Differentiators of Organizational Dynamism

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Abstract

The aim of this paper is to present a few conclusions of the study on the dynamic capabilities of Romanian organizations that experienced a change trigger such as the need to adapt to the environment (reactive organizations) or to create or seize an opportunity (proactive organizations).

Implementation of the study required the use of advanced statistical technique, such as second-order structural equation modelling in AMOS. This technique revealed the mathematical relations between the dynamic capabilities dimensions such as coordination, sensing and learning capabilities and highlights the differences among the proactive and reactive organizations.

The results emphasize the differences among the components of the organizational dynamism of the Romanian proactive and reactive organizations.

Through its findings, the study brings important evidence that strategic paradigm and processual modifications are required for organizations that want to make a shift from the reactive approach to a proactive one.

Key words: organizational change, dynamic capabilities, coordination, sensing, proactive
J.E.L. classification: C59, D22, D23, D83, D84

1. Introduction

In the last years a noun has become a buzzword at the global level: crisis. From the discussions about the economically disadvantaged parts of the world, where there is hunger, poverty and lack of jobs, houses and qualitative education, to those about climate changing, currency devaluation, energy price, resource depletion, or unsatisfactory results of financial instruments and institutions for each country or worldwide, the noun appears and reveals situations that are uncomfortable for governments, politicians and, more important, for the businessmen, entrepreneurs and employees.

As long as the crises continuously emerge, hatched by the global economic transformations, the importance of the organizational ability to add value within the challenging environment became more obvious. Therefore, the organizational capacity to generate and maintain the competitive advantage has become the most important characteristic of the organizations.

Organizations get their competitive advantage mainly by pursuing the shift from a current situation to a different, improved and desired new one. The change results and its' implementation are usually planned, but environment is changing itself, so the organizational agility becomes a key success factor for any improvement endeavor.

The dynamic capabilities highlight this perspective. They are organizational capabilities that support and determine the reconfiguration of the existing resources and capabilities, spawned by changes in the internal or external environment (Zahra, Sapienza and Davidsson, 2006).

Pavlou and El Sawy (2011) emphasized that the dynamic capabilities are abstract, intangible, and difficult to describe. Therefore, it is more convenient to represent them through (first and second-order) components that are revealed by specific routines.

The purpose of this paper is to apply a second-order model of dynamic capabilities developed on our previously works to identify the differences in the operational routines that lay down for dynamic capability of Romanian companies that implemented a change as result of the identification of a problem (reactive organizations) or of an opportunity (proactive organizations).

The paper briefly highlights the organizational routines that stand for the differences between the dynamism of the proactive and of reactive organizations.

The paper comes up to raise awareness for this subject and fill a gap in the literature and to propose further methods and instruments that stimulate the organizational agility.

A set of hypotheses were tested during the research, using primary data obtained through a questionnaire-based survey and SEM software (AMOS 20).

2. Literature Review

Change is the most obvious certainty in the business world. Its' necessity may differ for each organization, but it cannot be ignored by organizations that want to perform under the actual economic conditions.

However, while the companies' environmental conditions change continuously and the competition sharpens, the capacity to generate and maintain the competitive advantage has become the most important for organizations (Zahra, Sapienza and Davidsson, 2006 or Wang and Ahmed, 2007). They defined it as the dynamic capability - the capability for a rapid reconfiguration of the existing resources and capabilities. The dynamic capabilities stand for the capacity of an organization to create, extent or modify its resource base. Therefore, dynamic capabilities emphasize the importance of human capital, social capital, and organizational capital as drivers of the firms' performances (Sirmon and Hitt, 2009).

Many efforts were done by scholars to develop models for organizational dynamic capabilities. Pavlou and El Sawy (2011) proposed four dynamic capabilities as tools for reconfiguring the existing operational capabilities: sensing, learning, integration, and coordination. Also, innovation and corporate entrepreneurship are considered dynamic capabilities by Simsek and Heavey (2011).

Organisations need to be alert to both internal and external environment to identify in due time opportunities as well as challenges. Therefore, they need to develop their sensing capability – the ability to spot, interpret, and pursue opportunities in the environment. Teece (2007) identified the basic routines of the sensing capability: generating market intelligence, disseminating market intelligence, and responding to market intelligence. The routines are related to (i) identify changes in business environment, (ii) Identify new opportunities and threats, (iii) assessment of the effect of changes , (iv) identification of gaps between results and plans.

