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A synthesis of empirical internal audit effectiveness literature pointing to new research opportunities

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A synthesis of empirical internal audit effectiveness literature pointing to new research opportunities

Abstract

Purpose – Ten years after Bailey, Gramling and Ramamoorti (2003) presented research opportunities in Internal Audit (IA) this paper provides a synopsis of what academic literature says about IA effectiveness. A new set of research questions that may help to bring the best out of IA is proposed.

Design/methodology/approach – Empirical studies based on internal auditors' self-assessments ("inside-out") and empirical studies based on other stakeholders' perspectives ("outside-in") are reviewed through an "effectiveness lens". The "outside-in" perspective is regarded as particularly valuable.

Findings – First, we identify common themes in the empirical literature. Second, we synthesize the main threads into a model comprising macro and micro factors that influence IA effectiveness. Third, we derive promising future research paths that may enhance IA's value proposition.

Practical implications – The "outside-in" perspective indicates a disposition to stakeholders' disappointment in IA: IA is either running a risk of marginalization (IIA, 2013; PWC, 2013) or has to embrace the challenge to emerge as a recognized and stronger profession. The suggested research agenda identifies empirical research threads that can help IA practitioners to make a difference for their organization, be recognized, respected and trusted, and help the IA profession in its pursuit of creating a unique identity. This paper wishes to motivate researchers to explore innovative research strategies and probing new theories as well as benefitting from cross-fertilization with other research streams.

Originality/value - This paper summarizes the state of research on IA effectiveness and proposes a guide for future IA research. It provides pointed questions that may further advance the understanding of what constitutes IA and how IA can enhance its value proposition.

Keywords - Internal audit, effectiveness, positioning, relevance, profession, relationship, board, stakeholder, new research opportunities

Paper type - Literature review, conceptual paper

1. Introduction

A decade ago, Bailey *et al.* (2003) presented research opportunities in Internal Audit (IA) that helped to advance IA by inspiring a growing academic IA community. Ten years on, this paper provides an overview of what relevant academic literature says about IA effectiveness. Empirical studies based on internal auditors' self-assessments and empirical studies based on other stakeholders' perspectives ("outside-in") are reviewed through an "effectiveness lens". After identifying common themes, we synthesize the main threads into a model that comprises macro and micro factors that influence IA effectiveness. We then present an updated set of IA research opportunities. These directions for future research constitute the main value of this paper.

Developing and maintaining organizational relevance are key challenges to any support function including IA. Understanding what effectiveness and added value mean, and appreciating the fundamental role of internal auditors, i.e., employees who are not connected directly to the profit and loss account, is not an easy task (Nobel, 2010). Presently, the perceived value and professional image of IA among stakeholders outside the IA community is not where IA professionals and the IA profession would wish it to be. When taking a closer look at reality (Anderson, 2009; KPMG, 2009; PWC, 2010; Ernst & Young, 2012; Lenz and Sarens, 2012; PWC, 2013), a certain degree of disappointment among IA stakeholders in regard to the role and relevance of IA before, in and after the last financial crisis that started in 2007 cannot be ignored.

Anderson (2009, p. 26) summarizes: "*Non-executive directors and Audit Committee chairmen are often surveyed and respond that: Heads of internal audit are not up to the job, internal audit lacks adequate independence ... They have not properly defined the role that they wish internal audit to fulfil*".

KPMG (2009) concludes that only about one quarter of board and audit committee members have the full knowledge of IA's activities and are very confident that the company's IA function (IAF) delivers the value to the organization that it should. In the vast majority of cases, IA activities and its value remain somewhat obscure. A study by Ernst & Young (2012, p. 1) shows that 80 percent of IAFs have potential for improvement.

PWC (2010) suggests “*internal audit must seize opportunities to enhance its relevancy.*” Lenz and Sarens (2012) point to the uncertainty about who is the chief stakeholder of IA and the ambiguity of assurance and consulting services potentially damaging the legitimacy and status of the IA profession. In 2013, based on observing tightly interwoven phenomena of “*stakeholder misalignment, a challenged capability foundation and sub-optimal internal audit contribution*”, PWC (2013, p. 4) alerts IA to the “*risk of becoming a marginalized function.*”

The business community of internal auditors faces serious issues, which motivates this paper. IA is at crossroads (IIA, 2013; PWC, 2013) to become either marginalized between a variety of other assurance, compliance, and risk management functions or to emerge as a recognized and stronger profession. The world of IA, especially the world of IA consultancy, professional firms that are in the business of selling IA services, is full of suggested answers and explanations about what IA should be and how it should work. However, ultimately we still know little about the most appropriate positioning of IA. Core concepts like assurance are used in practice but it can be questioned whether there is a shared understanding of what it actually means. Why is that? Part of the challenge is associated with IA being a credence good (Causholli, 2009) meaning different things to different people, at different times and in different contexts.

Time is ripe to review the empirical body of knowledge regarding IA effectiveness, identify and synthesize common themes, and provide a new set of research questions that may further advance our understanding of what constitutes IA and how IA can enhance its value proposition. This paper suggests a new set of research questions that can help to bring the best out of IA for we believe that scholarly research can contribute to address fundamental issues influencing IA effectiveness.

In section 2 of this paper, we review the existing empirical literature on IA effectiveness. The paper is complementary to the work by Gramling *et al.* (2004) who examined the literature related to IAF quality largely from the external auditors’ perspective. Section 3 synthesizes the main threads into a model that comprises macro and micro factors that all influence IA effectiveness. In section 4 we then offer a set of new research opportunities in IA, clustered around major themes. These research questions constitute the main contribution of this paper. Section 5 summarizes and concludes.

2. What do we learn from academic literature about IA effectiveness?

Providing evidence of added value and effectiveness is one way to be perceived as a legitimate function in the eyes of major stakeholders. Ridley (2008, p. 287) claims that modern IA has been constructed upon the three “E’s” of Effectiveness, Efficiency, and Economy. Chambers (1992, p. 22) views effectiveness as “*doing the right thing*”, efficiency means “*doing them well*” and economy means “*doing them cheaply*”. Effectiveness is viewed as the most important “E”. If IA was ineffective it is ultimately futile regardless how efficiently or economically the service is being rendered. Dittenhofer (2001, p. 450) concurs when emphasizing what really matters to an organization is effectiveness, as efficiency in ineffective pursuit is a waste and of no benefit at all. The most irrelevant areas can be audited in a very efficient way.

We see IA effectiveness as a “*risk based concept that helps the organization to achieve its objectives by positively influencing the quality of corporate governance*” (Lenz 2013, p. 257). IA is regarded as providing a service to the organization. Effective IA is expected to review the major areas of risk in order to contribute to the achievement of company objectives by positively influencing corporate governance. Consequently, the degree of goal-attainment of an IAF’s contribution is associated with its influence on corporate governance. The suggested definition understands governance as an umbrella term also including risk management and internal control. However, we are aware that IA effectiveness is contextually bound, and that our definition may not generally be applicable and relevant as IAFs may serve different purposes in their respective specific organizational context.

When providing a synopsis of what relevant academic literature says about IA effectiveness we generally consider publications from 1999 onward, since the latest revision of the IA definition (IIARF, 2013, p. 2), which states the fundamental purpose, nature and scope of IA:

“Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization’s operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.”

Older references are included if they are considered to be of particular relevance. When providing a review of the existing empirical literature on IA effectiveness, two different

streams are distinguished, the “supply-side” perspective, i.e., empirical studies based on self-assessments of internal auditors, and the “demand-side” perspective, i.e., empirical studies based on other stakeholders’ perspectives. In both streams, we identify common themes as summarized in table 1:

[Insert table 1]

Tab. 1 Review of empirical literature on IA effectiveness

Stream 1 addresses the supply-side perspective, empirical literature where internal auditors, mostly heads of IA (CAE)ⁱ, describe how they assess their effectiveness.

