LAURI LEPISTÖ

Some Call It ERP

Three Perspectives

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UNIVERSITY OF TAMPERE

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Vieras on virta, ja vieras on vene,
eivät ne unelmies uomia mene.
Ilta on ihmisessä, aamu on outo;
illasta aamuun on ihmisen souto.
Illasta aamuun on yöllistä matkaa;
jos jaksat uskoa, jaksat jatkaa.
Taapäin tuijotat, soudat eteen
outoa venettä outoon veteen.

Unto Kupiainen, Soutaja (1942)

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Tampere, April 2015.

Lauri Lepistö

Abstract

The purpose of this accounting thesis is to improve the understanding of those generative practices through which the complex and challenging enterprise resource planning (ERP) system becomes increasingly seen as a standard of accounting technology. An ERP system is a modular software package that is designed to record and coordinate transactions and resources flowing through an enterprise in an efficient manner. Thus, the ERP system, as a variant of contemporary accounting-related information technology, has proven to be an important resource for the management control of an enterprise. This thesis builds on the earlier research on ERP systems in management accounting and accounting information systems by considering the adoptions of ERP systems against the macro-level institutional context that recognises the dynamics in the production of concepts that are perceived as popular and fashionable in particular settings. The thesis comprises an introductory essay and three single-authored papers that address the adoptions of ERP systems from different but interrelated perspectives.

Article 1 presents a case study that focuses on the ERP system adoption process in the context of a medium-sized enterprise. The paper details how the adoption was carried out without notable difficulties in the enterprise. In parallel, the study spells out the ways in which the software vendor attempts to shape the reception of the ERP system. The system's contents appear as relatively ambiguous and the persuasion mobilised by the software vendor accentuates issues relating to the elimination of the routine tasks involved in accounting. The paper also considers the vendor's exercise of influence during the ERP adoption process.

Article 2 analyses how an accounting software company attempts to legitimate the adoption of an ERP system discursively. The empirical materials comprise articles on ERP adoptions that have been published in the customer relationship magazine of an ERP software vendor during a period spanning eleven years. By drawing upon critical discourse analysis, the study distinguishes and elaborates five legitimating discourses that are employed by the software vendor. These discourses portray the adoption of an ERP system as an appropriate organisational action. The study also illustrates the inclusion of accounting-related arguments in the legitimation construction.

Article 3 investigates how the specific phenomenon revolving around ERP systems is rhetorically constructed. The paper pays attention to the rhetoric used in promoting ERP systems. Using rhetorical analysis, the study investigates the rhetoric that appears in Thomas Davenport's seminal text on enterprise systems published in the Harvard Business Review in 1998. From the analysis, three specific rhetorical strategies concerning the promotion of ERP systems are recognised. It can be argued that ERP systems and their adoptions are presented as value-laden but obscure constructions. The analysis also elucidates how accounting-related themes are employed in this particular setting. The study suggests that academics and practitioners should take the rhetoric that is mobilised by a culturally legitimated management guru seriously.

Considering that economic and other seemingly rational arguments are often seen as important motives for ERP adoptions in enterprises, this study primarily focuses on the language that is used in relation to adoptions. The thesis argues that technical and functional merits of ERP systems provide only one aspect that explains their pervasiveness and justification. The overall findings of this thesis suggest that an ERP system can be increasingly considered as an institutional 'requirement' that is constructed through language use. An ERP system is open for multiple interpretations in which meanings and properties for ERP systems and their adoptions are (re)produced due to the work of various entrepreneurs by drawing upon the effective organisation of language. This kind of work focuses on matters far beyond customisations and configurations, which are often regarded as the primary potential behind ERP systems' inherently malleable nature.

Tiivistelmä

Tässä laskentatoimen väitöskirjassa keskitytään toiminnanohjausjärjestelmiin. Toiminnanohjausjärjestelmä eli niin sanottu ERP-järjestelmä on laaja organisaation eri toimintoja ja prosesseja integroiva tietojärjestelmä, joka on osoittautunut tärkeäksi resurssiksi laskentatoimen käytäntöjen ja johdon ohjauksen kannalta. Väitöskirjatutkimuksen tavoitteena on lisätä ymmärrystä sosiaalisista ja kielellisistä käytännöistä, joiden kautta rakentuu käsitys toiminnanohjausjärjestelmän soveltuvuudesta organisaatioiden laskenta- ja johtamisjärjestelmäksi huolimatta sen monimutkaisesta luonteesta ja toimintaperiaatteesta. Tutkimus ammentaa aikaisemmasta johdon laskentatoimea ja taloushallinnon tietojärjestelmiä ERP-ympäristöissä käsittelevästä tutkimuksesta ottaen samalla huomioon suosittujen ja muodikkaiden käsitteiden syntymiseen, leviämiseen ja uusintamiseen liittyvän institutionaalisen dynamiikan. Väitöskirja koostuu kolmesta vertaisarvioidusta tieteellisessä aikakauskirjassa julkaistusta itsenäisestä artikkelista sekä kokoavasta johdantoluvusta. Artikkelit tarkastelevat toiminnanohjausjärjestelmien omaksumista eri näkökulmista, jotka lopulta nivoutuvat metodologisesti ja teoreettisesti yhtenäiseksi kokonaisuudeksi.

Ensimmäisessä tutkimusartikkelissa analysoidaan toiminnanohjausjärjestelmän omaksumisprosessia keskisuuressa yrityksessä. Huomion kohteena on erityisesti tietojärjestelmätoimittajan toiminta, jossa ERP-järjestelmän implementointi saadaan näyttämään järkeenkäyvältä ratkaisulta erityisesti taloushallinnon rutiinien näkökulmasta. Siten artikkelissa käsitellään toiminnanohjausjärjestelmien sisältämää monitulkintaisuutta ja elinvoimaisuutta, jonka artikuloinnissa laskentatoimeen liittyvät merkitykset ja teemat ovat keskeisessä asemassa. Lopuksi tapaustutkimuksessa arvioidaan, että myös pienemmän organisaation on mahdollista omaksua ja implementoida toiminnanohjausjärjestelmä ilman suurempia vaikeuksia.

Toisessa artikkelissa tutkitaan toiminnanohjausjärjestelmien diskursiivista rakentumista. Kriittisen diskurssianalyysin keinoin artikkelissa analysoidaan ERP-järjestelmiä ja niiden käyttöönottoja käsitteleviä tekstejä, joita kansainvälinen taloushallinnon tietojärjestelmiä tarjoava yritys on 11 vuoden aikana asiakaslehdessään julkaissut. Analyysin perusteella hahmottuu viisi erilaista diskurssia, joiden kautta toiminnanohjausjärjestelmän hankinnan oikeutus rakentuu.

Samalla tutkimus valottaa legitimointiprosessissa käytettyjä laskentatoimeen liittyviä argumentteja.

Väitöskirjan kolmannessa tutkimusartikkelissa analysoidaan toiminnanohjausjärjestelmän ympärille rakentuvan ilmiön edistämisessä käytettyä retoriikkaa. Retorinen analyysi kohdistuu tunnetun johtamiskirjailijan Thomas Davenport Harvard Business Review-lehdessä julkaisemaan kirjoitukseen. Tällä kirjoituksella voidaan arvioida olleen vaikutusta siihen, millaiseksi asiaksi toiminnanohjausjärjestelmä ja sen käyttöönotto nykypäivänä mielletään. Analyysi paljastaa kolme keskeistä retorista keinoa, joiden avulla ERP näyttäytyy varteenotettavana ja houkuttelevana ratkaisuna. Näissä retorisissa strategioissa myös laskentatoimen teemoilla ja merkityksillä on osuutensa. Tutkimuksessa myös esitetään, että käytännön ihmisten ja tutkijoiden on hyvä tunnistaa muodikkaiden käsitteiden sisältämän monitahoisen retoriikan olemassaolo ja lähde.

Yhteenvetona voidaan todeta, että käsillä olevassa laskentatoimen väitöskirjatutkimuksessa tarkastellaan erityisesti toiminnanohjausjärjestelmiin ja niiden omaksumiseen liittyvää kielenkäyttöä. Vaikka ERP-järjestelmän hankintaa usein perustellaan taloudellisin ja muutoinkin rationaalisin argumentein, väitöskirjassa esitetään erilaisten teknisten ja toiminnallisten ansioiden selittävän vain osaksi järjestelmän keskeisyyden laskentatoimessa ja organisoinnissa. Johtopäätöksenä arvioidaan, että toiminnanohjausjärjestelmä voidaan nykyään nähdä institutionaalisena vaatimuksena, jonka tarve rakentuu myös tehokkaan ja taitavan kielenkäytön avulla. Koska ERP on käsitteenä avoin moninaisille tulkinnoille, uusintuvat sen merkitykset ja ominaispiirteet järjestelmien ympärillä hääräilevien toimijoiden toimesta. Tämän kirjavan joukon luova toiminta kohdistuu muuallekin kuin järjestelmien konfigurointeihin ja kustomointeihin.

List of the original articles

I   Lepistö, L. (2014), "Label in Context: On the Enterprise Resource Planning System in a Medium-Sized Enterprise", *The Finnish Journal of Business Economics*, Vol. 63 No. 1, pp. 48–72. With permission from the publisher.

II   Lepistö, L. (2014), "Taking information technology seriously: on the legitimating discourses of enterprise resource planning system adoption", *Journal of Management Control*, Vol. 25 No. 3–4, 193–219. With permission from Springer.

III   Lepistö, L. (2015), "On the use of rhetoric in promoting enterprise resource planning systems", *Baltic Journal of Management*, Vol. 10 No. 2, pp. 203–221. (Special issue: Qualitative management research: Insights and opportunities). With permission from Emerald.

Contents

1 Introduction

1.1 Preface

The mishmash of information systems burdens the whole business

Enterprises use more applications than are usually needed. A recent survey by Capgemini found that the number of chief information officers agreeing with this view has increased over the last three years. Three years ago, 34 per cent of the survey's respondents believed that there were too many applications in use; the proportion of respondents has now almost doubled to 48 per cent. Among Finnish respondents, more than half (52%) reported that the number of applications was excessive. Only 32 per cent of Finnish organisations believed that they had a sufficient number of applications in use. Over three-fourths believed that at least one-fifth of the applications in use included similar functionalities and that it would be worthy to integrate these applications. Over half agreed that at least a fifth of the applications in use could be abandoned or replaced. The mishmash of information systems is not solely the problem of IT but the whole business. According to the survey, 60 per cent of those responsible for information technology see that their department's most important task is the implementation of new technologies in their firms. […]. (Kauppalehti, 19 March 2014, translated line breaks removed)

Information systems[1] attract regular attention in economic life. Many of the variants of information technology[2] are so comprehensively coupled with the everyday life of human beings that everyone in modern society has experiences, perceptions and interpretations concerning the use and existence of electronic applications. Information systems are usually seen as objective, albeit external forces that have deterministic impacts upon individuals. Notwithstanding that information systems inherently comprise deep structures that aim to determine the ways in which they

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[1] The concept of the information system refers to applications used to support different procedures through access to information supported by information technology (see Christiansen and Mouritsen, 1995, p. 215). According to Hall (1998, p. 6), the information system includes formal procedures through which data are collected, processed into information and then distributed to users.

[2] Information technology supplies the basis on which the information system is designed. It comprises both hardware and software components (Christiansen and Mouritsen, 1995, p. 215).

are used (De Sanctis and Poole, 1994), information systems are ultimately products of human action that are developed, appropriated and employed by human beings (Orlikowski, 1992). In enterprises, information systems are increasingly considered for strategic issues that should enable critical factors to be managed by a firm in order for it to survive and for it to create competitive advantage. Therefore, information systems are increasingly seen as investments whose implications are anticipated to permeate all of the functions in an organisation, and enable the solving of managerial tasks and problems in novel ways (Christiansen and Mouritsen, 1995, pp. 219–220). Overall, it can be argued that information systems are loaded with manifold expectations.

The above text excerpt appeared in an article that was published in the web version of Kauppalehti, the leading daily business-related newspaper in Finland. The text suggests that too many applications are used in enterprises, resulting in a somewhat decreased firm performance. Besides the arguably endless debates around aspirations towards better integration, there are a few issues worthy of recognition in the text excerpt. First, questions revolving around information systems are often represented in economic terms. Implementations of information systems are seen as important organisational actions that have severe economic impacts upon enterprises. Second, their significance is a matter of human interpretation. Questions concerning the suitability and functionality of the system being used are subjective in nature, as people may have different views on things. Consequently, expressions such as 'agree', 'believe' and 'see' appear in the text. Third, information systems are usually considered as managerial issues. The decisions concerning information system implementation, for instance, often take place in the managerial echelons. One could argue that the discussion (including speculation) on information systems requires some sort of familiarity with these systems, but not necessarily an exact knowledge about their material properties. In light of this, information systems can be seen as constructions that permit talk that sometimes touches only the 'surface level' of those systems. Fourth, in addition to the use of information systems, their implementations are often perceived as challenging actions. Implementation projects harness the resources of an enterprise in a manner that is often unpredictable. Descriptions about failed or prolonged implementations occur occasionally, especially in popular writings. Fifth, different kinds of stakeholders and knowledge entrepreneurs bustle around information systems. Information systems often evoke the economic interests of various actors. Note that the survey mentioned was conducted by a well-known consultancy.

Overall, in my view, this individual text excerpt is a good example of the ways in which issues related to information systems are produced and constituted on the textual level. Representations and constructions of information systems, appearing in text or talk, may easily pass unnoticed, since information systems' technical and functional peculiarities often receive more attention than the characteristics of the language use.

1.2   Purpose of the thesis

This accounting thesis focuses on enterprise resource planning (ERP) systems. An ERP system is a modular software package that is designed to record and coordinate transactions and resources flowing through an enterprise in an efficient manner (see Davenport, 1998). Thus, the ERP system, as a variant of contemporary accounting-related information technology, has proved to be an important resource for the management control of an enterprise (see Dechow and Mouritsen, 2005).

This thesis includes an introductory essay and three single-authored papers that have been previously published. Balancing primarily the domains of management accounting and accounting information systems research, *the purpose of this thesis is to improve understanding of those generative practices through which the complex and challenging ERP system becomes increasingly seen as a standard of accounting technology.* In doing so, the thesis investigates adoptions of ERP systems in a way that is not limited to the boundaries of a single firm. The thesis analyses how meanings are attached to ERP system adoptions and the ways in which the adoptions are justified and presented as meaningful actions. Thus, the thesis concerns how different actors produce reasons for ERP system adoptions. All three papers have their own purposes and research designs, but through this introductory essay and the subsequent three articles, this thesis addresses the following research question:

> How is the adoption[3] of an ERP system constructed as a necessary organisational action?

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[3] Notions of adoption and implementation are currently debated in the literature (e.g. Gondo and Amis, 2013; Ansari et al., 2010). The concept of adoption refers to the selection and initial use of a practice that is perceived as new and not used previously (Zeitz et al., 1999, p. 743). In my view, implementation is a more technical action in which the practice being adopted is made active in an enterprise. For instance, Edmondson et al. (2001, p. 697) suggest that 'technology implementation is a process, during which new beliefs, new skills, and new collaborative routines are simultaneously developed.' However, concepts of adoption and implementation can be used interchangeably sometimes (see Ansari et al., 2014, p. 1315). It is useful for my analysis that I do not define adoption

Most researchers and practitioners appreciate that an ERP system comprises of more than just an information system. Building on the conceptualisation of probably the most influential writer on the topic (see Dery et al., 2006, p. 230; Light and Wagner, 2006, p. 216), an ERP system is designed to cover most of the functions and actions in an enterprise in specific ways. The primary feature of these packaged enterprise solutions is that they have a modular structure (Davenport, 1998). Modularity makes it possible to implement a system selectively. The most typical modules being implemented are related to financial accounting, management accounting, asset accounting, stock and purchasing, costing and controlling as well as sales and distribution (Spathis, 2006, p. 73). The ERP system is a concept that entails specific organisational practices once adopted in an enterprise. These resultant practices are mostly designed by software developers (Dillard and Yuthas, 2006) and they cater to those tools that are used to plan, lead and control resources in organisational processes (see Zeitz et al., 1999, p. 743). In this light, the ERP system can be seen as both a managerial narrative and a technological imperative that seeks to permeate all functions in an enterprise. Therefore, paper 1 in the thesis focuses on the adoption process of an ERP system in a medium-sized enterprise that is affected by the practices of the software vendor.

Due to their emergence, ERP systems have intrigued researchers from a plethora of disciplines over the past decades. Arguably coined by Gartner Inc., a technology research company, an ERP system is the result of an evolutionary trajectory in the development of corporate information systems. That development started in the 1970s at the latest in the form of material resource planning systems, which were characterised as expensive and clumsy systems (see Jacobs and Weston, 2007). Against this backdrop, ERP systems have a relatively long history behind them, even if their increasing presence in enterprises started in the mid-1990s (e.g. Davenport, 1998) and in management accounting (e.g. Granlund and Malmi, 2002) and accounting information systems (e.g. Bradford and Florin, 2003) scholarships in the early 2000s. Considering that especially interpretatively oriented management accounting researchers generally acknowledge the possibility of ERP systems being a passing fad (Chapman, 2005; see also Carmona and Gutierréz, 2003), ERP systems are usually coupled with the domain of accounting[4]. Those systems are considered

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and implementation in detail, because the meanings and practices around ERP systems constitute part of the research purpose.

[4] Even if ERP systems are bound up with the organisational processes of accounting, they are not seen as pure accounting systems. Accounting systems are exclusively instigated, developed and controlled by accountants (Chapman, 2005, p. 686).

as accounting technologies[5] (see Dorantes et al., 2013; Busco and Quattrone, 2014) that arguably should partake in the basic functions of accounting in an enterprise, such as score-keeping, attention-direction and problem-solving (see Simon et al., 1954). Accordingly, Chapman and Chua (2003, p. 75) define an ERP system as integrated software that is employed to control and manage the whole range of the enterprise's activity. This definition associates ERP systems with the management accounting and control milieu.

Given the ascendancy of ERP systems in contemporary organisations (see Pollock and Williams, 2008), this thesis approaches ERP systems and their adoptions from the perspective of new institutional theory. Especially new institutional research has developed distinct literature that addresses why seemingly popular and fashionable concepts and technologies are adopted in enterprises and how they emerge, evolve and spread in the interplay between demand-side and supply-side actors (Ax and Bjørnenak, 2005). Demand-side actors refer to those who adopt and use the concepts that are produced, promoted and propagated by different supply-side actors (Ax and Bjørnenak, 2007). This theoretical orientation also acknowledges that different concepts and technologies do not remain stable when they become adopted in organisations due to contributions from the various actors involved in this intricate process (see Abrahamson, 2006). The process arguably affects not only the concepts and technologies under consideration, but also the practices of the demand-side (as the adoption changes the organisation) and supply-side (as a response to competitive pressures) actors associated with it (Benders and van Veen, 2001). Accordingly, article 2 in the thesis addresses the discursive practices that are mobilised by a software vendor to portray the adoption of an ERP system as an appropriate action.

The literature on adoptions of 'innovative[6]' concepts and technologies often centres around implementation issues, but considerations relating to constructing

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[5] An ERP system can also be seen as a practice (Busco et al., 2014). In this introductory essay, the ERP system is viewed as a concept and technology.

[6] Researchers have developed several labels to conceptualise those practices, concepts and technologies that are adopted and implemented by enterprises: for instance, management fashion (e.g. Abrahamson, 1996; Giroux, 2006; Kieser, 1997), organisation concept (e.g. Benders and van Veen, 2001), management concept (e.g. van Rossem and van Veen, 2011), management accounting idea (e.g. Qu and Cooper, 2011), innovation (Abrahamson, 1991), management accounting innovation (e.g. Ax and Bjornenak, 2005), management and accounting innovation (Busco et al., 2014), administrative technology (e.g. Abrahamson, 1991) and contemporary technology (e.g. Chenhall, 2003). These labels more or less imply that those contents being adopted and implemented are increasingly (but perhaps transitorily) popular and fashionable among organisations.

and inscripting processes have recently been considered as increasingly important as well (Bürkland and Zachariassen, 2014; Busco and Quattrone, 2014). Language can be seen as an important resource in the construction and adoption of popular technologies. Knowledge related to these technologies is produced and distributed by using language, and the language makes it possible to establish jointly constructed understandings about social and organisational realities revolving around information technology (see Berger and Luckmann, 1967). The properties and implications of ERP systems are also linguistically constructed and consequently, study 3 in the thesis presents an analysis of the rhetorical means used by management guru to portray the adoption of ERP systems as an attractive organisational action.

The topic of the thesis is timely and relevant because of the following arguments. ERP systems are packed with specific discourse according to which they represent the largest, most complex and most demanding information systems that are implemented by enterprises (Grabski et al., 2011, p. 37). ERP systems and their adoptions are increasingly portrayed as radical and controversial actions that typically entail several organisational and social implications (see Dillard et al., 2005). There has been speculation that over 60 per cent of ERP implementations fail (see Morris and Venkatesh, 2010, p. 143). Still, ERP packages seem to remain as popular and fashionable entities. One study argues that the enterprise system market has been recovering and that the worldwide market reached 267 billion dollars in 2010 (see Gartner Inc., 2011). In parallel, it has been argued that 75 per cent of medium to large manufacturing enterprises have adopted ERP packages, and up to 80 per cent of the Fortune 500 firms (Morris and Venkatesh, 2010, p. 143). Thus, an ERP system is usually seen as a construct packed with expectation, emotion and a considerable amount of controversiality. Such a view of ERP systems is engaging and attractive. Although during recent years, accounting research on ERP systems has reached a level of maturity in certain areas and implementation issues are thus no longer of primary concern for researchers (Grabski et al., 2011, p. 64; see also Dery et al., 2006), ERP systems have seldom been approached from a linguistic perspective that highlights the discursive and rhetorical elements associated with these systems. It is this void that the thesis at hand contributes to, and thus, this individual enterprise to revitalise the research on ERP systems in the landscape of management accounting and accounting information systems is definitely welcomed.

1.3   Structure of the thesis

The introductory essay of the thesis now continues as follows. The next section focuses on the empirical and theoretical framing of the thesis. Extant accounting research on ERP systems is reviewed. This empirical framing addresses the importance of ERP systems and ERP-related accounting literature. Then, the theoretical guidelines with which to approach the emergence of ERP systems are outlined and justified. This theoretical framing draws from new institutional literature that has expressed considerable interest in terms of explaining the rationales as to why organisations can be seen to be adopting strikingly similar concepts and technologies. In section 3, the research methodology is outlined. The section explains and describes the methods employed during the research process: an explanatory case study, critical discourse analysis (CDA) and rhetorical analysis. Then, the three papers are summarised and their main contributions briefly introduced. The introductory essay finishes with findings, limitations and conclusions.

2 Empirical and theoretical framing of the thesis

2.1 The value of an ERP system and ERP research in accounting

Enterprises seem to adopt ERP systems because of several reasons. An increased demand for real-time information, information generation for decision-making, integration of applications, business process re-engineering and cost reduction are usually seen as the most important rationales for implementations (Spathis, 2006). However, once the ERP systems were booming in 1990s, technical problems occurring in legacy systems were perceived as a key motive for the investment (Hyvönen, 2003). Admittedly, these rationales are competitive in nature, grounded with rational and functional aims.

ERP systems as a research topic spans the whole spectrum of disciplines between business research and information systems (see Shepherd et al., 2009). However, it is beyond the scope of this section to start mapping the volume and nature of the previous research. In respect of accounting, Hyvönen (2010) classified the extant research as belonging to three streams: the consulting, basic and critical streams (see also Grabski et al., 2011). The richness of ERP studies in accounting is rather difficult to assess since many interpretative studies about management accounting change processes use an ERP implementation situation as a research context (e.g. Tsamenyi et al., 2006). This is understandable since there are numerous ways to couple accounting practice to an ERP system (Chapman and Chua, 2003; see also Granlund, 2011). To date, accounting researchers have provided many accounts of the characteristics and value of ERP system adoptions for organisations in general and for accounting in particular.

Traditional accounting research on ERP systems focuses on firm performance. There is evidence that ERP adopters enjoy better economic performance in respect of return on assets, return on investments and asset turnover over a period of three years compared to non-adopters (Hunton et al., 2003). Interestingly, when analysing the performance of ERP adopters, firm performance does not necessarily improve after the implementation (Poston and Grabski, 2001). The findings by Nicolaou and Bhattacharya (2006) encourage enterprises to make early rather than late

enhancements to their systems. Financial analysts express mostly positive reactions to firms' ERP implementation plans (Hayes et al., 2001). An ERP system can enhance managerial-level decision-making since it provides an accurate and timely information environment (Dorantes et al., 2013). In sum, these studies have increased our understanding of how ERP implementation generally affects firm efficiency and performance. Typically using theories adopted from economics or industrial organisation, they empirically draw on publicly available databases.

Studies from management accounting provide a counterpoint to the economically oriented view of ERP systems. Researchers have connected their emergence with considerations of organisational control, performance and information system integration (see Chapman and Kihn, 2009). Dechow and Mouritsen (2005) suggest that integration can be explored and managed in various ways through ERP systems due to the systemic nature of the systems. A sense of control and integration emerge in representations that are constituted by the ERP package. The ERP system's capability of being able to operate between spatial and temporal distances constitutes an impression of proper management control and organisational visibility in an enterprise, aspects that are prone to remaining unobtainable for managers (Quattrone and Hopper, 2005). Hyvönen et al. (2008) argue that integration is a multifaceted issue as far as the ERP system is concerned. The system has to pass a political process to become a legitimate organisation-wide system in an enterprise and it is partly delivered through the means of metaphors concerning virtual integration. In sum, these interpretative studies operate on a rather abstract level while examining the appearance and contribution of ERP systems in the context of management control practices.

In parallel, researchers have coupled ERP systems with the existing debates on management accounting change (see Quattrone and Hopper, 2001). ERP introduction can appear as a vehicle for alterations in management accounting practices if aspirations for such change occur in an enterprise (Scapens and Jazayeri, 2003). The professional identities of accountants may become modified as accountants acquire new knowledge when the ERP adoption proceeds in an organisation (Newman and Westrup, 2005). As an outcome, the occupational boundaries of accountants can become impacted by those from the area of information systems (Caglio, 2003). Granlund and Malmi (2002) suggest that the ERP system's invocation is not necessarily exclusive, as management accounting practices are carried out by relying on separate systems. It is also possible that the existing score-keeping systems are only transferred into the ERP system (Hyvönen et al., 2009). In sum, from these management accounting studies we have learned

that ERP adoption can produce some changes to existing management accounting practices. However, the origins of the observed changes are sometimes quite challenging in terms of explicitly tracking them to the ERP adoption that has taken place.

