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ORGANIZATIONAL LEARNING CAPABILITY. MODEL TESTING IN UNIVERSITIES

Case
Study

Keywords

*Organizational learning capability,
Universities,
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Abstract

The paper explores the concept of organizational learning capability among Romanian universities and links it to performance on education. The research aims at determining the components of organizational learning capability, based on a scale from literature, that is translated and adapted. For performance on education a scale is proposed by the author. The study comprises part of Romanian universities and is based on 357 valid questionnaires from teachers/ researchers. Exploratory factor analysis was applied and four components have resulted for organizational learning capability: participative decision making; experimentation and risk taking; dialogue; interaction with the external environment. Three components have resulted for performance on education: customers/ beneficiaries perspective; learning and development perspective; internal processes perspective. Correlations between the components that resulted for the construct „organizational learning capability” and components for the construct „performance in education” are analysed.

INTRODUCTION

Organizational learning is a relatively new concept, which has been debated and analyzed in the literature from different perspectives.

After analyzing the literature, the author of this paper appreciates that organizational learning can be measured and analyzed as a capability (an organization's ability to learn), as a process or through its outcomes (e.g. performance may be considered an outcome).

Organizational learning capability can be defined as managerial and organizational factors or characteristics through which the process of organizational learning is facilitated or that allow an organization to learn (Goh and Richards, as cited in Chiva et al, 2007).

Organizational learning seen as a process has been defined in many different ways. "At its most basic definition, organizational learning is the development of new knowledge or insights that have the potential to influence behaviour" (Slater and Narver, 1995, as cited in Bontis et al, 2002). "Learning is a process of change in cognition and behavior (Sic!), and it does not necessarily follow that those changes will directly enhance performance" (Crossan et al, 1995). Many perspectives and ways of defining the process of organizational learning link this process with changes in either cognition or behaviour, or both types of changes. Organizational learning (as a process) is a multi-level concept, appearing at individual, group, organizational and inter-organizational levels (Boh et al, 2007; Holmquist, 2004; Ibarra, Killduff & Tsai, 2005; Sanchez, 2001, as cited in Škerlavaj et al, 2010). Huber (1991) associates the following constructs with organizational learning: knowledge acquisition, information distribution, information interpretation and organizational memory. Crossan et al (1999) analyze organizational learning through four processes: intuiting, interpreting, integrating and institutionalizing, linking the individual, group and organizational levels. Different studies have measured organizational learning as a process, also linking organizational learning with performance: Bontis et al (2002); Sánchez et al (2010); Pérez et al (2005); Škerlavaj and Dimovski (2006); Tippins and Sohi (2003).

ORGANIZATIONAL LEARNING CAPABILITY

Organizational learning capability is one of the ways to approach and also measure organizational learning. As previously mentioned, it is based on factors or characteristics that facilitate the occurrence of the organizational learning process.

According to Chiva et al (2007), when measuring organizational learning capability, the aim is to determine the predisposition or the ability to learn and when researchers focus on measuring organizational learning capability, the instruments make reference to facilitators of organizational learning. Studies that made endeavors to developing instruments through this perspective are those of: Alegre and Chiva (2008); Bhatnagar (2006); Camps et al (2011); Chiva et al (2007); Gelard and Mirsalehi (2010); Goh and Richards (1997); Jerez-Gómez et al (2005). A study that integrates two perspectives – organizational learning capability and the results of learning – is that of Jyothibabu et al (2010).

Within the study undertaken by Goh and Richards (1997), they have considered five characteristic of a learning organization: clarity of purpose and mission; leadership commitment and empowerment; experimentation and rewards; transfer of knowledge; teamwork and group problem solving.

Jerez-Gómez et al (2005) proposed a measurement scale considering four dimensions: managerial commitment; systems perspective; openness and experimentation; knowledge transfer and integration. Their study is undertaken considering organizations from the chemical industry, in Spain. In the research undertaken by Bhatnagar (2006), the perception of managers from public, private and multinational organizations regarding organizational learning capability is measured. The researcher also establishes the link with performance at organizational level.