Stream 2 addresses the “demand-side” perspective, as it sheds light on empirical literature that discusses and analyzes how clients, the customers and beneficiaries of the services rendered by the IAF, perceive its value. “*IA is a service to the business and it is essential that the business as a whole determines the sort of internal auditing it shall have*”, as Chambers (1992, p. 24) puts it, Drucker (1985, p. 172) concurs, stating that “*quality in a product or service is not what the supplier puts in. It is what the customer gets out and is willing to pay for.*”

2.1. The supply side perspective: How internal auditors think about their role and effectiveness?

The first stream reviews empirical literature addressing how internal auditors assess themselves, their role, and their effectiveness.

The role of the CAE and the skills and competences of internal auditors, organizational specifics, its politics and culture, support from senior management, and the impact of the board, directly or through the audit committee (AC) are regarded as important factors.

2.1.1. High importance of the AC and the board

Empirical studies based on internal auditors’ self-assessments typically measure what can be counted including the frequency and length of interaction (time), accounting proficiency and the independence of the AC members, thereby differentiating between Executive and Non-

Executive Directors. Their profile/background, independence, and their willingness to work with and to involve IA are regarded as crucial factors impacting the effectiveness of the IAF.

The working relationship between the internal auditor and a company's AC has been subject of academic research for many years, e.g., Rezaee and Lander (1993) view regular interaction and an open dialogue as aiding the IAF to be most effective. The study by Scarbrough *et al.* (1998) indicates that AC with solely non-executive directors are more likely to establish a symbiotic relationship between the AC and the IAF, i.e., the AC support of the IAF facilitates their work, and in turn, the work of IA may enhance the effectiveness of the AC.

Raghunandan *et al.* (2001) and Goodwin (2003) supplement this finding when examining the association between AC composition and the interaction with IA showing that the independence of the AC and also the level of finance and accounting background/experience have a complementary impact upon AC relationships with IA. Thus, AC's with outside and independent directors and the extent of finance and accounting expertise are viewed as positively correlated with more active oversight evidenced by longer and more frequent meetings with the CAE, also providing possibly informal access, and are arguably more likely to review the program and results of IA. Thus, when there is an intense working relationship between the AC and the IAF, this is also expected to strengthen the independence and objectivity of the IAF (Goodwin and Yeo 2001). In addition, Arena and Azzone (2009a) show in an Italian setting that IA effectiveness is positively related to a close link between IA and the AC.

Rose and Norman (2008) and Norman *et al.* (2010) point to potential unexpected and adverse implications when the CAE reports directly to the AC. This constellation may create threats to IA's independence and objectivity stemming from the CAE's career and reputation concerns (especially when IA serves as a management training ground), the overreaction of audit committee members, and the possibility of retaliation by management. Notably, it was shown in an experiment that when there is a strong IA-AC relationship, internal auditors were not willing to report a breakdown in risk procedures to the AC (de Zwaan *et al.*, 2011). That conclusion was a surprise finding in the study, giving the lie to the original hypothesis. The complex relationship between the IAF and its various stakeholders seems not yet to be well understood. There can be competing claims on IAF resources between management and the AC as the study by Abbott *et al.* (2010, p. 23) shows. Further research is required to explore

how the management-IAF-AC relationship - and confusion about it - may divert the IAF's focus from serving the best interests of the company.

Whilst there is no full consensus on the CAE's best reporting lines, there seems to be consensus that an intense working relationship between the AC and the IAF *per se* is an enabler of IA effectiveness.

The study by Davies (2009) investigates the working relationship between IAF and the board predominantly from the perspective of the CAE, but also attempting to view the relationship from the standpoint of the AC chairs. Davies (2009) shows that earning a respected status within an organization may take considerable time for the IAF as the working relationship between the AC and IA largely depends on the governance framework, as well as on the individual personalities and their willingness to cooperate. The research shows that there is a great degree of variability on both sides of the table, in terms of what concerns the IAF and the AC. Davies' (2009) study points to an interesting notion, i.e., it makes a fundamental difference whether there is a board and/or management that want the IAF to look at the right things and support it in doing so, or board and/or management that is silent or actually impedes the IAF from becoming effective and potentially unearthing issues that members do not want to be identified and revealed. Such an IAF may then rather be viewed as "*Cinderella function*" (Davies, 2009, p. 61). Burns (1994, p. 92) sees the risk that internal auditors are intimidated by top management. Consequently, it is important that any CAE (or IA staff) unearthing problems can confidently and reliably report them without the fear of intimation or termination of their services or employment.

2.1.2. Support from senior management is critical

Sarens and De Beelde (2006a) interviewing ten CAE of Belgian companies and subsidiaries of U.S. firms point out that the further the development of risk-based internal auditing, the higher the status of the IAF. To play a more important role in risk management, support from other governance stakeholders, especially from senior management, may typically be required. In the U.S. the observed higher interest of Chief Executive Officers (CEO) and Chief Financial Officers (CFO) in risk management and internal controls is largely attributable to Section 302 and 404 of the Sarbanes-Oxley-Act (SOX), whereas in the Belgian context corporate governance requirements were only emerging, so "*it is hard to convince*

people in [some Belgian] organizations of the value of the internal audit function” (Sarens and De Beelde 2006a, p. 74).

Other academic studies support the critical impact that management support has on IA effectiveness. For example, Mihret and Yismaw (2007) and Halimah *et al.* (2009), when studying the Ethiopian and Malaysian public sector, respectively, and Cohen and Sayag (2010, p. 304) studying determinants of IA effectiveness in Israeli organizations, viewing the demand-driven organizational/managerial characteristics as the most important factor (more important than the supply-led qualifications and work setting of the IA staff) and crucial to the success of IA. Other determinants of IA effectiveness derive from decisions made by senior management, i.e., when hiring proficient IA staff, developing career channels for IA staff, and providing organizational independence for IA work.

The appreciation of IA by management is a crucial component identified by Geis (2010), interviewing eight CAE, and studying potential benefits of IA in the German context. This context is characterized by a two-tier board structure (management board and separate supervisory board) and a corporate governance code building on company-employed CAE typically reporting to the management board as the body held responsible through company law for independently managing the enterprise. In the meantime, the supervisory board sets up an AC to handle the monitoring of the accounting process, the effectiveness of the internal control system, risk management system and internal audit system, and the audit of the annual financial statements and compliance (German Corporate Governance Code, 2013, §5.3.2). In the first part, the study suggests a number of indicators measuring effectiveness including, customer survey of auditees, impact of IA findings on EBITDA (Earnings before Interest, Depreciation and Amortization) and liquidity, discovery of fraud, number of IA findings per country and region, time between end of field work and delivery of report, and the ratio of recommendations being implemented (Geis 2010, p. 95). Notably, in the second part, the study builds on the work by Parasuraman *et al.* (1985) suggesting IA develop a customer service oriented process first identifying customers and their needs and then seeking to meet their expectations. This model is based on the idea that the more the expectation gap is narrowed, the more effectively its customers perceive IA to have performed (Geis, 2010, p. 149). The study remains inconclusive about those expectations which were not established due to the design of the study. Interestingly enough, the study points to the potential challenge that customers of IA might only have vague expectations, or no expectations at all, as well as

to the danger to independence that such suggested customer focus may entail (Geis 2010, p. 125).