There are analyses that have advanced our understanding about the dynamic nature of ERP systems and their implementations. An ERP system supports individual interpretations resulting in the situation in which actors dealing with the system construct their own realities irrespective of the package's capabilities (Teittinen, 2008). The definition of an ERP system is never stable since it is repeatedly translated as it travels across organisations (Quattrone and Hopper, 2006). The recurrent translation involves the traditional customisation and configuration activities, but it also has a more profound ontological character that easily escapes conceptualisation. Teittinen et al. (2013) spell out how ERP adoption does not always meet the expectations of the managerial echelon, particularly in the context of a medium-sized enterprise. In spite of a few benefits in respect of management control practices, several challenges are identified in their case study. ERP is often presented as a neutral entity that should enable an organisation to achieve its goals, but the steering mechanisms embedded in the package affect the whole enterprise (Dillard and Yuthas, 2006). Thus, there are both visible and invisible realities around users and producers of ERP systems (Teittinen, 2008). ERP implementation often involves negotiation between the enterprise and vendor that can result in a trade-off in respect of the system's contents (Wagner et al., 2011). In line with this, Jack and Kholeif (2008) analyse the circumstances in which an ERP adoption project in an Egyptian institution is an outcome of a larger structuration process that is taking place in society. Under those conditions, the prevailing misalignments between the organisation, software package and external institutional environment unfold beyond issues of customisation and configuration (Kholeif et al., 2007). In sum, these studies have paved the way in recognising the politicised environments existing in and around ERP adoptions. By elucidating the power relationships and the exercise of influence, these papers provide a contrast to the prevalent assumption that corresponds to the rhetoric of objectivity in ERP systems (see Chapman, 2005).

Based on the review of the extant literature, it can be argued that the adoption of an ERP system can result in efficiency through cost reductions in transaction and coordination costs as well as improving managerial-level decision-making in an enterprise. Notwithstanding the differences in methodological and theoretical orientations being used in approaching ERP systems, researchers seem to acknowledge that a constant 'learning curve' prevails regarding the system's

invocation. Nevertheless, one could argue that ERP systems often have quite grandiose portraits in research reports, notwithstanding the focus on either the technology side or people side. The point of departure in previous papers seems to be that the ERP system is seen to include such merits that portray the system, including its implementation and usage, as considerably complex and challenging. This kind of outlook is understandable since a concept without particular appeal or character would not warrant scholarly research.

Despite many insightful studies, a few omissions in the previous literature constitute a relevant motivation for this thesis. Several of the studies tend to focus on organisation-specific ERP implementation situations that are approached from the perspective of users of ERP systems, such as managers or management accountants. Due to this enterprise-centric research orientation, the earlier studies have tended to pay increasing attention to functional and technical aspects in ERP implementations and usage. These accounts emphasise economic reasoning behind ERP adoptions. However, organisational researchers have long been familiar with the fact that managerial decision-making often takes place under conditions in which observed problems are not clearly defined and the consequent solutions are only loosely coupled to them (see Cohen et al., 1972). Studies that seriously consider how the wider justification for ERP system adoptions are constituted are rare.

For accounting research, this is unfortunate, since we should indeed understand how ERP system adoptions are constructed, legitimated and promoted far beyond the boundaries of single implementers. Especially, it is important to investigate how different actors, such as software vendors and management gurus, who actively attempt to bustle around these systems, use accounting-related meanings and arguments in this process. This requires analytical approaches that recognise the crucial role of language in constituting ERP systems and their properties and consequences. In sum, these identified caveats suggest a need to analyse more systematically the ways in which ERP system adoption is presented as a necessary organisational action. This suggestion leads us to new institutional literature, supplemented by management fashion research, which inherently acknowledges that enterprises adopt new concepts for reasons of conformity, not just technical efficiency.

2.2 The institutional and management fashion explanations for the adoption of ERP systems

New institutional theory helps us to understand why and how enterprises adopt ERP systems and other seemingly popular concepts and practices. New institutional theory comprises a few theoretical concepts to analyse changes that are affected by trends and pressures in different social contexts (Rautiainen and Scapens, 2013). Acknowledging there are several variants in institutional theory (DiMaggio and Powell, 1991, see also Scapens, 2006), this thesis is inspired by thoughts that originate from the seminal writings of Meyer and Rowan (1977) as well as DiMaggio and Powell (1983).

Generally speaking, a new institutionally oriented researcher pays attention to ways in which different social arrangements are shaped by factors that are seen as external, typically as a form of pressure (Meyer and Rowan, 1977). These arrangements often relate to organisational forms, but they can include other structures, ideas and technologies. The consideration of legitimacy is important in new institutional theory (Meyer and Scott, 1983). Since organisations are affected by the social and cultural environments, they have to correspond to diverse expectations. Meyer and Rowan (1977) argue that leaning on a formal structure is a primary way in which to proceed in the pursuit of legitimacy. They suggest that formality in organisational life can be described as a myth and a ceremony that results from collective action: 'Institutionalised products, services, techniques, policies, and programs function as powerful myths, and many organizations adopt them ceremonially' (ibid., p. 340). The sense of legitimacy rests upon the functional and discursive characteristics. However, the technical and functional merits behind formalities and social arrangements attract less attention in new institutional scholarship (see Vaara and Tienari, 2008; Vaara et al., 2006).

Researchers involved in new institutional inquiry have been amazed by the similarities occurring in organisations and in society. Scholars have recognised that organisational forms (Tempel and Walgenbach, 2007), also related to the execution of management accounting[7] (Granlund and Lukka, 1998), appear as seemingly similar throughout the modern world. In a similar vein, enterprises are permeated by concepts and technologies that are perceived to be appropriate within the

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[7] Within interpretative management accounting research, the institutionalist orientation has gained a remarkable foothold (Baxter and Chua, 2003; Carruthers, 1995). It seeks to explain how and why management accounting practices meet institutional requirements, whether internal or external (see Ribeiro and Scapens, 2006).

population. DiMaggio and Powell (1983, pp. 67–74) argue that once organisational forms become institutionalised to some extent, they are diffused, resulting in a sense of isomorphism. The authors identify three mechanisms for convergent change. Note that adoption is a key action in that process. First, coercive isomorphism is an outcome of formal and informal pressures exerted on an organisation by other organisations upon which they are dependent as well as of cultural expectations. Coercion can take the form of force, persuasion or invitation. For instance, an organisation can be forced to adopt a cost accounting system because of pressure from external actors such as financiers (Järvinen, 2006). Second, mimetic isomorphism relates to a process in which enterprises imitate structures and practices adopted by other enterprises. To paraphrase, managers may be willing to imitate leading companies in the industry (O'Connor et al., 2004) or they may just want to try some tools that are perceived as 'new' (Malmi, 1999). Third, in normative isomorphism, enterprises adopt content that is promoted by different professional groups. To illustrate, Ax and Bjørnenak (2005) argue that management consultants are key players in the propagation and translation of management accounting-related knowledge. However, the categorisation of three sources of isomorphism is greatly a matter of the researcher's interpretation: traditionally, organisational scholars have concentrated on mimetic isomorphism (Mizruchi and Fein, 1999).

The identified mechanisms for institutional isomorphism have been used in explaining rationales for the adoption of different concepts and technologies (see Sturdy, 2004; Daniel et al., 2012; Abrahamson, 1991). Note that there is also an efficiency-based explanation for the convergence. Competitive pressures can lead to growing isomorphism among enterprises because inefficient solutions are eliminated (Beckert, 2010, p. 160). However, new institutionalists do not believe in rational-choice explanations. The convergence is not a clear outcome of collective aspirations towards optimal forms, but the outcome of legitimacy achievements (Carruthers, 1995, p. 317). Therefore, the formal presentation of organisational-self can be seen as only loosely coupled to the ways in which things actually transpire within an organisation (Carruthers, 1995, p. 315). Adoption can take different forms and the intentional or unintentional differences between formal images and the actual substance subject to adoption can prevail (Boxenbaum and Jonsson, 2008). Thus, adoption may sometimes allow an organisation to maintain its institutionally prescribed appearances without having to compromise actual operations (Carruthers, 1995, p. 318).

The dynamics in the adoption of different concepts and technologies are indeed increasingly difficult to conceptualise. In the institutional literature, there are

theoretical considerations that emphasise the role of discourse in the adoption of different concepts and technologies. Those considerations bring the concept of management fashion to the fore. According to Abrahamson (1996, p. 257), management fashion 'is a relatively transitory collective belief, disseminated by management fashion setters, that a management technique leads to rational management progress'. Kieser (1997) also emphasises the role of supply-side actors in the management fashion-setting process. He suggests (1997, p. 57) that a management fashion can be 'conceptualised as forming an arena in which different groups of participants bustle about'. Management fashions can also be considered as 'the production and consumption of temporarily intensive management discourse, and the organizational changes associated with this discourse' (Benders and van Veen, 2001, p. 33). Management fashions often include a certain degree of interpretative viability that makes practices adoptable and adaptable. In light of this, 'interpretative' refers to the socially constructed nature of the meaning and contents regarding the concept in question that also increase its longevity or 'viability'. Benders and van Veen (2001) move between labels (meanings and connotations originally associated with the practice) and contents (the actual substance) to illustrate the receptive nature of most practices employed by enterprises. For instance, it has been argued that enterprises can introduce different versions and interpretations of value-based management (Malmi and Ikäheimo, 2003) since the original idea behind this primarily existed on the conceptual level. Interpretative viability also allows for the bundling of different management control innovations in order to constitute a management control system in an organisation (Modell, 2009). If the fashionable concept eventually becomes old-fashioned, it is possible to 'save' it by shaping its meanings and associations (Heusinkveld et al., 2013). Gondo and Amis (2013) differentiate between a discourse for acceptance and a discourse for implementation. They suggest that the discursive characteristics that make a practice acceptable may also reduce the commitment required for its implementation.

Admittedly, the management fashion literature contributes to new institutional scholarship by focusing on the sense of attraction. According to Beckert (2010, p. 155), isomorphic processes increasingly rest upon a perception of attraction. In an enterprise, a particular management fashion can work as a 'rhetorical machine' through which organisational order is created, and managerial issues are discussed and justified (Busco and Quattrone, 2014). Moreover, rhetoric can be seen as the key fabric in management fashions. Rhetoric forms the belief that a certain management technique is rational and progressive (Abrahamson, 1996). Rhetoric at the very least

makes a fashion appear as if it were revolutionary, unavoidable and highly valued (Kieser, 1997). In addition to these fashions that mainly exist on textual levels, rhetoric surrounds technological change as well. The technical capacities of information technology are constructed through rhetoric and thus, stakeholders can interpret information technologies differently (Grint and Woolgar, 1997).

Overall, it can be argued that the sense of legitimacy and the production of adoption rationales are key issues in increasing isomorphism and in the expansion of certain management fashions. However, it is somewhat challenging to interpret the contents and adoptions of popular concepts due to the inherent malleability that occurs in their material and rhetorical features (see Busco et al., 2014). In line with this, Gondo and Amis (2013) suggest that discourse and rhetoric can be seen as important resources in constructions of 'rationalised myths' and rationales for their adoption. This poses some requirements for the methodological choices of the thesis.

3 Methodology

Methodology means a general approach to studying research topics (Ahrens and Chapman, 2006, p. 821). This thesis falls into the category of qualitative research because it investigates constructions of ERP system adoptions in which meanings, values and interpretations play central roles. The thesis examines how people construct, experience and interpret ERP system adoptions as well as how they are coupled with accounting. Qualitative research often escapes definitions as it covers a variety of research approaches. Generally, it includes data collection, analysis and writing carried in ways that are not mutually exclusive experiences for a single researcher (Silverman, 2010, p. 14). Qualitative research provides an opportunity to focus on different, often complex phenomena in their authentic contexts. Moreover, qualitative research can offer reflexive and critical accounts about the social world (see Eriksson and Kovalainen, 2008, p. 3).

The study is interpretative in nature. Drawing from hermeneutics and phenomenology (Yanow and Ybema, 2009), interpretative research pays attention to the subjective nature of the social world (Hopper and Powell, 1985, p. 446). Social practices such as management accounting are socially constructed and embedded with shared meanings and perceptions (Ryan et al., 2002, p. 86). This tenet is in line with insights from Berger and Luckmann (1967), according to which the social reality is largely constructed with the use of language. Language constructs meanings, values and institutions. In interpretative management accounting research, observed practices should be examined in their historical, economic, social and organisational contexts (Ryan et el., 2002, p. 87). Interpretative research seeks to provide explanations of human intentions. Social reality is seen as emergent and it is created and objectified through human interaction (Chua, 1986, p. 615). It has been argued that interpretative management accounting research should provide a counterpoint to the textbook, economic and consultancy views considered as conventional in management accounting (Vaivio, 2008). Nowadays, the interpretative research approach is established in management accounting scholarship, providing theoretical generalisations and practical implications (Kakkuri-Knuuttila et al., 2008). It enables the adoption of theories, methodologies and methods for specific research areas and questions (Ahrens and Chapman, 2006, p. 842).

The study also employs a case-study methodology. Case study provides a useful research approach to investigate management accounting-related phenomena in their natural contexts (Humphrey and Scapens, 1996). Case-based research fits with interpretative research since social systems are socially constructed and they can be shaped by individuals located within a specific social context (Ryan et al., 2002, p. 146). Case study is an empirical inquiry that seeks to investigate contemporary phenomena in depth and within real-life contexts. Case-based research typically uses multiple sources of evidence and benefits from the prior developments of theoretical propositions in data collection and analysis (Yin, 2009, p. 18). This study bears similarities to explanatory case studies that aim to explain and understand the reasons behind observed practices. The case-study methodology as a research strategy is a relevant choice to approach the thesis' purpose since this kind of research often focuses on the specific case (Ryan et al., 2002, p. 144) and raises research questions that begin with 'why' and 'how' (Moll et al., 2006, p. 377). The thesis also revolves around the idea of a more instrumental case study that uses specific cases in order to provide insights about generic issues (Stake, 2000). Such an endeavour is appropriate because boundaries between the observed phenomenon and its context are not necessarily exclusive (Yin, 2009, p. 18). The case-study methodology, however, appears in three different contexts within the scope of this thesis.

Paper 1 in the thesis represents an invocation of the case-study method in its most conventional form. The study is mostly explanatory and it focuses on the ERP system adoption process in a medium-sized enterprise. The case-study method is a relevant methodological choice in this study, because the paper addresses ERP system adoption in firm-specific circumstances. Given that many case studies in management accounting take place in contexts of large enterprises (Scapens, 2006), this study is located in a considerably smaller setting and therefore, it can even be viewed as a radical case study (Cooper and Morgan, 2008). Empirically, the study draws from three sources to construct a holistic interpretation about the observed phenomenon. The study uses interviews that were mostly unstructured in nature. The interviews were taken *ex post facto* regarding the implementation. Naturally occurring data are also gathered. The data comprise confidential organisational documents about the system and its adoption process. Naturally occurring data proved to be useful since they exist without a researcher's intervention (Silverman, 2010, pp. 131–132) and hence, enable the investigation of the 'authentic' emergence of interpretative viability that is the key theoretical concern in the paper (see also Vaivio, 2008, p. 75). However, the formation of the research problem would not have been possible without a researcher's observations about the prevailing

organisational reality in the enterprise. Employment experience as a part-time accountant provided a view on how employees use the ERP system and how the system appears in daily talk.

During the writing up and analysis of article 1, the researcher became amazed by the richness of the ways in which ERP adoptions can be constructed and justified through language use. Definitions, contents and connotations can be shaped, intentionally or unintentionally, by drawing upon linguistic resources. To echo Fairclough (1992, p. 64), language can be seen as a 'practice not only representing the world, but of signifying the world, constituting and constructing the world in meaning'. Therefore, the analytical orientation deepens in the other two papers.

Article 2 analyses the discursive practices of a software vendor to portray the adoption of an ERP system as an appropriate organisational action. Discourse-analytical approaches have been popular not only in organisational research (e.g. Alvesson and Karreman, 2000; Phillips and Hardy, 2002) but also increasingly in some areas of accounting scholarship, such as corporate sustainability reporting (e.g. Mäkelä and Laine, 2011). Recently, the approach has appeared in studies of management accounting (e.g. Seal, 2010) and accounting information systems (Rose and Kræmmergaard, 2006). CDA has emerged as a result of influential books by Fairclough (e.g. 1992; 1995a; 1995b). This research approach is chosen in this study because CDA seeks to pay attention to how power relationships, such as institutional changes and social movements, are produced and reproduced in discourses. Discourses are important forms of social practice since they encompass linguistically mediated representations of the world (Fairclough, 2003). They can be accessed through the study of text and talk (Fairclough, 1992). A few central tenets characterise the CDA methodology. While discourses constitute reality, they are also conditioned by the socio-cultural context. Consequently, texts should be treated in their contexts (Chouliaraki and Fairclough, 2010): on institutional, social and situational levels (see also Fairclough, 1995b). The institutional consideration implies that texts should be analysed on the intertextual level. Discourses are seen as linked to other discourses, institutions and social structures. The social consideration suggests that it is important to examine how texts are produced and consumed. Packed with diverse ideologies and manifestations, discourses are not neutral value-free zones. The situational consideration stands for a need to elucidate the writing practices of individual texts. This means analysis concerning writing and argumentation styles as well as taking the genre of the text into account. CDA is an interpretative and explanatory methodology that involves several alternatives to perform critically oriented analysis (Fairclough and Wodak, 1997). Paper 2 adopts a

discourse-historical analytical orientation to approach legitimation. It focuses on the context of the data, the discursive strategies employed and the linguistic realisation of these contents and strategies (van Leeuwen and Wodak, 1999, p. 91). The empirical analysis operates with articles published in the customer relationship magazine of Visma software during the years from 2002 to 2012.

Study 3 investigates the rhetoric used in promoting ERP systems and thus uses rhetorical analysis to spell out the rhetorical accomplishments that occur in Thomas Davenport's text on enterprise systems. Rhetorical scholarship and rhetorical analysis are part of a discourse-analytical tradition within social sciences (Symon, 2000), rooted in classic antiquity (Hartelius and Browning, 2008). The concept of rhetoric easily connotes the eloquent use of language, but in this study, rhetoric means instrumental and constructive expressions that operate with persuasion and argumentation (Gill and Whedbee, 1997, p. 157). In light of this, rhetoric is connected to influence. Rhetorical analysis is a relevant method in this paper because it enables a focus on the micro-level features of text or talk such as logic, composition, style and argument (Locke and Golden-Biddle, 1997, p. 1026). Note that there are no strict analytical standards for the execution of rhetorical analysis (Symon, 2008). Rhetorical analysis can focus, for instance, on the nature of the problem or issue that is addressed in the text, the identification of the implied audience, the genre in which the rhetorical accomplishment takes place or rhetor credibility (Gill and Whedbee, 1997). A researcher interested in linguistic ingenuity might analyse rhetorical tropes included in a text that mean figurative expressions such as analogies and metaphors (Nørreklit, 2003). This article employs an increasingly subjective version of rhetorical analysis and focuses on rhetorical composition in order to illustrate how particular versions of reality are created in the text. Rhetorical analysis is a particularly relevant approach to address ERP systems since rhetoric is related to management fashions and technological change. According to Abrahamson (1996, p. 259, italics added), 'a rhetoric is spoken and written discourse that justifies the use of a set of techniques for managing organizations and their employees'. The constructions and effects of information technology are made persuasive through rhetoric too (Symon, 2008). Since rhetoric encourages viewing the issue in a particular way, it is possible that rhetoric affects social action (see Green, 2004). It is important to understand that rhetoric is a mundane and omnipresent feature of social life and is not restricted to argumentative situations (Hamilton, 2001). Therefore, this study recognises and analyses rhetorical strategies in a management text that is produced by a management guru and

communicated in a professional magazine (see Chiapello and Fairclough, 2002; Nørreklit, 2003; Graham and Williams, 2005).

4 Summary of the articles

This introductory essay now recounts and summarises those three articles included in the thesis. Table 1 briefly outlines their main features.

Table 1. Summary of the articles

Number of the article	1	2	3
Title	Label in Context: On the Enterprise Resource Planning System in a Medium-sized Enterprise	Taking information technology seriously: on the legitimating discourses of enterprise resource planning system adoption	On the use of rhetoric in promoting enterprise resource planning systems
Journal	The Finnish Journal of Business Economics	Journal of Management Control	Baltic Journal of Management
Purpose	Sheds light on the adoption of an ERP system in the context of a medium-sized enterprise	Aims at improving understanding of the legitimation of ERP system adoption	Seeks to improve understanding of the rhetoric used to promote ERP systems
Theoretical emphasis	Management fashion	Discursive legitimation	Rhetorical theory
Method	Case study	Critical discourse analysis	Rhetorical analysis
Data	Interviews, archive materials, observation	Articles published in a customer relationship magazine	Text published in a professional management magazine
Key contribution	Recognises and analyses the ambiguity in the ERP system and its adoption. Also considers the dynamics between the adopter and software vendor	Distinguishes and analyses five specific legitimating discourses mobilised by the software vendor that construct the adoption of an ERP system as an appropriate action	Identifies and analyses three specific rhetorical strategies used to promote ERP systems

4.1   Article 1

Lepistö, L. "Label in Context: On the Enterprise Resource Planning System in a Medium-Sized Enterprise". (The Finnish Journal of Business Economics, Vol. 63 No. 1, pp. 48–72)

The purpose of the study is to improve the understanding of the adoption of an ERP system in a medium-sized enterprise. It analyses the ERP adoption process that took place in Alfacon (a pseudonym) by focusing on the background situation regarding the legacy system, software selection and its enactment in accounting practices. The paper's research question is the following: How is the ERP system and its adoption constructed in the interplay between the enterprise and the software vendor? The research question is approached by drawing upon interviews, archive documents and informal observations that were carried out in a retrospective fashion.

The paper links to recent discussions on dynamics in fashionable concepts by employing the conceptualisation of organisation concepts and their inherent inclusion of interpretative viability (Benders and van Veen, 2001). This theoretical guideline implies that many popular concepts (or management fashions) implemented by enterprises include room for interpretations that make them adoptable to different contexts and adaptable to specified problems.

The article offers a case description and analysis in which the enterprise adopts an ERP package due to coercion exerted by the software vendor. The enterprise faces pressure to implement a new accounting software package as the supplier of the legacy system decides to discontinue the product development and support activities, and devote itself to the promotion of a more novel system already in the pipeline. The adoption process is approached from the perspective of accountants. From their perspective, implementation is carried out without notable problems and the new system is certainly welcomed.

The study makes visible the active role of the software vendor in the adoption process. The article complements our earlier understanding by documenting the ERP adoption process that is greatly imposed by the actor from the supply side. The earlier literature tends to have an orientation that emphasises the adopters' willingness to implement ERP packages (e.g. Spathis, 2006). Moreover, the article suggests that the software vendor has an opportunity to shape the meaning and contents of the ERP system in order to make it appear as a plausible and realistic solution for an enterprise. The analysis shows how the ERP system being adopted can be seen as loosely coupled to its original, sometimes flamboyant label (e.g.

Davenport, 1998), even if the implemented package were to contain the main modules.

The article illustrates how a medium-sized enterprise can benefit from ERP system implementation in its accounting practices, but the emergence of interpretative viability makes the system appear as relatively mundane in the enterprise. Elaborate use of the resource of interpretative viability makes the ERP system accessible even for smaller enterprises, even though people in the adopting enterprise might not have a proper understanding about ERP systems and the enterprise lacks a management accounting function. Finally, the article opens up some new avenues to investigate the construction of ERP system adoption as a necessary organisational action. The study suggests that an interesting research direction would be the analysis of discursive legitimation that is carried out by software vendors. Study 2 discusses this issue.

4.2   Article 2

Lepistö, L. "Taking information technology seriously: on the legitimating discourses of enterprise resource planning system adoption". (Journal of Management Control, Vol. 25 No. 3–4, 193–219)

This study sheds light on the legitimation of ERP system adoption that is constructed by a software vendor. The study's sample includes 57 texts that discuss ERP system adoptions in Finnish enterprises within the timeframe of 11 years from 2002 to 2012. These texts are published in a customer relationship magazine of a notable accounting software and services company. The specific research question is: How is the legitimation of ERP system adoption discursively constructed through the journalistic practices of the software vendor?

Theoretically and methodologically, the article subscribes to the recently emerging research program in the landscape of accounting and organisational research that aims at spelling out the linguistic characteristics of contemporary and sometimes even radical organisational actions. The paper adopts a CDA approach to investigate how the legitimation of ERP system adoption is constructed in association with specific discourses. This interdisciplinary research approach seeks to make visible how discourses are both socially constituted and constitutive as well as how they are imbricated with the production and reproduction of different power relationships (Fairclough, 1992). The discursive legitimation strategies recognised by

Vaara et al. (2006) are employed to analyse the legitimation constructed by the ERP software vendor (see also, van Leeuwen and Wodak, 1999).

The article distinguishes between and analyses five legitimating discourses mobilised by the software vendor. The legitimating discourses are discursive practices that are mobilised by the software company to portray the adoption of an ERP system as an appropriate action. Rationality discourse portrays the adoption as an action that has certain utility. Analysis of the mundanity discourse illustrates how the software vendor attempts to portray the adoption as a normal, even ordinary function. Modernity discourse provides a view according to which the adoption of an ERP package should inherently belong to essential attributes of a present-day enterprise. Analysis of the evolution discourse demonstrates a formation of legitimation that is based on the illustration of evolutionary developments taking place in information technology. Authority discourse portrays a variant of legitimation construction that comprises references to actors with authoritative appeal. Most importantly, the article argues that the legitimating discourses around ERP adoptions are multifaceted constructions.

The article considers the emergence of ERP systems as a supply-side oriented phenomenon. The study demonstrates how the software vendor deals with ERP systems and attempts to legitimate them as solutions that should be taken seriously. ERP systems are often represented as neutral instruments that should provide objective facts (Chapman, 2005) while the politicised characteristics behind the phenomenon may easily pass unnoticed. The article is one of the first studies that approaches ERP system adoptions from the discursive perspective. The paper illustrates what it is possible to accomplish with the use of language as far as ERP systems are concerned. The study suggests that rhetorical analysis would offer an interesting avenue for further research since the results of this study imply that ERP systems are intimately packed with expectations and emotions. Study 3 discusses this issue.

4.3   Article 3

Lepistö, L. "On the use of rhetoric in promoting enterprise resource planning systems", (Baltic Journal of Management, Vol. 10 No. 2, pp. 203–221)

Study 3 continues a linguistic orientation in the dissertation. It seeks to underscore the vital role of language in the constitution and inculcation of the phenomenon

revolving around ERP systems. The article increases understanding about the use of rhetoric in promoting ERP systems. The study's research question is the following: What kind of rhetorical strategies promoting ERP systems can be identified in Davenport's text?