Three other studies that approach the concept of "organizational learning capability" are those undertaken by Alegre and Chiva (2008); Camps et al (2011); Chiva et al (2007). These three studies are carried out based on the same instrument for measuring organizational learning capability, developed by Chiva et al (2007). The five dimensions through which organizational learning capability is defined in the studies undertaken by Alegre and Chiva (2008), Camps et al (2011) and Chiva et al (2007) are: experimentation; risk taking; interaction with the external environment; dialogue; participative decision making.

Gelard and Mirsalehi (2010) considered seven dimensions for organizational learning capability: distribution and sharing internal knowledge; risk taking; open environment and experimentation; interaction with the external environment; system thinking; ongoing training; participative decision making. The researchers also considered the impact on product innovation performance.

As previously stated, an integrative perspective can also be considered in the measurement of organizational learning. Jyothibabu et al (2010) had an integrative approach on organizational learning, developing an instrument for measuring an

organizational learning system. Through the designed instrument, the measurement of an organizational learning system is aimed, by embedding learning enablers and learning results (at individual, group and organizational levels) and also performance.

Another way of measuring organizational learning is through learning and experience curve analysis (Epple et al, 1991, as cited in Chiva et al, 2007).

From the multitude of instruments found in literature, that measure organizational learning capability, the author of this paper chose to apply the instrument proposed by Chiva et al (2007), also used by Alegre and Chiva (2008) and Camps et al (2011). In this paper, the mentioned instrument was translated and adapted from the original version in English into Romanian. The main argument for choosing this instrument is that it was validated (at least) three times (from the author's searches in the literature). It was validated in Chiva et al (2007) study, which was undertaken by considering organizations from the ceramic tile sector, in Spain. It was validated in Alegre and Chiva's (2008) study, a study focused on ceramic tile producers. The researchers also refer to product innovation performance. It was also validated in Camps et al (2011) research, which took into consideration a university from Costa Rica.

Since Chiva et al (2007) instrument will be used in this paper (translated and adapted), explanations regarding the five elements are needed. Referring to the five dimensions that Alegre and Chiva (2008), Camps et al (2011) and Chiva et al (2007) have considered in order to define and measure organizational learning capability, first of all it must be said that, according to Chiva et al (2007), experimentation is the dimension that is the most strongly supported in the literature. Chiva et al (2007) define experimentation as "the degree to which new ideas and suggestions are attended to and dealt with sympathetically." Risk taking is seen as tolerance towards uncertainty, ambiguity, errors, while interaction with the external environment is seen "as the scope of relationships with the external environment" (Chiva et al, 2007). Dialogue is considered to be the a sustained inquiry, at collective level, into things such as assumptions, certainties and processes which constitute daily experience (Isaacs, 1993, as cited in Chiva et al, 2007). Participative decision making, the latter dimension considered in this model for measuring organizational learning capability, "refers to the level of influence employees have in the decision-making process" (Camps et al, 2011).

It can be seen that, in many of the studies mentioned, some of the dimensions are recurrent. For example, all the five dimensions from Alegre and Chiva (2008), Camps et al (2011) and Chiva et al (2007) can also be found in Gelard and Mirsalehi (2010) study, although there are some differences

in the dimensions' names ("dialogue" is named "distribution and sharing internal knowledge"; "experimentation" is named "open environment and experimentation"); their study also contains other dimensions. Jerez-Gómez et al (2005) also talk about experimentation, in a dimension named "openness and experimentation".

Taking into consideration the fact that the instrument used in this paper for measuring organizational learning capability is build based on the five dimensions proposed by Chiva et al (2007), the first hypotheses which will be tested are:

Hypothesis 1: Organizational learning capability is a multidimensional construct.

Hypothesis 1.1: The construct of "organizational learning capability" has the following components: dialogue, experimentation, interaction with the external environment, participative decision making, risk taking.

PERFORMANCE

Part of the studies mentioned in the section "Organizational Learning Capability" have analyzed not only organizational learning capability, but also performance (e.g. organizational performance, product innovation performance), thus linking the two concepts.

If a complete and integrative perspective were to be considered, organizational learning capability ought to facilitate the occurrence of the organizational learning process (Guță, 2013), and then organizational learning process may be linked with organizational performance (Guță, 2013, 2014). However, organizational learning capability may be also directly linked with performance (Guță, 2013).

