

The messy matters of continuous assurance

Preliminary findings of six Australian organisations

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Background: Research motivations, aims & design

or preliminary findings

Conclusions and implications

Acknowledgements

Research motivations: CA Practice

option has not met initial expectations (KPMG 2012)

limited uptake due to:

Weak business case

No road map of how to implement CA

Limited insight into availability and functionality of CA technologies

Need to improve audit capabilities in the design & use of CA techniques, technologies and data analytics

Research motivations: CA Theory

ted theory and empirical research on the implementation, use and evaluation of CA
(Vasarhelyi et al. 2010)

velopment of prototypes & prescriptive standards

me studies on economic feasibility and impacts on managerial behaviours

Assumes process is uproblematic & management recognises need for CA

arge scale surveys – limited insights into organisational contexts

imited empirical research in an Australian context

iguity in use of terms

wnership

ntinuity

tent to which it has been adopted across business processes (eg. Vasarhelyi et al. 2012)

d for deeper understanding of how CA is experienced and constituted in practice

Research Program| Aims

Investigate how CA practices are constructed, implemented and evaluated in complex and changing business, legal and technical environments;

Describe key elements of success in the effective design, implementation and evaluation of CA initiatives;

Identify the factors that constrain or enable organisations to develop an effective CA capability;

Develop a capability and evaluation framework to assist organisations to conduct effective CA practices, maximize value from technology solutions and shape curriculum.

Technological frames perspective (eg. Davidson 2006)

Broadly, how organisation members make sense of information technologies and how these interpretations act as “attention directing” and “problem solving templates” (Davidson 2006).

May point to actions that could improve organisational outcomes through identifying frames of key stakeholder groups, “assessing areas of incongruence between groups and undertaking interventions to align frames” (Davidson 2006)

CT perspective (eg. Callon 1986) views CA as emergent assemblages of people, processes and technologies involving the translation and alignment of interests of multiple actors through processes of persuasion, incentives and negotiation [17].

s socio-technical change

1 How do auditors and business managers frame CA?

2: How does CA get started, developed and performed in organisations?

Specifically interested in the role that tools, devices – technological or other – play in framing CA

Research Design| Case study

Case	Type of org	Participants	No. of interviews	Audit Maturity ¹
	Wholesaler	Internal audit, Business mgrs	10	Full CA Started 2003
	Education	Internal audit	1	Emerging to maturing 2010
	Local govt	Internal audit (IT specialist)	2	Emerging to maturing 2010
	Govt agency A	Internal audit (IT audit manager)	1	Emerging to maturing 2008
	Govt agency B	Director	1	Emerging to maturing 2009
	R&D	Risk & compliance director	1	Emerging 2011

the nature of continuous assurance (CA)

perceptions of CA (incorporating CAu & CM) and their understanding of its capability and functionality

the CA strategy

views & understandings about the motivation behind why CA has been adopted, implementation and value to the organisation

uses of CA

understandings about how CA is used routine work and issues and consequences associated with such use.

multiplicity of CA

When we started off putting **the continuous monitoring in place it was only going to be something that internal audit was going to use**. As we had discussions with HR, IT and finance, it became pretty obvious pretty quickly that they were interested in it as well and that they could find a great deal of use out of **Case 2]**

When we say continuous assurance even now we're really talking about **periodic assurance ... [Case 3]**

I think we should really be using a broader term **of data analytics...** because the **data analytics is the thing that brings out trend analysis**. Continuous controls monitoring, I think, is a very narrow focus because what that's saying is that you're setting parameters and processes in place in your system to identify when **something happens outside of a control...** **[Case 5]**

...will host 1000 products a week. So we check every one... **Caseware...** took away a lot of the manual process and had it automated. So now it generates reports for us to see potentially we've got a problem. **[Case 1 - Bus Mar]**

CA became noticeable: In the beginning!

“grand” objectives for CA

the “dogs breakfast” – an identified audit or business problem

the believers

the “the low-hanging fruit ready for the picking”

Implementing CA: challenges

messy data matters: multiple formats and disparate systems

... I think one of the biggest issues for this organization is integration of that information, but also data quality. You've got so many different architectural models to play it's very difficult to get a single view of who clients are." [Case 4]

“false positives”

... In some of the tests we had probably too much erroneous data so we had to refine the scripts and tighten down the business rules around that. Some of that comes back to the business perhaps not understanding what they really want to see as well - except when they get the report and it's a very big report and they said it's too much to look at [Case 6]

IT Dept - the “obligatory passage point”

... we actually have spent two years trying to, or at least two years trying to get this hardware in place to support this and, unfortunately, that has been one of our biggest challenges; is not only getting the data but getting the IT areas to put in the infrastructure to support us ...” [Case 4]