The study analyses Thomas H. Davenport's text 'Putting the Enterprise into the Enterprise System' that was published in the Harvard Business Review (HBR) in 1998. His seminal article represents one of the first attempts to make the idea of a system intelligible for a wider audience. The rhetorical aspect of ERP systems provides a contrast to materiality and offers a view of how ERP systems are constructed by drawing upon rhetoric.

Two issues should be noted in using the data as a source of inquiry. First, the text is fabricated by a well-known management writer. Management gurus are increasingly seen as important figures who participate in the production, legitimation and dissemination processes of fashionable concepts (see Nørreklit, 2003). Their novel insights are mediated efficiently, for instance, in books and magazine articles. Second, the article has appeared in the HBR, a journal that enjoys an excellent reputation among practitioners and academics. The magazine works as a significant gatekeeper in deciding which concepts gain publicity and which do not.

Theoretically, the paper draws from the literature that deals with rhetoric associated with technological change and management fashions. It has been argued that many fashionable managerial innovations adopted by enterprises contain solutions for a diverse set of organisational problems in relatively compact forms (see Abrahamson, 1996). Notwithstanding the concepts' capabilities to fulfil the needs of potential adopters, they should comprise persuasive characteristics as well (Benders and van Veen, 2001). The mobilisation of rhetoric is approached by using the classical Aristotelian rhetorical strategies as a basis of analysis. Rhetoric means persuasion and argumentation that occurs in Davenport's classic text.

The article recognises and analyses three rhetorical strategies used by Davenport. These strategies are ways of employing rhetorical means to constitute a sense of attraction for ERP systems. The analysis of the rationalisation strategy illustrates how an ERP system is made to appeal by referring to rationalistic and pragmatic arguments. An ERP system and its adoption is portrayed as a necessity that may deliver in terms of certain utilities, such as improved integration and economic performance. Rhetoric around the theorisation strategy demonstrates how Davenport seeks to partake in the determination of meaning for ERP systems and their adoption. This strategy involves Davenport's own sense-making during which the ERP systems become constructed and actionable. Contradiction as a rhetorical

strategy illustrates how emotions are coupled with ERP systems. Davenport uses a juxtaposition in which arguments for and against ERP implementation follow each other.

The article aims to promote research on ERP systems in a direction that recognises their linguistic constitution and characteristics. The study seeks to spell out the rhetoric that appears in management texts consumed by academics and practitioners. The paper illustrates how Davenport portrays ERP systems as important, but controversial entities. The study enhances our understanding of ways in which a figure from the management guru genre links to linguistic development and distribution of the phenomenon around ERP systems.

5   Findings and limitations

These three studies offer the results of the research process during which the analyses and interpretations about the constructions of ERP system adoptions became developed. The focus of the thesis in on the following research question: How is the adoption of an ERP system constructed as a necessary organisational action? Papers 1 and 2 are mainly written for accounting scholars, while paper 3 should attract the interest of researchers from management and business studies.

The thesis contributes to the previous research by focusing on the malleable nature of an ERP system and its adoption conditioned by a software vendor in *enterprise-specific* circumstances (see Quattrone and Hopper, 2006). Article 1 illustrates that ERP system adoption as an organisational action can prove to be a more difficult action for a researcher than for employees in the adopting enterprise (see Granlund and Malmi, 2002). The retrospective analysis shows how the software vendor has the possibility of shaping the meaning and contents associated with the ERP system in order to improve its reception in an adopting enterprise, especially in the context of a smaller enterprise (see Quattrone and Hopper, 2006). Due to the generative work of the software vendor, the system can be implemented without notable difficulties, while it appears as an intelligible and suitable solution for the enterprise. The case study argues that it is increasingly difficult to distinguish between 'substantial' and 'artificial' ERP adoption. The case organisation adopted over 40 modules or functionalities that cater to all the main functions in the enterprise, but the system was inherently coupled with rhetoric that culminated in promises about effective transaction processing and electronic invoicing capabilities. It is argued that the mobilisation of the resource of interpretative viability (Benders and van Veen, 2001) makes it possible to produce different interpretations about the ERP system and variations in adoptions. This can result in a situation in which the ERP label informs less, and the only identifiable and conceptual core in the ERP system draws on a modular structure. When the primary implications of the adoption are predetermined, the ERP adoption can take place without considerable problems or a specific consciousness regarding the label being implemented (see Gondo and Amis, 2013). Compared to the extant literature, the paper underscores the sense of certainty and the influence of the vendor in the ERP adoption process.

The thesis adds to the accounting research by concentrating on the discursive legitimation of ERP system adoption constituted by a *software vendor*. Five distinct legitimating discourses were identified that are involved in making the adoption of an ERP system appear as a legitimate solution (Dechow and Mouritsen, 2005). Article 2 illustrates how rationales for ERP system adoptions are discursively constituted and their functional capabilities constructed through language use (see Dechow et al., 2007). Notwithstanding that the rationality discourse comprises the dominant discourse in reasoning towards ERP adoption (see Dillard and Yuthas, 2006), the evolution and mundanity discourses deserve additional attention. The evolution discourse portrays the adoption against the general development in information systems during which organisational legacy systems are not maintained and supported by software providers. Thus, the ERP adoption is presented as an organisational action that is more incremental than radical. This insight also illustrates that the influence exerted by the vendor can be considerable and result in intricate situations of lock-ins. Moreover, the characteristics of the legacy system should be increasingly recognised by the researcher who is interested in the ERP system and its adoption. The mundanity discourse is also an interesting way to legitimate. In this discourse, the adoption of an ERP system is represented as a commonplace action. It is possible to find at least two explanations for this kind of representation. One potential explanation suggests that the software vendor attempts to portray the system as an entity to which 'grandiose' values and meanings should not be attached. Another potential explanation suggests the orientation in which the vendor seeks to make the ERP system be viewed as 'taken-for-granted' in enterprises. It should be pointed out that the number of articles about ERP adoptions in Finnish enterprises began to decline towards the end of the 2000s. Texts promoting the outsourcing of accounting routines to shared service centres took the place of those pieces of text. Finally, the paper underscores that the discursive legitimation of accounting technology is a context-specific and dynamic process (see Vaara et al., 2006).

The thesis contributes to the extant scholarship by elucidating the rhetorical practices of a *management guru* in promoting ERP systems. Article 3 illustrates how the organisational significance of ERP systems is constructed through the rhetoric and their material characteristics are made persuasive (see Dillard et al., 2005). Arguably, the management text under rhetorical analysis represents the most consumed form of writing on ERP systems given that there is not a germinal book that constitutes a normative version on enterprise systems for researchers and practitioners. Even if rationalisation appears as the most salient rhetorical strategy in

this canonised text from its genre, the identification of theorisation and contradiction strategies offers a few significant insights that improve our understanding of the rhetorical construction of ERP systems. The analysis of the theorisation strategy illustrates that this authoritative text allows multiple interpretations for the coupling of an ERP system with managerialistic agendas. The analysis of the contradiction strategy illustrates balancing a sense of certainty with uncertainty when the significance of ERP system adoptions is established. The rhetoric presents ERP systems as fascinating but complex constructions. Although an ERP system as a timely and innovative technology can deliver positive values that are desperately needed in creating competitive advantage, unsuccessful adoption may seriously damage a company's performance. The article underlines that while the promotional text attracts the population of enterprises to adopt ERP packages, it can shape our collective understanding and perception of them (see Nørreklit, 2003). The rhetoric mobilised by Davenport may entail both positive and negative connotations regarding the systems. Finally, given the potential that management accounting scholars are prone to follow research topics that have a sense of legitimacy (see Carmona and Gutiérrez, 2003), a rhetorically laden text may influence the whole research program. As much as Davenport's text gives interpretative space for the appearance of ERP systems, it also provides various opportunities for scholarly referencing (see Graham and Williams, 2005).

As with every empirical study, this thesis does have its limitations. Since the thesis deals with highly technical information systems, it is important to point out that the researcher's familiarity with the technical components embedded in ERP systems is limited (see Dechow and Mouritsen, 2005, p. 693). However, the lack of understanding regarding the technical details prevented the researcher from becoming involved merely in the technologically oriented discourse produced by supply-side actors. The usual 'weaknesses' associated with case-based research apply as well (Ryan et al., 2002). The suggested findings and insights should not be generalised too much since they are outcomes of the researcher's overtly subjective sense-making and interpretation processes that took place within the dissertation project. Thus, the replication of this study by another researcher would admittedly provide alternative results. However, this thesis provides theoretical generalisations about the institutional dynamics in which accounting-related technologies are instigated, legitimated and communicated. With regard to the application of discourse-analytical methodologies, it should be pointed out that there are no proper standards or accepted approaches for data analysis (see Phillips and Di Domenico, 2011). It is the researcher's responsibility to communicate and maintain the

distinctiveness of the CDA and rhetorical analysis against the other traditions in qualitative research. The limitations regarding the empirical materials that were used are noteworthy. Most of the empirics are derived from the Finnish context. It is possible that some features in the data could be reflections from the unique cultural and institutional circumstances prevalent in Finnish society (see Castells and Himanen, 2002). Moreover, a few problems occur with the use of naturally occurring data. An individual researcher is unaware of those conditions and intentions that influence the production of the materials under consideration. Correspondingly, a researcher usually does not know how those texts are consumed among the recipients (see Ferguson, 2007). In respect of this thesis, there is a risk that the researcher is impacted by certain sorts of texts, resulting in the formation of biased interpretations. Finally, the thesis' findings are constituted by relying on new institutional literature that is quite a provocative research program and inherently places the emphasis on the role of institutions (Lounsbury, 2008). For instance, a real distinction between institutional pressure and efficiency pressure is much easier to conceptualise than to measure (Hopper and Major, 2007).

Furthermore, many studies on the development and marketing of management accounting-related concepts and technologies have been built upon the ideas of actor-network theory or more generic science and technology studies (e.g. Qu and Cooper, 2011; Alcouffe et al., 2008). Concerning the ERP system as a research topic, it is arguable that other management systems, such as strategic enterprise information management, can be built upon the information technology infrastructure provided by an ERP system (see Rom and Rohde, 2006).

6   Conclusions

The purpose of this thesis is to improve the understanding of those generative practices through which the complex and challenging ERP system becomes increasingly seen as a standard of accounting technology. The thesis places the presence of ERP system adoptions against the macro-level institutional context that recognises the dynamics in constructions of technologies that are perceived as popular in particular settings. The thesis discusses influence, persuasion and meaning in the process of institutional homogenisation in which organisations tend to use increasingly standardised and 'rationalised' practices (DiMaggio and Powell, 1983; Meyer and Rowan, 1977; Beckert, 2010; Suddaby, 2010). The following interrelated undertakings are offered for researchers interested in issues of organisational accounting.

Most importantly, the thesis argues that the seeming popularity of ERP systems should not be seen as a rational response to organisational problems since linguistic accomplishments and especially the exercise of influence are involved in the establishment of wider justification (see Meyer and Rowan, 1977). Extant research provides insights according to which ERP systems usually go through processes of customisation and configuration in which trade-offs and negotiations about the system's contents occur between the organisation and software vendor during implementation (Wagner et al., 2011; Teittinen, 2008). The thesis argues that the interplay between actors from the supply and demand sides can result in situations where meanings, values and connotations in relation to ERP system adoptions are produced (see Quattrone and Hopper, 2006; Ax and Bjørnenak, 2007). An ERP system can be seen as an institutional 'requirement' that is constructed in a way that should cater to the needs of enterprises due to vendors' active responses (see Benders and van Veen, 2001; Heusinkveld et al., 2013). ERP as a three-letter acronym is open for shaping and modification, and proper alternatives for these packaged software solutions do not necessarily exist.

Consequently, this thesis offers one of the first steps towards the development of a better understanding about the crucial role of language in the construction and justification of ERP adoptions. Arguably, an ERP system ticks the best boxes regarding accounting-related technology. However, it is argued that not only the

material, but also the linguistic underpinnings partake in the construction that is affected and governed by different actors bustling around ERP systems (see Kieser, 1997; Abrahamson, 1996). Their work focuses on matters far beyond customisations and configurations, which are often regarded as the primary potential behind ERP systems' inherently malleable nature. Moreover, the thesis enhances our understanding about the inclusion of management accounting-related arguments and meanings in the process towards the establishment of ERP systems in accounting and organisation (Chapman, 2005). Interpretative frameworks developed in papers 2 and 3 may also help researchers and practitioners to understand the ways in which accounting-related concepts and technologies are constructed and packaged, as most 'solutions' being promoted appear as complete and legitimate.

Concerning the methodology, the thesis encourages researchers to engage themselves in alternative research approaches when investigating issues close to management accounting or accounting information systems. There are a few studies in management accounting research (e.g. Ezzamel et al., 2007; Seal and Ye, 2014), and few in accounting information systems research (Rose and Kræmmergaard, 2006) which have used discourse-analytical approaches. Qualitative management accounting research usually uses case- or field-study methods (Ahrens and Chapman, 2006; Ryan et al., 2002). In parallel, Rose and Kræmmergaard (2006) argue that the studies on accounting information systems are often based on the functionalist research tradition (see also Sutton, 2006; Dillard, 2008). The discourse-analytical approach endeavours to incorporate broader socio-cultural conditions into the analysis of text and talk, and attempts take the institutional, political and ideological reflections prevailing between the lines of text into account.

Furthermore, the nature of the empirical materials used in this thesis should be emphasised. The emphasis is on data that appear without the researcher's intervention (Silverman, 2010). The thesis demonstrates how the use of language constructs social and organisational realities and mediates particular representations of the world in a recurrent fashion. Verbal activity plays such a major role in contemporary society that this aspect is worthy of consideration (Fairclough, 1992). Traditionally, language is used to transfer information about facts, opinions and interpretations between people (see Heracleous and Barrett, 2001). Naturally occurring data prevail without the researcher's involvement and hence, they can provide an increasingly authentic view on the phenomenon under observation (Silverman, 2010). Researchers interested in discourse-analytical approaches are increasingly using naturalist materials in order to avoid research that reflects their own categories and assumptions (Potter and Hepburn, 2007; see also Griffin, 2007).

Thus, this kind of approach to data can prevent the risk of collecting 'biased' empirics. It can also save the researcher's time and energy, as the collection of interview data is sometimes seen as challenging because of time and access constraints (Vaivio, 2008).

The thesis poses a few questions that warrant further research on contemporary accounting technologies. First, it would be interesting to examine how problems and solutions are produced in the context of accounting technology. Do the potential problems relate to material characteristics, and what kind of discursive accomplishments are they? It appears that actors from the supply side, such as vendors and consultants, usually have much more crucial expertise concerning the maintenance and development of information systems compared to their clients. In light of this, the supply-side actors have almost unlimited access to the creation of problems that would escape proper understanding by their clients. Social implications stemming from the ERP implementations remain as a noteworthy research topic as well (see Dillard et al., 2005). Since we have much literature about the roles of management accountants in ERP contexts (e.g. Chen et al., 2012), it is of importance to investigate how an ERP system as a complex accounting technology is involved in the distribution of work in the workplace. Most importantly, the thesis points out that the discussion concerning ERP systems should be far from over in management accounting and accounting information systems research, even if more 'contemporary' concepts, such as big data, are receiving increasing attention nowadays (see Davenport and Patil, 2012). In parallel, the thesis encourages accounting researchers to investigate what the fashionable management and accounting innovations actually are, as well as why and how they are undertaken in enterprises (Busco et al., 2014).

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Original publications

LAURI LEPISTÖ

Label in Context: On the Enterprise Resource Planning System in a Medium-Sized Enterprise

ABSTRACT

The purpose of this study is to shed light on the adoption of an enterprise resource planning (ERP) system in the context of a medium-sized enterprise. Qualitative research approach and case study method are utilised in the study. The empirical analysis is based on interviews, archive data and the author's employment experience in the enterprise. Data are described and analysed using the theoretical concept of interpretative viability (Benders and van Veen, 2001) from the management fashion literature that seeks to distinguish between labels and contents regarding different organisation concepts. The study illustrates how a medium-sized enterprise can benefit from ERP adoption in its accounting practices. However, the ERP system has a relatively mundane character in the enterprise: it is mainly used for bookkeeping and electronic invoicing. The study suggests that there is a considerable amount of interpretative space in the concept of the ERP system, and thus in the nature of ERP adoption. It emerges in the system's ambiguous modular character and in promises about performance enhancements concerning the execution of accounting routines. The study also considers how the software vendor exerts influence during the adoption process. The paper contributes to accounting research by elucidating the adoption of an ERP system in the context of a medium-sized enterprise and by using the theoretical concept of interpretative viability to analyse the ERP system and its adoption.

Keywords: *Accounting, case study, enterprise resource planning systems, interpretative viability, medium-sized enterprises*

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1. INTRODUCTION

Enterprise resource planning (ERP) systems have received increasing attention from scholars of management accounting and accounting information systems in the past decades (Grabski et al., 2011). In general, researchers have attempted to investigate the implications of ERP system adoptions for management accounting and control practices, as well as for firm performance (Rom and Rohde, 2007). For instance, Sánchez-Rodriquez and Spraakman (2012) suggest that ERP systems impact management accounting and management accountants on physical, transactional and informational levels. Kanellou and Spathis (2013) argue that ERP systems may provide several benefits for accounting processes. Dorantes et al. (2013) suggest that the implementation of an enterprise system may improve the accuracy of a company's management forecasts. Taken together, it can be assumed that the adoption of an ERP system represents an important organisational action that is worthy of scholarly interest. Although previous accounts have offered considerable accounting-related insights, a few omissions can be recognised. Many of the works have taken place in the context of large, often multinational enterprises (Quattrone and Hopper, 2005). So far there is scant research that has explicitly examined ERP systems in small- or medium-sized enterprises (Teittinen et al., 2013, p. 281). Previous research has also tended to treat ERP systems as coherent technological entities that are merely modified during the implementation phases. The specific nature of ERP systems, in terms of their notable adaptability, has attracted less attention from accounting scholars (Quattrone and Hopper, 2006). Moreover, the extant scholarship has mainly focused on the usages of ERP systems in enterprises, while researchers have tended not to incorporate the perspectives of the software vendors into the discussion (Wagner et al., 2006; see also Wagner et al., 2011). Based on the above considerations, the purpose of this study is to shed light on the adoption of an ERP system in the context of a medium-sized enterprise. Here, ERP adoption refers, in a broad sense, to the background situation regarding the legacy system, software selection and the system's enactment in accounting. Based on a review of the relevant accounting literature, this paper raises the following research question: How is the ERP system and its adoption constructed in interplay between the enterprise and the software vendor?

This paper presents a case study in which a medium-sized enterprise abandons its legacy system and employs an ERP package. It analyses ERP adoption through an empirical analysis based on the author's employment experience in a medium-sized enterprise, archive data and interviews that took place retrospectively after the implementation. To understand the occurrence of an ERP system in a medium-sized enterprise, the study presents a generic discussion on organisation concepts (Benders and van Veen, 2001; see also Heusinkveld et al., 2013). This theoretical guideline focuses on dynamics in production and the usage of different concepts. It does not take the fashionable entities that exist in organisations at face value, but attempts to

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distinguish between labels and contents. More specifically, the paper draws from the concept of interpretative viability (Benders and van Veen, 2001) in the analysis. Herein, the notion of interpretative viability refers to the inherent ambiguity that often exists in different organisation concepts.

As a result of the analysis, the paper elucidates how the system and its adoption are constructed in conjunction with the adopting enterprise and the ERP software vendor; thus, the study recounts the relationship between these two actors. Due to the vague modular contents of the ERP system and the persuasion enacted by the software vendor, the paper illustrates the occurrence of interpretative viability in both the system and the nature of its adoption. Most importantly, the study suggests that interpretative viability makes an ERP system more easily adopted by an enterprise, which also has implications for research on ERP systems in accounting. Yet, the study illustrates how a medium-sized enterprise can benefit from the adoption of an ERP system. The new software package, with its tools for efficient execution of accounting routines, is perceived as a meaningful improvement among accountants. The paper answers the recent calls for an investigation into ERP systems in the context of smaller enterprises (Granlund et al., 2013, p. 276) that includes the vendor's perspective in the analysis (Granlund, 2011, p. 14) and uses a rigorous approach to the research of these systems (Grabski et al., 2011, p. 66). It is also hoped that this study provides generic insights on organisation concepts for organisation researchers.

The study is divided into six sections: the second section reviews the previous research on ERP systems in accounting; the third section presents the theoretical guidelines; the fourth section outlines the research methodology; the fifth section comprises the empirical part of the study; finally, the sixth section concludes the paper.

2. ERP SYSTEMS IN ACCOUNTING RESEARCH

> Many organizations invest huge amounts of money in enterprise resource planning systems (ERP), which are complex and sophisticated computer systems that coordinate the activities of organization units. […] Some analysts put the average cost of an ERP system at about $15 million with one system reputedly costing $400 million. And not all ERP implementations are successful (Atkinson et al., 2012, p. 492).

As the above excerpt intimates, ERP systems have gained an astounding ascendancy and a global resonance in business life in recent years. ERP packages are increasingly becoming the standards for organising and managing business activities because of their alleged benefits (Grabski et al., 2011). Enterprises adopt these systems in an attempt to increase real-time information, to improve information generation for decision making and to integrate applications (Spathis, 2006, p.

73). According to Davenport (1998), ERP systems are commercial software packages that seamlessly integrate all of the information flowing through an enterprise. The basic idea of an ERP system is that a single central database draws data from, and feeds data into, several applications supporting diverse functions. In this light, ERP systems are modular, enabling enterprises to adopt only the needed parts of the software. As a result of their widespread adoption, ERP systems have gained increasing research attention from accounting scholars.

There is a substantial body of literature focusing on the transformative nature of ERP system adoption in respect to firm performance and management accounting (Rom and Rohde, 2007, p. 41). Hunton et al. (2003) evidence that ERP implementation may improve firm performance ratios compared to non-adopters. Dorantes et al. (2013) argue that ERP system implementation may have a positive effect on a firm's internal information environment and consequently on decision making. Nicolaou and Bhattacharya (2006) suggest that enterprises that make early enhancements to their systems enjoy better firm performance compared to enterprises that make late enhancements. A study by Hayes et al. (2001) shows positive market reactions to ERP system implementation announcements. Scapens and Jazayeri (2003) view the implementation of ERP system as having the potential to promote changes in the character of management accounting (see also Hyvönen, 2010). Quattrone and Hopper (2005) and Dechow and Mouritsen (2005) investigated how ERP systems are exploited in the creation of organisational control and integration in the context of multinational enterprises. They found that relationships between human beings and modern information technology may be extremely complex, as ERP has the ability to narrow distances across time and space, making objects more visible. Chapman and Kihn (2009) indicate that there is a direct association between the degree of information system integration and perceived system success. The level of information system integration has also been found to be associated with several of the design characteristics that make up an enabling approach to budgetary control. They, in turn, are found to be associated with perceived system success and aspects of performance. While these studies provide valuable insights about the implications of ERP system adoption in terms of firm performance and management accounting, they tend to pay attention to enterprises that are large, and often multinational. Also, these studies often empirically focus on the implementation or usage phases of ERP systems.

Moreover, researchers have either explicitly or implicitly considered the specific nature of ERP systems and their adoptions in research reports. There are studies that recognise their malleable characteristics. Granlund and Malmi (2002) illustrate that many accounting tasks exist in separate systems, despite ERP adoption. Hyvönen (2003) points out the selective nature of ERP adoptions: a company having implemented at least one module is typically considered an ERP adopter. Hyvönen et al. (2009) report a situation in which a previous accounting system was transferred to the new ERP-based infrastructure. Drawing upon actor-network theory and science

and technology studies, Quattrone and Hopper (2006) sought to theorise the above-illustrated phenomena. They argue that the definition of an ERP system, namely SAP, is never stable, as or-ganisations continuously translate and customise the systems in association with software deve-lopers (see also Teittinen, 2008). In their case study, Wagner et al. (2011) document the negotia-tions on the modification and configuration activities during the software package's creation. In addition, there are studies that report the challenges and benefits of the use of ERP systems. This is an important stream of inquiry, since ERP implementation projects are typically associated with notable risks (see Bradley, 2008). A case study by Teittinen et al. (2013) reported a situation in which ERP adoption in a medium-sized enterprise did not fully meet the expectations of top management, even though the company had implemented all the main modules. They argue that employees either do not know how to use ERP, or how to internalise it. Kanellou and Spathis (2013) suggest that ERP adoption results in broad accounting benefits, such as those related to operational, organisational, managerial and information technology, and satisfaction with the performance of the system prevails among accountants. They also argue that the number and type of ERP modules implemented are not related to user satisfaction (see also Spathis, 2006). In sum, these studies take the possible technical modifications of ERP systems during their implementa-tions into consideration. Table 1 provides the summarised findings from the literature mentioned above.

TABLE 1. *ERP systems and accounting research*

Main topic	Author(s)
ERP implementation's impact upon firm performance, information environment or market value	Hunton et al. (2003); Nicolaou and Bhattacharya (2006); Dorantes et al. (2013); Hayes et al. (2001)
ERP implementation's impact upon management accounting and management control practices	Granlund and Malmi (2002); Scapens and Jazayeri (2003); Dechow and Mouritsen (2005); Quattrone and Hopper (2005); Hyvönen (2010); Hyvönen et al. (2009); Teittinen (2008)
The relationship between information system integration and management control	Chapman and Kihn (2009)
Benefits and challenges of ERP implementation for accounting-related functions	Kanellou and Spathis (2013); Spathis (2006); Teittinen et al. (2013)
ERP implementation's open-endedness due to customisation and configuration	Quattrone and Hopper (2006); Wagner et al. (2011); Hyvönen (2003)
Critical success factors for successful ERP implementations	Bradley (2008)

It is important to note that the research papers reviewed provide manifold, valuable insights that are not easy to capture within a single table. All in all, it can be argued that the literature on ERP systems holds great promise with respect to complex issues such as the impacts and opportunities arising from ERP adoptions. However, most analyses have addressed the effects of ERP system implementations in the context of big businesses. Relatively little research has been devoted to the processes of ERP adoptions and how they are affected by software vendors. There have been interesting findings that have elucidated the specific nature of ERP system adoption, but these studies tend to treat ERP systems as coherent entities that are just modified when implemented. Based on these considerations, the research question of this study is: How is an ERP system and its adoption constructed in interplay between the enterprise and the software vendor?

