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Changing the university system of management: a study on the Italian scenario

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Abstract

Over recent years, the Italian University System has been handling a phase of deep changes, which have had significant impact on its mission and on the way it operates. The most important of these changes have been to the organisation of universities, their recruitment procedures and in terms of improvements to the quality and efficiency of the university system itself. In this perspective, the objective of this research was to carry out a critical analysis of the process of change, with special reference to improving efficiency by making the transition from cash-based accounting to accrual accounting. In order to achieve this objective, the starting point was the legislation of reference that sets out the terms for the move to financial accrual accounting. A comparative analysis was then carried out at an international level, with the purpose of highlighting the strengths and weaknesses identified during the implementation of these new procedures within the public field. This was followed by an analysis of the details of the theory defining the accounting principles to be used in the process of preparing university's financial statements. Finally, the study identified the main critical points relating to implementation of the new accounting system, offering, at the same time, several thoughts concerning possible subsequent analyses on this topic.

Keywords: University management, Higher education system, Accrual accounting, Efficiency

Background

Introduction

In Italy, following the approval of the law n. 240 of 30th December 2010, legislation covering the organisation of universities, academic personnel and recruitment procedures were redefined, together with authorising the government to stimulate the quality of research and efficiency within the university system.

A whole range of actions have been contemplated to pursue and achieve these objectives; amongst these actions is the completing the transition from cash-based accounting to accrual accounting.

The reasons connected to this change lie in the need for greater accountability demanded within the current social economic context from these public institutions.

The updated university system highlights two types of values: one connected to the impact of management-related choices, the other to changes to the entity of their assets.

The method not only provides greater information on company performance (Meroño-Cerdan and Soto-Acosta 2005; Faseruk 2008; Maggioni and Del Giudice 2011; Soto-Acosta et al. 2015), but it is also suitable for purposes of integration with forecast-related instruments, which have the function both of controlling the economic and financial balance (Zanda 2012) and of ensuring the sustainability of the organisation (Sarkis et al. 2000; De Falco 2012; Palacios-Marqués et al. 2015).

It can, therefore, be deduced that, for those who need to make decisions, this greater information is vital for managing their available resources efficiently.

It is also true that the issue of changing the accounting system used by universities is not a new topic, since this possibility had already been advanced at the time when universities gained their independence, in 1989.

In view of the fact that, in many universities, this change has not yet to be introduced, it is important to question the reasons that are holding back the people who should be implementing the change.

In particular, changing an accounting system means changing the methods of handling the organisation of the entire company; it means convincing those who will actually use the new system that this method of accounting will enhance their own work, mainly because of the additional information that they have access to.

The beneficial effects of this new approach to university management must be seen in terms of control and the ability of programming ahead, a concept almost foreign to public administration (Trequattrini 2004).

Finally, it is important to point out that such a major change will not only generate the beneficial effects deriving from the possibilities indicated above but also a whole range of problems of a technical nature, such as managing internal relations or new technologies (Del Giudice and Straub 2011).

It is, therefore, important to state that the absolute requirement to change is connected to government incentives aimed at filling the gaps in professional skills that may, in some cases, arise.

The aim of the paper is to analyse the critical points of the process of change which has been involving the Italian University System, with special reference to the reasons behind the implementation of the new financial accounting system.

The topic is addressed by first attempting to explain the importance of analytical accounting and, most importantly, the function of control and internal company economies, both of which have been borrowed from private companies and used in the university system.

Lastly, an attempt will be made to highlight the strong and weak points of the new system, offering several reflections upon the adoption of measures that may prove to be useful in simplifying the transition from the current financial system to the economic-financial model.

The structure of the paper is the following: after the introduction, "Methods" section describes the methodology and research approach. "The accrual accounting in the public service" provides a literature analysis on management and accounting tools used for public service purposes. "Towards the definition of the accounting principles for the university system" section introduces the accounting principles used for the university system. "Conclusions" contains the discussion of the implications of the research, the limitations of the study and suggestions about future research.

Literature review

Ever since 1980, many countries have undertaken reform processes based on achieving greater efficiency in the public sector by adopting an accrual accounting system (Hood 1995; Groot and Budding, 2008).

Many scholars (Hopwood 1984; Miller 1994; El-Sayed Ebaïd 2011, Nicotra et al. 2014) have investigated the existing bond between company efficiency and accrual accounting system. According to these scholars, the adoption of an economic-financial system on the part of the public sector is natural (Lapsley et al. 2009), seeing the change as an obligatory passage for purposes relating to the achievement of organisational efficiency (Guthrie, 1998).