"In all instances the assumption that learning will improve future performance exists", according to Fiol and Lyles (1985). Crossan et al (1995) mention that it is not necessary that the changes in cognition and development (the researchers' definition of learning can be found in the "Introduction" section) enhance performance, directly.

Thus, performance may be enhanced or improved through organizational learning but it is not compulsory for improvements in performance to take place through a process of organizational learning.

Although organizational learning capability is the central concept in this paper, the author's secondary objective is to analyze the relationship with performance. The type of organization taken into consideration in this paper is the university. It can be considered that universities have a central role in society and in its development, hence the interest in analyzing this type of organization. The two main activities in a university are education

activities and research activities. In this paper, the focus is on one of this two main activities, namely education activities.

Referring now to the concept of “performance”, Okafor (2006) considers performance to be “the outcome of work” and mentions that “it provides the linkage between the goals of an organisation (sic!) and its effectiveness”. Performance can also be defined in the following way: the actual results that have been achieved compared with the desired results (Dess and Robinson, 1984, as cited in Leen Yu et al, 2009).

When measuring performance, financial performance and/or non-financial performance can be taken into consideration. “Financial measures are more objective compared to the non-financial measures which are more subjective”, according to Abu-Jarad et al (2010).

According to Andreadis (2009), a method through which an organization’s results can be both captured and organized is balanced scorecard, proposed by Kaplan and Norton (1993). Andreadis (2009), referring to the balanced scorecard, mentions that it “is an innovative and holistic approach to organizational outcomes management”. It can thus be seen that through balanced scorecard we can not only measure performance, but also manage it. As mentioned in the literature, although it was proposed as a measurement tool, the focus of balanced scorecard has shifted, in a short time, to performance management (Kaplan and Norton, 1992, 2001a, 2001b, as cited in Northcott and Taulapapa, 2012). Balanced scorecard has four perspectives: innovation and learning, internal process, customer, financial perspective (Andreadis, 2009). The development of the balanced scorecard has its bases on the idea that measuring effectiveness at organizational level strictly on the basis of financial indicators is limitative (Andreadis, 2009).

A chain of relationships of cause and effect type “can be established as a vertical vector through the four balanced scorecard perspectives” (Kaplan & Norton, 1996, p. 65, as cited in Northcott and Taulapapa, 2012). It is thus appreciated that managerial actions that lead to improvements in the first three perspectives will drive better performance in the fourth perspective – the financial one (Northcott and Taulapapa, 2012).

Taking into consideration that the present empirical study is undertaken on Romanian universities, some considerations about applying the balanced scorecard to organizations from the public sector are useful. Although apparently not suitable for organizations from the public sector, since objectives of financial nature are the final ones aimed through balanced scorecard, it is possible to adapt the balanced scorecard in order for it to be useful to organizations from the public sector; this can be done through a rearrangement of its

elements, so that customers or other constituents to be placed at the top of the balanced scorecard (Kaplan and Norton, 2001; Niven, 2006, as cited in Northcott and Taulapapa, 2012).

Looking at studies that approach the subject of the balanced scorecard for higher education institutions, it can be seen that, at the level of the perspectives in the balanced scorecard, changes have been made. For example, Barndt et al (2011) mention the following three perspectives: research, teaching, service. Another example of an adapted balanced scorecard for universities can be found in Dorweiler and Yakhou (2005) – the researchers mention that the balanced scorecard is provided for a university by replacing “customer” with “student” and by giving, for the other three perspectives, an academic interpretation.

Since in this paper performance is considered only for the education area within universities, measuring performance (on education) will be carried out through an instrument proposed by the author of this paper, considering three of the perspectives from the balanced scorecard: internal processes perspective, customers/beneficiaries perspective (the term “beneficiaries” is added, since the customers, when talking about higher education, are the students – more precisely, they are beneficiaries of education activities), learning and development perspective. The financial perspective is not considered. For all the other three perspectives, items have been formulated for the measurement scale. For the concept of performance on education, the following hypotheses will be tested:

Hypothesis 2: Performance on education can be defined as a multidimensional construct.