3. CONCEPTUAL AND THEORETICAL GUIDELINES

This study resonates with the theoretical discussions on organisation concepts that have recently emerged among organisational and management accounting scholars. Organisation concepts comprise 'more or less coherent, prescriptive visions of organizational design' (Benders, 1999, p. 624). In this light, organisation concepts typically offer solutions for a wide variety of managerial and organisational issues, as they include specific knowledge in relatively compact forms. Admittedly, many entities in the field of management accounting fall into the category of organisation concepts. Balanced scorecards and activity-based costing are perhaps the most well-known examples (see Zawawi and Hoque, 2010).

On a generic level, the discussion on organisation concepts has two characteristics. First, organisation concepts are not regarded as coherent entities. This insight has provoked two interwoven strands of research. One strand has focused on the complexity of corporate and management accounting practices in international settings. Some studies suggest that these organisational practices have been increasingly converging as enterprises adopt similar techniques and models (e.g. Granlund and Lukka, 1998). Other studies have paid attention to adaptations of management practices in local contexts that may result in divergences and variations in practices between 'macro' and 'micro' levels (e.g. Jazayeri et al., 2011). The second strand has analysed the features of corporate and management accounting practices that can be regarded as applications of different organisation concepts. This strand is closely related to the discussion of management fashions. Benders and van Veen (2001) have explained the popularity of organisation concepts by referring to the notion of interpretative viability. Interpretative viability implies that many organisation concepts include interpretative space: they allow different interpretations and invocations for multiple agendas. Thus, organisation concepts are multifaceted constructs that are far from unambiguous (Giroux, 2006). As evidence, Malmi and Ikäheimo (2003) illustrated that

companies tend to understand and apply value-based management in different ways. Portrayals of organisation concepts as understandable entities are somewhat inconsistent, since these concepts typically offer explicit promises of performance improvements and emphasise successful users (Benders and van Veen, 2001). Organisation concepts and the occurrences of interpretative viability within them are closely associated with labels. Labels designate, but they also connote and imply. Admittedly, interpretative viability may eventually lead to situations in which the actual contents of the label can be something different from its original and obvious contents. Against this backdrop, 'loose couplings' may result in occasions in which new interpretations are unrecognisable to the original advocates of the concept. According to Benders and van Veen (2001), organisation concepts are prone to interpretative viability because they mainly exist on a conceptual level (see also Rogers, 1995, p. 12). The absence of material features or components is also noticeable in the concepts used in management accounting. Although Ax and Bjørnenak (2007) suggested accounting innovations consisting of both design characteristics and rhetorical elements, in fact, most concepts are comprised of ideational and textual components. ERP systems are an interesting concept since they certainly include material components as well.

Second, organisation concepts do not emerge in a vacuum. Their emergence requires producers and users of concepts that are often conceptualised as supply-side and demand-side perspectives. A supply-side view refers to producers and mediators of concepts. It considers concepts as institutional requirements that are apparently needed in increased competition. A demand-side view refers to users of concepts. It is based on efficient choice criteria in which more or less rational arguments play an important role in adoption (Ax and Bjørnenak, 2007). Interpretative viability can be a useful resource for both sides. For actors on the supply side, it makes a concept compatible with different social contexts and evidently increases the size of the market (Heusinkveld et al., 2013). Interpretative viability also enables the bundling and mixing of existing concepts (Ax and Bjørnenak, 2005; Modell, 2009). For actors on the demand side, interpretative viability makes it easier to adopt fashionable constructs, as it is possible to implement them selectively. In most cases, organisation concepts are adopted purposefully, but sometimes they may be adopted incrementally (e.g. Jazayeri and Scapens, 2008), and perhaps even unintentionally. Admittedly, if interpretative viability makes the adoption of the concept easier, it may reduce the efficacy of the concept in an organisation. Table 2 outlines the main points of organisation concepts.

TABLE 2. *Key concepts and their definitions related to organisation concepts*

Concept	Brief definition
Label	Popularised descriptive and distinctive word or phrase
Content	Material or nonmaterial substance
Interpretative viability	Adaptability for different interpretations and agendas

4. METHODOLOGY

The qualitative research methodology, drawing on the socially constructed nature of reality (Berger and Luckmann, 1987), and the case study method are applied in the study. Generally, the case study method has been considered as suitable for studies that operate with research questions that begin with 'how' or 'why' (Yin, 1994). This study has similarities with descriptive and explanatory accounting case study approaches. While the case study describes observed accounting practices, theory is used to understand and explain the specific phenomenon (Ryan et al., 2002, pp. 143–144). Various types of data are used in the study. The paper originates from the author's employment experience as an accountant in a medium-sized enterprise. The author worked for almost eight months as a part-time accountant at Alfacon (all names have been disguised), which included three periods: May 25th to August 28th, 2008 (five days a week); January 5th to April 1st, 2009 (three days a week); and May 18th to July 31st, 2009 (five days a week). As part of his employment duties, the author interacted with the accounting staff (especially with the chief accountant and the administrative manager), with other employees and with those in leading positions. The author's responsibilities were mostly similar to those of the other accountants; they comprised bookkeeping-related tasks. Turnover at Alfacon comprised some 25 million euros, and the company employed roughly 80 people at that time. However, only seven people were involved in accounting and the enterprise lacked some management accounting and controlling functions.

Since his first day of work, the author was acquainted with the ERP system. Alfacon implemented an ERP package in autumn 2007, and thus abandoned its modular legacy system that had been in use since 1997. During the author's second employment period, six interviews were carried out. The interviewees were the managing director, the administrative manager (in charge of accounting), the construction manager, the operations manager, the chief accountant and an accountant. They represented all business units, were from different positions and performed various tasks in the organisation. These people used accounting software actively in their daily work. The average length of the 6 interviews was 45 minutes, and they took place in February and March of 2009. The interviews covered the ERP package and the generic accounting system. Since Alfacon had already implemented the package, the interviews provided retrospective views. The interviewees were asked not only for the facts, but also for their personal interpretations and opinions. Each interview was tape-recorded and transcribed verbatim.

The fact that a medium-sized enterprise had adopted a product from a 'value-laden' ERP label intrigued the author; an early draft of the case study manuscript was completed in autumn 2010. However, the author felt that he needed more data on the ERP adoption. After negotiations, he finally got access to confidential internal documents in autumn 2011. These materials supple-

mented the interview data. The archive material consisted of meeting minutes (ca. 75 pages), memoranda (ca. 45 pages), personal notes (ca. 10 pages) and email correspondence (ca. 25 pages). The correspondence included emails by employees of Alfacon, between its joint venture personnel and that of collaborating companies (enterprises in the industry are typically actively networked with each other), and with the software vendor. Archive data also included product descriptions (ca. 110 pages), brochures (ca. 10 pages), information leaflets (ca. 45 pages), procurement contracts (ca. 40 pages) and the final report on the project (6 pages). Altogether, the archive file amounted to approximately 370 pages of text. The author also used a few issues of the vendor's customer magazine. Since the research was concerned with the emergence of interpretative viability, this kind of 'naturally occurring' data was considered useful (Silverman, 2000).

To improve the general understanding of ERP markets, the author also contacted two industry experts who were not involved in the case. The interview with an experienced ERP consultant from a 'big four' accounting company lasted 50 minutes (January 26th, 2012), whereas the interview with a key accounts manager from a medium-sized ERP software company lasted 1 hour and 20 minutes (February 1st, 2012). Both interviews were taped. Figure 1 illustrates the timeline of key events and the author's actions regarding the case study.

Data analysis and construction of the empirical section took place as follows. First, the data were carefully read. After that, portrayals of the ERP label and its contents were scrutinised based on the following questions: What does the ERP label mean? How is the content of the system defined? Then, the data were organised into a series of chronological events, a strategy recommended in accounting case studies (Jack and Kholeif, 2008). The chronological form was employed to focus on the relationship between Alfacon and the software vendor. Finally, to ensure accuracy in the technical details, the administrative manager of the company checked the empirical section. To ensure the confidentiality of the actors involved, some irrelevant details were changed. This was a condition of securing access. To emphasise the context of the medium-sized enterprise, the section is offered with intricacies. However, the most colourful extracts from the data are not used (Silverman, 2000).
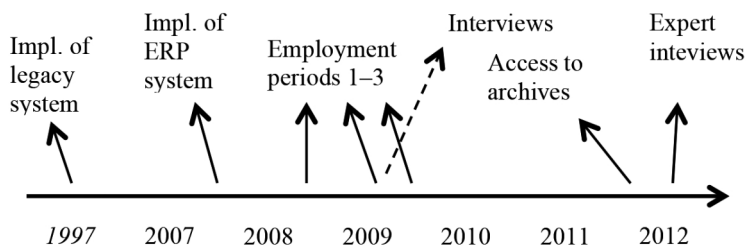
FIG. 1. *Timeline of key events and the author's actions*

5. DESCRIPTION AND ANALYSIS OF ERP SYSTEM ADOPTION IN ALFACON

5.1 Push from the software vendor to abandon the legacy system

On an April morning in 2006, the administrative manager of Alfacon decided to send an email to her colleagues and subordinates. The subject of her email was Hawk, an accounting software package that had been in use in the enterprise since 1997. The administrative manager was in charge of accounting and Hawk had increasingly caused anxieties for her during recent years. It had become seriously outdated, having not been majorly updated by the software vendor for five years. Updates, maintenance and customer support services had been gradually reduced over time. Eventually, the vendor decided to cease all development work concerning Hawk and devote all of its efforts to a new product already in the pipeline.

Understandably, the software vendor's actions were of concern to Alfacon. Its accounting unit comprised seven people who relied on standard software devoid of extra customisations. The administrative manager describes the unpleasant situation:

> It was an old [system] and you did not necessarily receive any support. Many things in the system were fixed in order to ensure it would work. It had outlived its usefulness and the vendor said you do not receive any support or product development. [...] We very often considered that these features would be available in Eagle [the new system].

The above excerpt indicates that Alfacon felt a certain degree of pressure from the vendor to abandon its previous system. Eagle, mentioned in the quote, is a 'next generation' system, explicitly labelled as an ERP system. In the vendor's product line, Eagle replaced the obsolete Hawk. Admittedly, the aim of the vendor was to get its Hawk customers to adopt the new Eagle packages. Consequently, since the launch of the new product, the vendor had actively promoted Eagle to its existing customers. The quote also reveals the power exerted by the software vendor, who presented a picture of a new system representing part of a larger continuum in the progress of accounting software. From this perspective, the adoption of a state-of-the-art system is a natural transition from the legacy system, assuming a seemingly evolutionary character. An excerpt from the vendor's customer magazine from 2006 supports this interpretation:

> [We] are not going to offer one new enterprise resource planning system that would replace the existing at once. Instead, we offer a flexible phased transition. At the beginning, we design new functionality that is bundled to existing products. [...] Functions of existing systems will be, little by little, replaced by these new functionalities. Therefore, the transition to new enterprise resource planning takes place gradually, in an evolutionary way.

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However, the above definition could cause confusion. The vendor distinguishes between legacy systems and more modern software, but uses the notion of the ERP label somewhat freely. In the text, 'the existing' systems are associated with the ERP label. This may dilute the unique appearance of ERP and imply that the package draws from previous products.

In April 2006, the enterprise took the first concrete step toward replacing Hawk. The administrative manager asked the employees to report any defects in Hawk to her. In line with her expectations, replies from the accountants indicated that Hawk was infested with many usability problems. The administrative manager describes her own experiences in a blunt manner:

> We were power users of the system and we were so fed up with the old and with the responses [from the vendor] that it [the vendor] does not enhance Hawk anymore.

As Hawk aged, the difficulties began to increase. The accounting staff had to learn to cope with the problems in the execution of accounting routines. To mention but a few, Hawk's bookkeeping module did not support group structures; the organisation planned to change from a single company structure into a group structure in a few years. Reporting performance measures was time consuming for the chief accountant, since precise framing of report templates was not possible without exportation to spreadsheets. Accounting ledgers did not receive electronic invoices and the purchase-to-pay cycle was inefficient, as paper invoices shuffled from hand to hand across the enterprise. Payroll responsibilities were difficult to fulfil since the number of different salary categories was limited and the persistent existence of former or retired employees in the accounts challenged the system. Maintenance of the share register was a tricky job as well. Changes to the register had to be made manually and its reporting template did not meet the standards set by tax authorities. Taking into account the context of the medium-sized enterprise and its limited resources, the accountants felt frustrated when confronting Hawk's deficiencies.

Although the future of Hawk did not look bright, the fact that accounting information appeared to play only a minor role in the enterprise mitigated the situation. Alfacon, as a relatively small company, had a somewhat informal and diverse management control system that was not based solely on the formal and concrete structures that typically appear in larger businesses. Over the years, the enterprise had used Hawk for traditional purposes, primarily recording transactions. Accounting information was backward looking and had a tendency to lack relevance. Cost accounting was based on loose cost centre accounting and Alfacon's cost-consciousness remained at a low level. The main management control tool was budgeting, but budgets were routinely set based on the previous year. Over time, the managers had learned to make do with scarce accounting information and interest in economic reports did not surface until the end of a financial year. The managing director explains his preferences, which are reasonable in the context of a smaller enterprise:

> It is enough for me [accounting information], I have gotten used to coping with rela-
> tively scant information. [...] And I do know I could get more if I just asked. It does
> not come easily, but it is achievable, but now this is enough for us. I think simplicity
> is beautiful and effective.

But what kind of system was Hawk actually? Hawk was a DOS-based accounting software packa-
ge produced by an established vendor, and arguably designed mainly for small- and medium-
sized enterprises. Through the years, it had gained a relatively firm foothold in the market and
stayed at the cutting edge of the vendor's catalogue for a long time. It had served the accounting
needs of Alfacon well, as was simple and convenient to use. The Hawk package consisted of over
30 different modules, which included the following:

- Bookkeeping
- Fixed assets
- Accounts payable
- Accounts receivable
- Share register
- Salaries

- Human resources
- Stock activities
- Project planning
- Project management
- Marketing activities
- Sales reporting

The above list offers a reasonable description of the contents of the system. Hawk exhibits many
similarities to the typical contents of the current ERP label. Its modular structure is attractive and
aims at covering a wide range of different functions in an organisation. The naming of the modu-
les connotes popular ERP terminology, such as accounting, human resources and logistics. The
nomenclature of the implemented modules also implies that the system is an organisation-wide
package. However, if modularity is the most distinctive feature of the ERP label, it introduces a
question about the uniqueness of the ERP label, since even modular legacy systems are easily
labelled as conventional retrospectively. In Alfacon, Hawk exists as a conventional system, whi-
le the vendor arguably attempts to couple it to the ERP label. The administrative manager recol-
lects the use of the system:

> It was a traditional bookkeeping system or we were not able to make good use of it.
> [...] Hawk included many modules that we did not exploit. [...] When we purchased
> it, we took all modules and possibilities and we paid much out of nothing.

According to the administrative manager, the accountants did not fully exploit Hawk and many
functions remained untapped. This is still noticeable in present-day ERP adoptions, as enterprises
are prone to acquire rather complex packages well beyond their realistic needs (see Teittinen et
al., 2013, p. 290). The quote implies that this phenomenon may happen with the legacy system
as well.

In sum, the software vendor and the perception of pressure from it propelled Alfacon's decision to adopt the new system. This illustrates that the vendor may have the power to dictate which products are used in different settings, such as in small enterprise contexts, while dependent organisations face a situation with little choice. A smaller enterprise does not necessarily have the capability to resist the perceived pressure and continue to rely on its existing system. Eventually, the idea of a project to initiate accounting software change crystallises in the enterprise.

5.2 Selecting a system from the ERP label

The accountants soon started to lean towards Eagle, despite having a few rather negative experiences with Hawk. The accountants had become familiar with the software company and its representatives over the years, and according to the vendor, Eagle belonged to the same continuum of software development. The administrative manager clarified the situation in an ironic manner:

> […] If we must find a new system [from another vendor], it will cause a lot of work for us. We are lazy accountants.

The quote captures an orientation in which accountants are not willing to face encounters with unfamiliar accounting technology. They are looking for a solution without notable risk. The quote also implies that the information system change project was pretty much an accounting-driven initiative. As such, first on the list of potential packages was Eagle, described in the vendor's customer magazine as follows:

> Eagle has much functionality that is tailored for particular industries such as manufacturing, wholesale trade, construction, energy, and property management. The amount of users of Eagle in a company varies from one to 300, as the average is 10 concurrent users. For these companies, Eagle is a pivotal operative information system that is the basis for the running of successful business.

The above text excerpt implies that Eagle is an industry-specific solution designed to meet the needs of particular industries. However, the descriptive list of industries is rather exhaustive, which makes the system appear to be a more generic solution. The excerpt also intimates that Eagle is used mostly in small- and medium-sized organisations. Variation in the number of concurrent users per enterprise reveals that even smaller organisations have deployed these systems. This observation illustrates that an ERP system has to include viability to make adoption possible, even in small enterprise settings. But what does the ERP mean in this particular context? In documents produced by the vendor, there are many references to the ERP label, but its identifying

phrase is implicitly expressed. The quote below, from a customer magazine published in 2006, offers a good example:

> An enterprise resource planning system is a critical tool for companies creating an underpinning to all operations of a company. […] Nowadays much development takes place in electronic data interchange between organisations. Supply chain management, electronic invoicing, and other forms of electronic collaboration are examples of changes that have a major impact on organisations. This development is supported and promoted by enterprise resource planning systems.

Here, the software vendor portrays the ERP label as a solution used to enhance system integration and management control in organisations. The vendor also couples the latest development in electronic data interchanges with the ERP label. This emphasis shows the consideration given to ensuring the ERP label is associated with electronic data-processing-related features to make the package more appealing.

Against this backdrop, the accountants decided to participate in a demo session for Eagle that took place in the summer of 2006. The experience was so positive that it inspired them to call for an offer. However, the vendor's offer was disappointing. The offer, in terms of pricing, was too costly. The software vendor appeared to recognise its power over a customer that wished to maintain an existing relationship. In this situation, Alfacon had no other choice than to map new alternatives and invite offers from three other potential vendors. It is noteworthy that all of the vendors under consideration offered products with the ERP label. The overt aim of the enterprise, however, was not to find an ERP package, but a modern replacement for Hawk. It became clear that mapping and comparing different systems was a difficult task. In order to simplify the process, Alfacon dropped two of the potential vendors from the list and placed more emphasis on the remaining two. Eagle was still at the top of the list as it exhibited several advantages. Despite the seeming passivity of Eagle's sales people and the costly pricing, the vendor was familiar and the implementation and training phases would be short; two strongly desired qualities in a system.

Another alternative was to acquire a software package from a world-class vendor. This kind of ERP involved a more ambitious system, well known and widely used throughout the world. Besides its high price, the estimated implementation and training times were extensive. To investigate a negative notion, the accountants decided to visit a 'successful user' from the same industry that had recently implemented a similar system. The administrative manager was particularly disappointed, and described her feelings in an email to a colleague:

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> Many of us went with high hopes to [the reference] company. It came out that they use [the ERP] system only in basic bookkeeping and a separate electronic invoicing

program is linked to it. Even the general ledger provided by the vendor has not been
satisfactory for the [reference] company and the substitutive ledger does not even work.
[…] Accounting for fixed assets is carried out by relying on a small separate program.

The above quote illustrates that there is a risk of artificial use with ERP systems, which is when
a state-of-the-art system is not substantially used. Arguably, this kind of use of the ERP system
may occur when the contents of the system are tightly coupled to its original label and an en-
terprise attempts to adopt the system as wholesale. Therefore, the advantages of popular ERP
systems were not accepted without question, even though the brochures promised convenient
implementation.

When the accountants were warming to Eagle, the situation changed. The vendor launched
a new package, Eagle-2, which consequently replaced the former Eagle. The release garnered
interest, since Eagle-2 exhibited the latest developments and was still considered an industry-
specific solution. According to the vendor, Eagle-2 was an independent product and not a facelift,
although the name did refer to the former system. The brochure describes Eagle-2 as follows:

[…] Eagle-2 helps to steer business. This is achieved by effective built-in circles for
routine tasks as well as by availability of timely and accurate information for decision-
making. Eagle-2 is designed to work in a way that makes routine and overlapping tasks
[…] possible to cut down efficiently. Cutting down of routine tasks brings about sav-
ings, customer service improvements, and thus, increases the competitiveness of your
company.

The above text portrays Eagle-2 as a business solution. References to the elimination of routine
tasks emphasise its functional superiority. The text also includes promises about performance
improvements on an organisational level. Admittedly, Eagle-2 represents the organisation concept
in its purest form, comprising a somewhat coherent vision of organisational design and practices.
It also contains persuasion about the requirements that are essential to survive in a competitive
environment. The brochure includes a list of attractive attributes to reinforce the sense of appeal
and make the system more acceptable in different settings:

- Reliability and efficiency
- Strong industry focus
- Good controlling tools
- Effective reporting

- Adaptation to customer's needs
- Tailoring
- Integration into other systems
- Good data protection

These attributes portray Eagle-2 as a contemporary and innovative concept. The attributes also
depict the system as an understandable and applicable construct. Consequently, the attributes
reinforce the image of Eagle-2 as an all-encompassing system. Besides persuasion, Eagle-2

comprises concrete elements. The system does not differ from other packages of the ERP label as it includes various modules that offer applications and tools for a wide range of purposes. Eagle-2 embodies more than 70 modules. Naturally, modularity partly explains the viability of the system and its adoption. Alfacon decided to pick up over 40 modules related to various organisational activities:

- Bookkeeping
- Cash flow projections
- Group accounts
- Cost reporting
- Fixed assets
- Accounts payable
- Accounts receivable
- Data analyser
- Salary manager

- Human resources
- Share register
- Stock activities
- Resource management
- Project budgeting
- Project management
- Contract planning
- Tender activities
- Electronic invoicing

This list of modules presents ERP adoption as a technical modification. Seemingly, the package contains more than just plain accounting modules. It caters to diverse functions, such as human resources, materials and projects. A closer look, however, reveals the presence of interpretative viability in the package, in terms of its apparent ambiguity. The list implies that modules are not necessarily mutually commensurable: some modules are more vital than others. The concept of modules is not clearly expressed, as ambiguity prevails over the relationship between modules and functionality; for instance, several modules connote bookkeeping-related functions that eventually should comprise the complete accounting module. Certain vagueness in the contents of the modules also exists. The naming of some of the modules gives the impression of enterprise-wide functions, while the descriptions of the modules indicate rather mundane functions; for instance, the human resource module contains functionalities mainly used in the execution of payroll accounting. Consequently, an appraisal of the scope of the adoption becomes increasingly difficult.

Besides the modular contents, another characteristic is the potentially smooth adoption through easy conversion, an implementation style presented in the information leaflet:

> Transition from Hawk to Eagle-2 is very easy! Current and historical data is possible to transfer to Eagle-2 by programmatic conversion, and thereby, monitoring of [the enterprise's] internal and external activities can continue from where it left off. The applications that have been used […] in Hawk are easy to adopt in Eagle-2, as those applications in Eagle-2 have their original basis in Hawk.

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Here, 'conversion' refers to a process in which data from the existing system are transferred to the new system. The quote illustrates how the vendor attempts to portray ERP implementation as a relatively simple process. Again, references to Hawk are present in the text.

Finally, in April 2007, there was an agreement on the Eagle-2 acquisition. Due to the vendor's transient delivery disruption, the Eagle system was first implemented and then instantly transformed to Eagle-2. In sum, the software vendor used the resource of interpretative viability to exhibit its system as an attractive and adaptable construct. Here, attractiveness referred to performance enhancements, while adaptability implied that the system was inherently made to fit with this specific context.

5.3 Enacting the system in accounting

Eagle's implementation was carried out somewhat smoothly. The software vendor expected a fast process: the system installation itself would take one working day and the data conversions would require one day per company. The enterprise had already acquired a group structure of three companies, and consequently, the conversions were expected to take three days. The vendor anticipated that people at Alfacon would take command of the conversions once the first conversion had been accomplished successfully under the guidance of an instructor. Table 3 shows the phases of the implementation process:

TABLE 3. *The implementation schedule*

Date	Activity
15/06/2007	Planning
18/06/2007	Installation/test conversion
20/06/2007	Parameterisation
28/08/2007	Personnel training
31/8/2007	Production conversion
3/9/2007–8/9/2007	Post-conversion issues

The above table shows that relatively little time was budgeted for the implementation process in general. The schedule indicates that after seemingly successful installation and conversions, training and potential aftermath issues were quickly addressed. Finally, in September 2007, Eagle was in use. Soon it was upgraded to Eagle-2, which was mostly a technical matter. In this light, the explicit implementation moment is difficult to provide. The promises of the vendor were realised: the system was made to be implemented without hazards. The administrative manager recounts the process with a positive tone:

> It went relatively easily. […] Then we just checked that everything had been converted […], it went surprisingly well in every company without any fixing.

The administrative manager's interpretation suggests that a successful ERP implementation, in respect to Eagle-2, does not require considerable time and effort. Arguably, perceived implementation success is related to the nature of ERP adoption. The sense of success is reflected by the objectives attempted. The chief accountant describes the benefits that were expected from the adoption:

> Electronic properties were the first priority, that we could receive and send electronic invoices [...] and we could send annual tax notifications on salaries and dividends in file format to tax authorities.

This statement from the chief accountant intimates that something was expected from the new system, although the primary purpose was to replace Hawk. The expected impact may appear as moderate if it is appraised through the standards of full-blown ERP implementations that are valid in the context of larger enterprises. In this light, comparisons between different adoptions are not necessarily comparable; elimination of routine and perhaps overlapping tasks in recording transactions were regarded as important issues for accountants. The following comment by the administrative manager indicates that the system considerably guides the daily work of accountants:

> […] As we know how Eagle-2 works, we have tried to take guidelines from there and we do it like someone [the vendor] had thought these applications and functions should happen. We can change our procedures easier than we change the whole system to work; conversely, [...] it has to be some smart man who has thought how the enterprise planning system should work so that it works in the right order.

It can be argued that Eagle-2 operates as a multifaceted entity in the enterprise; the quote portrays Eagle-2 as a modern technological solution. The package offers a standard for organising business activities. Embedded circles guide daily work and consequently, accountants are willing to rely on the new system. The system is expected to perform the routine tasks that are considered as the most time consuming. The quote also illustrates that the ERP label is recognised by the administrative manager. However, while conducting interviews, the author got the impression that general understanding about the ERP label remained low in the enterprise. The administrative manager recognised the label, but she was not interested in its more accurate meanings. The accountants realised the modular character of contemporary software packages, but were not concerned with the wider implications of it. References to the ERP label did not appear in the discussions with the accountants; instead, they used expressions such as 'Eagle' and 'Eagle system' to refer to the package. It can be argued that the accountants were conscious of the implementation of new accounting software, but were not particularly conceptually aware of the ERP system adoption. An accountant considers the new package as follows:

> Mainly it is only an update, an updated version. […] When a system becomes a bit obsolete, you would like to get some new features.

