



RESEARCH AND TECHNICAL REPORT 2018

Period of implementation: 2 May – 31 December 2018



Project Title: The Evaluation of the Impact of Intellectual Capital on the Internationalization of EU SMEs

Project Acronym: IC_SMEU

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Project Manager: Associate Professor, PhD, Elena-Mădălina Vătămănescu

Project Duration (month): 24

Project Executive Summary

In the framework of a fast-changing globalized economy, European SMEs are at the crossroads of external pressures (international and global) and internal reaction constraints, and, thus, a proper assessment of the impact of the intellectual capital available within the organization and business networks is a prerequisite for competitiveness and international expansion. Despite the topicality and relevance of these factors, the specialized literature (in Romania, but not only) shallowly approaches the issue, and many research gaps are yet to be filled in. Consequently, the research project advances and draws upon the importance of leveraging European SMEs' intellectual capital in the context of internationalization and development of sustainable international partnerships. The expected impact of the project includes: the development and operationalization of an interdisciplinary theoretical model and the development of a research instrument liable to correlate intellectual capital with the SMEs' internationalization endeavors; testing the model and the instruments in different industries and areas of activity in Romania; the establishment of a benchmark for future researches; the development of a research report on the level and forms of accessing the intellectual capital by European SMEs correlated with the internationalization process and the development of international partnerships; the technological transfer of the research conclusions into the organizational practice by disseminating the project's results.

In order to ensure a clear picture of the project status, the main objectives, activities and results estimated and achieved during the first period of the project implementation are summarized in the table below (Table 1), followed by the table summarizing the main publications (Table 2).



Table 1. Objectives, activities and results estimated and achieved during the first period of implementation (2 May – 31 December 2018)

Research objectives (RO) / Technical objectives (TO)	Activities (A)	Estimated results (EA)	Achieved results (AR)	Objective status
RO1. The investigation of the opportunities and constraints of the European SMEs in the process of internationalization from an interdisciplinary perspective	A1. Identification and synthesis of the relevant specialized literature A2. Elaboration of the research designs and initiation of the empirical research (both quantitative and qualitative)	ER1. Publication of at least three articles in journals indexed in international databases or ERIH Plus	AR1. An article published in a journal indexed in ERIH Plus and other international databases AR2. A conference paper presented at an international conference whose proceedings are submitted for indexation in the Web of Science	Completed in 2018
RO2. The analysis of the state-of-the-art in the exploration of the intellectual capital (human, structural and relational) in the European SMEs (ongoing in 2019)	A3. Exploratory analysis of the data collected (via structural equation modeling and case study techniques), presentation of the results, discussion of the findings	ER2. Participation at minimum two international conferences	AR3. Two articles published in journals indexed in the Web of Science AR4. Two conference papers presented at international conferences whose proceedings are submitted for indexation in the Web of Science	Completed in 2018 (ongoing in 2019)
RO3. The examination of the level of internationalization of the Romanian SMEs (ongoing in 2019)	A4. Participation to international scientific conferences with a view to disseminate the research outputs		AR5. An article published in a journal indexed in international databases AR6. An elaborated research design for further operationalization	Completed in 2018 (ongoing in 2019)
TO1. Facilitation of the project's online visibility	A5. Creation of a web page dedicated to the project	ER3. Project web page ER4. Intermediary research report available on the project web page	AR7. Project web page - https://ccm.facultateademanagement.ro/icsmeu/ AR8. Intermediary research report available on the project web page	Completed in 2018



T02. Provision of the necessary logistics for an efficient unfolding of the project	A6. Acquisition of the inherent logistics (laptops, printer, video projector)	-	-	Completed in 2018 (ongoing in 2019)
T03. Assurance of an efficient project management	A7. Planning of the research activities, organization, coordination and monitoring of the research team (human resources), administration of the material and financial resources	-	-	Completed in 2018 (ongoing in 2019)

Table 2. Publications and conferences during the first period of implementation (2 May – 31 December 2018)

