Internationalisation of the Owner-Ordered Audit Approach

Not the statutory status of the audit is up for renewal, but its content. The current need for auditing that addresses long-term shareholder interests offers a golden opportunity to globalize the locally cultivated owner-ordered audit approach.

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More specifically, this update is based on the <u>2011 Kansas Auditing Conference</u>, session 1 <u>contribution</u>, entitled <u>Revamping the Audit Approach</u>, with extended follow-up in the <u>2011 UWCISA Symposium</u> entitled <u>Model-based Auditing using REA</u> and the <u>2011 23rd WCARS</u> contribution entitled <u>Process Mining</u> for the Cash-to-Cash Top-Cycle (no link available yet).

Introduction

In the public debate on <u>accountant.nl</u> a bold question is posed by the leader of a Dutch auditing reform movement, <u>Pieter de Kok</u>: "What if the mandatory, statutory audit is halted today: will our clients still call us for our *added value* tomorrow?"

Let's take this question one step further, and consider ensuing questions:

- 1. What's the *pull* in the audit market?
- 2. What's the *push* from new developments?
- 3. How to *match* them to identify and develop new value adding services, with Return On Investment (ROI) for both legislative and principal audit mandate provider and for the audit profession community?

To clearly understand the pull in the audit market it is helpful to mentally reconstruct the original market mechanisms, thus before regulation made audit mandatory. These market mechanisms – the *raison d'être* of the audit profession – have actually never disappeared, they were just less visible due to mandatory compliance to regulation. To avoid confusion: it is not the statutory *status* of the audit, but instead the *content* of what has been made statutory, that is up for renewal.

Two main traditions

What are these authentic market mechanisms? Historically, there are two main traditions of auditing, each having a distinguished normative framework – since norms substantiate the auditor's attest function. The distinction stems from *who* orders the audit: *owner-ordered auditing* versus *management-ordered auditing*. Both came into existence as a consequence of the separation between ownership and management in the first half of the 19th century. The owner-ordered audit tradition is rooted in Great-Britain and developed particularly well in the Netherlands, and the management-ordered audit tradition is rooted in the United States of America.

Owner-ordered auditing addresses completeness, *understatement of profits*: whether revenues are understated and expenses are overstated. Expenses include management's salary and bonuses. As an owner you want assurance that management, who you entrusted your money, is not making profits while keeping parts of it unstated, since profits are the basis of your dividends and stock quotation. This is also in direct interest of *potential* shareholders and thus society at large – via institutional investors, pension funds, and ultimately tax payers – who consider to become a shareholder.

Management-ordered auditing addresses *overstatement of profits*. As management you want to attract investment capital by increasing the credibility that the profits you state are all real, not overstated, and so you hire the independent auditor to provide this assurance.

Driver for audit direction

Management's *illegitimate interest* – to overstate or to understate profits – determines the direction of the audit from a *market-driven value-adding* perspective.

Management in a healthy, growing company has the illegitimate interest to overstate profits and neutralizes this by hiring an independent auditor. For established or over-established companies without growing prospects this illegitimate interest reverses 180 degrees. Management's illegitimate interest is then to keep their salary and bonuses as high as possible, even at the expense of negative profits, thus loss.

Continued management abuse and lack of countervailing owner-ordered auditing – and other missing measures of a more technical nature, e.g. a digital utility infrastructure for preventive control mechanisms, [Bookstaber, 2009] – allow some of these companies to "operate" long after their "use-by" date is expired; for example, government is not allowing them to go bankrupt, while management is fully aware of this in advance (*moral hazard*). Let's not forget the motivational abyss for financial reform: bank executives can draw humongous salaries and bonuses while banks loose systemic amounts of money (as observed by Miklos Vasarhelyi), and these losses are conveniently transfered from the bank balances to the state balances.

Worldwide

Today, management-ordered auditing is ubiquitous worldwide. The United States of America did an excellent job in exporting the therefore required method. Great-Britain and the Netherlands were alas not that successful in exporting their counterbalancing owner-ordered approach.

Great-Britain was the maternity ward of the owner-ordered audit tradition: "In 1844 stockholders obtained for the first time the right to audit the accounts of the company as prepared by management (Statutory Audit Requirement, The British Joint Company Act)", [Blokdijk et al, 1995], p.20. However, it was only the Netherlands who – over more than a century – cultivated the owner-ordered audit approach and took it to quite a high level of ingenuity, unfortunately without making this approach accessible in any English-speaking country, or elsewhere, for that matter. Halfway the 20th century the Dutch audit community even succeeded in integrating owner-ordered auditing with management-ordered auditing (in practice, theory

and education), and key notions in this integrated approach were formalized into process mathematics in the 1990s, [Elsas, 1996].

Today the owner-ordered audit approach is not, or hardly, applied anymore and the last generation of auditors who were educated in this tradition and who were accustomed in applying it, are now 65+ years of age and most of them are retired, [Veenstra, 1972].

Turning the scale

In essence, auditing profits on overstatement is much easier than on understatement, since: how to find the unstated? Auditors educated in the owner-ordered audit tradition recognize that a normative model is a *conditio sine qua non* in identifying unstated profits. More precisely, a normative model capturing the enterprise-wide business process and accounting cycle: connecting transformations from cash to products and, via inventories, from products to cash, and thus via buy-side and sell-side transactions.