Organisations need also to develop the ability to use available resources in a timely, flexible, affordable and relevant manner, in order to respond to those changes effectively (Stragalas, 2010). Therefore, they need to develop their ability to orchestrate and deploy tasks, resources, and activities. This capability – defined by Pavlou and El Sawy (2011) as coordination capability - helps firms better synchronize their tasks and activities. The basic routines of coordinating capability are related to assigning resources to tasks (Helfat and Peteraf, 2003) or assigning the right person to the right task (Ambrosini and Bowman, 2009). The ability to identify complementarities and synergies among tasks and resources was emphasized in their work by Eisenhardt and Galunic (2000), while the importance of orchestrating collective activities was highlighted by Strang and Jung (2005).

While organizational change can be planned, knowledge is necessary to make it become reality. The learning capability of an organization was defined by Pavlou & El Sawy (2011) as the ability to revamp existing operational capabilities with new knowledge and involve key components that support processes such as searching for information, assimilating, developing and creating new knowledge. Also, Gunsel et al (2011) consider learning as the process of acquiring, distributing, integrating, and creating information and knowledge among organizational members.

From the organizational change point of view, the concept of dynamic capability includes the capacity to identify the need or opportunity for change, to formulate a response to that element and to implement the course of action. The relationship model between dynamic capabilities and organizational change has been studied among others by Navarro and Gallardo (2003), Whelan-Berry and Somerville (2009) or Sune and Gibb (2015). A second-order model of dynamic capabilities of Romanian organizations pursuing change was also developed in our previous work (Voica et al, 2017).

However, there is a gap in the studies regarding the specific differences of the organizational routines that are the basis of dynamic capabilities of the proactive and of reactive organizations. Therefore, the aim of this paper is to highlight the organizational routines that can differentiate the dynamic capabilities of the proactive and of reactive organizations.

The main hypotheses of the study are:

H1. The coordination capability has a significant, stronger positive effect on the dynamic capability for proactive organizations than for those that are reactive;

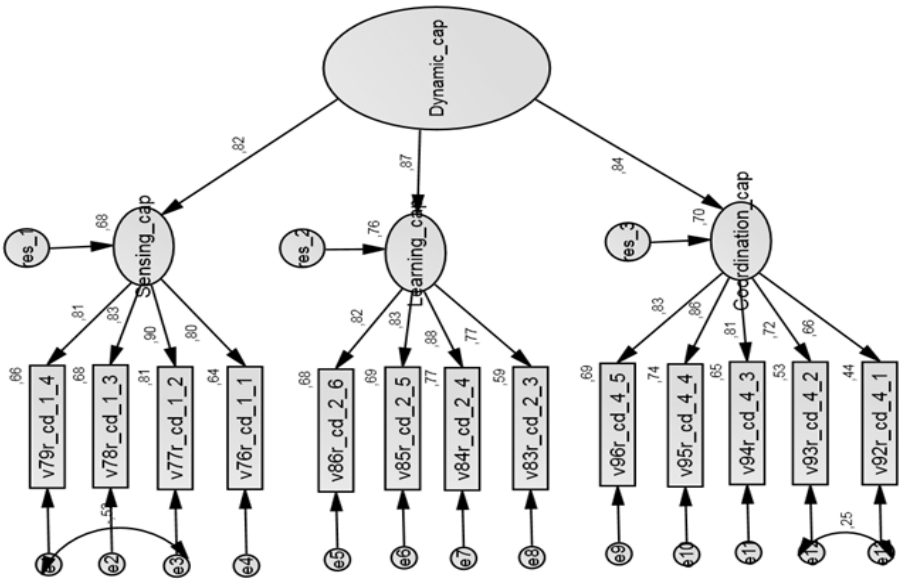
H2. The sensing capability has a significant, stronger positive effect on the dynamic capability for proactive organizations than for those that are reactive;

H3. The learning capability has a significant, stronger positive effect on the dynamic capability for proactive organizations than for those that are reactive.