No.	Publications / Conferences	Details	Research Objectives (RO) - Achieved results (AR)
1.	Vătămănescu, E.-M., Alexandru, V.-A., Cristea, G., Radu, L., & Chirica, O. (2018). A Demand-Side Perspective of Bioeconomy: The Influence of Online Intellectual Capital on Consumption. <i>Amfiteatru Economic</i> , 20(49), 536-552. DOI: 10.24818/EA/2018/49/536 (ISSN: 1582-9146, eISSN: 2247-9104)	Indexed in the Web of Science, Clarivate Analytics WOS: 000440364100002 Impact Factor (IF): 0.664 Article Influence Score (AIS): 0.062	RO2 – AR3
2.	Vătămănescu, E.-M., Alexandru, V.-A., Dincă, V.M., & Nistoreanu, B.G. (2018). A Social Systems Approach to Self-assessed Health and Its Determinants in the Digital Era. <i>Systems Research and Behavioral Science</i> , 35(4), 357–368. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/sres.2545 (ISSN: 1092-7026, eISSN: 1099-1743)	Indexed in the Web of Science, Clarivate Analytics WOS:000442223200002 Impact Factor (IF): 0.860 Article Influence Score (AIS): 0.262	RO2 – AR3
3.	Vătămănescu E.-M., Gorgos, E.-A., & Alexandru, V.-A. (2018). Preliminary Insights into SMEs Opportunities and Vulnerabilities in the European Context. A Qualitative Approach. <i>Management Dynamics in the Knowledge Economy</i> , 6(3), 385-404. DOI 10.25019/MDKE/6.3.03. Retrieved from	Indexed in BASE (Bielefeld Academic Search Engine), Cabell's, CEEOL, EconLit, DOAJ, EBSCO, ERIH Plus, GIF, Index Copernicus, NewJour,	RO1 - AR1



	http://www.managementdynamics.ro/index.php/journal/article/view/274/226 (ISSN: 2392-8042 (online))	ProQuest, Road, RePec – EconPapers, Ulrich's	
4.	Colombo, G., Vătămănescu, E.-M., Alexandru, V.-A., & Gazzola, P. (2018). The influence of internationalization process-based factors on international performance in the case of SMFES. <i>Economia Aziendale Online - Business. Management Sciences International Quarterly Review</i> , 9(3), 319-332. DOI: 10.13132/2038-5498/9.3.319-332 (ISSN: 1120-0588; ISSN online: 2038-5498)	EBSCO, Cabell's	RO3 – AR5 RO3 – AR6
5.	Vătămănescu E.-M., Gorgos, E.-A., & Alexandru, V.-A. (2018). Theoretical Insights into SMEs' Opportunities and Vulnerabilities in International Settings. In Bratianu, C., Zbucnea, A., & Vițelar, A. (Eds.), <i>Strategica. Challenging the Status Quo in Management and Economics</i> (pp. 979-988). Bucharest: Tritonic (ISBN: 978-606-749-365-8, ISSN: 2392 – 702X)	In the process of indexation in the Web of Science, Clarivate Analytics	RO1 – AR2
6.	Cristea, G. (2018). Does Intellectual Capital Contribute to a Better Management of Virtual Teams? In Bratianu, C., Zbucnea, A., & Vițelar, A. (Eds.), <i>Strategica. Challenging the Status Quo in Management and Economics</i> (pp. 610-620). Bucharest: Tritonic (ISBN: 978-606-749-365-8, ISSN: 2392 – 702X)	In the process of indexation in the Web of Science, Clarivate Analytics	RO2 – AR4
7.	Bratianu, C., Vătămănescu E.-M., & Anagnoste, S. (2018). The Influence of Knowledge Dynamics on the Managerial Decision-Making Process. In Bolisani, E., Di Maria, E., & Scarso, E. (Eds.), <i>Proceedings of the 19th European Conference on Knowledge Management (ECKM 2018)</i> (pp. 104-111). Reading, UK: Academic Conferences and Publishing International Limited (E-Book ISBN: 978-1-911218-95-1, E-Book ISSN: 2048-8971)	In the process of indexation in the Web of Science, Clarivate Analytics	RO2 – AR4
8.	October 2018 – Participation with the paper <i>Theoretical Insights into SMEs' Opportunities and Vulnerabilities in International Settings</i> at Strategica 2018. Challenging the Status Quo in Management and Economics , organized by SNSPA, National Bank of Romania and SAMRO, Bucharest, Romania, 11-12 October 2018	http://strategica-conference.ro/wp-content/uploads/2018/10/Agenda-Strategica-11-12.10.2018.pdf	RO1 – AR2
9.	October 2018 - Participation with the paper <i>Does Intellectual Capital Contribute to a Better Management of Virtual Teams?</i> at Strategica 2018. Challenging the Status Quo in Management and Economics , organized by SNSPA, National Bank of Romania and SAMRO, Bucharest, Romania, 11-12 October 2018	http://strategica-conference.ro/wp-content/uploads/2018/10/Agenda-Strategica-11-12.10.2018.pdf	RO2 – AR4
10.	September 2018 - Participation with the paper <i>The Influence of Knowledge Dynamics on the Managerial Decision-Making Process</i> at the 19th European Conference on Knowledge Management (ECKM 2018) , organized by University of Padua, Italy, 6-7 September 2018.	https://www.academic-conferences.org/download/20837/	RO2 – AR4