In connection to this, Carlin (2005) sets out the superiority of accrual accounting over the cash-based system, basing his perspective on three points: first of all, an accrual accounting system leads to greater transparency and improved quality of information, resulting in a more accurate allocation of company resources; it works on the performance of each individual and the group in general and, by identifying cost centres, organisational efficiency also increases.

In sharing this perspective, Athukorala and Reid believe that the accrual accounting system can act as a protection against corruption and fraud, especially in developed countries (Athukorala and Reid 2003; Seol et al. 2011).

However, opposing views also exist on whether accrual accounting should be used in the public field, with some scholars objecting to the change.

The main critical points highlighted by these authors (Barton 2004; Lapsley et al. 2009) can be attributed to topics of a technical nature or to the substantial differences that exist between public and private sectors.

The lack of studies concerning the main accounting principles designed specifically for the public sector, coupled with the fact that the pure definitions proposed by the International Public Sector Accounting Standards (IPSAS) were derived directly from the International Accounting Standard (IAS) (McRae and Aiken 1994; Carnegie and Wolnizer 1995; Stanton and Stanton 1998; Christiaens 1999; Ellwood 2001), puts the sector in a position of great uncertainty, with no reference framework that can immediately satisfy the demands that may arise at any point in time (Ma and Matthews 1993; Guthrie and Johnson 1994; Lewis 1995; Guthrie 1998; Carnegie and West 2003).

Despite huge interest in the concept, empirical studies on the effects of using accrual accounting in public authorities are still very scarce.

The recent studies carried out by Anessi-Pessina and Steccolini (2007) and Ellwood (2009) on Italian local institutions and the British health sector should also be highlighted.

Both stress that the economic-financial system is very bad at producing additional information (Venieris and Cohen 2004; Paulsson 2006; Monsen 2008) and that the level of prevention against creative accounting operations is also poor (Vinnari and Näsi 2008); this is counterbalanced, however, with clear benefits in terms of economic and organisational efficiency (Christiaens and Rommel 2008).

Furthermore, empirical studies on the applicability of accrual accounting in the university sector applied to the Dutch context have placed emphasis on the success of the traditional budgetary accounting system compared to the new accounting system (Christiaens and Wielemaker 2003).

Other empirical studies in the field of universities have been carried out in Greece following the reform of the public sector in 2003 (Venieris and Cohen 2004; Vrontis et al. 2007).

In Italy, the study by Arnaboldi and Azzone (2004) highlighted the main difficulties encountered by the Italian system in the implementation of new planning and control techniques.

In New Zealand, the study by Coy and Pratt (1998) examined the existing relationship between political powers and the accounting organisation of universities by analysing and interpreting the management choices concerning the allocation of financial resources.

Finally, British studies have focused on the internal and external utility of accounting information produced through the economic-financial system (Gray and Haslam 1990).

In consideration of the results derived from empirical analyses (Gray and Haslam 1990; Coy and Pratt 1998; Arnaboldi and Azzone 2004; Anessi-Pessina and Steccolini 2007; Ellwood 2009; Del Giudice et al., 2013), the aim of this research is to examine the approach taken in the main theories (Hopwood 1984; Miller 1994; Hood 1995; Guthrie 1998; Carlin 2005; Groot and Budding 2008; Lapsley et al. 2009), with the objective of studying the impact of the phenomenon in the field of the Italian state universities.

Results and discussion

Following the approval of the legislative decree of 27th January 2012, universities are now required by law to make the transition from the current cash-based accounting system to an accrual accounting system.

Universities are, therefore, called upon to adapt their structures and their *modus operandi* in order to prepare accounting reports for 2014 that are based on their financial situation, profit and loss account, balance sheets and integrative notes.

On the basis of these presuppositions, it is very important to define a uniform accounting criteria for all universities, where the aim is, on the one hand, to ensure that university systems (Anthony 1965) can be compared on a national and international level and, on the other hand, to prevent financial statement policies from making the economic and financial situation of the institutions less transparent or accurate.

Defining the accounting principles for organisations as complex as universities is not easy, for a whole range of reasons of a technical and political nature.

In the wide debate that emerged concerning the applicative models of the accrual accounting model, special attention has been given to the fundamental accounting principles underlying the preparation of the relative accounts.