Hypothesis 2.1: The construct of “performance on education” has three distinct components: internal processes perspective, customers/beneficiaries perspective, learning and development perspective. One of the objectives is to analyze the relationship between organizational learning capability and performance, thus the following hypothesis is proposed and will be tested:

Hypothesis 3: Between the components of organizational learning capability and the components of performance on education there are positive and significant correlations.

All the hypotheses within this paper will be tested on a sample that is made from teachers/researchers from universities from Romania.

RESEARCH METHODOLOGY

The present study is exploratory and the approach is deductive. The research strategy is based on conducting a survey, while the methods used are mainly quantitative (Saunders et al, 2007). This research is part of a wider, doctorat research,

completed in 2015. In the following, reference is going to be made strictly to the scales in the questionnaire that are of use in this paper. The respondents are teachers and researchers from Romanian universities. The analysis is based on the respondents' perception regarding organizational learning capability and performance on education, related to the organization in which the respondents were employed at the time they completed the survey.

The questionnaire

The scale used throughout the questionnaire is a scale from 1 to 5 (1 – “strongly disagree”, 2 – “disagree”, 3 – “neither disagree, nor agree”, 4 – “agree”, 5 – “strongly agree”).

The items in the scale used for measuring organizational learning capability are taken from Chiva et al (2007) and, where the case, adapted.

The items in the scale used for measuring performance on education are developed by the author of this paper and the perspectives taken into consideration are three perspectives from the balance scorecard.

The questionnaire (referring to the questionnaire from the larger research, that this research is part of) was both pre-tested (discussions with a specialist in knowledge management and five employees from a university) and tested (in two universities and two for-profit organizations; the scale for performance on education is not applicable for for-profit organizations). The questionnaire was improved after pre-testing and after testing.

Population. Sample description

Aiming to determine organizational learning capability's components and also to see the relationship between organizational learning capability and performance on education (through a correlation analysis between the components of organizational learning capability and the components of performance on education) within Romanian universities, the population is formed of all the public universities in Romania. From the population we selected a number of 13 universities:

- “Alexandru Ioan Cuza” University of Iași;
- “Gheorghe Asachi” Technical University of Iași;
- Babeș-Bolyai University, Cluj-Napoca;
- Grigore T. Popa University of Medicine and Pharmacy, Iași;
- Iuliu Hațieganu University of Medicine and Pharmacy Cluj-Napoca;
- Politehnica University of Timișoara;
- Technical University of Cluj-Napoca;
- The Bucharest University of Economic Studies;
- The West University of Timișoara;
- University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca;
- University of Bucharest;

- University of Medicine and Pharmacy “Carol Davila” Bucharest;
- University Politehnica of Bucharest.

The questionnaire is addressed to teachers and researchers, regardless of whether they had management positions or not, and was applied online. The questionnaire was applied in Romanian language. When completing the questionnaire, the respondents had to relate to the specific situation in the university they were working at that moment.

The questionnaire was sent to over 6 thousand teachers/researchers in 13 universities. A number of 437 questionnaires were completed by teachers/researchers from 12 universities (out of a total of 13 universities), out of which 357 questionnaires were valid (from 11 universities out of the total of 13). A number of 80 questionnaires out of the total of 437 questionnaires were excluded from the database due to at least one of the following reasons: highly incomplete questionnaires, problems related to control items, duplicated answers.

A major part of the respondents - over 40% - work in the field of engineering science, while over 20% of the respondents work in the field of social sciences (second largest number of respondents). Over 70% of the respondents had been working for over 10 years in the university to which they related to when they completed the questionnaire, thus it can be considered that the answers have been given based on in-depth knowledge of their organization.

Methods and techniques used

For data processing and analysis Microsoft Excel and SPSS (Statistical Package for the Social Sciences) were used. Reliability analysis, factor analysis (Principal component analysis - PCA) and correlation analysis have been conducted.

Reliability analysis was used in order to determine the internal consistency of the scales used and also of the results for the extracted components.

Exploratory factor analysis was used for extracting the components for each construct. Factor analysis can be exploratory or confirmatory (Hair et al, 2006). Exploratory factor analysis was used, considering that: one of the scale is translated (from English to Romanian) and adapted – even if the original scale has been validated in three studies (Alegre and Chiva, 2008; Camps et al, 2011; Chiva et al, 2007), the original questionnaire is in English and it well known that translating and adapting a scale implies further reliability testing and further validation; one scale is proposed by the author of this paper; from the author's own search in literature, similar studies in Romanian context have not been found.