From a bird's eye view, the **main objectives** of the first phase of the project implementation focused on the research documentation and the initiation of the empirical studies.

Given the interdisciplinary scope of the project and the interconnected research areas, the main deliverables (i.e., publications) during the first phase of the project implementation revolved around the following key issues:

- KI1.** the opportunities and constraints of the European SMEs in the process of internationalization from a dichotomous perspective – theoretical and empirical;
- KI2.** the harnessing of intellectual capital (human, structural and relational) from a twofold perspective: within enterprises and within specialized communities;
- KI3.** the challenges of human capital working in SMEs from different European countries in the context of the digital era;
- KI4.** the role of the knowledge dynamics (as the kernel of the intellectual capital) in the process of decision-making within Romanian enterprises;
- KI5.** the challenges of the virtual work environments for the Romanian managers from the perspective of the intellectual capital dimensions.

To ensure a consistent perspective on the core ideas of the published papers, there will be highlighted the main issues approached by each of them (following the order presented in Table 2).

Publication 1: Vătămănescu, E.-M., Alexandru, V.-A., Cristea, G., Radu, L., & Chirica, O. (2018). A Demand-Side Perspective of Bioeconomy: The Influence of Online Intellectual Capital on Consumption. *Amfiteatru Economic*, 20(49), 536-552. DOI: 10.24818/EA/2018/49/536 (ISSN: 1582-9146, eISSN: 2247-9104).

This article puts forward a wider view on the issue of multifold intellectual capital in the context of the digital economy and of the new economic model availed by the bioeconomy. By embracing this direction, the study underlines a key issue (**KI2**), respectively the harnessing of intellectual capital (human, structural and relational) from the perspective of consumer specialized communities. These communities are extremely relevant in relation to the SMEs strategies and policies in that they provide clear signals for adjustment to the new realities of the global digitalized markets. An international approach is advanced by including two EU countries in the sample, namely Romania and Italy.

Thus, the paper aims to address a demand-side perspective of bioeconomy by laying emphasis on the digitalization of markets and, subsequently, on the consumption patterns at the macroeconomic scale. The imperative for a sustainable economic model corroborated with the advances in digital technologies usage have reconfigured consumers' approaches



and expectations and availed new forms of consumer behavior. Among these, the development of consumer-based online communities and of the online intellectual capital have often come forth as an undertaking of empowered consumers pursuing knowledge-based consumption patterns. The quest for sustainable, bio-labeled products on the digital markets has cemented the formation of new social aggregations built on the similarity of interests, goals, values, expectations, preferences, etc., giving way to consistent communication and interaction flows among their members and engendering profound transformations in today's organizations and society. Acknowledging all these facts, the study investigates the influences of the online intellectual capital on the consumption patterns through the lens of bioeconomy. The focus is set on the bio products consumption in two European countries (i.e., Romania and Italy), relying on a sample of over 700 active online consumers. Processed via a structural equation modeling technique, the data indicated the existence of significant influences among the considered variables and revealed multilevel implications for organizational actors (especially SMEs) in approaching specialized markets.