This full cyclical transformation process of values and associated recordings is key in "*Understanding the Client's Business*" and is known as the cash-to-cash cycle, also known as top-cycle, cash-product-cash cycle, super cycle or value cycle (in Dutch: value-ring-loop, "*waarde-kring-loop*"). The cash-to-cash cycle evolved from a mental, conceptual model into a process model suited for computational analysis. The cash-to-cash cycle can be represented as a set of accounting equations, cf. [Leslie et al, 1986], as a flow chart or as a matrix (with states as rows and transactions as columns).

The top-cycle accounting equations induce comprehensive coherence checks capturing a *normative relation* between *frequencies* of buy-side and sell-side transaction volumes and generated *profits* per product and production process (i.e. the difference between sales price and activity-based, or process-based, costing per product, refining on Cost Of Goods Sold).

The top-cycle model also serves as a normative framework imposing a robust substantiation of audit-technical segregation of duties from a long-term ownership point of view: non-identical and preferable opposite interests in authorizations to only a limited number of steps in the top-cycle transformation process. For example, in a financial institution segregate "bean counting" and "bean making" duties and incentives on all organizational levels, especially for a bonus-driven CFO, [Muis, 2010].

To manually draft a cash-to-cash cycle and derive audit tests from it used to be quite an exercise. Not anymore. Today these top-cycles can be derived with techniques like process mining made dedicated for the auditing domain. Process mining leads to models in "as is" modality, not in "should be", normative modality; the normative models are best established *ex ante* in an industry template typology, with "last mile" client-specific tailoring on a template instance.

Furthermore, the top-cycle is not *documentation-only* anymore: it is not only a bundle of pixels, but instead it is – as indeed might be expected of a modern model – interpretable by advanced audit analytics, extending classical owner-ordered audit analytics by adopting methods from computational process mathematics, leading to a high-quality analysis, impossible with old-style approaches:

- 1. Qualitatively e.g., integral analysis of segregation of duties covering enterprise-wide access control and incentives; thus including management, from a long-term ownership point of interest, and
- 2. Quantitatively e.g., enterprise-wide spanning reconciliations checks, also known as comprehensive coherence testing, in totals, details and on streaming data, as continuous auditing, [Vasarhelyi et al, 2004].

Since costs involved in specifying and analyzing a top-cycle model are both *decreasing*, while the added value of owner-oriented model-based audit analytics is recognized as *increasing*, the scale has been turned, and is turning further for profitable application of the integrated owner-oriented and management-oriented model-based audit approach.

Golden opportunity

Today's great need for auditing that addresses long-term shareholder interests offers a golden opportunity to globalize the locally cultivated owner-ordered audit approach. However, there is only a relatively short window of opportunity to internationalize the owner-ordered audit approach with active involvement of the retiring last generation of experienced auditors who have actually applied it in practice.

To significantly reduce the educational burden to master owner-ordered auditing – from 3 years post-Master, as it used to be, to something closer to a Bachelor's – requires powerful *automatic support* as a crucial *enabler*.

Delivering this enabling technology as based on audit-specific business process models – and its associated modelling techniques and tools, [Weigand & Elsas, 2012] – is being accelerated by a further joining of forces of auditors and computational process modelling experts.

Entrepreneurial auditors, non-auditors and universities in the US, Canada and the Netherlands are currently involved in R&D projects: developing software and pilots, with educational and training materials, and taking care of training roll-out and train-the-trainer sessions; and organizing pilot studies and integrations of US and Dutch R&D results for incorporation in US-based business services that are already internationally used.

Successful internationalization for practical settings, especially for external audit practices, is further warranted by US-based entrepreneurial project partners who:

- 1. value the business case for owner-ordered auditing (ROI), as based on its original market mechanisms;
- 2. connect to the ongoing R&D, and incorporate results in their own IT-based services for businesses;
- 3. participate in setting up training materials, within their client's train-the-trainer and roll-out programs;
- 4. make further market positionings and gain market share.

Literature

- J.H. Blokdijk, F. Drieënhuizen, Ph. Wallage: *Reflections on Auditing Theory, A contribution from the Netherlands*, Limperg Institute Amsterdam, Kluwer Bedrijfswetenschappen Deventer, 1995.
- R. Bookstaber: *Congressional testimony*, <u>video recording</u>, first hour (alert: the first 3 minutes are without a moving image and without sound), and <u>transcript</u>, pp.67-84, and with relating co-production <u>Preparing for an Audit Mandate to Contribute to Systemic Risk Anticipation</u>, 2009.
- P.I. Elsas: *Computational Auditing*, Free University Amsterdam and Deloitte & Touche, 1996; with a contemporary introduction, presented at the 2010 SIKS Smart Auditing PhD course.
- D.A. Leslie, S.J. Aldersley, D.J. Cockburn, C.J. Reiter: *An Assertion-based Approach to Auditing*, 8th Auditing Symposium, University of Kansas, 1986.
- J. Muis: <u>The Flying Dutchman</u>, contribution to the IFAC (International Federation of Accountants) Financial Reporting Supply Chain project, theme 2, 2010.
- M. Vasarhelyi, M. Alles and A. Kogan: *Principles of Analytic Monitoring for Continuous Assurance*, Journal of Emerging Technologies in Accounting, 2004; 1 (1): 1–21.
- R.H. Veenstra: *Handleiding Assistenten*, University of Amsterdam and PricewaterhouseCoopers (Van Dien & Co.), 1972, and Deloitte & Touche (NAM), 1976 (in Dutch).
- H. Weigand, P.I. Elsas: *Model-based Auditing using REA*, to appear in the International Journal of Accounting Information Systems, 2012.