Correlation analysis was used for assessing the relations between the components of

“organizational learning capability” and the components of “performance on education”.

For the exploratory factor analyses, the missing values have been treated passively. For the correlation analysis, the missing values have been replaced for each item with the mean at the level of its distribution.

RESULTS AND DISCUSSION

Consistency analysis

The values of internal consistency analysis (reliability analysis) for the latent variable “organizational learning capability” (a total of 15 items in the scale, with the mention that the scale has one control item that is excluded from the calculation of the coefficient) were 0,916 (Cronbach Alpha Coefficient) and 0,915 (Cronbach Alpha Coefficient – standardized items). For the scale measuring performance on education the values of reliability analysis were 0,959 (Cronbach Alpha Coefficient) and 0,961 (Cronbach Alpha Coefficient – standardized items).

Organizational learning capability – components resulted from factor analysis

In this section of the paper, the results of the factor analysis for the construct “organizational learning capability” are presented. Table 1 contains the components for the construct “organizational learning capability”. For the factor analyses Varimax rotation with Kaiser normalization was used.

In both Table 1 and Table 2 (components for “performance on education”) the items are displayed in descending order of their loading on the appropriate component and only the loadings higher than 0,50 are displayed (only items with loadings of at least 0,50 have practical relevance, according to Hair et al, 2006).

Referring to the factor analysis applied for the construct “organizational learning capability”, the results for the Kaiser-Meyer-Ohlin (KMO) test is 0,892, which indicates a very good solution obtained through factor analysis (Pintilescu, 2007). The sig. value of GHI-square (Bartlett Test of Sphericity) is 0,00, which indicates, with a likelihood of 95%, that between the variables there are statistically significant correlations (Pintilescu, 2007).

For organizational learning capability, four components were extracted through factor analysis. The four components explain 79,851% of the total variance. The first component explains 54,374% of total variance, the second component: 9,746% of total variance; the third component: 8,227%; the fourth component: 7,504% of total variance.

The scale measuring organizational learning capability contains a total number of 15 items, out

of which one is a control item that was not taken into consideration when undertaking factor analysis. Four items from the scale measuring organizational learning capability have been eliminated when applying factor analysis, thus the four components contain a total number of 10 items.

It needs to be mentioned that the fourth item from the questionnaire (which is part of the theoretical dimension “risk taking”) – “Employees often <<venture>> into unknown territory” – was problematic, not showing statistically significant correlations with more than half of the other items in the scale for measuring organizational learning capability. After assessing different potential factorial solutions, the conclusion was that it is better to eliminate the mentioned item.

Cronbach Alpha coefficients for the items included in the four components are: 0,927 for the three items in the first component; 0,794 for the three items in the second component; 0,711 for the two items in the third component; 0,678 for the two items in the fourth component. With one exception, the coefficients exceed the value of 0,70 for the extracted components, thus the components have internal consistency. Only the fourth component has a coefficient below 0,70, but the minimum accepted value for exploratory studies is 0,60 (Hair et al, 2006) and this value is exceeded in the case of the fourth component.

Considering the items have been grouped into each of the components, the components have been named in the following way:

- The first component: participative decision making. This component is composed of the same items as in other studies (see Alegre and Chiva, 2008; Camps et al, 2011; Chiva et al, 2007).
- The second component: experimentation and risk taking. Both items used for measuring experimentation (referring to the dimensions resulted from the studies mentioned in this paper and the instrument translated and adapted from literature) load on this component and only one out of the two items used for measuring risk taking loads on this component.
- The third component: dialogue. Two out of the four items used for measuring dialogue load on this component.
- The fourth component: interaction with the external environment. Two out of the three items used for measuring interaction with the external environment load on this component.