2.1.3. *Serving two (or more) masters*

Christopher *et al.* (2009) study the independence of the IAF using evidence from Australia based on CAEs responses to a questionnaire. The authors conclude that the independence of the IAF needs to be judged taking into account its relationship with management and the AC in combination rather than individually. When such a combined view is taken the large number of independence threats at the management relationship level may be contrasted by a small number or even the absence of independence threats at the AC relationship level with independence threats at the two different levels eventually compensating for each other. The findings suggest a) that the IAF's relationship with the AC is a stronger guarantee of independence than the relationship with management; and b) that there may be an optimal degree of intensity (Sarens 2009) of the relationship with management.

The study also suggests that too much involvement and direction can become harmful. Too little attention possibly represents a shortcoming as well. Further research is warranted investigating which view actually prevails when IA is serving multiple customers and whether there is an optimal degree of interaction with the AC, the board, and with management.

The work by Christopher *et al.* (2009) addresses the challenges in general when IA tries to “serve two masters” (IIARF 2003, p. 3) which is acknowledged as a potential conflict by the IIA. Gramling *et al.* (2004, p. 240) suspect tension between the IAF, the AC, and executive management as they pose the question: “*if the audit committee and management have different visions for the corporate governance role of the IAF, which vision will dominate?*” Gramling *et al.* (2004, p. 240) presume that the IAF puts one client first when posing the question on “*which side of the line between the audit committee and management does the IAF fall?*”

Beasley *et al.* (2009, p. 114) highlight “*the often nebulous, informal nature of internal audit oversight by the audit committee and management (i.e., internal audit is overseen by two parties).*” Chambers (2008) suggests the board is the ultimate customer of IA whilst acknowledging the importance of other governance stakeholders. According to Chambers (2008) it is crucial to “*get the boss right*”, to clearly define the primacy of the board as the

chief stakeholder having oversight responsibilities. Consequently, he finds that internal auditors must be independent of management if the board is to rely on internal audits to provide the assurance the board needs. Otherwise, when serving two masters (IIARF, 2003), the risk is that IA reports to the board are filtered by management, in a way that only what is palatable to management is communicated. Lenz and Sarens (2012, p. 540) recommend *“focusing on one prime customer group foremost and aiming at satisfying the chief stakeholder first and in full is an alternative approach to targeting multiple customers at the same time and not satisfying anyone.”*

A study by Hoos (2010) suggests that internal auditors do give priority to either management or the AC depending on the instructions of the CAE. That finding resulted from an experiment in which the CAE assigns the IA staff to either prioritize the management agenda (cost reduction) or the AC agenda (effectiveness). This study underpins the crucial role of the CAE.

2.1.4. Crucial role of CAE and the skills and competences of internal auditors

Prawitt (2003) acknowledges that managing and staffing an IAF is a vast and complex undertaking that remains relatively unexplored by rigorous research. Pforsich *et al.* (2006 and 2008) present a case study, emphasizing the importance of the CAE when setting up the IAF. The case study describes the steps that a company took when establishing its IA department, which included finding a highly qualified CAE, defining the IA department's mission, developing the audit charter, staffing the department, creating an overall audit strategy, and assessing the department's effectiveness. Criteria applied to assess effectiveness included whether major projects were performed, whether the IAF was receiving requests from the business units, whether business units were willing to work with the internal auditors, and client surveys. In particular, the feedback from audit customers serves to better understand how the service rendered is perceived. Such satisfaction surveys should be examined with due care, as they may refer only to 'how' the audit work has been perceived and thus assume among other factors that the auditors were focusing on the issues that matter most to the firm. The CAE in the case study reports directly to the AC and, for administrative purposes, to the CFO. The paper helps understanding the sequence of actions taken when setting up an IAF, what to do first and what to do well, and provides pointers to the key dimensions of an effective IAF. The competencies of internal auditors matter, and when setting up an IAF it is recommended to start with the leader, the CAE.

Van Peurseem (2005) views the internal auditor's role to be an enigmatic one, being both a watchdog and consultant. Her study is based on interviews of six IAFs in New Zealand. She regards communication skills and personal authority as indicators of successful internal auditors who are, moreover, able to define their role by adapting and tailoring it to circumstances. According to Chambers (2008), communication skills, listening, and influencing skills are required when carrying out field work and liaising with auditees and C-level or board executives within a particular organizational context. Mihret *et al.* (2010, p. 240) stressed the crucial skill of internal auditors being able “*to make the ‘tough’ recommendations without fear or favor.*”

2.1.5. Organizational characteristics matter including politics and culture, role ambiguity and role conflict

The overall organizational impact is identified as an important dimension that influences IA effectiveness (Mihret *et al.*, 2010, p. 241). Carcello *et al.* (2005) investigate the question why some companies invest heavily in IA while others do not. Analyzing data from 217 publicly traded companies in the US, Carcello *et al.* (2005, 82) find evidence that IA budgets are higher in companies “*that are larger, have more debt; are in the financial, service, or utility industries, have more inventory; have greater operating cash flows; and have audit committees that review the internal audit budgets*”. Cohen and Sayag (2010, p. 305) conclude that the effectiveness of IA depends more on organizational characteristics than on the qualification and work setting of the IA staff.

According to Sawyer (1995), the best set of qualities of an internal auditor may be of no avail in the absence of an understanding of the politics and culture of an organization. Chanchani and MacGregor (1999), and also Sarens and Abdolmohammadi (2009 and 2011) point on the significance of the politics and culture of an organization.

Ahmad and Taylor (2009) and Fazli *et al.* (2013) apply Role Theory (Kahn *et al.*, 1964) in studying IAFs in Malaysia. Ahmad and Taylor (2009) conclude that role ambiguity (when it is unclear what is expected and whose expectations shall be met, Kahn *et al.*, 1964, p. 24) and role conflict (as occurring when two (or more) sets of pressure cannot be simultaneously served, Kahn *et al.*, 1964, p. 19) negatively affect the independence of internal auditors.

Similarly, Fazli *et al.* (2013, p. 6) show that the “*clarity of their role is imperative in ensuring their effectiveness*”, particularly with regard to risk management.

As there is limited research on the impact of organizational factors on IA practices, including the impact of politics and culture of an organization and the phenomena of role ambiguity and role conflict, further research is warranted.

2.1.6. *IA is effective when it is risk-based*

Modern IA is risk based (Spira and Page, 2003), “a good IA service gets to the heart of the issues facing the organization” (NAO, 2012, p. 5). The IIA Performance Standard 2010 (IIARF, 2013) demands risk-based IA (RBIA), a concept that has been subject to IIA position papers (IIA UK and Ireland, 2005; IIA, 2009) in the light of the organizational risk management function’s role. The focus on critical risks and issues, and the importance of RBIA is supported by literature (for example through Allegrini and D’Onza, 2003; Burnaby and Hass, 2009; Ernst & Young, 2012; PwC, 2010). Sarens and De Beelde (2006a, p. 76) stated that along with the rise of institutionalized enterprise risk management functions “*internal auditors are concerned about their capacities to play an important role in risk management.*” Castanheira *et al.* (2010, p. 95) show that “*in most entities, individual audits are control-based, and not risk oriented*” when studying company-specific factors associated with the adoption of RBIA in Portugal. Coetzee and Lubbe (2013) associate the maturity of RBIA with IA effectiveness: the better the IAF assists with the mitigation of key risks threatening organizations, the more effectively it operates. Based on the self-assessment of CAEs in the U.S., Sarens *et al.* (2012) investigate several variables that are theoretically associated with an IAF having an active role in corporate governance: applying RBIA, the existence of a quality assurance and improvement program, and AC input to the audit plan emerge as factors that are significantly and positively associated with an IAF playing an active role in corporate governance.