3. Data and statistics

We used for this study the data collected for our other previous works (Voica et al., 2016), collected from change executives, managers and consultants that were directly involved in change and had extensive knowledge about the (processes and results of) organizational change innitiative within Romanian organizations. A total number of 266 usable responses were obtained as result of various messages sent through e-mail. Non-response bias was prevented through questionnaire that accepted only full-completed responses. All variables are based on Likert-type scales with four intervals. The data analysis was carried out with help of descriptive and inferential statistics using SPSS 20 as support for processing the regression and AMOS 20 for SEM analysis.

Figure no. 1. Second-order structural model of the Dynamic capability of the Romanian organizations pursuing change.



Source: Voica O.M., Stancu S., Naghi L.E., Enhancers of organizational change: Materializing the dynamic capability framework.

We analysed the answers and identified organizations that proactively initiated the change due to the identification of an opportunity. On the other hand, there were organizations that started their internal change as a reaction at the environmental changes, only when threats were identified.

We grouped these companies and performed the dynamic capabilities parameters' estimates for each group. The differences identified were further tested to identify their significance.

The two groups to be compared differ in size (67 proactive vs 109 reactive organizations; 90 organizations have the same level of activeness), so this will affect standard errors of the same variable for each group. To control for these effects we performed the analysis by taking a random sample of the reactive organizations (the larger groups) to match the lower sample size of the proactive organizations (smaller group).

Figure no. 2 Standardized parameters for Reactive organizations

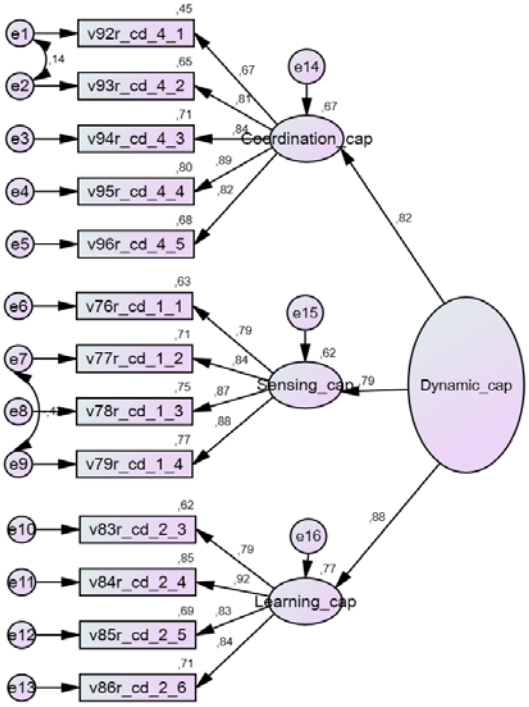
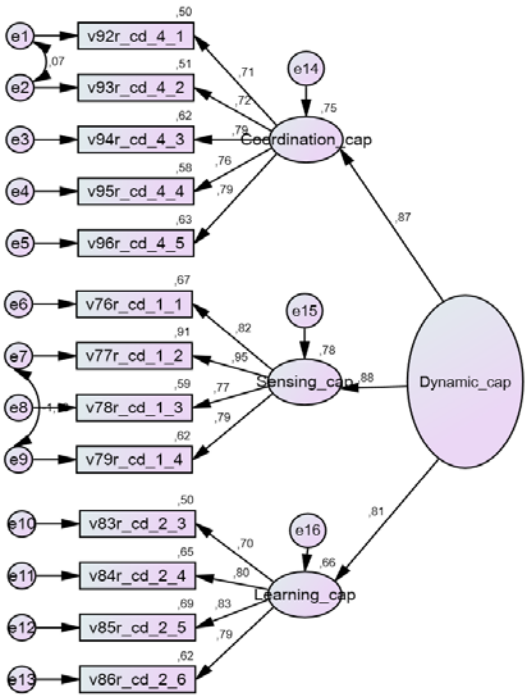


Figure no. 3 Standardized parameters for Proactive organizations



Source: AMOS 20 Output results for the analysed variables

We used AMOS 20 as suggested by Byrne B.M. (2010), Arbuckle J.L. (2011) to compute the regression weights for both proactive and reactive organizations. Even though we found differences of variables' coefficients among the two categories of organizations, it was necessary to identify if the differences are statistically significant.

Therefore, in order to check our hypothesis, we performed various Chi-square difference tests freely estimating the 2 models (one for each type of organizations), except constraining each path to be equal across groups.

