Guest editorial

1. Intellectual capital management as a driver of competitiveness and sustainability

1.1 Synthesis of the papers included in this special issue

The aim of this special issue was to explore, through empirical research and theoretical work, the relation between intellectual capital management (ICM) and competitiveness and sustainability and to highlight trends, issues and problems related with the application, diffusion of IC concepts and conceptual innovation.

The resulting special issue, integrated by 11 papers, selected among dozens of proposals, covers interesting and important matters and shows that IC is a subject of vibrant interest.

This special issue opens with a qualitative research proposed by Osinski *et al.* (2017) about IC measurement issues and existing measurement methods. The problem of intangibles and IC measurement is an open issue that, in our view, is waiting yet for an acceptable theoretical model to build instances applicable to specific domains. This paper is an abstraction effort in this direction, presenting useful definitions of important concepts and its relations and the main characteristics of existing businesses' IC measurement systems.

The important subjects of IC reporting (ICR) and IC disclosure are covered by two papers proposed by Cabrita *et al.* (2017) and Castilla-Polo and Ruiz-Rodríguez (2017).

IC disclosure addresses the challenging and sensible problem of searching for solutions that conciliate the opposing aims of restraining the diffusion of information about strategic matters and the legal obligation to report the organizations' activity.

In the paper of Cabrita *et al.* (2017), a quantitative study, involving 28 banks, is reported and the definition of a disclosure index for banking sector allowing its measurement is presented.

Following the topic of disclosure, Castilla-Polo and Ruiz-Rodríguez (2017) report an important qualitative investigation, aiming the state of the art of the use of content analysis in the field of intangible assets disclosure. An interesting synthesis is presented, covering the period of 2000-2017, expressed through a table that can be very useful as support for future research works and the starting point for others.

Connections among intellectual capital and sustainability are the main focus of the paper of Cavicchi (2017). This interesting case study addresses the problem of relations between IC and sustainability through a qualitative methodology, involving the Italian Regional Health Service.

Also, related with the Italian social enterprises, Benevene *et al.* (2017), using a qualitative methodology based on 81 interviews of senior managers, explores the perception of IC concepts among nonprofit organizations. This paper reveals that there is a considerable gap between the perception of this concept and its intended meaning expressed in the technical literature, with obvious consequences for practical applications and diffusion matters.

Wiedenhofer *et al.* (2017) report the practices and results of a successful knowledge transfer to Slovakia's Higher Educational Institutions, both public and private, of Austrian and German ICR models, having in mind the evaluation of those models, in response to a recognized weak connection between Slovak labor market and vocational training system.

Universities, traditionally considered important players by their two missions of research and diffusion of knowledge, are now seen as major players of a knowledge-based economy (its third mission). A large part of innovations and new ideas in all social and economic sectors are generated at universities, where the creative power of youth is concentrated during a considerable length of time. This means that the efficiency and effectiveness of technology transfer is now more important than ever, making sense to speak of university competitiveness. Secundo *et al.* (2017) present the results of a study involving 18 European universities, addressing the problem of measuring the efficiency of universities' Technology Transfer Offices, using a Maturity Model as a methodologic tool.

Financial performance and market capitals are the topics of the papers presented by Mohammadi and Taherkhani (2017) and Jordão and Almeida (2017), both of quantitative nature: the first one addressing the specific concept of cost stickiness and its relations with IC (specifically with organizational capital) in the context of the Tehran Stock Exchange and the second one, addressing the issue of companies' financial long-term performance.

In relation to Mohammadi and Taherkhani (2017)'s paper, one of the main conclusions, based on an inferential statistical study of panel data, is that there is a significant relationship (of causal nature) between organizational capital and cost stickiness, with direct implications in the revision of rules for investment in intangibles.

Jordão and Almeida (2017)'s paper is a theoretic research of relations between Brazilian companies' IC and the long-term financial performance (financial sustainability) of those companies. The study is supported with data from the Brazilian companies, listed in a specific stock market, for the period 2005-2014, one of the main conclusions being that the more intangible-intensive companies present a better financial long-term performance – profitability and return – than the others.