2.1.7. *Building blocks of internal audit characteristics*

Lenz *et al.* (2013) study characteristics of IAFs that help to distinguish between two groups of IAFs with sharply contrasting levels of perceived effectiveness. By suggesting four key categories to identify, examine and evaluate the level of IA effectiveness, i.e., organization, IA resources, IA processes and IA relationships, the study plants the seeds for a potential general theory of IA effectiveness. Within these dimensions, the study identifies statistically

valid discriminatory characteristics and features to separate the wheat from the chaff. The presented prior research has its focus in one or more of these four dimensions (for a summarizing view, see table 1).

A strong corporate governance context is seen as helpful when establishing a powerful IAF (associated with category 1: organization). The CAE and the IA staff matter (category 2: IA resources). The competent handling of key processes, especially RBIA, is associated with IA effectiveness (category 3: IA processes). Empirical studies based on the self-assessment of internal auditors point to the importance of the relationships with the board/AC and senior management (category 4: IA relationships).

We will now turn to the second stream of literature.

2.2. The demand side perspective: How do stakeholders view the role and effectiveness of IA?

The second stream reviews empirical literature that assesses how other stakeholders view IA effectiveness. Flesher and Zanzig (2000) suggest that internal auditors and customers of audit services should possess a common understanding of what makes IA a value-added activity. Albrecht *et al.* (1988, p. 3) conclude that what matters most is “*that the audit work is completely consistent with the objectives and role as determined by top management and the audit committee.*” Whilst there is debate in the literature about the ultimate customer - whether IA is the “eyes and ears of the board or audit committee” and / or “the eyes and ears of management” (Anderson, 2003; Chambers, 2008) - the internal auditor typically liaises with other internal governance stakeholders, i.e., management, the board and the AC, and external auditors.

2.2.1. Multiple outcomes of IA

Dittenhofer (2001) suggests as measurement criteria for IA effectiveness the resolution of problems (if there are any) or the (credible) attestation that there are none. Some IAF may meet the highest standards when making contributions to strategic issues within an organization (Melville 2003). Studies by Mercer (2004), Archambeault *et al.* (2008) and Holt and DeZoort (2009) indicate that an internal audit report can improve stakeholder confidence when it complements an existing governance disclosure. Moreover, ‘having an IAF’ is *per se* a plus, in terms of the reporting of unauthorized acts, as the study by Kaplan and Schultz

(2007) shows. Additionally, as Coram *et al.* (2008) demonstrate, organizations with an IAF are more likely to detect and self-report fraud caused by misappropriation of assets.

Hermanson *et al.* (2008) review IA-related problems that were revealed in SOX 404 reports, and provide specific recommendations for building an effective, value-adding IAF. The absence of reported material weaknesses in the SOX 404 reports caused by IA-related problems is interpreted as a sign of effectiveness. This being a primary concern of the board and top management in the aftermath of the bankruptcy of WorldCom and Enron in the early years since 2002-03, IA made a difference when it was effective in that area, contributing to avoid material weaknesses in the internal control system with financial reporting being the prime area of interest. Similarly, the study by Lin *et al.* (2011, p. 288) also linked IA effectiveness with the disclosure of material internal control weaknesses. Lin *et al.* (2011) showed that various IA activities foster IA effectiveness, including the use of quality assurance techniques, grading IA reports and performing follow-up on issues securing remediation.

Prawitt *et al.* (2009) attest that IA can play a role in preventing management from aggressively covering up or manipulating earnings or accounts, as there is greater transparency and a greater likelihood of discovery.

2.2.2. IA is effective when meeting expectations of management

Albrecht *et al.* (1988, p. 7) view the degree of senior management support for the IAF as the most critical factor in IA effectiveness. The two-sided approach - including CAEs and CEOs in one survey – provides evidence of a wide chasm (Cooper *et al.*, 1994), pointing to a series of inconsistencies between actual audit coverage provided by IA departments and the presumed scope from CEOs' point of view. The role and scope of IA require clarification between management and the IAF.

Through five Belgian cases Sarens and De Beelde (2006b) investigate the relationship between IA and senior management (CEOs and CFOs), concluding that the acceptance and appreciation of IA within a given company depend on the support they receive from senior management. As indicators of such support the study by Sarens and De Beelde (2006b, p. 224) references, among others open and direct communication, input to IA planning, approval of resources, response to IA recommendations and keeping IA informed about what is

happening in the organization. All these dimensions - communication, input, support and caring about IA recommendations and information - are considered indicators for IA effectiveness.

Lenz (2013) also includes senior management in his study design, showing that the concept of customer satisfaction (expectation matching) can easily be misleading as some managers demand very little of the IAF. Lenz (2013) shows that there can be “moments of truth” when senior management and the CAE interact, moments that can determine whether the CAE ultimately succeeds or fails in the pursuit of rendering an effective IA service. Lenz (2013, p. 276) concludes that “CAEs who interact *frequently* and in a *timely* manner with senior management, using *problem-solving communication*, help and nurture IA effectiveness, especially when communication is supported by *shared goals, shared knowledge, and mutual respect*.”

2.2.3. IA is effective when meeting the expectations of the board/AC

The Belgian study by Sarens *et al.* (2009) sees the IAF as an expert provider of comfort to the AC related to what is going on in the company, thereby mitigating the information asymmetry problem. Formal symbols of comfort like IA reports and presentations and informal symbols of comfort through private contacts and face-to-face meetings seem to be important means of providing comfort to the AC.

Soh and Martinov-Bennie (2011, p. 614) view the relationship between the AC and the IAF as critical to IA effectiveness, drawing particular attention to the importance of the CAE’s competencies: “*a good CAE is able to work with other stakeholders in the organization and is not afraid to voice his or her opinion even in controversial situations.*”

2.2.4. IA is effective when meeting expectations of external auditors

Considerable research has been conducted to assess IA effectiveness from the perspective of external auditors noting that there is uncertainty among external audit (EA) whether IA is a significant player in the governance arena or rather “*an assistant carrying out the directions of the audit committee and the board*” (Cohen *et al.* 2010, 780). This points to concerns about independence of IA with internal auditors typically paid by the organization to which they are supposed to render independent assurance and consulting services. The ability to manage threats to objectivity and independence is central, acknowledging that the attempted

differentiation between independence in appearance and independence in fact (in mind) may not be a convincing concept in practice (Mutchler, 2003).

The question of IA effectiveness matters to external auditors; they may have to discuss with the AC the quality of the IAF and the extent to which they are able to rely on the work performed by IA (Cohen *et al.*, 2007). The study by Gramling *et al.* (2004, 236) acknowledges that there is uncertainty regarding which criteria are relevant to IAF quality evaluations, concluding that “*literature provides little guidance as to which IAF factors should be enhanced if an organization desires to increase IAF quality.*”

When determining the external auditor’s reliance decision, objectivity (reporting relations), work performance (coverage) and professional competence are the criteria typically chosen. Krishnamoorthy (2002) approximates these criteria by two observable values each, like professional certifications or the level to which IA reports in order to assess competence or objectivity, respectively. Other studies of that kind apply the same pattern, with observable variables tending to approximate the three criteria (e.g., Desai and Desai, 2010).

Felix *et al.* (2001, p. 530) suggest that IA contribution is a significant determinant of the external audit fee, i.e., the greater the contribution of IA to the financial statement audit, the lower the audit fee. A later study by Felix *et al.* (2005) shows that the client pressure is more important than the perceived quality of IA when determining the extent of IA reliance. When significant non-audit services are provided, IA reliance tends to increase regardless of perceived IA quality. When the IAF is used as a management training ground, internal auditors are viewed by external auditors not as less competent but as less objective, so higher fees are charged (Messiers *et al.*, 2011).

