919	significant
Changes of institutional factors	0.368	66.169	16.919	significant

According to the results presented in Table 1, it could be stated that the highest compatibility of expert opinion is found in changes of institutional factors and the lowest – in an influencing institutional factors. This could be explained by the fact that experts where from different countries in which performance measurement stronger could be influenced by different institutional factors. Notwithstanding, all concordance coefficients are significant and compatibility of an opinion of experts is sufficient.

According to the research results, it also could be stated that reliability of questioner is sufficient (Kardelis, 2002) - Cronbach alpha coefficient is significant and it means that all questions in survey are connected and has a significant correlations (Table 2) also that all three parts of institutional factors research analyze the same phenomenon.

Table 2. Values of Cronbach alfa coefficient

Parts of institutional factors research	Cronbach'o alfa coefficient	Number of experts	Significance of Cronbach alpha coefficient
Influencing institutional factors	0.642	22	significant
Level of influence	0.771	22	significant
Changes of institutional factors	0.670	20	significant

According to the results that experts opinions are compatible and questioner reliable, selection of the main institutional factors was performed. It is important to notice that experts didn't mach additional institutional factors what let's to prove the sufficiency of the list of an institutional factors in the context of performance measurement. In order to select the most important institutional factors, deeper analyzes was

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performed with the first part of the questioner using (1) *average*, which needed to meet the requirement – not less than *75%* of the maximum value – *3*, it means only institutional factors which average is higher than *2,25* could be selected for a further analyzes and (2) *moda*, which needed to meet the requirement – maximum of the most frequent value – *3*, it means such institutional factors could be found as strongly influencing performance measurement according to all expert's opinion (Figure 2).

According to deeper analyzes of institutional factors it could be stated that 8 institutional factors meet the requirements (*average>2,25 and moda=3*) and could be used for a further analyzes: Economic conditions; Competition; Technological advancement; Economic-political institutions' pressures; Management's competence; Organizational strategic orientation; Corporate/organization culture; Organizational characteristics.

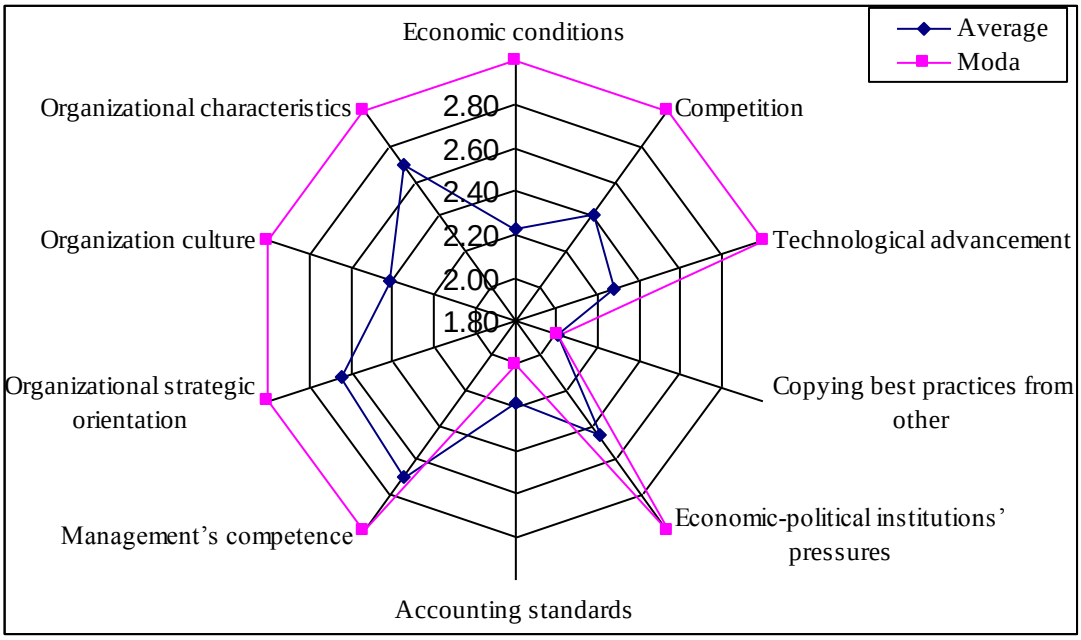

Figure 2. Statistical characteristics of institutional factors

In order to find out only strongly influencing institutional factors from the second part of the questioner deeper analyzes was performed using *frequency tables* which needed to meet the requirement – maximum of the most frequent value – *3*, it means such institutional factors could be found as strongly influencing performance measurement according to all expert's opinion. According to results of analyzes it could be stated that institutional factor – organization culture didn't meet the requirement (Table 3). This also could be confirmed according to results of the third part of the questioner, which showed that according to 63,6% of all respondent institutional factor – organization culture has rare or no changes reducing importance of this factor in the context of performance measurement.

Table 3. Frequency table of institutional factor's influence

Institutional factors	No influence	Weak influence	Strong influence
Economic conditions	4	8	**10**
Competition	3	5	**14**
Technological advancement	2	7	**13**
Economic-political institutions' pressures	2	7	**13**
Management's competence	1	4	**17**
Organizational strategic orientation	0	6	**16**
Organization culture	3	**10**	9
Organizational characteristics	0	4	**18**

According to results of an expert research the final list of institutional factors could be confirmed: Economic conditions; Competition; Technological advancement; Economic-political institutions' pressures; Management's competence; Organizational strategic orientation; Organizational characteristics, - which could be used for a identification of business environment in the context of performance measurement.

Conclusion

1. According to analysis of institutional factors could be stated that **institutional factors could be found as criteria for identification of external and internal environment of an organization as it performs in two different levels – environment and organization.** Institutional factors of environmental level could not be managed by an organization. Institutional factors of an organizational level show reaction of an organization to business environment and form internal environment of an organization.

2. According to analysis of scientific literature and results of expert research it could be stated that **list of environmental and organizational institutional factors are suitable criteria for identification of external and internal environment of organization**. According to analyses of scientific literature was prepared the basic list of institutional factors in the context of performance measurement. According to the results of the compatibility of an opinion of experts, reliability of the questioner and selected substantial institutional factors could be stated that institutional factors: economic constrains, technology, competition, socioeconomic political institutions' pressure, competence, organizational strategic orientation and organizational features are suitable criteria for identification of external and internal environment of an organization and in their context for analysis of performance measurement system.

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