A Risk-Based Modeling Approach for Successful Adoption of CAATTs in Audits: An Exploratory Study Applied to Israeli Accountancy Firms

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Abstract : Technology adoption models are extensively used in the literature to explore drivers and inhibitors affecting the adoption of Computer Assisted Audit Techniques and Tools (CAATTs). Further studies from recent years suggested additional factors that may affect technology adoption by CPA firms. However, the adoption of CAATTs by financial auditors differs from the adoption of technologies in other industries. This is a result of the unique characteristics of the auditing process, which are expressed in the audit risk elements and the risk-based auditing approach, as encoded in the auditing standards. Since these audit risk factors are not part of the existing models that are used to explain technology adoption, these models do not fully correspond to the specific needs and requirements of the auditing domain. The overarching objective of this qualitative research is to fill the gap in the literature, which exists as a result of using generic technology adoption models. Followed by a pretest and based on semi-structured in-depth interviews with 16 Israeli CPA firms of different sizes, this study aims to reveal determinants related to audit risk factors that influence the adoption of CAATTs in audits and proposes a new modeling approach for the successful adoption of CAATTs. The findings emphasize several important aspects: (1) while large CPA firms developed their own inner quidelines to assess the audit risk components, other CPA firms do not follow a formal and validated methodology to evaluate these risks; (2) large firms incorporate a variety of CAATTs, including self-developed advanced tools. On the other hand, small and mid-sized CPA firms incorporate standard CAATTs and still need to catch up to better understand what CAATTs can offer and how they can contribute to the quality of the audit; (3) the top management of mid-sized and small CPA firms should be more proactive and updated about CAATTs capabilities and contributions to audits; and (4) All CPA firms consider professionalism as a major challenge that must be constantly managed to ensure an optimal CAATTs operation. The study extends the existing knowledge of CAATTs adoption by looking at it from a risk-based auditing approach. It suggests a new model for CAATTs adoption by incorporating influencing audit risk factors that auditors should examine when considering CAATTs adoption. Since the model can be used in various audited scenarios and supports strategic, risk-based decisions, it maximizes the great potential of CAATTs on the quality of the audits. The results and insights can be useful to CPA firms, internal auditors, CAATTs developers and regulators. Moreover, it may motivate audit standard-setters to issue updated guidelines regarding CAATTs adoption in audits.

Keywords : audit risk, CAATTs, financial auditing, information technology, technology adoption models

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