When assessing IA effectiveness from an EA perspective, the higher the utilitarian benefit for EA, the higher IA quality is perceived. The value that EA sees in IA is dominated by the reliance question. The more the work of IA is related to the topics of EA, the more appreciative EA may become. As the EA is financially oriented, its focus can be far from the areas where IA may make a difference. Modern IA shall be risk based which does not necessarily make financial reporting-related matters a priority. Thus, EA reliance as an indicator of IA effectiveness can be misleading.

Whilst there is much research about the collaboration between IA and EA from an EA point of view, research about that collaboration would also be warranted from an IA perspective. Such research may help to examine and address the Institute of Internal Auditors' (IIA) observation that “*IA continues to be perceived as the step daughter of public accounting*” (IIA, 2013, p. 10).

2.2.5. IA is effective when meeting expectations of auditees

This subject matter is still under-examined. While Arena and Azzone (2009b) point out that the effectiveness of IA depends upon the quality perceived by the auditees for it is management that will or will not implement recommendations made by the IAF, Elliott *et al.* (2007) conclude that IA reports are not always well received, they are sometimes not perceived well, and their findings are not always viewed as particularly significant, at times as trivial.

2.2.6. Effective internal auditors require skills and competences

Albrecht *et al.* (1988, p. 6) view IA effectiveness as being a result of capable leadership by the incumbent CAE. The dimension of personality is viewed as an essential factor impacting IA effectiveness. Mihret *et al.* (2010, 240) stress the crucial skill of being able “*to make the ‘tough’ recommendations without fear or favour*”. Similarly, Soh and Martinov-Bennie (2011, 614) emphasize “*a good CAE is able to work with other stakeholders in the organization and is not afraid to voice his or her opinion even in controversial situations.*”

Cahill (2006) presented a case in which IA identified a major issue - the malpractice of interest loading in a bank - but failed to communicate the findings clearly to the AC. As internal auditors typically impact organizations through others, communication and influencing skills are instrumental to ensuring that important recommendations are resolved in a timely fashion. Understanding and support need to be secured by audit clients and other stakeholders when they aim to convert suggestions for improvement into action, to prevent things from going wrong, fix what is broken, or to make what is good even better.

Rittenberg and Anderson (2006) present the ideal profile of a skilled and qualified CAE, a profile deemed fully satisfying when improving corporate governance and internal controls as well as partnering with senior management and the AC. The key performance criteria for

CAEs include stature and presence, strategic audit focus, the ability to exercise sound judgment, and the capacity to communicate clearly on audit issues.

The following section 3 synthesizes the main threads into a model, comprising macro and micro factors that influence IA effectiveness.

3. Macro- and micro-factors influence the effectiveness of IA

Before synthesizing the present understanding of IA effectiveness into a multi-faceted model, we first summarize some key features and patterns when reviewing prior IA research:

- IA *per se* is quite a young separate research area. Notwithstanding that we focus on research since 1999, when the latest definition of IA was introduced, we see IA research only emerging as a separate stream since 2000, with some prior relevant studies.
- Bailey *et al.* (2003) presented research opportunities in IA that helped to advance IA by inspiring a growing academic IA community.
- Albrecht *et al.* (1988), a research project that was sponsored by the IIA Research Foundation, is the pioneer work in the research field of IA effectiveness, also seeking to capture an “outside-in” perspective by including senior management and other stakeholders in the study design.
- Since 1999, the majority of studies are based on the “supply-side perspective”, empirical studies based on self-assessments of internal auditors. Those studies are limited by the “*overly optimistic self-assessments by internal auditors*” (Lenz and Sarens, 2012, p. 537).
- Since 1999, the current literature rarely considers the “demand-side perspective”, the stakeholder’s perspective on IA effectiveness.
 - For example, there are presently only two studies that examine IA effectiveness including the board/AC in the study design, Sarens *et al.* (2009) and Soh and Martinov-Bennie, 2011) in a Belgian and Australian setting, respectively.

- The relationship between IA and the auditees is a little explored area in academic research.
- Since 1999, most studies have been of rather descriptive nature. The number of conclusive studies, examining the impact of IA on other variables, such as on corporate governance (Sarens *et al.*, 2012), is limited.
- In most IA research to date, authors inherently assume that IA adds value. We believe that the IA profession could benefit from a more critical starting point for evaluating IA practices.
- The current literature does not provide studies about factors that influence IA *effectiveness* and how IA effectiveness can be created and enhanced. In practice, as Soh and Martinov-Bennie (2011) show, the most commonly employed measures of IA effectiveness relate to its *efficiency* with regard to delivery of the annual IAF work plan and the acceptance and adoption of IA recommendations.
- We consider some proxies applied in academic studies as problematic. Professional competence, for example, is approximated with an observable value like having a professional certification (e.g., Krishnamoorthy, 2002). Lenz *et al.* (2013) challenge the value of the educational content, perceived value, and measurable benefit of such IA qualifications and designations for CAEs.
- IA research to date has not explored the analytical and theoretical frameworks pointing, for example, to the inclusion of Role Theory (Kahn *et al.*, 1964) in some recent studies (Ahmed and Taylor, 2009; Fazli *et al.*, 2013).
- The behavioral dimension (the so-called ‘soft-factors’) of IA effectiveness deserves more attention in future empirical research. Some recent studies, like Mihret *et al.* (2010) and Soh and Martinov-Bennie (2011) stress the crucial skill of internal auditors being able to speak up especially in controversial situation. Lenz (2013) points to “moments of truth” which includes moments of conflict and discomfort as highly significant factors on IA effectiveness. Nuijten (2012) shows there inherent potential for conflict through investigating the Deaf Effect and Bounded Rationality in management’s response to IA’s

risk warnings. Determination, diplomacy, and sound ethics seem to be important dimensions.

Based on prior research, we suggest IA effectiveness should be viewed as a multi-faceted concept thereby distinguishing the macro- and micro-dimension as figure 1 illustrates:

[Insert figure 1]

Fig. 1 Macro and micro factors influencing IA effectiveness

The empirical papers presented in the prior section largely focus on *micro factors*, i.e., organization, IA resources, IA processes, and IA relationships (see also table 1). Among other things, academic research on IA effectiveness points out that support from senior management is essential. Meeting expectations is regarded as crucial. The board and the AC are important stakeholders. However, stakeholders are many, and their expectations are not necessarily congruent. Skills and competences of the CAE and the individual internal auditor are key factors but the best set of qualities may be futile when not compatible with the culture of an organization or when professional IA services are not truly wanted. Lenz *et al.* (2013) plant the seeds for a potential general theory of IA effectiveness. That model may be a challenge for future IA researchers, allowing critical as well as appreciative perspectives.

There are also *macro factors*. According to Power (1997) we live in an “*audit society*”, whereby Power (1997, p. 15) questions “*what do audits produce and how are they effective?*” thereby alluding to an imbalance “*between poorly rewarded ‘doing’ and highly rewarded ‘observing’*” (Power, 1997, p. 147). To get an overview of the macro factors influencing IA effectiveness, institutional theory (DiMaggio and Powell, 1983) may serve as a helpful concept, which some scholars have applied as a theoretical framework in the context of IA, for example Al-Twaijry *et al.* (2003) when examining IA in Saudi Arabia. Institutional theory views organizations changes largely as responses to three mechanisms: coercive forces, normative forces and mimetic forces. These are also subsumed as “*isomorphic forces*” (DiMaggio and Powell, 1983, p. 147) for institutional theory sees “*rational actors make their organizations increasingly similar as they try to change them*”.

Coercive forces are related to the compliance with laws and other binding regulations. Arena *et al.* (2006) show in an Italian setting that regulations can have a strong influence on the development of IA. To establish IA in less mature economies scholars like Brierley *et al.* (2001) and El-Sayed Ebaid (2011) in a Sudanese and Egyptian study suggested adapting coercive force to gain legitimacy.