Publication 2: Vătămănescu, E.-M., Alexandru, V.-A., Dincă, V.M., & Nistoreanu, B.G. (2018). A Social Systems Approach to Self-assessed Health and Its Determinants in the Digital Era. *Systems Research and Behavioral Science*, 35(4), 357–368. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1002/sres.2545> (ISSN: 1092-7026, eISSN: 1099-1743).

This article addresses a pivotal dimension of the intellectual capital of European SMEs in the context of the digital society, namely human capital. Acknowledging the overarching importance of the human resources, of their perceived health and its determinants within an organizational (social systems) framework, the paper aims to investigate the influences of individual characteristics, environmental and socio-economic factors on the way employees rate their own health. The multiplexity and dynamics of social structures are examined through the lens of the digital era, which exerts a substantive impact on the individuals' appraisal of reality and capacity of adjusting to the unfolding of the world. Thus, given the digital-centric environment contextualizing the activity of white-collar workers in SMEs, the study scrutinizes over 54 000 observations. In fact, a total of 54 056 subjects were considered, representing a subsample comprising managers, professionals, services and sales workers) from 14 European countries, given the research focus on the digital-centric and, implicitly, transnational work environments.

By embracing this direction, the study discusses a key issue (KI3), namely the challenges of human capital working in SMEs from different European countries in the context of the digital era that engenders a high level of hyperconnectivity and



transnationality. The phenomenon of hyperconnectivity as an emergent property of our globalizing sets of relationships goes hand in hand with the technological advances in the social systems architecture, a fact that calls for novel approaches and insights on the immersion of digital systems into the work environment. Technologies and social institutions, their material and social structures should all converge towards sustaining life. Given the interdependencies of global dynamics, the emergence of a 'syntony sense' (i.e. creative and intentional aligning with the dynamic harmony of our broader environment) comes forth as pivotal. Hereby, the non-linear property of social systems nourishes synergy, and the more distinct and versatile the individuals, yet hyperconnected among them, the more synergy they can accomplish. Progressively, the non-linear social systems that have developed their full evolutionary potential, and attained a certain degree of evolutionary competence, start to engage with their more-than-human world in the creation of greater ecosystems of syntony.

Publication 3: Vătămănescu E.-M., Gorgos, E.-A., & Alexandru, V.-A. (2018). Preliminary Insights into SMEs Opportunities and Vulnerabilities in the European Context. A Qualitative Approach. *Management Dynamics in the Knowledge Economy*, 6(3), 385-404. DOI 10.25019/MDKE/6.3.03. Retrieved from <http://www.managementdynamics.ro/index.php/journal/article/view/274/226> (ISSN: 2392-8042 (online)).

This article covers the scope of SMEs opportunities and vulnerabilities in the European context, thus providing an answer to a key issue (**K11**), namely the opportunities and constraints of the European SMEs in the process of internationalization from a dichotomous perspective – theoretical and empirical.

The study aims to theoretically investigate the opportunities and vulnerabilities apposite for the small and medium-sized enterprises (SMEs), insisting on the internationalization conditions, and to empirically explore the European initiatives meant to support the SMEs in their various endeavors, from accessing relevant knowledge to deploying successful operations in foreign markets. To this end, a qualitative research was conducted through the case study method. Over 10 European initiatives were described and more than 20 relevant documents available on official European websites were analyzed. The underlying assumption for conducting this study resided in the fact that a better understanding of the European context describing SMEs performance would provide valuable insights to the actors interested in their future business activity, specifically in their cross-border projects and operations. Moreover, a refined outlook would enlarge their vision of the existing opportunities and thus catalyze the process of converting current challenges into positive results.