Resistance to the new system was not seen among the accountants. They were willing to acquaint themselves with the new package, as they believed that Eagle-2 would increase job contentment through decreased workload. Although the accountants expressed confidence in the novel technology, Eagle-2 was associated with the legacy system. Like the above excerpt implies, it was regarded as an update to the previous system. Against this backdrop, the system appeared as a commonplace entity, and flamboyant characterisations were increasingly absent. The legacy system connotation may have diminished the sense of Eagle-2 as an inherently radical package.

Although Eagle-2 was primarily employed to serve an agenda for transaction processing, the system has penetrated the work of other professional groups besides those from accounting. Electronic invoicing checking and invoice approval have connected line managers and foremen to processes related to accounting. Therefore, no one should downplay the implementation of Eagle-2 as a meaningful organisational action. It has reinforced management control. Managers are increasingly inclined to make good use of the advanced reporting tools embedded in the package, and aspirations towards better reporting have risen. Interest in performance measurement has increased, even if people and operations have been densely located, and managers have had a tendency to rely on tacit professional knowledge, stemming from the profession of engineering, and their senses in decision making. The chief accountant describes the early usage:

> Now we get needed information out from the system, but we could get more. [...] There is always information that would be nice to know, but we should discuss with people in charge what kind of reports they would like to receive and what kind of information we should produce more of.

The description implies that Eagle-2 could still perform more functions in the organisation; the chief accountant calls for a championing activity that would lead to an increase in the invocation of the system. The degree of system integration has not increased as a result of the implementation. Tasks of accounting, such as budgeting, operate in Eagle-2, but understandably, a wide range of separate systems remain on the organisational level. Rather, careful selection of modules has reduced the risk of implementing a package that is too extensive, and consequently, Eagle-2 was intended to consist of nothing too excessive or insufficient.

In sum, Alfacon's experience implies that even a smaller enterprise is able to implement an ERP system without notable difficulty, and the adoption is perceived as beneficial.

6. CONCLUDING DISCUSSION

The extant research provides insight (see Rom and Rohde, 2007) that helps to understand the relationship between accounting practices and ERP systems. This study joins the recent articles in pointing out the needs to investigate ERP systems in smaller enterprise contexts (Teittinen et al., 2013) and analyse the practices of software vendors (Granlund, 2011). Generally speaking, previous research has often tended to treat ERP systems as coherent entities that are merely modified during their implementations, while their viable nature has received less attention from accounting scholars. This study attempted to shed light on ERP adoption in the context of a medium-sized enterprise. Based on a review of the literature, the following research question was formulated for this case study: How is the ERP system and its adoption constructed in interplay between the enterprise and the software vendor? For the sake of clarity, the empirical analysis covered the background situation regarding the legacy system, software selection and the system's enactment in accounting.

The case study elucidated the construction of an ERP system and its adoption. The study suggests that there is interpretative viability in the concept of an ERP system, and thus in the nature of its adoption (Benders and van Veen, 2001). In this study, the interpretative viability emerged in two specific ways. The analysis illustrated that the software vendor used persuasion to portray its ERP system as a plausible solution in this setting. The vendor attempted to characterise its ERP system by referring to its relatively mundane functions. The contents of the system were exemplified by drawing upon features related to the elimination of routine tasks in accounting. This included explicit promises about executions of invoicing procedures using effective electronic forms. Admittedly, this kind of persuasion is closely related to the rhetoric generally apparent in organisation concepts (Ax and Bjørnenak, 2007), but it should be recognised that the persuasion mobilised by the software vendor also makes the system intelligible for potential adopters. The vendor's promises shaped the definition of the ERP system in this specific context (Quattrone and Hopper, 2006). The analysis also illustrated that the contents of the ERP system were presented in a fairly vague way. In particular, the naming of the modules appeared to be somewhat inconsistent and inaccurate due to a lack of clarity in the notions of modules and functionality. Against this backdrop, it would be challenging to gauge the scope of the adoption by using the number of implemented modules as a measure (see Hyvönen, 2003; Granlund and Malmi, 2002). However, the ERP adoption led to some changes in the accounting practices of the enterprise. After successful implementation, the accountants have been able to perform their tasks in an increasingly efficient manner. Most of the improvements occurred in the rationalisation of routine tasks, since the new system included an electronic invoicing capability that was intended to reduce the workload of accountants. It is also noteworthy that an interest in better reporting

increased among managers, which is in line with the findings of Scapens and Jazayeri (2003). However, this study supports the claims by Teittinen et al. (2013) that employees in smaller enterprises generally do not know how to use ERP systems. Drawing from the theoretical concept of interpretative viability (Benders and van Veen, 2001), it can be argued that the software vendor can stretch the concept of an ERP system to enhance its applicability to different settings. Hence, the present study attempted to distinguish between labels and contents (see Heusinkveld et al., 2013). This distinction helps to understand the variation within the label, beyond just the technical modifications. The term 'ERP' easily connotes prototypical versions of ERP systems (Davenport, 1998), while affordance for different interpretations and agendas may easily pass unnoticed. It is believed that the separation between the label and the contents is useful, since this analytical orientation does not accept the appearance of fashionable entities in organisations without question (cf. Quattrone and Hopper, 2006). So far, earlier articles have distinguished between local and global ERP software packages (Kanellou and Spathis, 2013, p. 222), and between ERP technologies and ERP systems (Dechow and Mouritsen, 2005, p. 695).

This study also elucidated the exercise of power during the ERP adoption process. The relationship between the enterprise and the software vendor may be unbalanced. It can be argued that the enterprise faced a fair amount of pressure when deciding on a new software package. The enterprise was stuck with a system that was becoming obsolete, since the vendor had gradually discontinued support and development activities regarding the modular legacy system. Under these circumstances, the enterprise had no recourse other than to start considering a substitute system, and soon began to lean towards the adoption of a new system from the existing vendor. In contrast to earlier studies, which recognised operational or competition-related intents behind ERP system adoptions (Spathis, 2006; Hyvönen, 2003), this case study presented a situation in which the ERP adoption was greatly impelled by the software vendor. On a general level, this insight has parallels with prior neo-institutionalist studies that have documented the active role of supply-side actors in adoptions of innovative concepts or apparent coercion existing in the adoption processes (see Hopper and Major, 2007; Järvinen, 2006). It is also noteworthy that the vendor attempted to build connections to the legacy system when promoting its ERP package. This finding resonates with Teittinen's (2008) insights about software vendors' efforts to construct optimistic realities and connotations regarding new technology.

This study should have implications for future research on ERP systems in accounting. Although the purpose of the study was neither to discuss ERP systems in a pejorative sense nor to dismiss their incidence as a serious organisational phenomenon, the occurrence of interpretative viability may cause challenges for accounting scholars. In respect to this study, an intriguing question is: How should this case be interpreted? One reader may see the empirical section as a story of real ERP adoption: An outdated legacy system had come to an end, and consequently,

the ERP system was adopted. Other readers may see the empirical section as a story of an ERP upgrade: The previous system, implemented in 1997, was already modular, and thus, the new system represented a software enhancement. In this case, the timeliness of this study on a unique ERP adoption in the context of a smaller enterprise is questionable. It should be pointed out that it was Davenport's seminal article, published in 1998, that popularised the idea of an ERP system for a wider audience. Moreover, this case study would be different if the background situation, in respect to the characteristics of the legacy system, was neglected. Another reader may see that a real ERP adoption has not taken place: The adoption did not seemingly meet the typical 'standards' for the rigorous adoptions that often take place in large enterprises (Dechow and Mouritsen, 2005; Quattrone and Hopper, 2005). Based on these considerations, this study illustrates that ERP adoptions are increasingly difficult to observe due to interpretative viability.

In general, this study has connected ERP systems to research programmes on organisation concepts (Benders and van Veen, 2001; Heusinkveld et al., 2013). The paper offers some insights for scholars interested in the production and usage of fashionable panaceas. The study illustrates that interpretative viability may also occur in the organisation concepts that comprise not only textual, but also concrete components. Existing research has mainly focused on incidences of interpretative viability in concepts that exist on the conceptual level (Ax and Bjørnenak, 2005). This article also gives a counterpoint to the prevalent discussions that emphasise voluntariness in the adoption of organisation concepts (cf. Benders, 1999, p. 630). This study illustrated that an enterprise may perceive pressure to adopt a particular concept. However, it should be emphasised that the study focused on a relatively small enterprise. Although this paper encourages research on popular concepts in the context of smaller enterprises, the results of the study were affected by this specific context. Besides the probable limitations in accountants' skills regarding effective ERP usage, it is obvious that conceptual understanding of ERP systems was relatively low in the enterprise. Teittinen et al. (2013) suggest that employees generally do not understand what an ERP system is. To extend their insights, the case study illustrated how the contents, and especially the meaning of the ERP package, were shaped by the software vendor. It can be argued that while interpretative viability makes an ERP system increasingly accessible, it also reduces efforts to implement the system in an enterprise. In line with recent theoretical thoughts by Gondo and Amis (2013), an entity with certain symbolic value may become unconsciously adopted when it deviates from its prototypical version in terms of its contents and meaning. In this case study, the software vendor even highlighted the similarities between the new package and the legacy system.

Nonetheless, the limitations of this study should be taken seriously. The case of Alfacon represents a specific case, and many of its features could be unique and anecdotal. The degree of interpretative viability is also easier to sense than to define and measure. The study was based on interviews, 'naturally occurring' archive data and the author's employment experience, but

the analysis was constructed retrospectively. Also, only a small number of interviews were conducted. Future research could address how purposefully the resource of interpretative viability is actually employed by the different actors in ERP adoptions. Alternatively, an analysis of the discursive legitimation would be an interesting direction for further research.

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ORIGINAL PAPER

Taking information technology seriously: on the legitimating discourses of enterprise resource planning system adoption

Lauri Lepistö

Abstract Although researchers of management control and accounting have extensively addressed the implications of enterprise resource planning (ERP) system adoption over the past decade, there is a paucity of research that explicitly pays attention to the legitimation of ERP system adoption. To extend the analysis beyond a single adopter, the paper investigates how an ERP software vendor constructs legitimation for ERP system adoption. The study is conducted by drawing upon critical discourse analysis that is a part of the qualitative research tradition. It is used in the empirical analysis that focuses on articles on ERP system adoptions published in the customer relationship magazine of a notable accounting software company covering the years 2002–2012. As a result of the analysis, the study identifies five legitimating discourses that construct the adoption of an ERP system as an appropriate action. The legitimating discourses are named as rationality, mundanity, modernity, evolution and authority. The paper illustrates that the legitimating discourses are multifaceted constructions that are intertwined with each other and overlapping. The study contributes to previous management accounting research by focusing on a discursive legitimation of ERP system adoption constructed by the software vendor and the inclusion of accounting-related arguments in this process. The paper also contributes to research that considers the legitimation of important organisational actions and their discursive construction.

Keywords Accounting · Discourses · Enterprise resource planning systems · Legitimation

JEL Classification M10 · M40

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1 Introduction

Companies have been increasingly adopting enterprise resource planning (ERP) systems, such as SAP enterprise systems, during the last two decades. An ERP system is a contemporary software package that collects data and feeds them into applications that support the company's various activities (Bhimani et al. 2012, p. 718). ERP systems currently have a growing presence in smaller enterprises (Teittinen et al. 2013) in addition to larger ones (Quattrone and Hopper 2005). Previous research provides insights that increase our understanding of the role of ERP systems in the execution of management control and accounting (Granlund 2011; Grabski et al. 2011; Rom and Rohde 2007). Earlier studies have documented how ERP systems have been coupled with managerial-level decision making (Dorantes et al. 2013). It has also been argued that the adoption of an ERP system can result in various alterations in management accounting (Sánchez-Rodriguez and Spraakman 2012) and control practices (Beaubien 2013), which can have an impact on the occupational identities of management accountants (Caglio 2003). While the introduction of an ERP system can be beneficial for an enterprise in numerous ways (Spathis 2006; Hunton et al. 2003), the implementation is often considered as a challenging initiative due to its technical nature and the emergence of organisational politics (Jack and Kholeif 2008; Kholeif et al. 2007). Due to the prevailing intricacies, ERP system adoption does not necessarily meet with the expectations of managers (Teittinen et al. 2013) or management accountants (Granlund 2002). Despite the increasing interest of management accounting researchers in ERP systems, there is scant research that has explicitly paid attention to the legitimation of ERP system adoption. This is unfortunate, since the adoption of an ERP system can present a radical organisational action that entails activities in pursuit of integration, standardisation, routinisation and centralisation (Scapens and Jazayeri 2003, p. 225). Therefore, this study investigates the legitimation of ERP system adoption. To extend the analysis beyond an enterprise-centric consideration, this study investigates the legitimation that is constructed by an ERP software vendor. This kind of orientation is relevant, since the implications stemming from ERP adoptions are increasingly considered as being well researched (e.g., Sánchez-Rodriguez and Spraakman 2012), and it has been argued that an increasing demand for real-time information, information generation for decision making and the integration of applications are perceived as important arguments for ERP implementations. To date, empirical papers that analyse the ways in which ERP systems and their adoption are portrayed by software vendors are rare (Granlund 2011; Dillard and Yuthas 2006). The vendor perspective is important because software vendors have an advantage in terms of the design of ERP systems and in terms of shaping the adoption of such systems (Quattrone and Hopper 2006).

This study links to research on ERP systems that highlights the view according to which ERP systems emerge in representations that relate, for instance, to virtual networks and connections between people within and beyond the firm (Dechow et al. 2007, p. 626; see also Dechow and Mouritsen 2005). These representations mediate impressions of effective organisational integration and control carried out by tools included in software packages (Quattrone and Hopper 2005). Thus, ERP systems, as variants of contemporary information technology, are presented as trustworthy systems

that should offer a perfect solution for management control (Chapman 2005; Beaubien 2013; see also Bloomfield and Vurdubakis 1997; Burns and Quinn 2011). In this study, a critical discourse analysis (CDA) approach is used to elucidate how the legitimation of ERP system adoption is constructed by relying on different discourses (Vaara and Tienari 2008; see also Fairclough 1992). Discourses are important forms of social practice since they are linguistically mediated representations of the world (Vaara and Tienari 2008, p. 986). This inherently interdisciplinary discourse analytical approach, as part of the qualitative research tradition, has increasingly shown its potential in helping researchers to understand the use of language in various settings related to organisational research in general (see Leitch and Palmer 2010) or to management accounting research in particular (e.g., Seal 2010; Cooper and Ezzamel 2013; Frezatti et al. 2014). The study analyses the legitimation of ERP system adoption by using the discursive legitimation strategies identified by Vaara et al. (2006) as a starting point for the analysis. The analysis is conducted by focusing on articles that have been published in the customer relationship magazine of Visma Software, which is a notable Scandinavian accounting software company. The materials, comprising 57 articles and covering the period from 2002 to 2012, provide naturally occurring data (Silverman 2000) on how the software company has attempted to construct legitimation—a sense of appropriateness—regarding the adoption of ERP systems. As a result, the study distinguishes and elaborates on five legitimating discourses mobilised by the software vendor that construct legitimation in this specific setting. It is noteworthy that the ERP systems under consideration represent more local versions of ERP systems compared to the internationally known packages. The study illustrates that these legitimating discourses are multifaceted constructions that are intimately intertwined with each other and, thus, they may easily remain unrecognised.

To our knowledge, the paper represents the first attempt to analyse the legitimation of ERP system adoption particularly on a discursive level. The analysis demonstrates how the software vendor seeks to portray the adoption of an ERP system as an action that should be taken seriously. The analysis also improves the understanding on the inclusion of accounting-related arguments in the legitimation process. In parallel, the study illustrates that the CDA approach can offer the possibility for researchers to broaden their understanding about the phenomena that are relevant to management control and accounting research. Most importantly, the analysis underscores that the properties, rationales and implications surrounding ERP systems and their adoption are discursively constructed through the organisation of language. Discourses convey particular representations of the world in which ERP systems are seen as essential vehicles for keeping operations integrated and accountable. The analysis also aims to provide an extension to the prevalent orientation in which ERP systems are primarily considered as malleable technological solutions that are merely adjusted to different contexts during software configuration. The findings concerning the identification of legitimating discourses constituted by the software vendor should resonate with researchers who investigate the implications of ERP system adoptions. The study is mainly written for management accounting researchers who are interested in advanced information systems, but it is hoped that the findings will also interest scholars who investigate the legitimation constructions of different managerial and organisational actions on more generic levels (Vaara and Tienari 2008; Goretzki 2013).

The paper continues as follows: The next section reviews previous literature that is relevant to the research topic. After that, the study's methodology is outlined. Then, the results of the analysis are presented. The paper finishes with the conclusions.

2 Literature review

2.1 ERP systems in management control and accounting research

Generally, ERP systems are increasingly considered as important resources for management control (Dechow et al. 2007). Research on ERP systems in the broad landscape of management control and accounting research reflects a range of different approaches.

Since the early 2000s, there have been studies that have explicitly focused on the possible alterations in management control and accounting practices either on the level of an enterprise or of management accountants. The discussion was kicked off by Granlund (2002) with a field study in which they argue that the impact of ERP implementation on management accounting and control may remain moderate due to the existence of separate systems. Yet an ERP system implementation may give accountants more time for data analyses due to the elimination of routine tasks. ERP system

Table 1 Management control research and ERP systems

Main insights	Author(s)
The implementation of an ERP system may open up the possibility for changes in management control and accounting practices as well as changes in professional identities of management accountants	Granlund (2002), Scapens and Jazayeri (2003), Caglio (2003), Sánchez-Rodriguez and Spraakman (2012)
ERP systems are important elements in the execution of management control	Dechow and Mouritsen (2005), Quattrone and Hopper (2005), Beaubien (2013), Teittinen et al. (2013), Dorantes et al. (2013)
The level of information system integration has a positive direct effect on perceived system success, but there are no direct links to business unit performance	Chapman and Kihn (2009)
ERP systems are embedded with powerful steering mechanisms that are susceptible to influence from different kinds of actors	Quattrone and Hopper (2006), Kholeif et al. (2007), Hyvönen et al. (2008), Jack and Kholeif (2008), Wagner et al. (2011)

implementation, however, can serve as an important vehicle for accounting change if the initiative for such a change is already present in an enterprise. The implementation can affect management accounting in four specific ways: eliminating routine jobs, giving line managers better accounting knowledge, providing more forward-looking information and widening the role of management accountants (Scapens and Jazayeri 2003). Moreover, research shows that ERP systems are involved in transferring and establishing the agendas of management control. This insight implies that management control is dependent on information technology, and particularly on the architecture and visions embedded in ERP packages (Dechow and Mouritsen 2005; Beaubien 2013). Chapman and Kihn (2009) explored an enabling approach to management control that can be supported by information system integration. Their results indicate a direct association between information system integration and perceived system success. Research has also made visible the physical, transactional and informational impacts stemming from ERP implementations (Sánchez-Rodriguez and Spraakman 2012). In line with this, an ERP system can improve a firm's information environment and, consequently, its management forecasts (Dorantes et al. 2013). From these studies, we have learned that the adoption of an ERP system offers the potential to achieve changes in management control practices, but the impacts are sometimes difficult to observe, since the reasons for the observed alterations can appear as multifaceted. However, an ERP system can operate as an efficient mediator of management accounting knowledge in an enterprise (see Hyvönen et al. 2006).

Studies adopting a politically oriented perspective have offered a contrast to the above analyses. Many of these studies have coupled ERP implementations to detailed accounts of how organisational politics and power mobilisation drive and shape adoption processes. This orientation extends the conventional view, according to which ERP systems are neutral instruments that should produce objective facts (Dillard et al. 2005). ERP systems are also viewed as being capable of creating the impression that everything in an enterprise is in a manageable and controllable form (Dechow et al. 2007; Dechow and Mouritsen 2005). An ERP system may create the illusion of control, especially in the context of a multinational enterprise (Quattrone and Hopper 2005). There are also accounts of how different kinds of actors bustle around ERP implementations. The influence of internal and external actors in implementations is evident, since ERP packages are inherently open for multiple translations, including customisations and configurations (Quattrone and Hopper 2006). ERP adoptions are increasingly interpreted as processes that include intricate negotiations about the system's contents (see Wagner et al. 2011). It has been argued that an ERP system has to go through a political process to become a legitimate enterprise-wide system (see Hyvönen et al. 2008). In parallel, studies have documented how ERP implementation can affect management accountants and other occupational groups (see Caglio 2003), and how the implementations are affected by software developers (Wagner et al. 2006) and government agencies (Jack and Kholeif 2008; Kholeif et al. 2007). ERP systems are almost solely designed and developed by software vendors according to their perceptions about best practices (Dillard and Yuthas 2006). From these studies, we have learned that ERP system adoptions are prone to being open-ended processes in which technical expertise becomes supplemented by social accommodation (see Newman and Westrup 2005). Although there are some interesting openings

that have elucidated the political processes around ERP system implementations in the area of management control research, a few omissions can be identified in the extant scholarship. Studies that seriously consider the use of linguistic representations of ERP adoption and unfold beyond the level of single implementations are rare in management control research. Moreover, most analyses investigate the politics around implementations from the perspective of ERP adopters (e.g., Jack and Kholeif 2008; Kholeif et al. 2007). This is an important shortcoming, since software developers have the power to define the meanings for ERP systems (Wagner et al. 2006) and the frames for implementation (Dechow and Mouritsen 2005; Quattrone and Hopper 2005). Therefore, the present study seeks to improve the understanding of the legitimation of ERP system adoption that is constructed by the software vendor. Table 1 briefly outlines the main content of the existing empirical literature.

2.2 The concept of legitimation as a theoretical guideline

The study adopts its theoretical underpinning from the concept of legitimation. On a generic level, legitimacy and legitimation are two of the most central concepts in the social sciences (Berger and Luckmann 1987). They are seen as closely related to the notions of authority, power and ideology (Granlund 2002). Legitimacy refers to the congruence between an entity under consideration and its cultural environment (Deephouse and Suchman 2008). The subjects of legitimacy may involve all kinds of entities, such as structures, actions and ideas, whose acceptability is under close scrutiny (see also Goretzki 2013). In the field of organisational institutionalism, legitimacy issues have attracted increasing attention. In particular, many studies have focused on organisational legitimacy (Suchman 1995). Legitimacy may protect organisations from external pressure, since complete legitimacy implies that every goal, means, resource and control system in an organisation is seen as necessary and without an alternative (Meyer and Scott 1983, p. 201). Legitimacy includes several dimensions. For instance, the concept has been divided into three categories by Suchman (1995). Pragmatic legitimacy is based on self-interested meaning calculations, moral legitimacy refers to normative evaluations and cognitive legitimacy relates to taken-for-grantedness and comprehensibility.

The concepts of legitimacy and legitimation are closely intertwined. Legitimation is a process during which the legitimacy of a subject is created and it may change over time (Deephouse and Suchman 2008). Legitimation is a subjectively and collectively constructed perception as it relates to the considered appropriateness of particular actions, such as the adoption of ERP systems in respect of this study (Vaara and Tienari 2008; see also Granlund 2002). Legitimation often resonates with technical and functional properties originating from the entity under scrutiny (Suchman 1995). However, there are emerging accounts of the ways in which legitimation can be constructed by drawing upon linguistic devices. These studies also link legitimation to intricate power relationships among the actors involved (Vaara and Tienari 2008). To create a sense of positive and beneficial action in a specific setting, legitimation can be constructed by using different legitimation strategies. (Vaara et al. 2006, pp. 797–804) identified five legitimation strategies that can be employed in attempting to legiti-

mate contemporary organisational phenomena. Their strategies deal with discursive legitimation, which refers to the use of language in the construction of legitimation:

- Normalisation is legitimation by reference to normal or natural functioning or behaviour. It exemplifies "normal" function or behaviour.
- Authorisation is legitimation by reference to authority. This strategy attempts to authorise claims.
- Rationalisation is legitimation by reference to the utility or function of specific actions or practices. It provides the rationale.
- Moralisation is legitimation that refers to specific values. This strategy provides the moral and ideological bases.
- Narrativisation is legitimation by using narrative structures to concretise and dramatise. Telling a "story" provides evidence of acceptable and appropriate behaviour.

The legitimation strategies regarding the ways in which the legitimation can be carried out evolved from the work by Van Leeuwen and Wodak (1999). These strategies offer analytical tools to analyse the discursive, often politicised, elements related to the legitimation of significant organisational actions. The ways in which to construct legitimation, however, are often context-specific (Vaara and Tienari 2008). While Vaara et al. (2006) concentrate on the legitimation of industrial restructuring in the media, this study sheds light on the legitimation of ERP system adoption by focusing on textual practices that are carried out by the software developer. Based on a review of the previous literature, this study is conducted to answer the following research question: *How is the legitimation of ERP system adoption discursively constructed through the journalistic practices of the software vendor?*

3 Methodology

3.1 Research approach

This study draws from the qualitative research tradition (Silverman 2000). More specifically, a CDA approach is adopted in the paper. In parallel, the study can be labelled as a case study, since it focuses on legitimation practices carried out by a single accounting software company. CDA is an interdisciplinary research approach that pays attention to the use of language in the construction of reality. It views language as an important form of social practice that resonates with broader socio-cultural practices (Fairclough 1995a, p. 6). This insight implies that different social phenomena, such as institutional changes (or the adoption of ERP systems in this study) and power relationships taking place in contemporary society, have linguistic characteristics. CDA evolved from Fairclough's influential books (e.g., 1992), but recently, this interpretative research approach has become more familiar among researchers of organisations (e.g., Vaara and Tienari 2008) and management accounting (e.g., Seal 2010). It can be argued that in qualitative management accounting research, especially in its case-based form, language has traditionally been seen as a medium for information exchange between a researcher and informant (see Vaivio 2008; Ryan et al. 2002). However, during recent years, management accounting scholars have increasingly begun to recognise how

language, as an important area of social practice, constructs social and organisational realities in which management control-related meanings are also intimately embedded (Cooper and Ezzamel 2013).

There are a few central tenets that characterise the CDA approach. First, CDA attempts to make visible the taken-for-granted assumptions occurring in society, including the possible existence of unbalanced power relationships between different kinds of actors (Vaara et al. 2006). Legitimation may contain a top-down orientation in which a dominant actor attempts to legitimate itself through approval from the dominated (Vaara and Tienari 2008, p. 986). Second, texts are linked intertextually to other texts and discourses are linked interdiscursively to other discourses (Zhu and McKenna 2012, p. 530). In light of this, texts and discourses should be understood in the context of their production (Leitch and Palmer 2010). Seal (2010, p. 18) argues that discourses are accessed through the study of texts and cannot be observed directly. In this study, the discourse is understood as a central social practice that occurs in text and talk. Discourses are influenced by social conditions, but discourses also construct reality (Fairclough 1995a). Against this backdrop, discourses are far from neutral, ideology-free zones. Third, CDA encourages the analysis of discourses on institutional, social and textual levels (Fairclough 1995b). These levels are arguably overlapping and, hence, they are not necessarily strictly distinguishable empirically. However, this does illuminate how texts should be treated in relation to other texts within the data corpus in question, as well as in relation to the institutional setting.