4. Conclusions

We found that chi-squared difference test was significant at 90% confidence level ($p<0.1$) for all variables that are specific to the coordination capability, indicating that the effect was different for proactive organizations than for the reactive ones.

Considering the factor loadings, we can conclude that the positive effect of each component on the coordination capability is stronger for proactive organizations than for those that are reactive.

In order to check the hypothesis that the coordination capability has a stronger positive effect on the dynamic capability for proactive organizations than for those that are reactive, we also constrained this path to be equal across groups. The chi-square difference test among the two types of organizations was significant at ~ 85% confidence level ($p=.154$), indicating that the effect was different for proactive vs. reactive organizations.

Also, we checked the chi-square difference for the components of the sensing capabilities of the two categories of organizations. The chi-squared difference test was significant at 88% confidence level ($p=0.116$) only for the variable v76, for all the other variables that are specific to the sensing capability being not significant ($p=0.469$ for v78 and $p=0.434$ for v79), indicating that there is not a significant difference between the proactive organizations and the reactive ones.

Considering this fact, we can conclude that the positive effect of each component on the sensing capability is not significantly different for proactive organizations than for those that are reactive.

Also, we hypothesized that the sensing capability of proactive organizations has a stronger positive effect on the dynamic capability than that of the reactive organizations. We performed the invariance test and found that the chi-square difference test among the organizations was not

significant at 90 % confidence level (p=.381), indicating that the effect was not significantly different for proactive when analysed against reactive organizations.

We also found that there is no significant difference between proactive and reactive organizations in terms of the effect of the learning capability's components. However, we hypothesized that the learning capability of proactive organizations has a stronger positive effect on the dynamic capability than that of the reactive organizations. We performed the invariance test and found that the chi-square difference test among the organizations was significant at 78 % confidence level (p=.219).

Finally, we can conclude that coordination capability is more developed within the proactive organizations. The resource allocation according to the individuals' needs (v93) and the compatibility between processes and employees' expertise (v95) might be the support of their proactivity.

On the other hand, even though there is not significant difference in sensing capability of organizations on the dynamic capability, the proactive organizations seems to better stimulate the efforts to identify the changes in the business environment (v76).

Last, but not least, the learning capability is necessary (and useful) in any organizational endeavour. However, good results are obtained by both types of organizations (proactive and reactive) with a slight edge for proactive organizations when stimulate the use of knowledge to implement the organizational plans (v85).

5. References

- Ambrosini, V., Bowman, C., (2009), What are dynamic capabilities and are they a useful construct in strategic management?, *International Journal of Management Reviews*, Volume 11, Issue 1, pag. 29–49.
- Arbuckle J.L. (2011), *IBM® SPSS® Amos™ 20 User's Guide*, Amos Development Corporation.
- Byrne B.M. (2010), *Structural Equation Modeling with AMOS, Basic Concepts, Applications, and Programming*, 2nd edition, Routledge, Taylor & Francis Group, New York, ISBN 978-0-8058-6373-4.
- Eisenhardt, K.M. and Galunic, D.C. (2000) Coevolving: At Last, a Way to Make Synergies Work. *Harvard Business Review*, 1, 91-101.
- Gunsel A.,et al., (2011) KM and Learning Capability to Enhance Organizational Innovativeness, 7 th Int. Strategic Management Conference, Procedia Social and Behavioral Sciences 24 (2011) 880–888.
- Helfat C.E., Peteraf, M., (2003) The Dynamic Resource-Based View: Capability Lifecycles. Strategic Management Journal, 24 (2003), pp. 997-1010.
- Navarro, J.R. & Gallardo, F.O.,(2003), A Model of Strategic Change: Universities and Dynamic Capabilities, *Higher Education Policy*, Volume 16, Issue 2, pp 199-212.
- Pavlou P. A., El Sawy O. A., (2011), Understanding the Elusive Black Box of Dynamic Capabilities, *Decision Sciences Journal*, Volume 42 Number 1, pp 239 – 273.
- Sirmon D.G., Hitt M.A. (2009) Contingencies within Dynamic Managerial Capabilities: Interdependent Effects of Resource Investment and Deployment on Firm Performance *Strategic Management Journal*, Vol. 30, No. 13 (Dec., 2009), pp. 1375-1394.
- Simsek Z. & Heavey, C. (2011). The mediating role of knowledge-based capital for corporate entrepreneurship effects on performance: A study of small-to-medium sized firms. *Strategic Entrepreneurship Journal*, 5: 81-100.
- Stragalas, N. (2010), Improving Change Implementation, *OD Practitioner*. Winter 2010, Vol. 42 Issue 1, p31-38.
- Strang, D., Jung, D.I. (2005) `Organizational change as an orchestrated social movement: Determinants and implications of recruitment to a quality initiative' in *Social Movements and Organization Theory*, edited by Davis, G. F., McAdam, D., Scott, W. R., Zald, M. N., Cambridge University Press, UK: 280-309.
- Sune, A., Gibb, J., (2015) "Dynamic capabilities as patterns of organizational change: An empirical study on transforming a firm's resource base", Journal of Organizational Change Management, Vol. 28 Issue: 2, pp.213-231, https://doi.org/10.1108/JOCM-01-2015-0019.
- Teece (2007) "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance", Strategic Management Journal, December 2007, 1319-1350.