The results in the present study are mainly similar to those found in the literature, since all the five dimensions found in the literature were also found in the present study. However, there is a difference: experimentation and, respectively risk taking resulted both in the same component – named “experimentation and risk taking” –, unlike previous studies, in which experimentation and risk taking have been delineated into two different

components (see Alegre and Chiva, 2008; Camps et al, 2011; Chiva et al, 2007). The components “participative decision making”, “dialogue” and “interaction with the external environment” have been delineated in a similar way to the dimensions identified in literature (see Alegre and Chiva, 2008; Camps et al, 2011; Chiva et al, 2007), although for the latter two components fewer items have grouped within the components than the number of items included in the questionnaire, thus another difference is that some of the items were eliminated in the factor analysis. However, there needs to be mentioned that the approach from this paper is different – exploratory factor analysis was used, while in the three mentioned studies confirmatory factor analysis was used. Besides the reasons for choosing exploratory factor analysis, reasons that have been already mentioned in the section “Methods and techniques used”, one more reason can be mentioned: the author intended to see how the items will group on factors and what factors will result from the research and did not have in mind a hypothesized measurement model (the latter underpins the choice for confirmatory factor analysis).

Hypothesis 1 is validated. Organizational learning capability is a multidimensional construct. However, hypothesis 1.1 is partially validated, because two aspects identified in the literature as two different components of organizational learning capability, namely “experimentation” and “risk taking”, have resulted in one component. The other three aspects from literature, namely “participative decision making”, “dialogue”, “interaction with the external environment”, have resulted in three different components.

Performance on education – components resulted from factor analysis

In this section of the paper, the results of the factor analysis for the construct “performance on education” are presented. Table 2 contains the components for the construct “performance on education”.

The value for the Kaiser-Meyer-Ohlin (KMO) test is 0,905, which indicates an excellent solution obtained through factor analysis (Pintilescu, 2007). The sig. value of Chi-square (Bartlett Test of Sphericity) is 0,00, which indicates, with a likelihood of 95%, that between the variables there are statistically significant correlations (Pintilescu, 2007).

Three components were extracted, through factor analysis, for the construct “performance on education”. The three components explain 86,287% of the total variance. The first component explains 70,594% of total variance, the second component explains 8,797% of total variance and the third component explains 6,896% of total variance.

The scale used for measuring performance on education contained a total number of 13 items, out of which two items have been eliminated when applying factor analysis. The three resulted components contain a total number of 11 items.

Cronbach Alpha coefficients for the items included in the three components of the construct “performance on education” are: 0,961 for the seven items in the first component; 0,966 for the two items in the second component; 0,906 for the two items in the third component. All the three coefficients exceed the value of 0,70, which is the necessary value for considering that the components have internal consistency.

Two items from the scale that was used to measure “performance on education” have been eliminated when applying factor analysis: the third and the fourth item from the scale, which refer to teaching and learning methods and to assessment methods. The two eliminated items were framed, at theoretical level, to the component “customers perspective” (within the scale, the term “students” was used when referring to customers/beneficiaries). Considering the items that have been grouped into each of the components, the components have been named as follows:

- The first component: customers/ beneficiaries perspective (the author of this paper refers to perspectives from the balanced scorecard).
- The second component: learning and development perspective.
- The third component: internal processes perspective.

The author of this paper has not taken into consideration the financial perspective from the balanced scorecard when building the measurement scale.

Although some of the items may be classified, theoretically, in more than one perspective (such as the first and the second item from the scale, which can be considered either as being part of the internal processes perspective, either of the customers/ beneficiaries perspective), those items have delineated themselves within one of the components, in the solution with three components obtained.

Both hypotheses 2 and 2.1 are validated. Performance on education is a multidimensional construct. All the three perspectives, that the author has considered for defining performance on education, have resulted and delineated from each other, when applying factor analysis: customers/ beneficiaries perspective, learning and development perspective, internal processes perspective.

Correlation analysis

For testing hypothesis 3, the correlation analysis has been used. Since the variables’ (components’) distributions do not meet the normality condition

(see the results of Shapiro-Wilk test in Table 3 – the Sig. values do not exceed the threshold of 0,05), Spearman's correlation coefficient was used in the correlation analysis.

Looking at the results in Table 4, it can be seen that all the correlations between the components of organizational learning capability and the components of performance on education are positive and are statistically significant (Sig.<0,01). Thus, hypothesis 3 is validated - between the components of organizational learning capability and the components of performance on education there are positive and significant correlations.

Most of the correlations (a total number of eight correlations) are positive and moderate, while a few are positive and weak (a total number of four correlations).