The evidence brought to the fore by the current study indicate that European SMEs are faced with significant challenges in their various endeavors and, at the same time, that the European Commission has consistently acted towards supporting these businesses to grow and expand internationally via European initiatives meant to enforce their development. Using a case study method, several major European initiatives were described, laying emphasis on formal pathways accessible to SMEs.

Building on the specific needs and vulnerabilities encountered by the European SMEs, especially in terms of information and documentation, different specialized EU institutions have played an active role in offering easier access to relevant information regarding legislation and programs, financing options, the development of human capital, the improvement of management styles, the understanding of mental and environmental differences, of the prerequisites for innovation and competitiveness. By acquiring proper knowledge at these levels, SMEs would benefit from higher chances to adapt to new market conditions, to successfully enter foreign markets and thus be competitive. Acknowledging and further dealing with current vulnerabilities would provide SMEs with the capacity to manage businesses which are exposed to contextual factors liable to affect them to different extents. An adequate identification of the opportunities and vulnerabilities are decisive factors for establishing SMEs performance in international settings.

Given the fact that the present paper focused on the European initiatives addressing SMEs support, future studies revolving around the Romanian undertakings in this sense would round off the provided framework. Correlating both perspectives would provide a clear picture of the challenges met by Romanian SMEs as determined by the national context.

Publication 4: Colombo, G., Vătămănescu, E.-M., Alexandru, V.-A., & Gazzola, P. (2018). The influence of internationalization process-based factors on international performance in the case of SMFEs. *Economia Aziendale Online - Business. Management Sciences International Quarterly Review*, 9(3), 319-332. DOI: 10.13132/2038-5498/9.3.319-332. Retrieved from <http://riviste.paviauniversitypress.it/index.php/ea/article/view/1945/2051> (ISSN: 1120-0588; ISSN online: 2038-5498).

This article envisaged the elaboration of a conceptual and research design meant to be further operationalized in the case of Romanian SMEs with a view to examine the level of their internationalization, putting forward two key issues (**KI1 and KI2**): the process of SMFEs internationalization from a theoretical perspective and the role of intellectual capital (namely the human and relational dimensions) within and across enterprises.

The paper advances a conceptual framework for the influence of internationalization process-based factors on international performance in the case of small and medium-sized family enterprises (SMFEs). Given the unidimensional nature of most analyses on SMFEs



internationalization strategies, their majorly causative focus, a research problem emerges in that new realities cannot be depicted via old single-factor theories. The research gap in the extant literature calls for an up-to-date approach on the internationalization paradigm, envisioning reference theories on process-based internationalization, internationalization effectiveness by means of business networks and market-driven orientation. Thus, in response to prior studies calling for novel insights into SMFEs internationalization process, the present undertaking intends to propose an integrative theoretical framework based on: a. the investigation of process-based internationalization factors; b. the configuration and development of business relationships and networks between parties (i.e., business owners, managers, firms); c. the operationalization of international performance. Against this backdrop, two main research questions will be addressed: Do process-based internationalization factors have a significant influence on SMFEs international performance? Which are the most influential process-based internationalization factors on SMFEs international performance?

The development of a future research design for hypotheses testing would imply inviting over 200 SMFEs managers from European countries (e.g., Romania) - via e-mail - to take part online in a questionnaire-based survey regarding business internationalization processes. The access to the key informants database will be ensured by several members of the reference associations, acting as research facilitators within the scope of the current study. The sample will include all age categories, thus allowing intergenerational comparisons. The survey will be conducted for at least one month, whereas the questionnaire will consist of closed-ended questions measured on five-point Likert scales. Questions will fall into six main categories, that is: a. common contexts; b. psychological proximity; c. trust; d. business networks; e. international performance; f. socio-demographic characteristics. The items for each category rely on prior conceptualizations presented in the literature review section are objectivized as self-reported measures.