Finally, it can be argued that CDA is a relevant approach with which to analyse the legitimation of ERP system adoption. Besides the technical merits of ERP systems, it is possible to construct the legitimation for their adoption by referring to the different discourses that are produced to portray the phenomenon as an acceptable and beneficial action (Vaara and Tienari 2008). Recently, CDA has been an increasingly popular approach in accounts concerning the social construction of radical organisational manoeuvres (e.g., Leitch and Palmer 2010). It is crucial to understand that CDA is intended to comprise an integrative research approach for scholars from a wide range of disciplines (Chouliaraki and Fairclough 2010). Although CDA involves an inherently critical research orientation, this does not imply that the researcher should condemn the emergence of ERP systems and their linkages to the area of management control. More appropriately, ERP systems have had such a consequential effect on management control practices (Dechow and Mouritsen 2005) that methodological advances to further the understanding about the role of ERP systems in contemporary organisations should be welcomed (see Grabski et al. 2011, p. 66).

3.2 Data collection

The empirical setting of this study focuses on Visma Software. Visma is a Norwegian-based accounting software and services company that bases its most notable operations in Scandinavian countries. In 2011, Visma's turnover totalled circa 690 million euro. Over a third of its revenue comes from the software segment, which comprises products for ERP, customer relationship management, human resource management and payrolls. Visma Ltd. (a Finnish subsidiary) offers a wide range of accounting software packages for a clientele of circa 40,000 companies. The empirical section focuses

Table 2 Outline of the data

Volume	No. of issues	No. of ERP articles	No. of text segments
2002	3	13	68
2003	4	13	66
2004	1	2	9
2005	2	5	15
2006	2	6	12
2007	2	2	7
2008	3	4	24
2009	3	6	31
2010	2	2	7
2011	2	3	16
2012	1	1	5
Total	25	57	260

on Visma for the following reasons: First, Visma is a notable software company in Finland. Previously it was a Finnish-owned company until its acquisition in the early 2000s. Arguably, it is much smaller than some world-class software companies, but it is considerably bigger than many of the local players. Second, Visma also provides applications that are explicitly labelled as ERP systems. It should be emphasised that Visma mainly concentrates on small and medium-sized enterprises in Finland. Third, Visma regularly publishes a customer magazine called VISMAgazine as a part of its corporate communication in Finland. The magazine provides accounts of how ERP adoptions are portrayed on the software vendor side. Its articles are mostly produced by employees of Visma.

The empirical material of this study comprises issues of VISMAgazine that were published between 2002 and 2012. As Table 2 indicates, the data include 25 issues. Volumes from 2005 to 2012 were obtained from the software company's web page in PDF format. Previous volumes from 2002 to 2004 were requested from the vendor's archive. It is possible that the 2002 volume lacks one issue and the 2004 volume lacks two issues. Data collection took place in various phases: First, all of the material was glanced through and articles related to ERP systems were identified. The specific search words used were ERP, ERP system, enterprise resource planning and enterprise resource planning system. Considering that Visma offers conventional accounting applications as well, attention was directed to products that were labelled as ERP systems. These systems were Visio3, Liinos6, Visma L7, Visma Nova and Visma Business. To become confident that they really were ERP packages, the researcher got in touch with a representative of Visma and users of these systems during the research project. In this phase, the materials comprised a mixed bag of articles such as editorials, news-like announcements and bulletins, customer stories and advertisements. After that, special attention was paid to articles that discussed ERP system adoption on the firm level. These articles were considered as the most interesting, since they provided more authentic tales from the field dealing with ERP adoptions in enterprises.

Fifty-seven articles were eventually found. Then all of the articles were carefully read through again. As recommended by Suddaby and Greenwood (2005), special

attention was paid to text segments in which the author of an article or the speaker in an adopting enterprise explicitly referred to the adoption of an ERP system that had taken place at the firm level. As a result, 260 text segments were identified. Selected text segments included headings, sentences and even complete sections. The length of the text segments was determined by the researcher's ability to sufficiently understand the meaning and context of a text segment (see Greenwood et al. 2002, p. 66). This was often rather easy, since the articles tended to have a narrative structure, and it was easy to gauge how and why particular text segments were used in the text. The decision to focus on text segments brought the data into a manageable form. This orientation gave the opportunity for more detailed data analysis: It was increasingly comfortable to investigate different arguments, themes and their recurrence on the level of individual text segments. In addition, later categorisation of the text segments was more effective since the bulk of text segments enabled increasingly fluent data retrieval. At the same time, it was recognised that this analytical orientation might reduce the researcher's attention in terms of the ensemble of textual materials. This potential pitfall was avoided as the text segments were not physically extracted from the totality of 57 articles. Thus, the text segments were used in the context of an original piece of text. The potential risk of inaccuracies in the determination of text segments was reduced as the researcher dealt with the text segments in various phases of the data analysis.

3.3 Data analysis

The data analysis proceeded in stages, as Table 3 illustrates (see Suddaby and Greenwood 2005, p.45). In stage 1, the main argument in every text segment was recognised. The arguments comprised reasons and statements for the adoption of an ERP system. Sometimes the spelling out of the argument required reading between the lines due to rather vague writing in the text segments. This analysis was carried out in a systematic and elaborate manner. In stage 2, a key theme in every text segment was identified. This stage in the data analysis supplemented the results of stage 1, since this analytical procedure enabled us to contextualise the main argument for ERP system adoption. Moreover, it was now possible to accurately track where the legitimation construction, involving the key argument, emerged within the chronological frame of ERP system adoption. The distinguishable themes that emerged covered the different phases of adoption, such as the decision, implementation and usage phases. In stage 3, all of the text segments were assessed and attention was paid to the legitimation strategies that were emerging within them. This was carried out by using the legitimation strategies recognised by Vaara et al. (2006). Consequently, the bulk of the text segments was organised into four categories: normalisation, authorisation, rationalisation and moralisation. The fifth type of rhetorical strategy by Vaara et al. (2006), narrativisation, was not used, since the researcher got the impression that the data tended to have a more or less narrative-style structure in respect of writing, as the authors of the articles seemed to follow the ideas of narrative journalism in writing. In this light, the elaboration of narrativisation as a legitimation strategy would have appeared as self-explanatory because the legitimation constructions eventually rest upon narratives in this specific

Table 3 Phases of data analysis: five examples

Original text segment	"The decision cut 60 per cent of controller Elina Kytömäki's working time and brought more peace of mind for her as well."
Stage-one coding (argument)	Reason: accounting processes
Stage-two coding (theme)	Locus: ERP usage
Stage-three coding (legitimation strategy)	Rationalisation
Stage-four coding (legitimating discourse)	Rationality
Original text segment	"'Our future is characterised by digitisation because our young customers are accustomed to using them [services] and they even demand services in digital format,' says Jarmo Ojalainen."
Stage-one coding (argument)	Reason: future, electronic business
Stage-two coding (theme)	Locus: ERP decision
Stage-three coding (legitimation strategy)	Moralisation + rationalisation
Stage-four coding (legitimating discourse)	Modernity
Original text segment	"The change of enterprise resource planning system became timely in Rohdos-Ala [the company] when the legacy system turned out to be too inflexible in business routines and product development did not meet the needs of Rohdos-Ala anymore."
Stage-one coding (argument)	Reason: legacy system
Stage-two coding (theme)	Locus: ERP decision
Stage-three coding (legitimation strategy)	Rationalisation
Stage-four coding (legitimating discourse)	Evolution
Original text segment	"The low level of Visma's operating costs came out in system mapping that had already been carried out by an external consultant in 1999."
Stage-one coding (argument)	Reason: costs, consultant
Stage-two coding (theme)	Locus: ERP decision
Stage-three coding (legitimation strategy)	Rationalisation + authorisation
Stage-four coding (legitimating discourse)	Authority
Original text segment	"Due to the tight schedule, we were primarily looking for a system that was easy to use and novel. One should not invest considerable time in learning and wondering."
Stage-one coding (argument)	Reason: [easy] implementation
Stage-two coding (theme)	Locus: ERP decision
Stage-three coding (legitimation strategy)	Rationalisation + normalisation
Stage-four coding (legitimating discourse)	Mundanity

context. Moreover, narrativisation as a legitimation strategy does not contain a clear argument in contrast to other legitimation strategies. The primary argument appearing in a text segment determined the subsequent legitimation strategy, but often a text segment included references to multiple strategies because of the interpretative viability in the segment.

In stage 4, the ways in which the legitimation strategies were used in relation to arguments and themes were analysed. Then, the researcher realised the richness and complexity in the legitimation constructions. They were not possible to capture by using the frames of the legitimation strategies. During the analysis, it had become obvious that the arguments for ERP adoption often included references to issues involving social and societal dimensions. Now the attention was centred on ways in which the text segments formed legitimating discourses compared to the legitimation strategies. As a result of the procedure, five specific legitimating discourses were constituted. During their formation, the legitimation strategies became reconstructed: For instance, the moralisation strategy emerged into a modernity discourse. Overall, these legitimating discourses provide more nuanced characterisations of legitimation practices in this particular setting. It should be noted that the data analysis was still an iterative process, during which the researcher came back to the data several times.

4 The legitimating discourses

This section presents the results of the empirical analysis. The legitimating discourses refer to discursive practices that are mobilised by the software company to portray the adoption of an ERP system as an appropriate action. A company operating in the software industry serves as the institutional setting for this study, while the company's customer magazine offers a more situational context. Against this backdrop, the empirical materials that portray the experiences of ERP adoptions in Finnish enterprises are both enabled and constrained by the institutional setting. Text excerpts in which certain discourses are easily recognisable are used in the present section for illustrative purposes. These have been translated into English. It is crucial to point out that the purpose is not to examine the frequency of different discourses.

4.1 Rationality discourse

The first distinguishable discursive practice is a rationality discourse. Rationality as a term refers to actions and activities that are regarded as necessities because of the utilities derived from them (see Vaara et al. 2006). Rationality discourse relates to reasoning produced by the software vendor in which the values relating to the adoption of ERP systems are assessed in terms of their economic, functional or technical superiority. Against this backdrop, rationality arguably represents legitimation in its 'purest' form (see Townley et al. 2003).

In VISMAgazine, the ERP adoptions are represented as rational and reasonable actions in organisations. The rationality discourse comprised the dominant discourse in the data. References to rationality occurred regularly in the texts over the years. This is not particularly surprising, since ERP adoptions are generally portrayed as technological solutions to diverse organisational problems (Dillard and Yuthas 2006). The discourse includes various arguments that are common in the domain of accounting. The discourse tends to accentuate the usage of ERP systems. The following excerpt, narrated by an administrative manager in a medium-sized enterprise, epitomises the

connection between ERP adoption and rationalistic motives by referring to management accounting practices:

> Our main objectives regarding implementation of Visma L7 were the rationalisation of operations, elimination of overlaps, development of reporting, ensuring transparency in operations, improved control and guidance and, consequently, cost savings. (2/2009, p. 19)

In this quote, ERP adoption is understood as an action that may bring various economic and organisational impacts. Indeed, several articles contain descriptions of how ERP adoptions enable enterprises to develop and streamline their processes. One typical example is in cutting out routine tasks and, probably, overlapping tasks. Sometimes descriptions concerning the redesign of accounting diminished the content of the accountants' previous work: the tasks were increasingly characterised as 'donkey' work. As the above quote implies, allusions to the rationality discourse are often reported from the perspective of managers. A typical assumption is a prolonged association between the system and the enterprise: the system's scope and rigour in its use increase as time goes by. Besides rather vaguely written performance-related arguments, there are references to management control. In the following excerpt, ERP adoption is explicitly coupled with management control initiatives:

> "The work has to focus on actions for which customers are willing to pay. Compilations of statistics, reporting etc. are very important information sources for a company but they do not offer value for customers that buy our products. Hence, this information has to be produced 'at the push of the button'. Various reporting templates and their modification possibilities work like this," says the administrative manager Asta Kentta at Hiipakka Group. (3/2009, p. 9)

The above quote acknowledges the contribution of ERP adoption to issues related to management control. Due to the ERP adoption, management control practices, such as information generation and reporting, are represented as easy procedures. A somewhat evasive tone towards the complex nature of management control can be observed.

The rationality discourse also comprises references to integration. The ways in which ERP adoption may link different systems and functions together within enterprises is discussed. Unsurprisingly, the articles portray ERP adoption as a chance to create organisational integration. In particular, the role of spreadsheet applications in ERP environments appears regularly:

> The chief accountant Raija Palonen continues that links between Liinos6 and Excel, and linkages of information to each other and to bookkeeping bring new possibilities for economic follow-up activities in the future. (2/2002, p. 13)

This excerpt demonstrates that system integration, with special reference to spreadsheets, appears to be a tricky issue in the ERP context. However, it is noteworthy that the comment is now narrated by an accountant. In rationality discourse, accountants are quite often represented as active actors. The adoption usually has an impact upon accountants' tasks and responsibilities and, thus, accountants can appears as important champions of improved accounting practices. The quote below offers a good example:

Accountant Sirpa Siponkoski reminisces that previously the [financial] information was not so trustworthy in the firm. "Now the economic follow-up activities are based on facts, and we can be confident. Every cost and invoice will be processed in proper way." (1/2004, p. 13)

In sum, the rationality discourse represents ERP adoption in a positive manner in which new technology is expected to deal with diverse practical and functional issues in organisations, often related to accounting. The discourse is filled with optimistic beliefs about advanced information systems.

4.2 Mundanity discourse

Mundanity is the second legitimating discourse that is distinguishable. Mundanity discourse relates to human conduct in which a certain behaviour is represented as a normal function (see Vaara et al. 2006). The discourse also resonates with arguments according to which certain behaviour can be regarded as self-evident without a particular need for reasoning, speculation or questioning at a given moment in a given setting. Herein, the notion of mundanity is used instead of normalisation (Vaara et al. 2006), as it can better illustrate how the spread and adoption of ERP systems is portrayed in the texts as commonplace and natural.

Incidences of mundanity as a legitimating discourse are not consistent over the years. Its occurrence begins to increase towards the end of the 2000s. The main themes in the discourse are decision and implementation processes regarding ERP adoptions. The mundanity discourse is interwoven with a rationality discourse and, hence, is not easily recognisable:

"Our choice about Liinos6 was easy as it seemed to be a clear and integrated entity. The most significant criterion for choice was absolutely the application service provisioning. Because we do not have to take care of updates, maintenance and support any more, we do not need a particular computer-support person. We can concentrate more on the development of our own activities," rejoices Juhani Ruskeepää. (4/2002, p. 5)

Here, ERP adoption is understood as an obvious thing, referring to normal and self-evident behaviour. Still, a tone of rationality is present, as technical and functional arguments regarding the adoption are expressed. It can be argued that the adoption is also reported in a relatively neutral manner: excessive phrases about the package's superiority are absent. However, the representation of the system and its adoption as commonplace is somewhat paradoxical since extensive references to mundanity may diminish the unique aspects of ERP adoptions (see Dechow and Mouritsen 2005). It is crucial to recognise that ERP adoption takes place through application service provision, where the use of the ERP system is regarded as a service. This illustrates a situation in which a new technological feature may reduce the original impression of the 'primary' concept.

References to the mundane character of ERP adoption occur often in lengthy and detailed descriptions of accounting software change projects. These stories have a tendency to appear as similar in structure: a legacy system comes to an end, triggering a software change initiative during which alternatives for the new system are mapped,

evaluated and eventually decided on. The excerpt below epitomises the production of a mundanity discourse:

> Thorough decision process [The subtitle]
> The partnership between Meconet Ltd and Visma has already exceeded eight years, during which the Visio3 system by Visma has been in use. At the beginning of the search for a new enterprise resource planning system, […] four different system solutions were under consideration at Meconet, and one of them was Visma L7.
> For the selection process of the enterprise resource planning system at Meconet, a group of six people was formed, of which all members represented different functions of the enterprise. From each of the four vendors, product demos and presentations were asked for, which took two days per vendor. Offers with particular definitions were asked for from the vendors and altogether a couple of months were used up in prequalification of the systems and balancing the issues. The Visma L7 solution hit the finishing line as the winner in tendering. System selection was mostly down to price and a short implementation project. (2/2008, p. 14)

There are a few issues that should be emphasised. Every phase in the process carefully attempts to imply that everything has been done according to the 'standards' of natural behaviour. The text is written in order to appear transparent. The journalistic style is dry and tedious, resembling almost expert-like writing in which a 'journalist' tries to be convincing and authoritative. The excerpt also has a passive tone in which the active agencies involved in the process are disembodied. Finally, the ERP adoption is portrayed as an unquestionable outcome of the narrative.

In sum, references to mundanity construct an independent, albeit rather ambiguous, discourse to legitimate the adoption of ERP systems. Texts within the mundanity discourse typically lack praise, which makes ERP systems appear as natural and commonplace entities. Admittedly, the emergence of the mundanity discourse may decrease the efficacies of the other legitimating discourses.

4.3 Modernity discourse

The next discursive practice is termed modernity. The notion of modernity is employed to refer to large and continuous processes of change in contemporary society accompanied by manifestations of competition, globalisation and technologisation. Enterprises have to be modern in order to survive and develop and, consequently, companies tend to define themselves against the 'others' in relation to competitors, customers and the whole surrounding society (Brunsson 1989). In light of this, they allegedly share a common understanding of an image of a modern organisation and its ideal attributes (see Sevón 1996). The modernity discourse justifies the adoption of an ERP system through the attributes of a modern enterprise.

The modernity-related constructions tend to be located in decision phases regarding ERP system adoptions. Modernity discourse is present in the early years of the 2000s, but its incidence starts to decline towards the end of the decade. In the data, there are

many examples of how the legitimation of ERP adoption is constituted by referring exclusively to modernity:

> "We are an innovative forerunner of technology. We constantly improve our activities and we are always one jump ahead of others. We also strive to be number one in the future and we can refine our striking power better with the Liinos6 enterprise system. After a successful user experience of two years, it is good to start to automate the procurement chain from beginning to end," underlines deputy managing director and chief financial officer Eero Virtanen from PCE Engineering Oy Ab. (4/2003, p. 14)

The excerpt above constructs a view in which the enterprise is portrayed as operating in an extremely competitive institutional setting. Values such as innovativeness and forerunning are perceived as important attributes that an enterprise has to possess. Subsequently, the emergence of competition is coupled with the exploitation of information technology. More precisely, the ERP system is represented as an instrument that is needed to weather tough competition. It should be noted that the personal pronoun 'we' is used actively in the text. This writing style reinforces the impression of the enterprise as an ambitious and goal-oriented entity. It is also noteworthy that the person who describes the adoption process comes from the managerial echelon.

Additionally, a modernity discourse emerges in texts concerning advances in information systems. Companies are portrayed as being aware of the technological changes taking place in society where many things are carried out in electronic format. These texts construct a view in which enterprises have to engage themselves with electronic features because all of the 'others' are involved. Admittedly, ERP systems are represented as a point on a continuum towards this kind of information society (Castells 2000).

Modernity discourse also involves arguments connoting globalisation. Sometimes, enterprises are represented as operating in an international context. Not just large companies, but also small and medium-sized enterprises are confronted with challenges arising in the age of globalisation. The quote below, spoken by an administrative manager, is an example of a modernity discourse where an international emphasis is present:

> "At the moment, Liinos6 is in use in Australia, Texas, France and Germany, besides Finland. We strongly believe that Liinos6, for one's part, helps us on the road to innovativeness and internationalisation. It is a tool that offers solutions for this day and the future," Ulla Savisalo highlights. (2/2003, p. 11)

Again, the excerpt constructs a view in which an ERP system is interpreted as a tool that is needed in order to cope in the global arena. While the text places the emphasis on the wider environment around the company, the local company-level circumstances are downplayed at the same time. The text is overwhelmingly managerialistic and, hence, flamboyant. Thus, the modernity discourse is characterised by certain degree of vagueness and generality. This is illustrated in the following quotation from the managerial person:

"The decision to adopt [new] system improves the fluency of our work and decreases unnecessary handwork. So we can better make right things at the right time." (2/2002, p. 8)

In sum, it can be argued that the modernity discourse deals with a view of how enterprises perceive themselves within the 'bigger picture'. This view, however, is constructed by the software vendor and, hence, the adoption of an ERP system is embedded in the image of a present-day organisation.

4.4 Evolution discourse

Evolution comprises the fourth legitimating discourse. Evolution refers to changes that take place in gradual ways in society. From this perspective, different structures and practices develop and evolve incrementally in organisations as time goes by. Herein, evolution discourse connotes legitimation that is constructed by referring to evolutionary, seemingly inevitable processes (see Djelic 2008).

Evolution constructions are strongly evident in the texts over the years. ERP adoptions are legitimated by referring to the existence of technological trajectories regarding accounting software. The discourse is situated in the decision and implementation phases concerning the adoption of ERP systems. Many articles begin with detailed descriptions of preceding situations in organisations. These occasions are often characterised by difficulties springing from legacy systems. ERP adoption provides a natural solution to the increasing issues. The following excerpt offers a good example of the formation of an evolution discourse in which a reference is made to the past:

> Previously, enterprise resource planning at Norris Cosmetics was carried out by relying on an outdated character-based operating system, which had outrun its maintenance a long time ago. Entrepreneur Laakkonen mapped the available systems and ended up with the Visma Nova solution. It appeared that we really had to replace the system. We wanted a system that could be used in stock control, in the order-to-delivery process and in stocktaking. (2/2011, p. 18)

Admittedly, the concept of a legacy system is a common notion within evolution discourse. This quote illustrates that the company had to abandon its previous system: product support activities had been discontinued and the system had become increasingly obsolete. This demonstrates the reliance of a company on its (unknown) software vendor, as the vendor has the power to dictate which products are supported at a given time. The quote also reveals that the concept of a legacy system is problematic. The citation begins with a reference to ERP, but the subsequent reference to a character-based operating system irresistibly connotes obsolete technology. The citation intimates that the software vendor has the power to use labelling somewhat freely. Additionally, ERP can be understood not only as an information system, but also as a practice. The following example portrays a situation in which technological determinism is especially clear, as the adopter is Visma's existing customer:

> Collaboration between Visma and Aro Group covers almost a decade. Sähkö-Aro Ltd. had already implemented the Visio3 system in the late 1990s. OVL

Tekniikka Ltd, Oulun Vesi ja Lämpö and Hanakkatalot have been Visio3 users since 2001. Last year it was switched to the Visma Liinos6 system that was updated to L7 this spring. During the update, enterprise resource planning of different companies was incorporated into the same environment. The system update became topical when we noticed that we needed new properties such as electronic invoicing and invoice circulation that could not be put into the old Visma Visio3 system. Besides, we were interested in increasing […] data transfer between different interfaces. (3/2008, pp. 18–19)

In this case, the company acquired a new system from a familiar vendor; the existing software package no longer met the company's requirements. It is noteworthy that the tone of the text can be regarded as more positive compared to the previous excerpt. The impression of some sort of annoyance towards the imperative is absent. It should also be noted that the term 'update' is used in the quote. The transition from the legacy system to the novel package is considered a smooth process and is portrayed as a natural move. The attributes of a more contemporary software package are produced through the accounting-related capabilities. Again, the legacy system is labelled as ERP.

In sum, it can be argued that evolution discourse distinctively contributes to legitimation. Although the evolution discourse involves references to the past, it also deals with power, as it may comprise circumstances of lock-ins in terms of available products or vendors, in which a company is left with few choices. Interestingly, the materials lack situations where the legacy system would explicitly comprise several stand-alone systems. Instead, many legacy systems are intrinsically associated with the ERP label.

4.5 Authority discourse

Finally, the texts involved authority-related constructions as well. Herein, authority discourse relates to discourse in which the construction of the legitimation of ERP system adoption is attempted by referring to authorities (Vaara et al. 2006). Authorities are typically different institutions, organisations, bodies and other collectives as well as professions and public figures. Authoritative appeal may arise not only from legislation and agreements, but also from commonly shared beliefs, norms and conventions. In light of this, a sense of authority is subjectively constructed depending on a particular social setting.

References to authorities contain a rather diverse group of authoritative actors. They are mostly located in the decision phase concerning the ERP adoption process. It is noteworthy that the actors may appear as internal or external in relation to an enterprise that adopts an ERP package. The excerpt below constructs a view in which an accountant is regarded as an authority in ERP adoption, especially in the decision phase. Here, an accountant is viewed as an expert who is highly involved in an initiative that is as demanding as a change in the information system:

"From one man's enterprise, it has grown into a workplace of 22 people over the years. During spring 2003, people in the Gammelbacka Kiinteistönhoito [real estate management and maintenance] company began to consider a renewal of

their information system; the old DOS-based system had already served many years. Now they also wanted to map alternatives from other vendors. The accountant asked for demonstrations and offers from vendors. Employees of Gammelbacka Kiinteistönhoito were present at the demonstrations that took place at the enterprise. Already from the beginning, the most important criterion for the new system was that it was an enterprise system. A system for housing management and financial administration should be provided by the same vendor," sales secretary Leena Hyvättinen explains. "Two software packages were in the final running, of which Liinos6 came out on top […] It met the needs of employees as clear and solid, as a Windows-based package," accountant Kati Vuori thinks back. "When the board had accepted the choice of the employees concerning Liinos6, a day for planning the implementation was held." (4/2003, pp. 16–17)

A few points are noteworthy in the text above. Here, ERP system adoption is justified by the managerial echelon by referring to calls from the employees. The decision about adoption is considered as a deliberative and democratic process in which 'shop floor' employees are involved. Employees even make the actual decision about the system that is later confirmed by the managerial level. It should also be noted that an accountant and a sales secretary are key narrators in the excerpt.

In addition to accountants and controllers, another professional group that is used as a point of reference in the texts is the people responsible for information systems. The appearance of information systems experts unsurprisingly relates to views that consider ERP adoption as a technical matter. However, their involvement in descriptions of ERP adoption processes is relatively minor. If a person responsible for information systems was present in the adoption process, he or she appeared only in a consultative role, without an active agency.