The components "participative decision making" and "experimentation and risk taking" present moderate positive correlations with all the three components of performance on education: customers/ beneficiaries perspective, learning and development perspective, internal processes perspective.

The components "dialogue" and "interaction with the external environment" present moderate positive correlations with only one component of performance on education: the internal processes perspective. "Dialogue" and "interaction with the external environment" present only weak positive correlations with the other two components of performance on education: "customers/ beneficiaries perspective" and „learning and development perspective”.

CONCLUSIONS

In this study, the author took into consideration two constructs: "organizational learning capability" and "performance on education". Although the focus is more drastic put on organizational learning capability, the intention to include the notion of performance lies in the logic that organizational learning should have a finality (even if organizational learning may not always lead to better performance). Many studies link organizational learning with some form of performance. Although a causal relationship was not part of this study's aims, based on the results from the correlation analysis, certain ideas of improvement can be generated.

The scale used for measuring organizational learning capability is adapted from literature (after Chiva et al, 2007). The scale used for measuring performance on education is proposed by the author of this paper, this being one of the contributions which this paper brings. Another contribution is the application in Romanian context of the scale for measuring organizational learning

capability. Both scales (for measuring organizational learning capability and for measuring performance on education) are reliable (they have internal consistency).

Referring to the results obtained for organizational learning capability when applying factor analysis, some remarks should be made. Although experimentation is the dimension that is the most strongly supported in literature, according to Chiva et al (2007), in the present research experimentation has not delineated as a component by itself, but has "merged" with risk taking, in a single component (after eliminating one item from "risk taking"). Possible causes for this result could be (besides the elimination of one item for risk taking): some items may need a better translation and adaptation; the sample was not large enough; experimentation and risk taking may be strongly linked to each other as a cultural trait (it may be that the respondents feel that when they receive support or are encouraged to generate new ideas, they are also encouraged to take risks, the logic being similar in the situation when respondents are not encouraged or supported).

However, the author's opinion is that in future research better translation of the items for the dimension "risk taking" will be needed, and even a better understanding of this dimension in a specific Romanian cultural context.

In the case of performance on education, the three perspectives that have been considered at theoretical level resulted as such when applying factor analysis (with the mention that two items have been eliminated).

The results obtained through correlation analysis reveal positive and statistically significant correlations between the components of organizational learning capability and the components of performance on education. The results are according to the premises found in the literature, which linked organizational learning capability with some form of performance (either directly, or by including organizational learning outcomes), in different types of organizations, e.g. Gelard and Mirsalehi (2010); Jyothibabu et al (2010). However, most of the correlations are moderate and positive and a few are weak and positive. None of the correlations is strong and positive. But, if it were to consider the managerial implications of this research, if a university improves its organizational learning capability, this may lead to improvements in performance on education, although the rhythm of improvement would be different between the components of performance on education and the components of organizational learning capability (since the correlations are either moderate and positive, or weak and positive). The components „participative decision making" and „experimentation and risk taking" are the only two components that present

moderate positive correlations with all the three components of performance on education. Universities may focus on this two components, hoping for improvements in performance on education.

Regarding the limitations of the study, it needs to be mentioned that the research is not longitudinal, thus the causal relationship between the analyzed concepts can not be determined (only the correlations have been examined and not the causality). This constitutes in a direction for further research. Another limitation is given by the sample representativeness. Participation was voluntary, the response rates are different between universities and the valid responses are from only 11 out of 13 universities. Thus, there may be problems with sample representativeness. Undertaking further research, with comparable rates of valid responses between universities can be a further direction of research. Another direction is given by an analysis on a larger number of universities in Romania.

The scales that have been used are reliable, but in further research other types of validity may also be considered (e.g. content validity, discriminant validity).

One last limitation may be the way the constructs have been measured – at the level of respondents' perception (although organizational level phenomena are analyzed, the measures are undertaken at the individual level, through individuals' perception). However, there are points of view in the literature that argue the fact that measurements based on the respondents' perception can be appropriate. It has been mentioned in the literature that "methodological individualism, the view that only the individual actor is real, is the only way to conduct social science research" (Konecni, 1977, p. 88, as cited in Bontis et al, 2002).