- Voica O.M., Stancu S., Naghi L.E., Enhancers of organizational change: Materializing the dynamic capability framework (in evaluation).
- Voica O.M., Stancu S., Naghi L.E., (2016) Stimulating The Innovative Proposals From Employees, *Ecoforum*, Volume 5, Issue 1 (8), 2016, pag 235-240.
- Wang, C. and Ahmed, P. (2007). Dynamic capabilities: a review and research agenda. International *Journal of Management Reviews*, 9, 31–51.
- Whelan-Berry, K. and Somerville, K. (2009) Effectively allocating resources to organizational change: exploring the impact of first-order and second-order change, *International Journal of Knowledge, Culture and Change Management*, 9(9), pp. 163-179.
- Zahra, S. A., Sapienza, H. J., & Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: A review, model and research agenda. *Journal of Management Studies*, 43(4), 917-955. DOI: 10.1111/j.1467-6486.2006.00616.x.

Appendix - Distribution of answers for each variable

		Min			Max	Mean		Std. Dev
Variable	**Item**	At a very small extent	To a small extent	Largely	To a great extent	**Statistic**	**Std. Error**	**Statistic**
v76	There is a continuous effort to identify changes in business environment	19	68	140	39	2.75	.049	.792
v77	There is a continuous effort to identify new opportunities and threats	15	51	152	48	2.88	.047	.765
v78	The potential effects of environmental changes on activities are studied periodically	18	74	138	36	2.72	.048	.780
v79	Periodical identification of gaps between results and plans	22	70	140	34	2.70	.049	.796
v80	There is enough time assigned for the implementation of the organizational performance improvement ideas	28	101	115	22	2.49	.049	.793
v81	Multiple options are explored to overcome the critical moments	20	77	137	32	2.68	.048	.781
v82	New knowledge is imported in organization	17	97	121	31	2.62	.047	.773
v83	Imported knowledge and information are assimilated in organization	14	65	171	16	2.71	.040	.658
v84	Transformation of information in new knowledge, useful for processes.	17	76	149	24	2.68	.045	.727
v85	All knowledge is used to implement the organizational plans.	22	79	142	23	2.62	.046	.758
v86	It is generated New knowledge, capable to support (positively influence) the implementation plans.	22	75	150	19	2.62	.045	.738
v87	Organization members are willing to contribute to their team success	8	44	175	39	2.92	.040	.654
v88	Each person knows his colleagues individual activities and responsibilities	4	73	160	29	2.80	.039	.638
v89	Awareness about the other members' competencies that are relevant for the individual activities.	8	67	149	42	2.85	.044	.713
v90	Harmonization of the individual activities within the working groups	11	77	150	28	2.73	.043	.701
v91	Integration of the individual activities within the working groups	6	73	167	20	2.76	.038	.618
v92	Individual outputs are synchronized with the other members activity	12	73	159	22	2.72	.042	.678
v93	Resource allocation is done according to each individual's needs.	19	97	126	24	2.58	.046	.754
v94	Task allocation is done based on relevant competencies and knowledge for activity	8	58	160	40	2.87	.042	.689
v95	We get certainty about the existence of compatibility between the people's expertise and processes	9	74	152	31	2.77	.042	.692
v96	Working groups are well coordinated	14	68	156	28	2.74	.044	.713