The measurement and structural model will be assessed by employing the component-based partial least squares (PLS) tool with the Smart-PLS software package. As Barclay, Higgins and Thompson (1995) suggested, the focus will be set on convergent validity (employing factor loadings and cross-loadings of the indicators on their reflective constructs, Average Variance Extracted (AVE) and composite reliability (CR)), individual item reliability, composite reliability, and discriminant validity of the measurement model. Then, the path coefficients will be assessed in terms of significance, influence on the endogenous variable, that is, the international performance of SMFEs.

It is expected that all four hypotheses are supported by the empirical data, namely: H1: There is a positive influence between capitalizing common contexts and international performance in the case of SMFEs internationalization process; H2: There is a positive relationship between psychological proximity and international performance in the case of



SMFEs internationalization process; H3: There is a positive relationship between trust and international performance in the case of SMFEs internationalization process; H4: There is a positive relationship between capitalizing business networks and international performance in the case of SMFEs internationalization process.

Irrespective of a partial or entire confirmation of the hypotheses, the research will add up to the extant literature in several ways. First, it will reveal the significant influences of the process-based factors on international performance, an under-researched topic in the field. Second, it will bring forward the most influential factor conducive to international performance, hence providing a starting point for future studies. Third, it will advance a multilevel theoretical and empirical perspective on the dynamics of today's business internationalization processes, focusing on family business border-spanning relationships.

Publication 5: Vătămănescu E.-M., Gorgos, E.-A., & Alexandru, V.-A. (2018). Theoretical Insights into SMEs' Opportunities and Vulnerabilities in International Settings. In Bratianu, C., Zbucnea, A., & Vițelar, A. (Eds.), *Strategica. Challenging the Status Quo in Management and Economics* (pp. 979-988). Bucharest: Tritonic (ISBN: 978-606-749-365-8, ISSN: 2392 – 702X).

The conference paper aimed to theoretically depict the opportunities and vulnerabilities that small and medium-sized enterprises (SMEs) are prone to face – unlike the bigger actors -, insisting on the internationalization conditions, from accessing relevant knowledge to deploying successful operations in foreign markets. This undertaking was directly linked to the first research objective of the project and to **KI1**.

The motivation to elaborate on this approach is determined by the fact that a better understanding of the SMEs cross-border performance in relation to their specific characteristics and inputs would provide additional insights into the future of small and medium-sized business and their topical ventures, especially in their foreign initiatives and projects. Further, a theoretical outlook on the existing opportunities and vulnerabilities would become an important step towards the formation of proper managerial attitudes and conducts regarding the organizational and environmental dynamics.

Given the fact that the present paper mainly focused on the theoretical developments in the field, future studies revolving around relevant case studies would round off the general perspective. Correlating theory and facts would yield benefits for both the academic community and practitioners.

Publication 6: Cristea, G. (2018). Does Intellectual Capital Contribute to a Better Management of Virtual Teams? In Bratianu, C., Zbucnea, A., & Vițelar, A. (Eds.), *Strategica. Challenging the Status Quo in Management and Economics* (pp. 610-620). Bucharest: Tritonic (ISBN: 978-606-749-365-8, ISSN: 2392 – 702X).



This paper proposed a review of the literature on two very important topics for managerial population nowadays: intellectual capital and virtual teams, with an eye towards applying the theoretical information to organizational performance and efficiency. In this way, the theoretical endeavor discusses one of the project key issues (**KI5**), namely the challenges of the virtual work environments for the Romanian managers from the perspective of the intellectual capital dimensions.