Concluding, the present research aimed at determining the components of organizational learning capability, through an application of an organizational learning capability measurement scale in the context of Romanian universities. A secondary objective was to link organizational learning capability with performance and for this the author has focused on performance in the education area, proposing a measurement instrument based on the balanced scorecard. The relationship between organizational learning capability and performance on education was determined and analyzed at the level of their components.

The model makes reference to organizational learning capability, with five theoretical dimensions, and performance on education, with three theoretical dimensions. The hypotheses are either validated or partially validated (the later case is for Hypothesis 1.1, considering that organizational learning capability has resulted in

this study with only four components, "experimentation" and "risk taking" resulting in a single component). The model can be considered as valid, however, the correlations between organizational learning capability and performance on education are either moderate and positive or weak and positive.

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ANNEXES

Table 1.
Components resulted for organizational learning capability (OLC)

No.	Item	Component			
		1	2	3	4
OLC14	The organization's policies are significantly influenced by the views of employees.	0.881			
OLC15	Employees feel involved in the organization's main decisions.	0.862			
OLC13	People with managing positions frequently involve employees in making important decisions.	0.803			
OLC3	Employees are encouraged to take risks.		0.854		
OLC2	Employees feel encouraged to generate new ideas, initiative often being well received.		0.668		
OLC1	Employees receive support and encouragement when presenting new ideas.		0.652		
OLC10	There is a free and open communication within my work group.			0.878	
OLC9	Employees are encouraged to communicate.			0.653	
OLC5	It is part of the work of all staff to collect, bring back, and report information about what is going on outside the organization.				0.819
OLC6	There are systems and procedures for receiving, collating and sharing information from outside the organization.				0.788

Table 2.
Components resulted for performance on education (PE)

No.	Item	Component		
		1	2	3
PE11	The study programs offered provide students with knowledge that the labour market demands.	0.846		
PE9	The study programs offered form and/or develop students' competencies that the labour market demands.	0.829		
PE7	The study programs offered form and/or develop students' abilities that the labour market demands.	0.822		
PE8	The study programs offered form and/or develop students' competencies that they consider necessary. (Observation: That the students consider necessary.)	0.798		
PE10	The study programs offered provide students with knowledge that they consider useful. (Observation: That the students consider useful.)	0.794		
PE6	The study programs offered form and/or develop students' abilities that they consider they need. (Observation: That the students consider that they need.)	0.785		
PE5	The content offered at the level of the study programs meets labour market requirements.	0.768		
PE13	Employees attend courses, trainings, workshops, experience exchanges and so on in order to bring improvements in the way of addressing educational activities.		0.883	
PE12	Employees attend courses, trainings, workshops, experience exchanges and so on in order to develop abilities, competencies and knowledge		0.866	

	necessary in the educational activity.	
PE1	When necessary or opportune, improvements are being made at the level of the study programs offered.	0.846
PE2	When necessary or opportune, the content of the subjects is improved.	0.835

Note: For this scale, the terms “customers/beneficiaries” have been substituted with the term “students”.

Table 3.
Testing the normality of the variables '(components') distributions

Tests of Normality			
Shapiro-Wilk			
	Statistic	df	Sig.
OLC_comp1	.962	357	.000
OLC_comp2	.968	357	.000
OLC_comp3	.897	357	.000
OLC_comp4	.967	357	.000
PE_comp1	.944	357	.000
PE_comp2	.920	357	.000
PE_comp3	.859	357	.000

a. Lilliefors Significance Correction

Table 4.
Results of the correlation analysis between the components of „organizational learning capability” and the components of „performance on education”

			OLC_comp 1	OLC_comp 2	OLC_comp 3	OLC_comp 4
Spe	PE_comp1	Correlation	.446**	.412**	.385**	.391**
		Coefficient				
an's		Sig. (2-tailed)	.000	.000	.000	.000
rho	PE_comp2	Correlation	.450**	.418**	.348**	.398**
		Coefficient				
		Sig. (2-tailed)	.000	.000	.000	.000
	PE_comp3	Correlation	.516**	.492**	.465**	.404**
		Coefficient				
		Sig. (2-tailed)	.000	.000	.000	.000

** . Correlation is significant at the 0.01 level (2-tailed).

a. Listwise N = 357