Networks and its relationship with IC and knowledge management in Small and Medium Enterprises (SMEs) is the subject matter of a conceptual paper presented by Jordão and Novas (2017). From a qualitative study, using content analysis of websites in the internet and spread all over the world, the authors conclude that, consequence of intense exchange and sharing of knowledge through networks, knowledge networks emerge naturally, becoming Knowledge and IC Generators.

Finally, the paper presented by Matos *et al.* (2017) completes this special issue. Smart City is a recent concept that has many points in common with IC, but has a technological origin, in contrast with IC managerial origin. The relations between these concepts and the proposal of a theoretical framework for smart cities' strategic and operational planning are the main contribution of this conceptual paper. Using biological and psychological concepts as an inspiration source, the paper also analyses the problem of IC formation and meaning of a collective reasoning entity (such as a city).

2. Conclusion
In conclusion, we believe that this special issue reflects the heterogeneity of areas and activity sectors where IC studies are being carried out: banking, stock markets, public administration, health management, social economy, finance, SME's management, universities, cities and regions governance, to mention only a few.

As shown by the content of the present papers, IC is also a concept that is attracting the attention and is being used both as a research subject and management strategic instrument in such diverse geographies as Austria, Brazil, Iran, Italy, Portugal, Slovakia and Spain, to mention only the authors' countries.

Among the papers findings, despite this universality, we single out the manifestations of resistance to the diffusion of the IC concept practical applications, given the traditional management reasoning and experience in "doing things". The simple concept of intangible, as something that is not tangible or directly observed but that is the cause of organizations' tangible behavior and value, raises important understanding and acceptance difficulties that can only be overcome with appropriate methodology.

Although IC measurement was not one of the subjects in the call, the existence of a universally accepted method of IC measurement is mentioned in several papers as a highly needed instrument to answer, in an objective way, to performance and sustainability issues.

Qualitative methodologies were employed for most of the papers but the proportion of those using the quantitative data analysis and statistical inference was significant, reflecting performance measurement needs, associated with financial sustainability or disclosure modeling.

In sum, we believe that this special issue is a reliable manifestation of current ICM practices and research problems and, by that, will become a useful source of knowledge and inspiration for near future practical work and new IC applied research works.

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References

Benevene, P., Kong, E., Barbieri, B., Lucchesi, M. and Cortini, M. (2017), "Representation of intellectual capital's components amongst Italian social enterprises", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 564-587.

Cabrita, M.R., Ribeiro da Silva, M.L., Gomes Rodrigues, A.M. and Muñoz Dueñas, M.P. (2017), "Competitiveness and disclosure of intellectual capital: an empirical research in Portuguese banks", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 486-505.

Castilla-Polo, F. and Ruiz-Rodríguez, C. (2017), "Content analysis within intangible assets disclosure: a strutured literature review", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 506-543.

Cavicchi, C. (2017), "Healthcare sustainability and the role of intellectual capital: evidence from an Italian regional health service", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 544-563.

Jordão, R.V. and Almeida, V. (2017), "Performance measurement, intellectual capital & financial sustainability", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 643-666.

Jordão, R.V. and Novas, J. (2017), "Knowledge management and Intellectual capital in networks of small and medium-sized entreprises", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 667-692.

Matos, F., Vairinhos, V., Dameri, R.P. and Durst, S. (2017), "Increasing smart city competitiveness and sustainability through managing structural capital", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 693-707.

Mohammadi, A. and Taherkhani, P. (2017), "Organizational capital, intellectual capital and cost stickiness (evidences from Iran)", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 625-642.

Osinski, M., Selig, P.M., Matos, F. and Roman, D.J. (2017), "Methods of evaluation of intangible assets and intellectual capital", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 470-485.

Secundo, G., De Beer, C., Schutte, C. and Passiante, G. (2017), "Mobilising intellectual capital to improve European universities' competitiveness: the technology transfer offices' role", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 607-624.

Wiedenhofer, R., Friedl, C., Billy, L. and Olejarova, D. (2017), "Application of IC-models in a combined public-private sector setting for regional innovation in Slovakia", *Journal of Intellectual Capital*, Vol. 18 No. 3, pp. 588-606.

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