In a knowledge-based economy, where the information is still the most important source of power, the “intangible” assets of the company (the intellectual capital, with its three forms human capital, relational capital and structural capital) are playing the main role in the creation, development and survival of the company on this very demanding and competitive market. Consequently, employees are seen not only as resources for the company, but as values creators, exchanging their knowledge and the information and using their abilities and skills within various networks. In the current economy, change is a constant for the organizations and combining this reality with the fast pace development of technology, virtual teams have become one of the most common solutions for many companies, especially for multinational ones. In order to find the most effective strategy to use the knowledge about the intellectual capital and its components in virtual teams’ management, we review books and articles from different areas like: management, sociology, organizational psychology and law, to discover all the aspects involved in this approach. We discovered that knowledge and understanding of the human and relational capital are playing a vital role for the management of virtual teams, considering the specificity of those teams.

Knowledge of and familiarity with the new forms of intellectual capital can provide the managers of virtual teams with answers to questions like: “What is the best way to share the information within the team?” or “How can I transmit the objectives to the members, in order to empower them to work as a team to obtain the best results?” or “How can I be an inspiring leader for the team?”, aspects that are for sure a constant preoccupation when managing virtual teams.

Future research based upon this theoretical framework would present the results of a survey-based research conducted in Romania, with virtual and collocated employees from different SMEs, to evaluate the opinion of the respondents regarding the virtual collaboration and communication in cross-border settings.

Publication 7: Bratianu, C., Vătămănescu E.-M., & Anagnoste, S. (2018). The Influence of Knowledge Dynamics on the Managerial Decision-Making Process. In Bolisani, E., Di Maria, E., & Scarso, E. (Eds.), *Proceedings of the 19th European Conference on Knowledge Management (ECKM 2018)* (pp. 104-111). Reading, UK: Academic Conferences and Publishing International Limited (E-Book ISBN: 978-1-911218-95-1, E-Book ISSN: 2048-8971).



This paper tackled another key issue (**KI4**), respectively the role of the knowledge dynamics (as the kernel of the intellectual capital) in the process of decision-making within Romanian enterprises. In order to further depict managers' perspective on international ventures, a first milestone was understanding their decision-making models, the inputs of the human capital's decisions at the managerial level.

Research on the decision-making process in economics and management has focused mostly on the rational or intuitive thinking, ignoring the influence of knowledge dynamics. The most known models of decision-making are based on the hypothesis that action is a consequence of a rational choice. Since managers do not dispose of complete information and knowledge in most practical situations, the decision-making models incorporate a bounded rationality approach and a probabilistic thinking. There is also a stream of research showing that decision-making is based on individual experience of managers, experience which is filtered and structured as intuition. Many managers consider themselves intuitive decision makers, especially in those domains of activity where the time is critical and there is no practical value of using the rational constructed decision-making models.

The purpose of this paper is to bring into analysis a new perspective, which is based on the multifield theory of organizational knowledge and the entropic knowledge dynamics model. Cognitive scientists demonstrate that decision-making is neither a full rational process, nor a full intuitive one. It is a complex thinking process which is based on the contribution of rational, emotional and spiritual knowledge, and on their continuous dynamics. Based on the energy metaphor, the organizational knowledge can be conceived as a spectrum of rational, emotional and spiritual forms of knowledge. Our research aims at evaluating the relative influence of the knowledge dynamics on the decision-making process as compared to the bounded rationality and intuition dimensions, setting the premises for an integrative and multi-factor conceptual and structural model.

The qualitative component of our research focuses on critical analysis of the literature background and identifying the key factors in the decision-making process, while the quantitative component is based on a research model composed of seven factors and eight inferred relationships, on processing data obtained from 138 questionnaires distributed online to middle and top managers from over 100 companies. The results obtained so far confirm the importance of the entropic knowledge dynamics within the complexity of the managerial decision-making processes.

The investigation of the relative influence of knowledge dynamics, based on the multifield theory of knowledge, on the decision-making process brought forward meaningful relationships among the advanced constructs. All six hypotheses were supported by the empirical research, thus validating the theoretical developments who sustained the influences between rational, emotional and spiritual knowledge and decision-making, knowledge dynamics and decision-making, intuition and bounded rationality and decision-making. As shown by the findings, the highest correlation between variables was retrieved for the dyad knowledge dynamics and decision-making, a fact which confirms the approach



of Bratianu (2015) in terms of the multifield theory of knowledge and the inherent transformations.