Some authors prefer to use the International Financial Reporting Standards (IFRS), in consideration of their overarching cause for regulating a true and fair view connected to the principles of clarification, importance, feasibility and comparability (Lacchini and Trequattrini 2007). With the adoption of fair value, the assessment of items in balance sheets can range from their historical costs to their current value, offering the reader a vision that is in line with the reality of the moment.

An analysis of the work carried out in the USA on the accounting system of non-profit organisations has proved to be very interesting (Elefanti 2000).

According to the contents of the Financial Accounting Standard Board (FASB), a non-profit organisation that involves activities where the objective is not to make a

profit is different from one consisting in the production and/or sale of goods or services and, in such an organisation, an important part of the financial results achieved does not depend on the economic return being proportional to the resources provided.

The objectives of the financial statements within these non-profit organisations should be in line with their mission and, according to the indications provided by the Statement of Financial Accounting Concept (SFAC) n.4, the informative notes included in these companies' accounts should function as a useful support both to the programming phase and during the management phase. At the same time, these notes should provide information on the resources available, any possible limitations in their use, existing liabilities and net assets and any possible events and circumstances that may alter their value or usefulness. They should also include information on *performance* achieved over a specific period of time, sources and uses, movements, cash flow, any possible loans and relative reimbursements. The notes can additionally contain the factors that may affect company liquidity and include explanations and interpretations to ensure greater understanding of all of the accounting information (Miolo Vitali 2004).

The instrument described has the purpose of providing maximum transparency in terms of management and American universities regularly publish their accounting informative notes on their websites, making them available to all.

SFAS 147 is adapted case by case to the needs of non-profit companies, although sometimes special principles have been included to cater for the special characteristics of these organisations.

Other scholars have proposed the use of International Public Sector Accounting Standards (IPSAS) principles, previously at the centre of attention for the public administration (Farneti 2000).

The work carried out on these requirements by a study group and by AIDEA "Innovation and measuring of results in companies and public administrations" is extremely interesting, as it involved making a comparison between the principles approved in 2008 by the Observatory for finance and accounting in local authorities in Italy and those issued by IPSASB, highlighting various points of coherence and diversity.

During the first analysis, both organisations presented a reference *framework* and both can be classified within the principle of economic competence; however, the process to harmonise the Italian principles with those of International Public Sector Accounting Standards Board (IPSASB) would require, from the very start, a high level of professionalism in connection with their use and the understanding of their basic concepts, the latter being difficult to create in the current phase (Luca Pacioli Foundation 2002).

It cannot be denied that the adoption of the IPSAS principles may definitely ensure, on the one hand, greater transparency in the handling of joint resources because of a common accounting language and, on the other hand, greater attention in the use of resources available (Pollifroni 2007).

It is important to bear in mind that the use of these principles has aroused a number of questions, especially in connection with their actual application in the university context, whilst, in reality these concerns were perceived rather than real.

Recent studies seem to make the case for adopting national principles as well as those defined by the OIC (the Italian Accounting Standards Setter), in some cases accepting that they can be adapted to the university sector.

However, even if the adaptations in question cannot justify using IPSAS in their entirety, in some cases, because of the specific nature of a given management item or event, it is considered useful to refer back to what is set out in the international accounting principles for the public sector.

Finally, although the IPSAS may in fact be a good accounting procedure that the public administrations of European countries should adopt, it is difficult to imagine them being applied directly in the various national contexts, at least in the near future. On the contrary, the most suitable choice seems that of using the national accounting principles established by the OIC appears, in part linked to the “diffusion” of these principles throughout the Italian accounting system; this latter aspect leads to considering who the main candidates are in terms of the organisations who will adopt the accrual accounting system of a traditional kind in the near future (Catalano and Tomasi 2010; Straub and Del Giudice 2012; Trequattrini et al. 2012).

Conclusions

The research is concerned with investigating the Italian university system, focusing specifically on changes to the university system of management.

Attention centred on the instruments offered in theory and professional practice, as well as on the importance of company control and programming, with the latter being virtually unknown in the public administration, together with the instruments offered through best doctrine and professional practice.

Accounting independence, as indicated in law n. 168 of 9th May 1989, has resulted in accrual accounting being adopted in just a few cases.

Changes to an accounting system are only possible when all the people involved fully collaborate to the process, since, for innovation as dramatic as the one analysed, the methods used to interface with the outside environment and identify the accounting events must be totally redefined.