Since some of Visma's ERP products are designed to meet the needs of diverse industries, the software company attempts to represent its solutions as industry standards. Therefore, the vendor gathers an extensive list of companies that have successfully adopted its systems. The following excerpt illustrates the significance of successful users in the decision to take up a new system:

Managing director Ryyppö continues that he has followed the development of Liinos6. "In professional circles it has been praised a lot. We began the negotiations about Liinos6 in spring this year. The final push for a choice took place on property manager days in Pori in September." (4/2002, p. 4)

Here, legitimation is constructed by referring to the influence from a professional body. The notion of a 'circle' should be emphasised. It implies that a professional body or group of colleagues is more informal. The excerpt indicates that the benefits of the system are spread by word of mouth within professional settings. This kind of tacit information can arguably be regarded as more reliable. However, note that the impetus for the new software package came before the professional event that is mentioned in the citation.

In sum, it can be argued that the authority discourse specifically supplements legitimation efforts. It is evident that the companies appearing in the texts were chosen to convince the reader that ERP system adoption is a realistic action for a variety

of enterprises. Consequently, all of the articles are written to appeal as authoritative.

4.6 Summary

In the analysis, the focus was on the research question: How is the legitimation of an ERP system adoption discursively constructed through the journalistic practices of the software vendor? As a result of the analysis, five legitimating discourses were identified, which are summarised in Table 4. On a generic level, the research suggests that different alternatives to construct legitimation exist.

Rationality discourse portrays the adoption of an ERP system as an action that has a certain utility. ERP adoption is justified by drawing upon overtly rationalistic motives. Arguments within this discourse relate to the domain of accounting, such as accounting processes, economic performance, management control and organisational integration. Consequently, it mostly focuses on usages of ERP systems in enterprises. In the materials, this discourse comprises the primary discourse that occurs over the years. Mundanity discourse provides a contrast to the ratio-

Table 4 Overview of legitimating discourses of ERP system adoption

Legitimating discourse	Key theme in the discourse	Example of the discourse in the data
Rationality	Usage	"Nova applications are widely used in financial and materials management. Nova has been perceived as an effective tool in speeding up an order-delivery process at Logset." (2/2005, p. 9)
Mundanity	Decision, implementation	"The selection process was carried out as a thesis project by comparing different systems and by asking about user experiences of the system's prevailing users." (1/2007, p. 21)
Modernity	Decision	"'New functionalities have fully met the expectations. We are increasingly striving for an electronic world,' Pekka Sihvola reflects." (3/2008, p. 19)
Evolution	Decision, implementation	"There were six different systems under consideration, but we eventually ended up choosing the newest software version from the familiar and safe vendor." (3/2008, p. 20)
Authority	Decision	"With the help of a consultant, we decided on the Visma L7 system after lengthy negotiations." (3/2009, p. 10)

nality discourse. It attempts to portray ERP adoption as a commonplace and natural action without an overwhelmingly radical character. Decision and implementation processes are common themes that appear in this discourse. Modernity discourse portrays ERP adoption against the 'common' attributes of a 'modern' enterprise. Typical arguments within this discourse focus on the competition and pervasiveness of technology that exist in the contemporary business environment. In this light, modernity discourse deals with similar issues as the rationality discourse, but it is less pragmatic. It mainly revolves around decisions to adopt ERP systems. Evolution discourse portrays ERP adoption as the outcome of an evolutionary trajectory during which previous systems become obsolete. The notion of a legacy system appears regularly within this discourse. The discourse contributes to legitimation independently, but it is also associated with the modernity and mundanity discourses. Within evolution discourse, it is acknowledged that companies adopt novel systems to stay modern. However, now the impetus for the change is more striking, as it originates from the software vendor. In respect of mundanity discourse, the unique appearance of ERP adoption may be diluted when the adoption is characterised as a continuum from an existing system. The discourse is situated in the decision and implementation phases regarding the adoption. Finally, authority discourse means legitimation that is constructed by referring to different actors and institutions that have authoritative appeal. It mostly focuses on the decision phase.

5 Conclusions

To supplement earlier studies on ERP systems in the field of management control and accounting, this paper aimed to improve the understanding about the legitimation of ERP system adoption that is constructed by a software vendor. Such an objective was carried out by relying on the CDA approach (Fairclough 1995a) that centred on articles published in a customer relationship magazine of a prominent ERP software vendor. As an outcome of the analysis, the study offers the following contributions for research on ERP systems in the broad area of management control and accounting research.

The study contributes to the stream of research that has commented on the appearance of ERP systems in organisations. In this kind of inquiry, the design and use of ERP packages is increasingly coupled with the rhetoric of objectivity (Chapman 2005). Dechow and Mouritsen 2005 argue that the execution of management control in ERP contexts is greatly based upon representations: ERP systems are often viewed as value-free and trusted instruments that make visible the hard facts regarding financial performance (Dillard and Yuthas 2006; Chapman 2005). The present analysis demonstrates that rationales for ERP system adoptions and their organisational significance are discursively constructed. These discourses construct the meaning and value for adoptions of ERP systems. Earlier research tends to emphasise that the legitimation for ERP system adoption greatly rests upon rationalistic arguments. The systems are perceived as rational entities that are ultimately required to contribute to the economic objectives of an organisation (Dillard et al. 2005, p. 119). This critically oriented

detailed analysis illuminates how the legitimation of ERP system adoption is far more multifaceted in its construction. A purely economic and rationalistic emphasis is too narrow a perspective from which to approach ERP systems and their adoption, since these systems, as organisational phenomena, are far from unarguable. Four sources result in the multifacetedness of the legitimation constructions. First is the multiplicity in the legitimating discourses. Besides the merely rationalistic discourse that is often considered as the most inherent, there are several alternatives to legitimate the adoption of an ERP system and construct it as an appropriate action (cf., Vaara et al. 2006). These legitimating discourses offer distinctive views about the legitimation that may easily remain unrecognised. Second, the discourses are intimately interrelated with each other and overlap. Several legitimating discourses can occur within one narrative (cf., Zhu and McKenna 2012). A text section, for instance, may begin with an evolution construction, but the subsequent phrases consist of modernity and rationality discourses. Moreover, undertones from rationality and authority discourses are often present. In light of this, it would be somewhat difficult to investigate the frequencies of particular discourses. Third, the legitimating discourses may construct partly contradictory views about ERP adoption. Modernity is a considerably different legitimating discourse to mundanity. This kind of contradiction appearing in discourses arguably supports the motives of the software vendor regarding thorough legitimation, but may provide biased views about the easiness of adoption for potential adopters. This is important, since prior studies have documented how different misalignments may occur in the adoption of ERP packages (Kholeif et al. 2007). Fourth, legitimation efforts of the vendor take place in various phases within the frame of ERP system adoption. The analysis shows that rationality discourse, for instance, often concentrates on the usage of ERP systems, while the modernity discourse focuses on the decision to adopt an ERP system. Overall, the legitimating discourses that have been identified and elaborated on improve our understanding of how both the organisational and social significances revolving around ERP packages are constituted (Chapman 2005; Dechow et al. 2007). It can be argued that it is an active and constant process during which the software vendor attempts to construct legitimation.

In parallel, the study adds to the strand of research that focuses on the complex, often politically oriented characteristics of ERP system adoptions. While earlier literature has emphasised the existence of technical aspects in translating ERP systems into divergent contexts (Quattrone and Hopper 2006), this study improves the understanding of the discursive accommodation of these systems. The analysis shows how the software vendor has the capability of shaping the appearance of an ERP system and its connotations to constitute an impression of ERP adoption's appropriateness for different enterprises (Dillard and Yuthas 2006). However, the study resonates with the findings of Caglio (2003) and Newman and Westrup (2005), according to which ERP adoption may offer an opportunity for accountants to broaden their roles from bookkeeping-related tasks to financial management. In the empirical materials, ERP adoptions were often narrated by accountants and, hence, they were portrayed as actively engaging in processes of ERP implementation and usage. The texts also include descriptions about elimination endeavours concerning accounting routines. It is noteworthy that the tone of discourse for ERP system adoptions mobilised by the software vendor seems to have slightly changed within the time frame of the empirics.

Initially, articles about ERP adoptions were embodied by enthusiasm for advanced information technology, while the style of writing seemed to turn more moderate later on. In line with this observation, it has been argued that ERP systems were initially confronted by overtly optimistic beliefs that soon after their introduction started to tilt towards more conservative attitudes (Chapman 2005; Scott and Wagner 2003). It should also be pointed out that the number of articles about ERP adoptions seemingly began to decline in Visma's customer relationship magazine towards the end of the 2000s.

Furthermore, the study represents one of the first attempts to incorporate discourse analytical approaches into management control and accounting research (Cooper and Ezzamel 2013). The employment of the CDA approach enables the elucidation of the role of language in constituting reality and power relationships. In this approach, discourses are not seen as a neutral form of social practice, since they are often laden with manifold ambitions and ideologies. The CDA offers an analytical tool with which to make different discourses observable. Admittedly, some of them can be relatively easily recognisable, while other discourses may be hidden in an assemblage of texts. In this study, Visma Software represents a case in point. As a counterpoint to the prevalent orientation towards interview-based case study research in management accounting (Ryan et al. 2002, p. 154), CDA emphasises the essential role of language in the construction of different realities and important organisational actions, such as ERP system adoptions. In this light, the role of language encompasses more than the conveyance of information during the research process. Although the study considered the legitimation of ERP system adoption, it is crucial to realise that the empirical materials are derived from the software vendor. The study data were produced for communication and marketing purposes in an effort to increase the clientele of Visma. However, the study encourages management accounting researchers to use naturally occurring data in their empirics, as the data often unfold without intervention from the researcher. Such data are not dependent on the researcher's questions and provide an 'authentic' view of actual field-level developments (Silverman 2000; Ahrens and Chapman 2006).

Finally, the primary undertaking of this article is that ERP systems should be taken seriously by researchers as well. This phrase implies that researchers of management control and accounting should also increasingly investigate how ERP systems are described, expressed and represented on textual levels. Properties and effects of ERP packages are constructed in discourses that not only reflect but also constitute social reality. The study suggests that an ERP system as a socially conditioned and constitutive technology is open for negotiation and interpretation regardless of its seemingly superior merits, often considered as deterministic in nature. Even if the present study used the legitimation strategies identified by Vaara et al. (2006) as a basis of analysis, it is noteworthy that their analysis focuses on a representation of an industrial restructuring process produced by the media. This study, instead, has increased the understanding about the legitimation of a particular management concept that is constructed in concert with actors who have 'natural' roles in this process. To contribute to the discursive legitimation strategies, this study illustrates that legitimation construction efforts may be situated in different phases regarding the analysed phenomenon. The study by Vaara et al. (2006) pays little attention to the explicit locus

of legitimation. The study should also have practical relevance, since it is anticipated that the legitimating discourses that have been identified will be useful devices for managers in justifying the adoption of ERP systems or other accounting systems in company-level situations. For instance, the framework can be applied to legitimation construction efforts regarding SAP enterprise system adoption in the form of text or talk.

As with any research, this study is subject to certain limitations. It is evident that the software company under scrutiny is more or less a regional player compared to world-class ERP system providers. Thus, the study's data and findings should not be extrapolated too far (Leitch and Palmer 2010). Acknowledging the extant contributions in the field of management accounting, it would be particularly interesting to explicitly investigate how the legitimation of ERP systems is assessed in enterprises that have adopted these systems. This study did not analyse either the reception legitimating discourses mobilised by the software vendor nor their strategic intent. Limitations of this kind are typical in research that uses CDA (Leitch and Palmer 2010). Future research could examine how these legitimating discourses are eventually reflected in organisational settings. This would require a follow-up study resting upon the interview method. Moreover, studies addressing a conceptual understanding regarding ERP systems should be welcomed (see Emsley 2008), since it is possible that the systems may hold different meanings for different enterprises. It would also be interesting to analyse the use of rhetoric in the construction of ERP systems and to exclude their technical reality (see Nørreklit 2003).

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On the use of rhetoric in promoting enterprise resource planning systems

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Abstract

Purpose – The purpose of this paper is to improve the understanding of the rhetoric used to promote enterprise resource planning (ERP) systems, which are complex organisation-wide software packages inherently connected to the domains of management and organisation.

Design/methodology/approach – The study adopts a post-essentialist view on ERP systems and takes the form of a rhetorical analysis. Engaging in rhetorical scholarship in the area of technological change and management fashion literatures, this paper offers a close reading of a management text on ERP systems by Thomas H. Davenport published in 1998 in the *Harvard Business Review*.

Findings – The rhetorical analysis distinguishes and identifies three rhetorical strategies – namely, rationalisation, theorisation and contradiction – used to promote ERP systems and thus involved in the construction of the phenomenon revolving around ERP systems.

Originality/value – In spite of the importance of the rhetorical analysis of information technology in the context in which they operate, this paper argues that constructions of ERP systems should also be analysed beyond organisation-specific considerations. It further suggests that both researchers and practitioners should take seriously the rhetoric invoked by the well-known management writer that may easily go unnoticed.

Keywords Rhetoric, Management fashion, Technological change,
Enterprise resource planning systems, Rhetorical analysis

Paper type Research paper

1. Introduction

Enterprise resource planning (ERP) systems play a significant role in contemporary organisations (Dery *et al.*, 2006). It is increasingly difficult to find an enterprise that does not use an ERP system to structure its processes and operations. An ERP system is a modular software package that should integrate and coordinate the activities of an organisation's units. The widespread use of ERP systems has also caused researchers to pay considerable attention to these systems (Grabski *et al.*, 2011). Consequently, the existing research on ERP systems in the broad field of business and management reflects a range of different approaches (see Shepherd *et al.*, 2009). An increasing body of research examines how ERP systems and their applications emerge in the interpretations of different stakeholders (e.g. Shepherd, 2006). The interpretative flexibility of ERP systems enables them to accommodate to different organisational and social settings in which rhetoric, the art of persuasion, and more general discourse,

social practices appearing in text or talk (e.g. Fairclough, 1989), play central roles (see Grint and Woolgar, 1997). Thus, this paper discusses the rhetoric inherent in ERP systems.

In recent years researchers have recognised how ERP systems and their applications are socially conditioned. Software packages are invariably packed with promises of best practices (Wagner *et al.*, 2006) as software vendors employ rhetoric to highlight the special characteristics of their ERP systems (Nordheim, 2007). A discourse-analytical study by Rose and Kræmmergaard (2006) illustrates how identifying different organisational discourses can be an important tool for ERP implementation project management. Discourses shape the implementation, and the stakeholders may adopt discourses which differ from the deterministic discourse produced by software vendors or consultants (Grant *et al.*, 2006). The analysis by Light and Wagner (2006) implies that integration in the ERP context is a negotiable issue since the configuration tools of the packages, usually considered to be the main source for integration initiatives, rest upon sociotechnical practices. There are also studies examining how rhetoric and discourse construct ERP systems. A study by Shepherd *et al.* (2009) underlines that ERP systems are produced through discourse. The properties and implications of ERP systems are interpretatively flexible and constructed through the means which language affords. Likewise the justifications for their implementation are produced by invoking interpretative repertoires (Shepherd, 2006). These studies notwithstanding, there is still only little research on how ERP systems are constructed through the use of language. Moreover, the existing research focuses on organisation-specific implementation situations, while there is paucity of research on more generic promotion in which meanings and values are attributed to ERP systems. This is regrettable since different kinds of actors, remote from firm-specific circumstances, partake in the construction of the phenomenon inherent in technological change of this type (e.g. Westrup and Knight, 2000). In light of these considerations, this paper aims to improve the understanding of the rhetoric used to promote ERP systems.

This study adopts a post-essentialist view on ERP systems that paves the way for research showing how these systems are rendered accessible to human beings through interpretations and descriptions (Shepherd *et al.*, 2009, p. 84; see also Grint and Woolgar, 1997). The paper presents a rhetorical analysis that concentrates on the text, "Putting the enterprise into the enterprise system", by Thomas H. Davenport published in 1998 in the *Harvard Business Review*. That article arguably introduced ERP systems to the communities of business researchers and practitioners. In the present study, Davenport's article is taken to comprise more than mere text. The article is written by a management guru and published by a prestigious business magazine. Among researchers Davenport has been regarded as a highly influential writer on ERP systems (Dery *et al.*, 2006, p. 230; Light and Wagner, 2006, p. 216). Moreover, the literature suggests that both management gurus and the business press have significant roles in the dissemination and legitimation of contemporary management knowledge (e.g. Abrahamson, 1996; Graham and Williams, 2005; Nørreklit, 2003, Mazza and Alvarez, 2000). To achieve the aim of the study and partially fill the gap in the research so far, answers are sought to the following research question:

RQ1. What kind of rhetorical strategies promoting ERP systems can be identified in Davenport's text?

As a result of the analysis, the study identifies and describes three strategies that rhetorically construct ERP systems. These strategies are ways to constitute a sense of attraction for ERP systems.

Theoretically, this paper draws on the technological change (e.g. Symon, 2008) and management fashion (Abrahamson, 1996; Benders and van Veen, 2001) literatures, both of which have paid considerable attention to the application of rhetoric. Given the multifaceted nature of rhetoric (Gill and Whedbee, 1997; Hartelius and Browning, 2008), it is used here to refer to the available means of persuasion, which also extends to include argumentation. Even if rhetoric is inherently rooted in classical antiquity, its analysis is still an appropriate approach to enhance the understanding of the discursive elements of contemporary phenomena. As contemporary phenomena are also linguistic phenomena (Fairclough, 1989, p. 23), rhetorical analysis affords an increasingly humanistic approach to business and management research since it emphasises that persuasion entails not only reasonable arguments, but also a "good understanding of the feelings, motivations, purposes, interests and values of people" (Bonet and Sauquet, 2010. p. 122).

This paper is organised as follows. First, the study summarises the main insights of rhetorical scholarship from the field of organisational studies in order to form theoretical and conceptual guidelines for empirical analysis. The section connects the notion of rhetoric to the literatures on technological change and management fashions. These streams of literature are not mutually exclusive and resonate quite well with the emergence of ERP systems. Next, the methodology is outlined and described. Section 4 presents the results of the rhetorical analysis. The fifth and sixth sections conclude the paper.

2. Theoretical and conceptual guidelines

Rhetorical scholarship is well-established in organisational and management research. The concept of rhetoric often defies definition but easily attracts rather pejorative connotations. In addition to the eloquent use of language, rhetoric involves persuasion and argumentation (Gill and Whedbee, 1997, p. 157). Rhetoric may likewise refer to rhetorical theory, rhetorical analysis, rhetorical vocabulary and rhetorical performance (Hartelius and Browning, 2008, p. 34). In light of this, rhetoric is both practical and theoretical. In this study, rhetoric refers to discourse calculated "to influence an audience towards some end" (Gill and Whedbee, 1997, p. 157), which conveys particular worldviews (Brown *et al.*, 2012, p. 300) and deals with persuasion and argumentation (Symon, 2005, p. 1646; Watson, 1995). Hence rhetoric is often seen as context-specific. Rhetoric presents and justifies a particular version of reality to an audience (Symon, 2000, p. 478). For instance, managers persuade and legitimate through their linguistic choices, which may amount to a variety of rhetorical strategies (Erkama and Vaara, 2010; Suddaby and Greenwood, 2005).

According to Gill and Whedbee (1997, p. 157), the primary applications of rhetoric are located in the political arena. Although the main objective of rhetoric is not to embellish debates but to win them (Billig, 1996, p. 81), rhetoric as a mundane human action is inextricably linked to thought and communication (Watson, 1995). All use of language, in terms of text and talk, is to some extent rhetorical (Hartelius and Browning, 2008, p. 33) as it presents particular perspectives on reality at the expense of others (Symon, 2000, p. 479). However, its intent may be ambiguous (Sillince, 2006). Rhetoric can be reflective and constitutive of reality (Symon, 2000). Mueller *et al.* (2004) suggest that in order to understand contemporary organisational phenomena, it is particularly important to analyse the rhetoric mobilised by different protagonists. In sum, as a result of these contributions, we have learned that rhetoric is a powerful tool since it resonates with the instrumental and constructive use of language.

Several rhetorical studies have analysed the introduction and use of new technologies in organisations. On a generic level, these studies provide a counterpoint

to the prevalence of the representation of information technology as neutral and objective by underscoring the arguable nature of the technology (Symon, 2008). Interpretative flexibility is seen as an inherent feature of information technology, suggesting that technologies can be designed, interpreted and used in different ways (Grint and Woolgar, 1997). Discourses, including rhetoric, shape understandings and perceptions of implementations (Heracleous and Barrett, 2001). Hayes and Walsham (2000) argue that the implementation situation may entail confusing rhetoric because people interpret the value and the purpose of the new system differently. However, rhetoric can be an effective resource for individuals involved in implementations. The study by Symon (2005) illustrates how certain versions of organisational and social reality are constructed in order to rebut others. This is possible since technological changes tend to be politicised processes in which different forms of human participation have a significant impact upon the eventual outcome (Symon and Clegg, 2005). In sum, it is increasingly difficult to make distinctions between the social and technical or between the social and material since the use of language contributes to the construction of information technologies as well as their material properties, capabilities and consequences (Shepherd *et al.*, 2009). The existing empirical analyses of rhetoric mainly focus on organisational rhetoric since the interpretative flexibility mostly serves political interests within organisational settings (Symon, 2008, p. 77).

Rhetoric also plays an important role in the management fashion setting process. Management fashion may vary in scope, but generally refers to a certain management technique at the forefront of management progress (Abrahamson, 1996). Presentation is a pervasive theme in management fashion. Fashion setters have to develop a rhetoric about the rational and progressive character of the concept, and convey this to their stakeholders (Abrahamson, 1996). Thus, rhetoric affects the diffusion and acceptance of technological innovations (Abrahamson, 1991). Benders and van Veen (2001, p. 33) see management fashion as "the production and consumption of temporarily intensive management discourse, and the organizational changes associated with this discourse". According to them, management fashion includes a certain degree of interpretative viability that allows the producers and users to shape and stretch the meanings and connotations of popular management concepts (Benders and van Veen, 2001). The existence of most management fashions on ideational and conceptual levels enables interpretative viability, a certain degree of ambiguity in the content of a fashion. These theorists, Abrahamson (1996) as well as Benders and van Veen (2001), perceive management gurus and mass-media publications to be involved in the production, dissemination and legitimation of contemporary managerial knowledge. Management gurus, especially nowadays, have specific roles in rendering new ideas accessible to a wider audience (Suddaby and Greenwood, 2001). The insights of management gurus, whose professional backgrounds are typically either in research or consulting, are often communicated in textual forms: management gurus actively engage in writing articles for business outlets or even complete management books. Research on this phenomenon shows that a management text that often focuses on a particular concept is likely to be hollow at the core thereby leaving an interpretative space in its contents (Graham and Williams, 2005; see also Hamilton, 2001, p. 436). Therefore management texts are often persuasive rather than logically convincing (Nørreklit, 2003). Mazza and Alvarez (2000) suggest that management practices are sold as easily available and transferrable in the popular press, while practices published in the academic press may appear more prestigious and detailed. In sum, these studies suggest that much of human activity related to management fashion takes

place beyond the boundaries of the single individual organisations in which they eventually end up.

In sum, the existing scholarship affords insight for understanding the dynamics associated with technological changes and management fashions. Both organisational phenomena are characterised by certain degrees of generality and ambiguity, leaving considerable room for rhetoric.

3. Methodology

Methodologically, this paper resonates with the main tenets of the linguistic turn according to which phenomena occurring around organisations are constructed. Social constructionism suggests that language constructs meanings, values and institutions (Berger and Luckmann, 1967). Language is traditionally seen as a medium of information exchange between human beings, but it also constitutes social and organisational realities (Heracleous and Barrett, 2001). Consistent with this thinking, the technical capabilities and organisational outcomes of ERP systems are constructed through the use of language (Shepherd *et al.*, 2009). This study employs rhetorical analysis in order to explain the micro-level textual practices used to promote ERP systems. Even if there are no systematic guidelines for an analysis of the rhetorical elements that construct the properties and effects of information technology (Shepherd, 2006, p. 359), rhetorical analysis is demonstrably a useful method for researchers interested in the suasive use of language in management. There are various ways in which a researcher may conduct rhetorical analysis, but it is often explored through the analysis of rhetorical strategies and reality construction (Symon, 2005, p. 1648). As one of the discourse-analytical methodologies, rhetorical analysis is concerned with the close reading of texts in order to explain their logic, composition, style and argument (Locke and Golden-Biddle, 1997, p. 1026).

The present rhetorical analysis concentrates on an article by Thomas Davenport, published in 1998 in the *Harvard Business Review*. It is believed that such data offers good opportunities to disentangle the rhetoric surrounding ERP packages due to the following arguments. Davenport's paper is among the earliest articles introducing ERP systems to a wider audience. Table I demonstrates that the text has been quite

Year	Number of search results
1998	4
1999	52
2000	98
2001	138
2002	188
2003	209
2004	239
2005	279
2006	274
2007	282
2008	288
2009	300
2010	286
2011	260
2012	296
Total	3,193

Table I.
Annual distribution
of Google Scholar
search results on the
Davenport (1998)
article

actively and regularly cited since its publication. More than 3,000 search results from Google Scholar can be regarded as a considerable number (see Graham and Williams, 2005, p. 163). It is noteworthy that the text under scrutiny typifies writing from the management guru genre. Davenport, as a culturally legitimated management writer, has published extensively on business process management and knowledge management. In addition to the association with management gurus, the text analysed here is a product of a popular business press. The *Harvard Business Review*, associated with the Harvard Business School, is a research-based publication that enjoys a world-wide reputation among practitioners and students (Norgaard, 2001). In sum, it can be argued that being intimately connected to influence and communication, Davenport's text provides a fruitful context for rhetorical analysis.

Before moving to the rhetorical analysis, a critical appraisal of methodological practices is appropriate. First, the analysis focuses on a single text. This text is chosen because it is a typical example of management guru texts on ERP systems, disseminated through a popular press. While many accounts have addressed organisational rhetoric through researcher-provoked data, the materials used represent "naturally occurring" data (see Silverman, 2000). Such a concentration is not particularly novel in organisational research since rhetorical analyses of media rhetoric (Kuronen *et al.*, 2005), management books (Nørreklit, 2003; Chiapello and Fairclough, 2002) and institutional change (Brown *et al.*, 2012) have indeed exploited individual texts. While the studies by Nørreklit (2003) as well as Chiapello and Fairclough (2002) analyse the rhetorical accomplishments of popular management books, their analysis focuses on selected chapters. The present analysis, nevertheless, elucidates the textual totality of the chosen text. Second, the ways in which the text has been later received fall beyond the scope of this paper. Interpretative citation analysis would improve the understanding of the usage researchers have made of the article; however, practitioners and students are also potential readers of the text. For instance, Nørreklit (2003, p. 614) argues that rhetoric is important for the recipients' adoption of new management concepts.