Normative forces show their impact through the degree of conformance with the International Professional Practices Framework as provided by the IIA (IIARF, 2013), the global standard setting body of the IA profession. The stronger the normative force of the IIA, the more effective the IAF may demonstrate itself to be by conforming to the IIA's good practice principles. According to the 2010 Common Body of Knowledge (CBOK) study only 57% of IAFs performed audits of enterprise risk management processes and 45% performed corporate governance reviews (IIARF, 2010, pp. 24-25).

Mimetic forces refer to the phenomenon that organizations tend to model themselves after similar types of organizations that are considered successful and legitimate.

Lenz (2013, pp. 262-5) concludes that coercive institutional forces influence IA effectiveness but they are typically limited and often only indirect. Similarly normative institutional forces influence IA effectiveness but they are assessed to be comparatively weak. Mimetic institutional forces matter, but IA effectiveness requires a shared understanding of what makes IA a value-added activity.

The limitation of investigating macro factors through the lens of institutional theory lies in its potential for undervaluing or missing important external drivers like political, economical, societal, technological, legal, and environmental megatrends. These trends shape organizational structures, functions, and their interaction, mandating the application of additional frameworks for covering the impact of - from the viewpoint of institutional theory - more "distant" macro factors.

Lenz (2013, p. 265) emphasizes the superiority of micro factors: *"In cases where macro and micro forces are in conflict with each other, the CAE has to decide what he or she gives priority to. Unless the isomorphic pressure stems from coercive force, it is typically likely that micro factors prevail because IA is first and foremost an internal monitoring mechanism"*

working for internal stakeholders.” Thus, we expect the micro factors to determine behavior unless there is very strong coercive pressure of some sort demanding for example organizations not only to have an IAF but to have an *effective* IAF and being quite specific about what that means in practice. That would also mandate clearing our still fuzzy understanding of the determinants of IA effectiveness. Addressing the new set of research questions that are suggested next may deepen such understanding.

4. New research opportunities

After identifying common themes in the empirical literature and synthesizing the main threads into a model comprising macro and micro factors influencing IA effectiveness we will provide promising future research paths that may lead to enhancing IA’s value proposition.

We have clustered the suggested IA research proposals around the main strands identified, that is IA relationships, IA processes, IA resources, questions concerning the impact of organizational specifics, and questions that address macro factors.

4.1. IA relationships

Interpersonal factors are regarded critical in determining IA effectiveness. The relationship between IA, respectively the CAE and IA staff, and senior management and the board/AC will continue to be an important research field, also addressing the classic ‘serving two masters’ scenario. The relationship between CAE, respectively internal auditors, and auditees on the other hand, represents a new research field.

- How shall the IAF be best positioned in the organization’s overall governance, risk management and compliance infrastructure?
- The past years led to an expanded but blurred description of governance roles in intra- and inter-professional discourse as well as in pronounced frameworks and guidance. Conciseness and effectiveness of good practice models mandate the development of a commonly applicable, cross-sectoral model of governance, risk, and control functions and roles as well as their interfaces. Can we develop a common model and what would be its key features?

- Why do some stakeholders fail to understand the value of IA? How can better alignment between IA and both, senior management and the board/AC, be achieved?
- How can we resolve the chicken and egg problem in IA effectiveness? What do we know about the causality of effective IA? While the influence of the relational dimension between CAE and senior management (and the board/AC) is viewed as important, there is little knowledge about the direction of the effect. Successful interpersonal interaction between the CAE and senior management as well as the board/AC can lead to actual and/or perceived IA effectiveness. On the other hand, rendering an actual and/or perceived to be effective IA service may also lead to improved interpersonal relations. Experimental research could provide further insights into this ‘chicken and egg’ problem, namely the causality of IA effectiveness.
- When measuring IA effectiveness, is using the extent to which senior management’s expectations are met the ‘silver bullet’ or in practice, can that be misleading as senior management may have too low expectations of IA?
- When measuring IA effectiveness, is using the extent to which the board/AC’s expectations are met the ‘silver bullet’ or in practice, can that be misleading as the board/AC link may cause unexpected and adverse implications (Rose and Norman, 2008; Norman *et al.*, 2010)?
- What is the relationship and influence of IA work and its quality/effectiveness on board effectiveness and vice versa? What can we learn from cases of best practice?
- What can we learn from research about the collaboration between IA and EA from an IA point of view?
- Under which conditions can reliance by EA on IA be a helpful indicator of IA effectiveness in practice, and when can it be dangerously misleading? Can a comprehensive list of criteria for reliance on IA’s work be determined?
- What do we know about the relationship between IA and the auditee in practice? What are the key skills and competences that help obtain acceptance and appreciation of IA findings so that the auditee eventually resolves surfacing issues in practice?

4.2. IA processes

There is still ambiguity concerning the processes, purpose, and activities of IA. Leading questions may facilitate a deeper understanding and appreciation as to why we have internal auditors, what internal auditors are tasked to do in practice, how they operate, what they are rewarded for and what successful internal auditors do differently in comparison to their less successful peers.

- What are the key processes and success factors when setting up an IAF?
- What are the features of a common capability and maturity model for the IAF, based on a generic methodology and taxonomy as provided through the globally adopted ISO 15504-model?
- What do IA and its stakeholders actually know about the core concept of providing assurance? What does it mean to them?
- What precisely does ‘a right balance’ between assurance services and consulting engagements mean? How is it found in IA practice? Is blending a legitimate concept?
- What are the differences and/or similarities between the ‘assurance and consulting concept’ of IA and the EA profession? What is the impact of role ambiguity and role conflict between an IAF and its stakeholders?
- Can it be empirically confirmed that more effective IAFs’ scope covers all or most of the organizational GRC (Governance, Risk, and Compliance) functions? Is providing a more integrated assurance function the future role model of IA?
- Is there any hypocrisy or dissonance between rhetoric and practice as far as the positioning of IAFs is concerned? If so, what useful purpose may it serve, what are the risks?
- What are the experiences and consequences when IA aims at scaling-up its value proposition to key stakeholders, for example, migrating from policing and double-checking to a risk-, control-, and governance-based IA approach?

- What do we know about the rationale and considerations (pros and cons) in practice of rating (or not rating) individual findings? How does rating impact relationships and effectiveness, in the short and long-term?
- What do we know about the rationale and considerations (pros and cons) in practice of grading (or not grading) an overall IA report? How does grading impact relationships and effectiveness? Which phenomena can be observed, short- and long-term?
- What can we learn from moments of discomfort experienced by CAEs in the frequently inherent conflicts with other governance stakeholders, which may be highly significant factors on IA effectiveness? Do which extent does research on the “Deaf Effect” and “Bounded Rationality” (e.g., Nuijten, 2012) explain such “moments of truth”?
- Why do some IAFs refrain from complementing their skill set by co-sourcing activities and thereby possibly limiting their impact? Are there measurable positive and negative effects of choosing such an approach?
- What do we know about IA as a credence good (Causholli, 2009) and the influence of ‘soft factors’ on IA effectiveness?
- What can we learn from metaphors about IA? What are metaphors and self-images that can make a positive difference, and can create a unique and sustainable organizational identity for IA?
- How can IA best benefit from technology and advanced data analytics?

4.3. IA resources

People matter. The role and impact of personal characteristics of the CAE and internal auditors deserves further attention in research, especially the ‘soft factors’ represent a promising research arena. Personality matters and as it is assumed to have an influence on the thinking, behavior, and activity of internal auditors it merits further attention. The behavioral dimension deserves particular attention in future empirical research. The core differentiator between the strong and the weak internal auditor may be rather behavioral than cognitive.