Finally, once the problems of a cultural and organisational nature have been overcome, universities may come round to adopting the new accounting model. It is no longer worth spending time thinking about the actual accounting principles to be implemented but rather on the actions of an operational type that will favour this transition.

It is hoped that the accrual accounting system will be adopted only after a phase of parallel running with the old cash-based system, as has been shown in some recent studies on the topic (Provasoli 2006).

The indications provided above appear to converge more towards an objective application of the method rather than to a solid rational basis. Indeed, best theory and best accounting practice are not, apparently, in agreement about this solution. It is, however, felt by both that it would be beneficial to use the methods in parallel, at least during the transition phase to improve culture within organisations (Soto-Acosta et al. 2010; Carayannis and Campbell 2011).

Several scholars have put forward the idea of defining a number of consistently uniform operational measures that could be adopted in view of optimising the way accrual accounting is used, an idea that can be shared (Zhang et al. 2005; Del Giudice et al. 2012).

Finally, this work is the first phase of a study on the process of changes regarding the accounting system of Italian universities.

Future research will focus on analysing the real impact of this change on the management of realities under examination.

The objective will be to define a reference framework, capable of supporting Italian universities during the transition phase from the cash-based system to the accrual accounting system, identifying main areas affected by the transition.

Methods

The methodology used for research is qualitative (Hair et al. 2003), in the perspective of proposing an updated concept concerning the modifications that have taken place within the financial system of the Italian universities, which can be used by the scientific community and also by professional practitioners.

The analysis of the topic integrates and updates existing literature, whereby it is possible to define the critical aspects of the process that has modified the university accounting system in Italy.

Data have been gathered from secondary sources and were derived from the analysis of documents, reports, news items, journal articles in open source, websites, databases and scientific documents (Yin 2003; Myers 2013). Focus groups that include the researchers and the analysis of a sufficient number of books have also been added to the previous sources.

Competing interest

The authors declare that they have no competing interest

Authors' contributions

Although this article is the result of a group effort of analysis and reflection, RL authored sub-section one, AL section three (Results and discussion), SM sections four and five (Conclusions and Methods), and FN sub-section two (Literature review). All authors read and approved the final manuscript.

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References

- Anessi-Pessina, E, & Steccolini, I. (2007). Effects of budgetary and accruals accounting coexistence: evidence from Italian local governments. *Financial Accountability & Management*, 23(2), 113–131.
- Anthony, RN. (1965). *Planning and control systems: a framework for analysis*. Boston: Division of Research, Graduate School in Business Administration, Harvard University.
- Arnaboldi, M, & Azzone, G. (2004). Benchmarking university activities: an Italian case study. *Financial Accountability & Management*, 20(2), 205–220.
- Athukorala, S. & Reid, B. (2003). Accrual budgeting and accounting in government and its relevance for developing member countries, Manila, *Asian Development Bank*.
- Barton, AD. (2004). How to profit from defence: a study in the misapplication of business accounting to the public sector in Australia. *Financial Accountability & Management*, 20(3), 281–304.
- Carayannis, EG, & Campbell, DF. (2011). Open innovation diplomacy and a 21st century fractal research, education and innovation (FREIE) ecosystem: building on the quadruple and quintuple helix innovation concepts and the “mode 3” knowledge production system. *Journal of the Knowledge Economy*, 2(3), 327–372.
- Carlin, TM. (2005). Debating the impact of accrual accounting and reporting in the public sector. *Financial Accountability and Management*, 21(3), 309.
- Carnegie, G, & West, B. (2003). How well does accrual accounting fit the public sector? *Australian Journal of Public Administration*, 62(2), 83–86.
- Carnegie, G, & Wolnizer, P. (1995). The financial value of cultural, heritage and scientific collections: an accounting fiction. *Australian Accounting Review*, 5(11), 38–56.
- Catalano, G, & Tomasi, M. (2010). *Esperienze di contabilità economico-patrimoniale nelle Università*. Bologna: il Mulino.
- Christiaens, J. (1999). Financial accounting reform in Flemish municipalities: an empirical investigation. *Financial Accountability & Management*, 15(1), 21–40.
- Christiaens, J, & Wielemaker, ED. (2003). Financial accounting reform in Flemish universities: an empirical study of the implementation. *Financial Accountability & Management*, 19(2), 185–204.
- Christiaens, J, & Rommel, J. (2008). Accrual accounting reforms: only for businesslike (parts of) governments. *Financial Accountability & Management*, 24(1), 59–75.