Also, the study adds up to the extant literature by supporting the complexity of the decision-making process which surpasses monolithic inputs and depicts multilevel variations. The results have implications for both academia and practice. In what concerns the former, the findings open up a new research avenue for understanding and investigating the relationship between the knowledge span and decision-making, by supporting the existence of multiple influences. As for the latter, decision makers should acknowledge the fact that good decisions rely on a manifold approach which simultaneously integrates various types of knowledge, intuition and the bounded rationality.

Technical aspects (project management activities)

In order to assure an efficient project management, the director has focused on thoroughly planning the research activities - the organization, coordination and monitoring of the research team (i.e., human resources) -, and on the administration of the material and financial resources.

In what concerns the planning of the research activities - the organization, coordination and monitoring the research team -, several work meetings were established, and specific tasks were allocated to the members in relation to their research skills, interests and expertise. They were explained the specificity of the project, its scope, purpose and objectives and explicit deadlines for outputs delivery were discussed and agreed. The members also agreed on the collaboration formula – some decided to investigate specific topics on their own and, consequently, write scientific papers as sole authors, others decided to work in teams either composed of the project members, or of different researchers coming from various national and international universities. The project manager considered that sharing research experience internationally and, implicitly, publishing papers with co-authors from other universities would provide substantive benefits in terms of project visibility abroad and in terms of results dissemination.

Moreover, the selection of relevant international conferences for the project's scope and aims took into consideration both the general themes of the academic events and the degree of their internationalization. Two conferences have been deemed as very relevant in this respect, namely: Strategica 2018. Challenging the Status Quo in Management and Economics (organized by SNSPA, National Bank of Romania and SAMRO, Bucharest, Romania, 11-12 October 2018) and the 19th European Conference on Knowledge Management (ECKM 2018) (organized by University of Padua, Italy, 6-7 September 2018). Each conference gathered over 150 participants coming from more than 20 countries all over the world and ensured a highly qualified audience for the scientific contributions of the project members. The selection of the relevant journals to submit the studies envisaged the



extant publishing opportunities at a particular moment, the publication indexation and ratings in different international databases and the estimated time from the paper submission to actual publication.

With a view to support the online visibility of the project, the members contributed with insightful suggestions to the development of the project's webpage, especially in terms of organization and content. They provided recommendations for creating a user-friendly interface and for easy-to-follow information.

The administration of the material and financial resources was a substantive part of the project manager's activities during the first phase of the project implementation. The management of the material resources mainly included the provision of the necessary logistics for an efficient implementation of the project. Two laptops, a multifunctional printer and a video projector were bought at this stage. The management of the financial resources covered the expenses planning, allocation and verification for each category of the project activities, with a special emphasis on international conferences (conference fee, travel and accommodation expenses), webpage design (provider selection) and equipment acquisition. The elaboration of the appropriate documentation in line with the Romanian legislation and institutional procedures was closely monitored and checked by an accountant which was included in the project's technical team from the beginning. The project manager collaborated with the accountant during the project implementation, also benefiting from the university's administrative staff for handling current issues.

Research report conclusions

The main results to be achieved during the first phase of the project implementation envisaged the publication of at least three scientific articles indexed in international databases and the attendance at two international conferences. In this vein, four scientific articles on related topics were published in journals indexed in the Web of Science (Clarivate Analytics), Scopus, ERIH Plus, etc. and three conference papers were presented during international conferences whose proceedings are in the process of indexation in the Web of Science.

Given the reported achievements – which exceed qualitatively and quantitatively the estimated results – it can be concluded that the research team succeeded in initiating and developing a consistent and efficient research agenda and fruitfully translated it into practice.

From a bird's eye view, the outcomes of the first phase of the project implementation has set the premises for further conceptual and empirical studies which will approach more specifically and in-depth the state-of-the-art and the challenges of exploiting the intellectual capital in the process of European SMEs internationalization.