Implementing CA: challenges

Demonstrating the business value

We know that the audit committee responds well to it. We've shown routines [such as] potential exceptions or unusual transactions through credit cards ... to the divisional managers, the executive level managers and they've indicated in those discussions that they ... see value in it ... having said that we've got so many routines that I think the value or the risk that's being addressed is variable across those routines ... it's probably timely to take stock and think about where is the best focus...we sometimes don't have a very convincing answer about what the value is to them and reasons for expecting them to put resources into

[Case 3]

Implementing CA: Iterative and incremental process

... kind of developed ... we've got a strategic plan for analytics, but what we need to be doing is bedding down a timed plan of how we continue to refine the process and tie in more of the controls monitoring. Just this year, we've put in CaseWare Monitor to sit with ACL, so that's now doing a lot of continuous monitoring ... If we'd just laid down a timetable of what we're going to do with the dates et cetera, we wouldn't have the success that we have today.” [Case 5]

Implementing CA: Enrolling the “allies” and translating needs

Congruent frames: Designing routines

...we spent a lot of time with them trying to understand the reconciliations, where they kept the data, what spreadsheets they used – what scripts they run. He spent a lot of time with them trying to explain how it would work... There’s still some resistance there to using it... I think it’s just more of a change issue...”

[Case 2]

Learning frames: Expanding analytics capabilities

...so we went from starting to monitor them on a weekly basis to then internal audit saying look, we’ve got a way ...[the internal audit team] retrospectively ran some reports on stock adjustments you could see the trend... We can’t see that when we’re running reports and seeing them on a weekly basis... So that’s where this whole idea came about for us, to explore a way that we could get this information, make it more valuable to us [Case 1 – Business Mgr]

Implementing CA: enablers

CA champion and a “continuous voice”

... in relation to selling it to the business, [the Group Assurance Mgr] is there. He's really good at selling it” [Case 1]

Senior management support

... the chair of our audit committee ... also recognized the future of continuous assurance ... the CEO at the time recognized the potential both in terms of assurance about looking for exceptions and trends [as well as] ... improved management information” [Case 3]

Performing CA: Uses and consequences

Change of routine tests evolved over time

)formulating audit strategies

is useful information for our strategic planning ... The information that we've generated ... has fed into the evaluations we're using to develop our strategic plans" [Case 3]

Supporting needs and tools (visualisation)

produce more or less a compendium report of everything that comes out of our continuous assurance every quarter and provide that to the chief executive and the audit committee. At the moment it's a pretty thick tome and I'm trying to continuously refine that to focus on what are the real lessons that are being learnt from all this data." [Case 3]

as a “**messy object**”

imagined” to be a single entity but also multiple because it is enacted in multiple practices

nature of CA shifted and was negotiated through its use

“increasingly difficult to pin down who is the auditor” and “what auditing is” (Pentland 2000)

• “translator-strategist”

Evaluation – different parts of the organisation at different maturity levels, where and when are benefits realised?

Does this challenge traditions – the institution of ‘independence’?

“matter-ing” processes: How CA came to be

multi-stakeholder interactions and technical assemblages

not a top down strategy – how does this compare to current guidance

“improvisation” and “experimentation” (Ciborra 2001)

“tinkering” with devices

Material and performative roles of devices and “ordinary” technologies

Constituting routines eg. ACL scripts (business rules) and CaseWare (managing exceptions)

Multiple technologies for different activities

Complexity and “trials of strength”

We currently have three SAP companies which makes our life really, really difficult ... It gets more difficult from the fact that we've changed so much ... We struggle getting data access for these particular applications ... Unfortunately we can't get direct access to the payroll system because that data is shared with other entities and the way the tools work don't actually allow you to have record level security. So if I download data I see everybody's data. Put it this way - they merged with us 10 years ago and I still don't have access to that system. I'm still having to actually go and request information from their service provider who manages that system.” [Case 4 IT Audit Mgr]

Changing identities – “tools of the imagination”

“So all this assistance from audit in terms of continuous monitoring reports..., it's been a big help... I think this is probably more of what we've wanted from our audit teams... [Case 1 Comm Mgr]

Developing and leveraging data analytics capability

How are internal auditors interpreting this 'new' role?

What strategies, methods and technologies are required to design and build an appropriate analytics capability?

How are these knowledge areas and skill sets being accommodated in university curriculum and professional education?

“politics” of information

Information-as-thing , eg. formats and accessibility of data

Information as asset and *information as evidence*: what are the necessary information governance arrangements (integrity, protection and lifecycle management) for audit data repositories

Information needs - what are the information needs of audit and risk committees determined?

Information design - what are the types of visualisation technologies and techniques that will best assist in reporting meaningful CA information?

Preliminary analysis

Primarily internal auditors interviewed

Business managers and users

Some examples where CA not initiated by internal audit

Follow up on existing cases to explore further developments

Participants at each case site

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