Knowledge or its lack may not be the prime challenge in practice, but rather the right behavior.

- How can the IAF's talent pool keep up with the evolving risk portfolio of the organization?
- What can we learn about the influence of personality factors on IA effectiveness by exploiting the metaphors of "swimming in the organization" and "Fingerspitzengefühl" (Lenz, 2013)?
- What can we learn about the influence of personality factors on IA effectiveness from formal psychometric profiles of CAEs and correlated professionally revealed personality types with the effectiveness of an IAF?
- Can the CAE become a change agent and if so, what are favorable conditions for doing so?
- What are career patterns of CAEs/internal auditors and on what basis are career choices made to move into the IA profession and out again?
- Why is IA often seen as a springboard whereas EA has clearer career paths supporting life-long professional involvement?
- What do we know about the effectiveness of career auditors versus those who stay in the profession only temporarily and who have experienced other activities prior to entering the auditing field? What are the consequences of audit functions and audit assignments?
- Are there optimum life cycle patterns for performing IA most effectively? For example, the hypothesis that between three to seven years after induction a turning point develops at which internal auditors/CAEs may become too comfortable and lose their cutting-edge abilities?
- How best can IA be learnt and taught?

4.4. Organization

IA does not operate in isolation. Without a business, there is no IA. The impact on IA of the specific organizational context merits further research to deepen understanding of factors, which may limit or enhance IA effectiveness.

- What is the relationship between the quality and effectiveness of IA work and that of the organization and how and to what extent does each influence the other? Is it adequate to conclude that high organizational effectiveness nurtures and low organizational effectiveness may hamper IA effectiveness? Which indicators matter? How are such indicators correlated?
- What are the influences of organizational factors and associated corporate cultures on IA effectiveness? Which insight provides the examination of hidden champions (Simon, 2009)?
- Why do some IAFs have no charter that clearly scopes the role and mandate of IA in the organization? What are the consequences, can we learn from existing empirical data?
- What is the influence of the organizational life-cycle and maturity on IA effectiveness?
- What is the relationship between CAE's professional/personal characteristics and the IAF's role in corporate governance?
- What can we derive from research into the cyclical corporate governance disasters throughout the past decades, what the IAF has or has not done, what it was expected to do and how it could have had the right influence? To what extent can insights and patterns from past challenges color the image of an effective IAF?
- Are there reliable hard measures of IA effectiveness or is IA effectiveness ultimately all about soft factors?
- Can we find cases of IA effectiveness based on validated secondary indicators like fraud or financial performance? If so, are there recent cases providing evidence that more effective IA leads to less fraud and better financial performance?

4.5. Macro factors

The macro-factors, as we cluster them, comprise of three institutional forces that demand compliance with laws and regulations (coercive force), adherence to the professional practices as promulgated by IIA (normative force), and imitation of other IAFs by learning from and mimicking others' (good) practice and prescriptions from consulting firms (mimetic force).

- What level of coercive force is needed - if any - to establish IA as a full profession? Does the maturity of national economies matter?
- Can IA effectiveness be legally mandated, or is the ubiquitous strive for effectiveness a matter of 'gardening'?
- Why is there no corporate governance code that both gives a practical definition of and at the same time demands the IAFs effectiveness?
- Why and when should regulators care about regulating IA?
- What is the impact of different governance environments on the role and effectiveness of IA? What can we learn from experiences in the contexts of the different variants of one-tier and two-tier board structures? What are the pros and cons in terms of IA effectiveness when governance regimes apply the principle of "comply or explain" versus making the existence of an IAF mandatory?
- Is there consensus, and if not, why not, that the professional standards of the IIA (IIARF, 2013) can be considered what Jeppesen (2010) called "*soft texts*", that is, texts that are non-committal and allow a certain degree of interpretation? What are the consequences of reference made to 'soft' professional standards made by transnational fora (e.g., BIS, OECD, and EU) and national regulatory bodies?
- Why does the IIA definition (IIARF, 2013) describe IA as an activity instead of emphasizing its delivery, i.e. the products, services and outcomes that IA has to offer? What are the advantages and what are the disadvantages of this choice?
- What are the pros and cons of setting IIA standards as a descriptive code of practice versus as a progressive normative standard?

- Should the IIA solidify the value proposition of IA in order to enhance its normative force and help to further professionalize IA, and if so, what level of coercive force is required as a minimum?
- In response to what happened during and after the financial crisis that began in 2007 and to avoid any confusion about who is the chief stakeholder of IA, the “*boss of IA*” as Chambers (2008) called it, does the IIA need to weaken the concept of IA being a partner to senior management (re-) emphasize the reporting lines of IA to the board/AC?
- What are the pros and cons that anyone with or without an IA qualification or equivalent can sign and issue an IA report (in contrast to the practice in EA)?
- Does an increasing variety of IA related degrees and designations dilute the value of certification and impair the professional identity of certified IA practitioners? What are critical factors supporting or limiting additional certifications?
- What are the competitive and cooperative patterns among the increasing variety of professionalizing governance functions and representations (including IIA, ISACA, NACD/ECODA, OCEG, ACFE, IFIRMA, and others)?

5. Summary and conclusions

The motivation of this paper originates in the again perceivable relevancy threat faced by the IA community. A reality check signals ongoing questioning of the IA function’s role and relevance, sometimes even disappointment among IA stakeholders. Thus IA may once again be at a crossroads (IIA, 2013; PWC, 2013): IA is under pressure which may leave it with a weakened impact or it may emerge as a stronger, more recognized profession.

The suggested diagnosis and therapy from consulting and accounting firms can be helpful to improving the IAF’s value proposition. These firms conduct and publish regularly surveys on IA, studies, which typically document indicators of key users’ actual or potential disappointment in IA’s performance. PWC (2013, p. 18), for example, diagnoses a “*cycle of misaligned expectations, challenged internal audit capabilities and sub-optimal contribution*”, and offers the therapy two pages on, suggesting that the AC shall “*ask more questions*”, management shall “*expect more*”, and the CAE shall “*deliver more*” (PWC, 2013, pp. 20-3). While paraphrasing this more practitioners-g geared survey in a much

abbreviated form, it is important to note that such surveys may be biased through the IA service portfolio the publishers provide.

Bearing a possible hidden commercial bias in mind and, hence acknowledging some concerns about the objectivity and rigor of such surveys, there are comparative advantages that scholars can bring to address fundamental issues associated with the value proposition of IA. Those comparative advantages include the absence of commercial interests and the potential to more thoroughly and possibly more objectively examine specific aspects and more fully appreciate the root causes of relevant phenomena. That is why we - ten years after Bailey *et al.* (2003) - revisited the agenda of empirical research opportunities that can contribute to bring out the best of IA, and help IA in its pursuit to become a universally recognized profession. With this paper we wish to motivate further scholarly research about IA.

This paper examined the relevant empirical literature on IA effectiveness since the latest revision of the IA definition in 1999, thereby considering older references based on merit. Two streams of literature have been distinguished: empirical literature based on 'self-assessments' by internal auditors and empirical literature studying how clients, the customers and beneficiaries of the services rendered by the IAF, perceive its value. After identifying common themes in the literature the main threads were synthesized into a model that captures the macro and micro factors influencing IA effectiveness. The new set of IA research questions is regarded the prime contribution of this paper to enhance the relevancy of the IAF and the IA profession in practice.

We believe that at this point questions can be more important than answers. We wish to encourage researchers to abandon old trails and try new ways. There may be new theoretical frameworks to be considered. Other solid theoretical frameworks, possibly already successfully being applied and tested in other research fields may exist. We encourage both, studies based on quantitative data and studies based on qualitative data. Experimental research would allow conclusions on the causality between factors in practice, which goes beyond insights into associations.