- Coy, D., & Pratt, M. (1998). An insight into accountability and politics in universities: a case study. *Accounting, Auditing & Accountability Journal*, 11(5), 540–561.
- De Falco, S. (2012). Is it possible to control and optimize technology transfer process? *Journal of Innovation and Entrepreneurship*, 1(1), 1–9.
- Del Giudice, M., & Straub, D. (2011). IT and entrepreneurship: an on-again, off-again love affair or a marriage? *MIS Quarterly*, 35(4), 3–8.
- Del Giudice, M., Carayannis, EG, & Della Peruta, MR. (2012). Culture and cooperative strategies: knowledge management perspectives. In *Cross-cultural knowledge management* (pp. 49–62). New York: Springer.
- Del Giudice, M., Della Peruta, MR, & Maggioni, V. (2013). Collective knowledge and organizational routines within academic communities of practice: an empirical research on science–entrepreneurs. *Journal of the Knowledge Economy*, 4(3), 260–278.
- Elefanti, M. (2000). *Aziende non profit. Principi contabili e struttura di bilancio*. Milano: Egea.
- Ellwood, S. (2001). Accruals accounting approaches in the UK public sector: diversity and convergence. In *International comparative issues in government accounting* (pp. 213–232). New York: Springer.
- Ellwood, S. (2009). Accounting for (a) public good: public healthcare in England. *Financial Accountability & Management*, 25(4), 411–433.
- El-Sayed Ebaid, I. (2011). Accruals and the prediction of future cash flows: empirical evidence from an emerging market. *Management Research Review*, 34(7), 838–853.
- Farneti, G. (2000). *Il bilancio dell'ente locale, determinazioni preventive e consuntive*. Torino: Giappichelli.
- Faseruk, A. (2008). A review of accrual accounting and cash flow techniques for use in equity valuation. *Management Research News*, 31(6), 418–433.
- Fondazione Luca Pacioli (2002). L'impatto degli IAS sui profili evolutivi della disciplina nazionale e comunitaria. *Observatory on international accounting principles, number 8, document n.22, september 26th*.
- Gray, R., & Haslam, J. (1990). External reporting by UK universities: an exploratory study of accounting change. *Financial Accountability & Management*, 6(1), 51–72.
- Groot, T., & Budding, T. (2008). New public management's current issues and future prospects. *Financial Accountability & Management*, 24(1), 1–13.
- Guthrie, J. (1998). Application of accrual accounting in the Australian public sector—rhetoric or reality? *Financial Accountability & Management*, 14(1), 1–19.
- Guthrie, J., & Johnson, M. (1994). Commercialisation of the public sector: why, how and for what? A prospective view. In K Wiltshire (Ed.), *Governance and economic efficiency* (pp. 87–108). Sydney: CEDA.
- Hair, JF, Celsi, MW, Money, AH, Samouel, P, & Page, MJ. (2003). *Essentials of business research methods*. London: ME Sharpe.
- Hood, C. (1995). The new public management in the 1980s: variations on a theme. *Accounting, Organizations and Society*, 20(2/3), 93–109.
- Hopwood, A. (1984). Accounting and the pursuit of efficiency. In A Hopwood & C Tomkins (Eds.), *Issues in public sector accounting* (pp. 167–187). Oxford: Philip Allan.
- Lacchini, M., & Trequattrini, R. (2007). *I principi di redazione del bilancio di esercizio nel paradigma IAS/IFRS*. Padova: Cedam.
- Lapsley, I, Mussari, R, & Paulsson, G. (2009). On the adoption of accrual accounting in the public sector: a self-evident and problematic reform. *European Accounting Review*, 18(4), 719–723.
- Lewis, NR. (1995). AAS 29: A Critique. In *Readings in accounting developments in the public sector* (pp. 16–25).
- Ma, R, & Mathews, R. (1993). Financial reporting by government departments: ED 55—a dissenting view. *Australian Journal of Corporate Law*, 3(1), 67–88.
- Maggioni, V, & Del Giudice, M. (2011). Relazioni sistemiche tra imprenditorialità interna e gemmazione d'impresa: una ricerca empirica sulla natura cognitiva delle nuove imprese. *Sinergie*, 71, 171–197.
- McRae, M, & Aiken, M. (1994). AAS29 and public-sector reporting: unresolved issues. *Australian Accounting Review*, 4(2), 65–72.
- Meroño-Cerdan, AL, & Soto-Acosta, P. (2005). Examining e-business impact on firm performance through website analysis. *International journal of electronic business*, 3(6), 583–598.
- Miller, P. (1994). Accounting as social and institutional practice: an introduction. In AG Hopwood & P Miller (Eds.), *Accounting as social and institutional practice* (pp. 1–39). New York: Cambridge University Press.
- Miolo Vitali, P. (2004). *Finalità e destinatari di un bilancio IAS*. Torino: Ipsos.
- Monsen, N. (2008). Governmental accounting in Norway: a discussion with implications for international development. *Financial Accountability & Management*, 24(2), 151–167.
- Nicotra, M, Romano, M, & Del Giudice, M. (2014). The evolution dynamic of a cluster knowledge network: the role of firms absorptive capacity. *Journal of the Knowledge Economy*, 5(2), 240–264.
- Palacios-Marqués, D, Soto-Acosta, P, & Merigó, JM. (2015). Analyzing the effects of technological, organizational and competition factors on Web knowledge exchange in SMEs. *Telematics and Informatics*, 32(1), 23–32.
- Paulsson, G. (2006). Accrual accounting in the public sector: experiences from the central government in Sweden. *Financial Accountability & Management*, 22(1), 47–62.
- Pollifroni, M. (2007). *Public sector social responsibility. Strumenti di rendicontazione etico-sociali per l'azienda pubblica*. Milano: Giuffrè.
- Provasoli, A. (2006). I lavori dell'OIC nel campo dei principi contabili per il settore pubblico. In S Zambon (Ed.), *I principi contabili per le amministrazioni pubbliche. Statuizione, riconoscimento e applicazione nel contesto italiano e internazionale*. Milano: Franco Angeli.
- Sarkis, J, Juisto, S, Kasperson, RE, & Gray, W. (2000). Organizational restructuring implications for corporate sustainability. In WL Filho (Ed.), *Communicating sustainability* (pp. 173–196). Bern: Peter Lan Scientific Publishers.
- Seol, I, Sarkis, J, & Lefley, F. (2011). Factor structure of the competency framework for internal auditing (CFIA) skills for entering level internal auditors. *International Journal of Auditing*, 15(3), 217–230.
- Soto-Acosta, P, Casado-Lumbreras, C, & Cabezas-Isla, F. (2010). Shaping human capital in software development teams: the case of mentoring enabled by semantics. *IET Software*, 4(6), 445–452.
- Soto-Acosta, P, Popa, S, & Palacios-Marqués, D. (2015). E-business, organizational innovation and firm performance in manufacturing SMEs: An empirical study in Spain. *Technological and Economic Development of Economy*. doi:10.3846/20294913.2015.1074126.