On a generic level, the data analysis draws upon Aristotelian-inspired frameworks (see Brown *et al.*, 2012; Erkama and Vaara, 2010; Özen and Berkman, 2007). There are three Aristotelian rhetorical means to address persuasion and influence. This study follows Green's (2004) conceptualisation according to which *logos* refers to a justification that has a rational and logical basis. Thus, *logos* represents justification in its "purest" form, as it deals with facts that should make sense (Brown *et al.*, 2012, p. 300). By contrast, *pathos* attempts to have an impact on recipients' emotions. The *pathos* justification should evoke reactions and emotions that may relate to the emotions, like fear or greed. *Ethos* means justification that rests on socially accepted norms and values. Connotations to authorities may appear in this kind of rhetorical means.

The analysis through which the interpretation was formed proceeds in stages, as seen in Table II. In the first stage, because rhetorical analysis rests on a close reading of a text, the article was carefully read through three times. As a result, the researcher became well acquainted with the article (a reprint version was used), which covered ten text pages, including one table and one figure. Then the text was divided into individual text segments. The length of the text segments was determined by the researcher's perception of a meaningful unit in the article in which the argument becomes sufficiently recognisable. Thus these segments varied from a single clause to several consecutive sentences. The text segments were not physically extracted from the textual totality but only highlighted. In total, 176 individual textual components

Stage one coding (text segment)	"In order to understand the attraction of enterprise systems, as well as their potential dangers, you first need to understand the problem they're designed to solve: the fragmentation of information in large business organizations"
Stage two coding (theme)	Enterprise system
Stage three coding (classical type of justification)	*Logos*
Final coding (rhetorical strategy)	Rationalisation
Stage one coding (text segment)	"To maintain its focus on the customer, the company chose to install only those R/3 modules required to support the four targeted processes"
Stage two coding (theme)	Modules
Stage three coding (classical type of justification)	*Ethos*
Final coding (rhetorical strategy)	Theorisation
Stage one coding (text segment)	"Every company that installs an ES struggles with its cost and complexity"
Stage two coding (theme)	Installation
Stage three coding (classical type of justification)	*Pathos*
Final coding (rhetorical strategy)	Contradiction

Table II.
Illustration of phases
in data analysis

were distinguished. Since rhetoric is an omnipresent feature in social life (Hamilton, 2001, p. 435), its analysis requires a meticulous approach to the data. For example, the studies of rhetoric by Suddaby and Greenwood (2005), Özen and Berkman (2007) as well as those by Sillince and Brown (2009) use text segments as a basis of data analysis. In the second stage, the main theme was identified in every text segment. It was carried out without additional abstraction. The idea was that these themes would comprise a vocabulary that negotiates with ERP systems. According to Jones and Livne-Tarandach (2008), the fundamental legitimating explanations are built-in vocabulary since words attract people's attention. In this stage, the emerging vocabulary indicated that ERP systems were coupled with managerial discourse. In the third stage, the primary Aristotelian rhetorical mean was identified in every text segment. Depending on the type of argumentation being used, a text segment was coded into three blocks: *ethos, pathos* or *logos*. For the sake of consistency in the identification, this stage was repeated. In the final stage, the analysis concerning the ways in which particular themes were used in relation to the classic rhetorical means resulted in the formation of three rhetorical strategies.

Given the seemingly mechanistic orientation in data analysis, this process was also iterative in that the author reverted to the text several times.

4. Findings
4.1 Rationalisation
The first rhetorical strategy distinguished is rationalisation. It originates from a *logos*-based justification (Green, 2004). It may appear as the most unsurprising rhetorical strategy because it persuades by reference to the pure "hard" facts. The rationalisation strategy portrays ERP systems as technological innovations that subsume certain utilities. The purpose of the strategy is to justify ERP systems and provide rational explanations for their adoption. The strategy operates with on means-end reasoning and cost-benefit calculations during which the ERP implementation

becomes increasingly to be seen as a necessary organisational action. In light of this, ERP systems appear to be associated with a rationalisation "project" of organisations that should involve the adoption of rationalised software packages (Townley *et al.*, 2003). Persuasion around rationalisation strategy draws on various sources.

Rationalisation strategy is generally imbued with a firm belief that computerisation and digitalisation have a positive effect on the management of contemporary organisations. The ERP system is perceived to be attractive since it represents the latest development in management evolution. Davenport uses evolution-related arguments to claim that an ERP system is a decisive improvement on the fragmented legacy systems which no longer meet the needs of managers struggling in a highly competitive business environment. In the text, ERP implementations are portrayed as alternatives to the maintenance of legacy systems, deemed clumsy and costly.

The ERP system is also concurrently portrayed as a solution to certain managerial problems. Particularly, Davenport underscores the problems of integration. The meaning of integration varies throughout the text: it may refer to incompatibilities between information, information systems, operating practices and businesses. As integration problems can be solved by ERP adoption, the system may prove an important resource for management control and business process management. It can be argued that the integration construction is the vehicle that makes an ERP system attractive to people in the upper echelons. While discussing integration issues, rationalisation strategy uses economically oriented language that includes aspirations to increases in productivity and efficiency. The following excerpt is a good example of the rationalisation strategy in use:

> Elf Atochem's ES is now more than 75 per cent complete – nine of the 12 business units are up and running on the new system – and the rollout is ahead of schedule and under budget. Customer satisfaction levels have already increased, and the company is well on the way to its goal of confirming 95 per cent of all orders with one call, a dramatic improvement over the previous average of five calls. In addition to the service enhancements, the company is operating more efficiently. Inventory levels, receivables and labour and distribution expenditures have all been cut, and the company expects the system will ultimately reduce annual operating costs by tens of millions of dollars (p. 10).

This descriptive citation is derived from a section focusing on successful ERP implementation process at a chemical company. Note that at that time, in the mid-1990s or thereabouts, ERP systems were attracting growing support among large companies. The German SAP system in particular was gaining a significant foothold in companies, mostly big ones. The excerpt above illustrates how technical determinism is associated with ERP implementation. The system is reified, and the consequences of its implementation subsequently factualised. There are a few issues that should be taken into account here. First, the outcomes of the ERP implementation are constructed by referring to explicit but selected performance measures. Comparisons with past situations are used to demonstrate the improvements achieved. Second, the text invokes prediction, implying that the implications of implementation are predetermined and thus, reasonably foreseeable. Davenport uses expressions such as "the company is well on the way" and "the company expects", indicating that the outcomes are still preliminary. Third, the author portrays an ERP system as an entity with quantifiable scope in an organisation. However, the way in which the scope ratio is calculated implies that the contents of the system are commensurable.

The rationalisation strategy focuses primarily on the technical merits of ERP systems and the unique outcomes resulting from their implementation. Here Davenport projects himself as a person with extensive field knowledge of ERP systems due to his own experience and empirics. Other authority-related constructions also occur. References to successful ERP users are constantly used to promote ERP systems. Most of companies referred to are large, often multinational corporations suggesting a positive relationship between a firm's success and ERP adoption. In similar vein, a few well-known software providers are named in order to convey an impression that ERP systems comprise global markets in which a few suppliers operate. The vocabulary in the rationalisation strategy is somewhat vague. The text includes performance-related concepts which are not defined when first introduced. Specifically, Davenport creates connections between ERP systems and other popular management concepts. There are references to business process reengineering, organisation culture, organisation change and competitive advantage to reinforce the association of ERP systems with the existing management knowledge. Against this backdrop, the text constructs a sense of intertextuality between the management knowledge.

All in all, it can be argued that the strategy negotiates with functional and practical issues in rationalising ERP systems. The rationalisation strategy is overtly managerial in nature and, hence, evinces overtly optimistic expectations that a software solution will provide a vital executive-level tool in a relatively compact package. ERP is seen as an issue pertaining exclusively to general management and consequently, managers are presented as champions for ERP adoption. In the rationalisation strategy, meanings, properties and consequences for ERP systems seem to be predetermined to foster organisational integration.

4.2 Theorisation

Theorisation is another rhetorical strategy mobilised by Davenport. It mostly derives from *ethos* and *logos*-based justifications (Green, 2004). Here theorisation refers to the conscious development and specification of the rather abstract category of ERP system (see Strang and Meyer, 1993). Theorisation also involves the construction of patterned relationships such as cause and effect chains (Strang and Meyer, 1993, p. 492). While Davenport makes sense of the contemporary organisational phenomenon, he attaches meanings and values to the systems and provides a specific ERP-related vocabulary in order to conceptualise the phenomenon of ERP systems. It can be argued that the theorisation strategy is persuasive since it constructs authoritative yet not excessively restrictive versions for ERP systems thereby helping a reader to recognise his or her own most suitable "version" of the system.

The theorisation strategy begins with a definition of the meaning of the ERP concept or "label". It is noteworthy that the notion of enterprise system is used throughout the article, although Davenport appreciates that ERP is also an applicable term to characterise such software packages. The use of enterprise system arguably stresses the system's generalist and inclusive nature. In the text, the meaning of ERP becomes increasingly more accurate implying that the general "label" and the specific "contents" of an ERP system are analytically separable. It can be claimed that the emphasis in the ERP label is important in terms of attractiveness since labels not only designate but also imply (Benders and van Veen, 2001), and this may facilitate communication around ERP systems. In the text, ERP label refers to software packages intended to integrate various functions within an enterprise, while the system itself

comprises a common database with a modular character. The following excerpt epitomises the features of the theorisation strategy:

> Some degree of ES customisation is possible. Because the systems are modular, for instance, companies can install only those modules that are most appropriate to their business. However, the system's complexity makes major modification impracticable. [...] As a result, most companies installing enterprise systems will need to adapt or completely rework their processes to fit the requirements of the system (p. 3).

Theorisation in particular about the system's technical accommodation can be seen as persuasive in the strategy. Davenport balances between standardisation and customisation. While the ERP system is portrayed as an off-the-shelf solution to managerial problems, customisation is perceived as an essential vehicle to adjust the system to different settings. Despite the system's inclusive character, Davenport accepts variations in the presence of an ERP system in an enterprise. It is possible to implement the system selectively to cater for the specific functions while the legacy system may still persist. More accurate adjustments are feasible due to configuration tables. Davenport underscores the inherently malleable nature of the ERP system; it emerges due to the practices and interpretations of different stakeholder groups involved in the adoption. The vocabulary used reinforces the impression of malleability. Expressions such as "customisation", "configuration", "modification", "adjusting", "tailoring" and "rewriting" are used to refer to changes being made in the form or character of an ERP system.

However, it can be argued that Davenport views the ERP system as a relatively stable entity to be modified when implemented. The agenda for ERP systems, organisational integration initiatives, remains consistent in the text. On a generic level, the illustration of the options for technical specification can make the system appear increasingly accessible to a potential adopter. Expressions such as "implementation", "rolling out", "installation", "adoption", "convert", "going with", "running on", "development", "decision" and "project" are used to refer to the transition from the existing system to an ERP system. These expressions probably limit the sense of tautology but may cause obscurity in discussion on making the technological innovation active in an enterprise as the expressions have differing undertones.

The theorisation strategy also deals with increasingly social accommodation. ERP adoption is seen as action in which social practices and organisational structures take shape. Social accommodation in portrayed as a prerequisite for a successful implementation. There are several examples in the text of constructions of social arrangements around ERP systems. Once the system is successfully installed, it pushes an organisation into series of changes deemed unavoidable in nature. The development of a control function and more generic information management are seen as indispensable procedures in an enterprise. The strategy also involves theorisation of the consequences of adoption. Causal relationships between implementation and its benefits, such as competitiveness, flexibility and democracy, are presented as clear and convincing but kept at a somewhat general level.

All in all, it can be argued that the theorisation strategy constructs ERP systems in a way that emphasises their nature as a "management philosophy". This association suggests that ERP adoption entails the introduction of specific social and organisational practices. Theorisation renders ERP systems comprehensible by enabling people to elaborate the systems and their consequences more systematically. An ERP system may appear both relatively simple and transferrable but also extremely complex. Davenport's

rhetorical accomplishments include some "flexibilities" or "viabilities" regarding the presence of ERP systems in an enterprise. However, the meaning and agenda for ERP systems can be seen as "rooted" within the strategy.

4.3 Contradiction
Contradiction is the third rhetorical strategy identified. The contradiction strategy contradicts ERP systems and their adoption. While Davenport dilates on the unique merits and consequences of ERP systems, he also provides a comprehensive critique in which arguments for and against these systems follow each other throughout the text. This strategy is mostly based on *pathos*-type justifications (Green, 2004). The strategy provides an interesting contrast to the rationalisation and theorisation strategies since it operates with the reactions and emotions surrounding ERP systems. The purpose of the contradiction strategy is to draw attention to and construct significance for ERP systems. Hence the strategy portrays the ERP system as a controversial technological innovation whose implementation carries exceptionally high risks and rewards. It can be argued that contradiction is a persuasive strategy since it excites and creates alternative outcomes.

The contradiction strategy is pragmatic as it deals with advantages/disadvantages and effects/side-effects stemming from ERP implementation in enterprise-specific circumstances. Implementation is a key theme in the strategy. The text abounds in examples of ERP implementations that have resulted in divergent outcomes. These descriptions portray ERP systems as value-laden but problematic constructs. Generally speaking, illustrations of implementation processes are offered in narrative form and they tend to have a similar narrative structure. Descriptions of unsuccessful implementations are packed with emotions such as curiosity and disappointment. A company decides to introduce a new system. However, it may be that managers do not take the adoption process seriously enough in the company and consider the project a purely technical initiative. People are unfamiliar with the new technology and its prerequisites, and therefore entertain overtly optimistic beliefs regarding the applications. Meanwhile the organisational and social implications originating from the implementation are ignored. Consequently, the implementation process is too rapid and the enterprise ends up with severe business problems due to insufficient usage of the system. Expressions such as "nightmare", "horror" and "bankruptcy" are used to reinforce the character of the ERP system as a radical organisational phenomenon that takes a clear departure from the existing technological trajectory.

In contrast to the stories about unsuccessful implementations, Davenport describes implementations that are more "fortunate" in an increasingly normative and detailed manner. In successful cases, managers have understood the requirements of the packaged business technology and been committed to the implementation project. The project has proceeded in phases during which the technical and social aspects have been carefully considered. These cases demonstrate that an ERP system can really offer certain benefits if the implementation is appropriately managed. Nevertheless, a successful implementation requires software customisation or process adaptation. It is noteworthy that the language is less florid in descriptions of implementation success. The style of writing can be considered dull or tedious. It can be argued that descriptions of the implementations within the contradiction strategy evoke the imagination of the readers, and thus make the promotion of ERP systems more effective.

The contradiction strategy also questions the existence of ERP systems and the rationales for their adoption. The following text excerpt provides a good example of this:

> Air products and chemicals, for example, saw that many of its competitors were installing large, complex enterprise systems. After a thorough evaluation, it decided not to follow their lead. Its managers reasoned that the cost of an ES might force the company to raise its prices, leading to lost sales in some of the commodity gas markets in which it competes. The company's existing systems, while not state-of-the-art, were adequate to meet its needs. And since the company had no plans to exchange information electronically with competitors, it did not worry about being the odd man out in its industry (p. 6).

Here Davenport comments on a decision against ERP implementation in an enterprise. To enhance its authenticity, the name of the company is not disguised, and it is more likely a larger company than a smaller one. The quotation suggests that enterprises adopt ERP packages for reasons of conformity and certainty, not just technical efficiency. The text intimates that enterprises are prone to adopt these systems for reasons of legitimacy. ERP adoption creates an impression of a modern enterprise, thereby making the ERP system an indispensable "requirement" of an organisation. Management fashion-related explanation also occurs in the excerpt. Enterprises are claimed to adopt ERP systems because of their popularity. Enterprises emulate each other, and especially the "front runners", because the rhetoric associated with ERP systems is perceived as appealing and authoritative. Furthermore, cost-benefit calculations of ERP investments appear in the text. The excerpt implies that ERP implementation increases costs that lead to losses in competitiveness. Such a competition-related argument can be regarded as "effective" since it implies that inefficient solutions are eventually eliminated.

On a population level, Davenport sees problems in the rate of growth of ERP implementations. Rigid steering mechanisms and the vendors' assumptions embedded in the packages may lead to increasing convergence in organisational processes and practices. Hence divergence in the systems used would result in increased competitiveness for an organisation, and maintaining diverse information systems would better support the processes. Accordingly, legacy systems may continue to function well despite the increasing ascendancy of ERP systems.

In sum, the identification of contradiction as a rhetorical strategy illustrates the controversy around ERP systems. The strategy portrays ERP systems as inherently "large" and "complex" constructs. The contradiction strategy results in an inconsistency in argumentation through competing statements, and thus extremist arguments for and against ERP systems both support and discredit these systems. However, it should be pointed out that the contradiction strategy mostly involves references to single events, which are understandably open to dramatisation and retrospective speculation.

5. Discussion
The impetus for this study was a belief that researchers should increasingly investigate ERP systems using different theoretical and methodological approaches (e.g. Dery *et al.*, 2006; Grabski *et al.*, 2011). It can be argued that rhetorical analysis especially holds great promise in this kind of endeavour since managerial innovations are often seen as featuring certain degrees of malleability and plasticity (e.g. Grint and Woolgar, 1997; Benders and van Veen, 2001) making them susceptible to rhetorical feats, which

also shape and produce these constructs (Mueller and Whittle, 2011, p. 203). This study contributes to the body of research elucidating how rhetoric constructs the capabilities and consequences of ERP systems in particular (Shepherd, 2006; Shepherd *et al.*, 2009) and how the constructions of information technology are made persuasive in general (Symon, 2005, 2008). To extend the analysis beyond organisation-specific considerations, this paper focuses on the rhetorical practices of a culturally legitimated management writer, whose particular views on ERP systems are conveyed to the readership of a popular business publication.

The identification of three rhetorical strategies used to promote ERP systems enhances our understanding of the production of the phenomenon inherent in these systems. Each of these strategies deserves attention since they all examine different aspects of ERP systems. The analysis of the rationalisation strategy illustrates how the properties and implications of ERP systems are rhetorically constructed. In this strategy, ERP system implementation is presented as an action with straightforward effects on organisations and, particularly, on the ways in which operations are kept accountable and manageable. The meaning of ERP systems and their organisational significance is deemed self-evident, thus the strategy has technologically deterministic overtones. This concurs with Shepherd's (2006, p. 363) insight where ERP systems are seen as solutions to organisational problems. The strategy abounds in themes relating to firm performance and organisational integration achieved through ERP implementation. Consequently ERP systems, as value-free instruments, represent the latest development in managerial progress (see Abrahamson, 1996), entailing several utilities. The analysis of the theorisation strategy provides a slight contrast to the functionalistic rationalisation strategy. The strategy theorises and offers a definition for ERP systems. Here a few prescriptions for the appearance of ERP systems in organisations are offered. It is noteworthy that ERP systems were just emerging in the late 1990s. People with authoritative appeal often compete to create definitions and interpretations regarding the novel developments taking place in technology that may later gain acceptance as legitimate standards (see Symon, 2008, p. 76). The analysis of the theorisation strategy demonstrates that ERP implementations can be interpreted differently within organisational contexts. This corresponds to the social constructionist view of information technology (e.g. Grint and Woolgar, 1997) and management fashions (e.g. Benders and van Veen, 2001) emphasising a certain ambiguity and vagueness in managerial innovations. Against this backdrop, ERP implementations emerge in people's interpretations in spite of their material character. However, it can be argued that technological determinism is also present in the theorisation strategy. The malleability of ERP systems originates in the material characteristics. Further "reading between the lines" suggests that ERP usage is limited to the managerial agenda, which is deterministic. Finally, it should be pointed out that managerial innovations are often portrayed in a relatively simple fashion in business magazines (Mazza and Alvarez, 2000). Arguably a certain simplicity in presentation can facilitate the effective communication of ERP systems within the group of organisations because loose conceptualisation renders the idea of ERP increasingly intelligible. The analysis of the contradiction strategy illustrates how ERP systems are fraught with controversy. Controversy is often associated with rhetoric since different issues do not necessarily become open to dispute without a controversial character (see Symon, 2008, p. 95). Therefore contradiction in argumentation is the core constituent of rhetorical dexterity and rhetorical analysis (Symon, 2005). The contradiction strategy includes arguments and counter-arguments with respect to ERP

system implementation. In the strategy, the arguments in favour of ERP systems stem from their functional merits and their rebuttals centre on issues related the systems' technical complexities. Earlier studies have recognised that texts from the management guru genre may include contradictory arguments that produce a contradiction in the presentation of causal relationships (Nørreklit, 2003). Arguments within the contradiction strategy both foster and inhibit the spread of ERP systems. The mobilisation of negative connotations is not typically part of the production processes of management fashions (Abrahamson, 1996; Benders and van Veen, 2001) or management texts (see Chiapello and Fairclough, 2002), which should render a selling proposition acceptable.

Overall the rhetorical analysis shows that Davenport's text typifies the management guru genre: it is value-laden but imprecise (see Graham and Williams, 2005). The rhetorical strategies identified are closely linked each other, and are therefore not strictly empirically distinguishable. The analysis of rhetorical strategies demonstrates that the rhetoric both underscores and undermines the values of ERP systems for organisations. Thus ERP systems as a construct and an organisational phenomenon are far from unarguable (Symon, 2008). The text constructs an argumentative context in which to discuss the necessity for and use of ERP systems in organisations. In this context the material properties and effects of ERP systems are rhetorically constructed in a way which blurs the distinction between the technical and social aspects of the systems since the conceptualisations of information technology emerge largely through social action (Shepherd et al., 2009). Thus the analysis suggests that the material characteristics of ERP systems are achieved through language, even if the material reality is usually deemed crucial (Symon, 2008, p. 93). As in Symon's (2005) insights, Davenport uses dichotomies and creates linkages to other constructions to strengthen his arguments. For instance, Davenport compares legacy systems and ERP systems, ERP adopters and non-adopters, exclusive and complemented ERP usage and also successful and unsuccessful implementations. Constructs such as global competition and competitive advantage are likewise invoked to justify the organisational significance of ERP systems.

As with any qualitative research, researchers' critical appraisal of their own underlying assumptions is important (Symon and Cassell, 2004, p. 6). Johnson and Duberley (2003, p. 1287) argue that "management researchers should reflexively deconstruct their own representational practices". This study is clearly a rhetorical accomplishment. To echo Locke and Golden-Biddle (1997), scientific contributions are constructed phenomena in which texts seek to persuade the audience to see the issues in particular ways (see also Shepherd and Challenger, 2013). Even if the study uses one article as its empirical material, the researcher has adopted a "typical" style of academic writing (see Symon, 2000, p. 487) in which the research topic is linked to broader theoretical discussions and approached through a "proper" research methodology. One distinct representational practice is the categorisation of the findings. However, there are always multiple valid accounts of a research project (Bryman and Bell, 2011, p. 701). As regards this research project, a text is never settled or stable as different layers of meanings and assumptions may prevail yet go unrecognised by the reader (Johnson and Duberley, 2003, p. 1286). Furthermore, the present analysis has a retrospective orientation: over 15 years after its publication it is possible to set the article against the backdrop of the ERP literature and the established management canon.

Most importantly, the rhetorical analysis sought neither to denigrate the value of Davenport's work nor the existence of management texts but to understand the linguistic richness and affordances of the genre.

6. Concluding remarks

Notwithstanding the focus on ERP systems, this study sheds light on how the phenomenon related to a more generic technological change is constructed. Although the rhetorical strategies are context-specific, they are not necessarily context-bound (see Mueller and Whittle, 2011, p. 203). These strategies are not confined to ERP and might therefore serve to explain the rhetoric surrounding other controversial and topical developments in technological change.

Considering that several works have elucidated the rhetorical aspects of technological change in organisational and management research, this study extends this stream of literature by examining the rhetoric in the context of a single management text. It can be argued that such a research design is important since researchers increasingly make use of popular management texts (Graham and Williams, 2005). According to Carmona and Gutiérrez (2003), researchers sometimes follow research fashions in order to avoid uncertainty, and topics deemed fashionable may provide reliable research topics. Moreover, readers, such as academics interested in contemporary phenomena, regard the authors of popular management texts as important change agents because they introduce novel topics to new terrains. In light of these considerations, impressive and perhaps flamboyant text from an authoritative figure may influence a researcher's understanding and even cause biased interpretations about the significance and characteristics of the particular phenomenon. This is an important issue, since researchers may suffer from ambiguity in their research goals and a management text may be a useful context to contextualise findings due to its "hollow cores" (Graham and Williams, 2005). For instance, Davenport's article can serve as a vehicle for a researcher wishing to legitimate a research topic, define key concepts and contextualise findings.

Furthermore, this study shared the prevailing views (e.g. Watson, 1995; Hamilton, 2001) according to which a distinction between rhetoric and reality is not analytically helpful. It is increasingly challenging to make a distinction between the technical and social nature of "things" since both are largely constructed, and at least reflected, through the organisation of language. In a similar fashion, rhetorical accomplishment is an equally social action even if "talk" is sometimes pejoratively differentiated from "action" (see Mueller and Whittle, 2011, p. 188). This paper argues that the rhetorical strategies identified should be taken seriously by both researchers and practitioners. Graham and Williams (2005) argue that business professionals use foundational texts in legitimating management practices. Rhetoric is used to justify managerial decisions and actions. Because rhetoric influences social action (Green, 2004), the suasive use of language can construct different perceptions and create justification for the adoption of managerial innovations (Abrahamson, 1996). Nowadays practitioners face managerial innovations all of which may at a given time seem plausible and persuasive (Sillince and Brown, 2009, p. 1849). Hence the rhetorical strategies can help practitioners to recognise and see through the rhetoric surrounding contemporary, sometimes actively advocated, organisational phenomena.

Most importantly, this study wishes to encourage researchers from the broad area of management and business studies to consider what rhetorical scholarship and rhetorical analysis have to offer. Mundane human actions turn "out to be extraordinarily rich" when examined through rhetorical analysis (Watson, 1995, p. 810). Consequently, a researcher may find the elucidation of rhetorical practice occurring in text and talk a "funny rather than revelatory experience" (Watson, 1995, p. 812). Moreover, this study should illustrate that empirical materials existing without

a researcher's intervention and contribution offer a unique perspective for qualitatively oriented scholars on a phenomenon that has previously been examined drawing primarily on the interview method (Silverman, 2000). However, the invocation of rhetorical analys is may confront the research with considerable challenges. Because rhetorical analysis is part of a more generic discourse analysis (Symon, 2008, p. 78), there are not necessarily standards or accepted approaches in place for data analysis (Gill and Whedbee, 1997, p. 181). It is the responsibility of researchers to communicate and maintain the distinctiveness of rhetorical approaches against the other traditions in qualitative research (see Phillips and Di Domenico, 2011).

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