We do not claim to provide an all-inclusive list of relevant questions that may influence the effectiveness of IA. As an alternative approach for establishing a new research agenda we could have tried to model the future organization, and deriving a set of questions from this

scenario. In doing so, key organizational megatrends could have been examined. We point to that interesting avenue for further studies.

We hope that the suggested research agenda addresses a series of relevant research topics in IA. They all have in common to search for evidence of often inherently assumed added value of IA. We encourage the scholarly community to join in and help advance the body of knowledge around the IAF and its effectiveness, thereby addressing the relevancy concern of the IA profession. Scholarly research has a lot to contribute to better understand and improve the world and outcome of IA practitioners.

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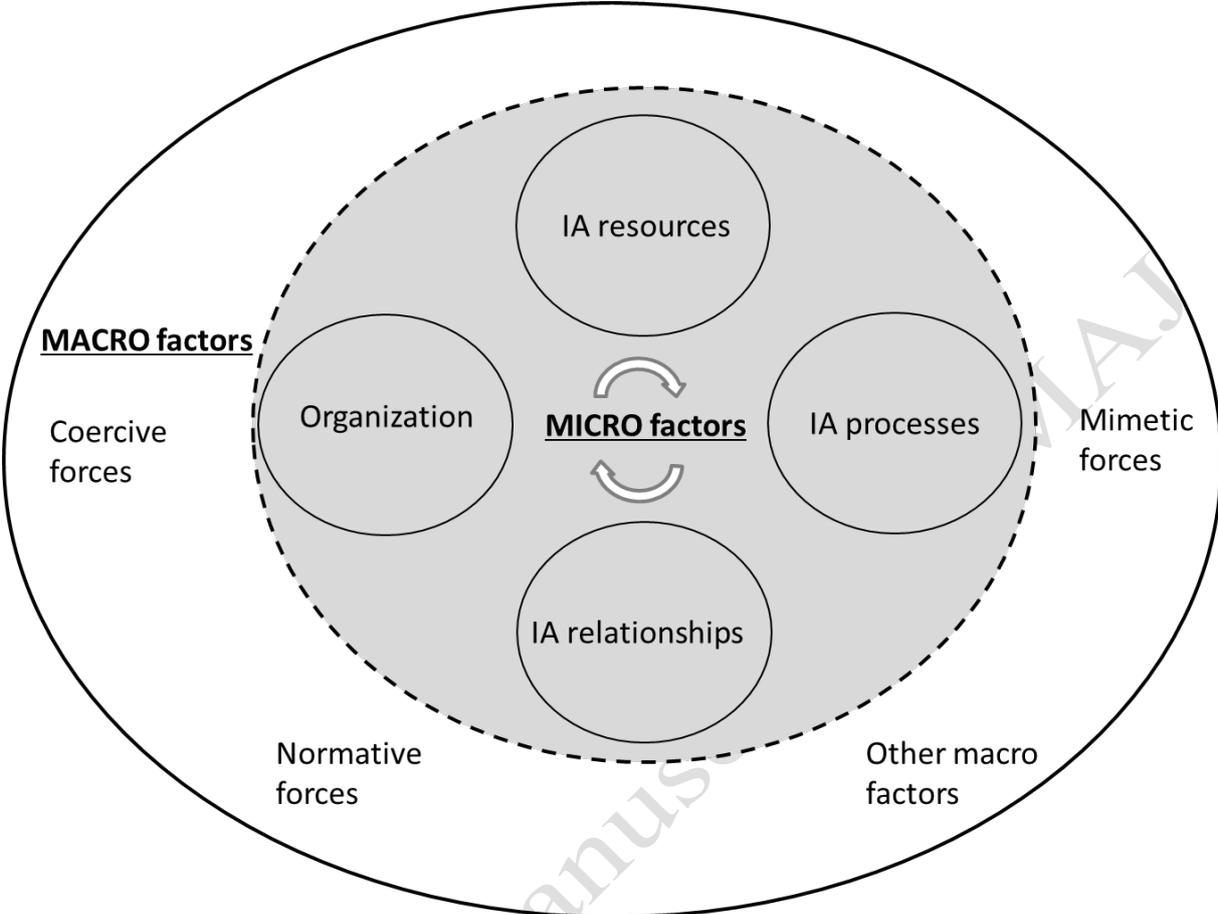
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Table 1: Review of the empirical literature on IA effectiveness

Themes	"Supply side" perspective	Category
High importance of the audit committee and the board	--> Rezaee and Lander (1993), Scarbrough et al. (1998), Goodwin and Yeo (2001), Raghunandan et al. (2001), Goodwin (2003), Rose and Norman (2008), Arena and Azzone (2009a), Davies (2009), Norman et al. (2010), de Zwaan et al. (2011)	IA relationships
Support from senior management is critical	--> Gramling et al. (2004), Sarens and De Beelde (2006a), Mihret and Yismaw (2007), Christopher et al. (2009), Halimah et al. (2009), Cohen and Sayag (2010), Geis (2010)	IA relationships
Serving two (or more) masters	--> Gramling et al. (2004), Chambers (2008), Beasley et al. (2009), Christopher et al. (2009), Sarens (2009), Hoos (2010), Lenz and Sarens (2012)	IA relationships
Crucial role of CAE and the skills and competences of internal auditors	--> Prawitt (2003), Van Peurseem (2005), Pforsich et al. (2006), Chambers (2008), Pforsich et al. (2008), Mihret et al. (2010)	IA resources
Organizational characteristics matter including politics and culture, role ambiguity and role conflict	--> Sawyer (1995), Chanchani and MacGregor (1999), Carcello et al. (2005), Ahmed and Taylor (2009), Sarens and Abdolmohammadi (2009), Cohen and Sayag (2010), Mihret et al. (2010), Sarens and Abdolmohammadi (2011), Fazli et al. (2013)	Organization, IA resources
Internal audit is effective when it is risk-based	--> Allegrini and D'Onza (2003), Spira and Page (2003), Sarens and De Beelde (2006a), Castanheira et al. (2010), Sarens et al. (2012), Coetzee and Lubbe (2013)	IA processes, organization
Building blocks of internal audit characteristics	--> Lenz et al. (2013)	Organization, IA resources, IA processes, IA relationships
Themes	"Demand side" perspective	Category
Multiple outcomes of internal audit	--> Dittenhofer (2001), Melville (2003), Mercer (2004), Kaplan and Schultz (2007), Archambeault et al. (2008), Coram et al. (2008), Hermanson et al. (2008), Holt and DeZoort (2009), Prawitt et al. (2009)	N/A
Internal audit is effective when meeting expectations of management	--> Albrecht et al. (1988), Cooper et al. (1994), Sarens and De Beelde (2006b), Lenz (2013)	IA relationships
Internal audit is effective when meeting expectations of the board/AC	--> Sarens et al. (2009), Soh and Martinov-Bennie (2011)	IA relationships, IA resources
Internal audit is effective when meeting expectations of external auditors	--> Felix et al. (2001), Krishnamoorthy (2002), Felix et al. (2005) Cohen et al. (2010), Desai and Desai (2010), Messiers et al. (2011)	IA relationships
Internal audit is effective when meeting expectations of auditees	--> Elliott et al. (2007), Arena and Azzone (2009b)	IA relationships
Effective internal auditors require skills and competences	--> Albrecht et al. (1988), Cahill (2006), Rittenberg and Anderson (2006), Chambers (2008), Mihret et al. (2010), Soh and Martinov-Bennie (2011)	IA resources

Figure 1: Macro and micro factors influencing IA effectiveness



ⁱ CAE stands for Chief Audit Executive and is used synonymously with Head of IA.