- Stanton, P, & Stanton, J. (1998). The questionable economics of governmental accounting. *Accounting, Auditing and Accountability Journal*, 11(2), 191–203.
- Straub, D, & Del Giudice, M. (2012). Use. *MIS Quarterly*, 36(4), 3–7.
- Trequatrini, R. (2004). *Processo decisionale e valore delle aziende un approccio integrato*. Torino: Giappichelli.
- Trequatrini, R, Russo, G, & Lombardi, R. (2012). Network Governance: organisational and legal profiles. *Corporate Ownership & Control*, 9(4), 346–350.
- Venieris, G, & Cohen, S. (2004). Accounting reform in Greek universities: a slow moving process. *Financial Accountability & Management*, 20(2), 183–204.
- Vinnari, LM, & Näsi, S. (2008). Creative accrual accounting in the public sector: milking water utilities to balance municipal budgets and accounts. *Financial Accountability & Management*, 24(2), 97–116.
- Vrontis, D, Thrassou, A, & Melanthiou, Y. (2007). A contemporary higher education student-choice model for developed countries. *Journal of Business Research*, 60(9), 979–989.
- Yin, R.K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, California:Sage.
- Yin, R.K. (2003). *Case Study Research: Design and Methods*. Thousand Oaks, California:Sage.
- Zanda, G. (2012). *Corporate management in a knowledge-based economy*. New York: Palgrave Macmillan.
- Zhang, J, Dawes, SS, & Sarkis, J. (2005). Exploring stakeholders' expectations of the benefits and barriers of e-government knowledge sharing. *Journal of Enterprise Information Management*, 18(5), 548–567.

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