



## Session 2.2 Internal Auditors' Response to Disruption and Innovation A Deeper Dive

By Dr. Margaret Christ





## Dr. Margaret Christ



- Associate Professor of Accounting, UGA
- Research focus: control systems and internal audit
- Teaching focus: accounting information systems (including risk & control) & data analytics
- IIAMember since 1999
- Serves IIA as a member of CREA







#### Approach

- 11 CAEs interviewed
- 162 survey responses (5,000 surveys sent to IIA members)

This study addresses the following questions:

- What innovations & disruptions have affected organizations and their Internal Auditors?
- How has Internal Audit responded (or struggled to respond) to these innovations?





#### **Question Asked of Internal Auditors**

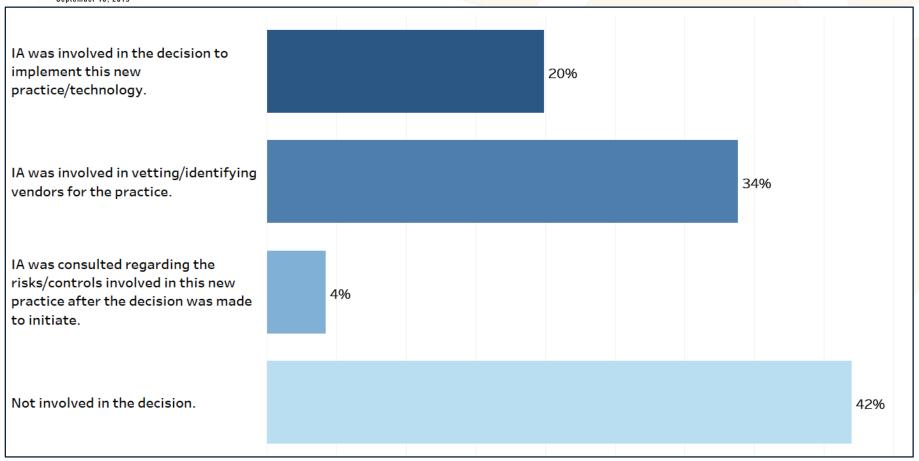
What innovations are your organizations currently implementing?

- 1. Data Analytics
- 2. Cloud Computing
- 3. Agile Processes
- 4. Mobile Technology
- 5. Robotic Process Automation (RPA)
- 6. Continuous Auditing
- 7. New Organizational Strategies
- 8. Artificial Intelligence / Machine Learning
- 9. Regulatory Changes
- 10. Digitalization
- 11. Other Innovations





#### IA's Involvement in the Decision to Innovate

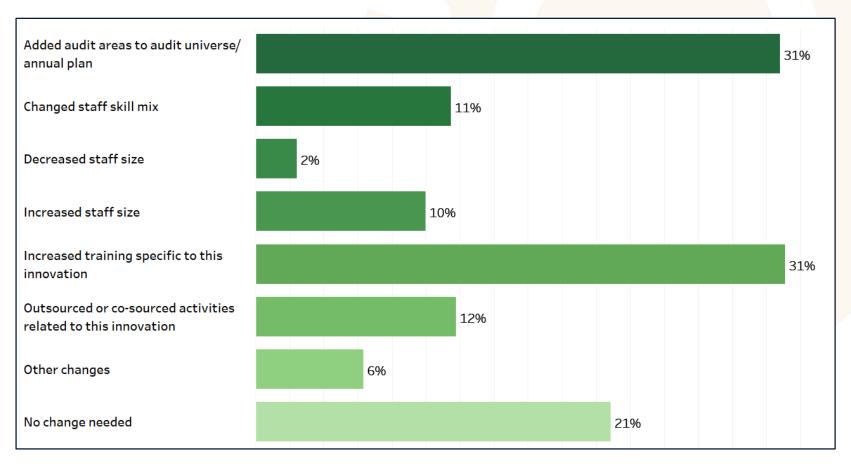








#### Changes Made in Response to Innovation









# Most Popular Innovations Among Responders

- Data Analytics
- Cloud Computing
- Robotic Process Automation
- Artificial Intelligence
- Digitalization
- Agile Processes





## **Data Analytics**

#### **Risks/Disruptions**

- Risks related to data integrity.
- Data tends to be spread out and disparate, making effective use of data challenging.
- Challenging to bring it together effectively.
- Can detract from performing other types of audits due to insufficient time, causing frustrated stakeholders
- Staff turnover

**IA Involvement in Innovation: 30%** 





## **Cloud Computing**

#### **Risks/Disruptions**

- Privacy, security, data breaches, data sensitivity, reputation, and regulation
- Approach to data storage, use, and management

**IA Involvement in Innovation: 4%** 





#### **Robotic Process Automation**

#### **Risks/Disruptions**

- IA not traditionally effective with RPA
- Lack of involvement
- No perceived need
- IA not fully understanding what this change involves
- IA overconfident in their abilities to perform utilizing RPA
- Can be highly efficient at doing the wrong thing

**IA Involvement in Innovation: 27%** 





### **Artificial Intelligence**

#### **Risks/Disruptions**

- IA tend to overestimate abilities
- Steep learning curves
- Little understand what AI is actually doing, especially in a new scenario
- Requires significant technological skills to understand underlying code
- "Black box" nature of Al
- Not sure how to audit the technology
- Potential for large scale error

**IA Involvement in Innovation: 36%** 





## Digitalization

#### **Risks/Disruptions**

- Increased cybersecurity risks
- Risks related to the functionality of the technology
- Technology failure or obsolescence can have a major impact on operational performance
- Requires partnership with third-party vendors
- Staff skill mix and requires substantial training

**IA Involvement in Innovation: 40%** 





## **Agile Processes**

#### **Risks/Disruptions**

- Requires a culture shift
- Tends to be more fast paced, "sprints"
- Internal Auditors feel unprepared for agile processes
- Can cause burn out in staff auditors
- Lack of resources

**IA Involvement in Innovation: 21%** 





### Changes in Response to Innovation

- Added audit areas to audit universe/annual plan 31%
- Changed staff skill mix 11%
- Decreased staff size 2%
- Increased staff size 10%
- Increased training specific to this innovation 31%
- Outsourced or co-sourced activities related to this innovation 12%
- Other changes 6%
- No change needed 21%





## Evaluations of IA's Preparedness & Effectiveness Related to Innovation

- Overall, respondents believed they were neither prepared nor unprepared for the innovation.
- They also believed they were neither effective nor ineffective in their response to innovation.





#### **General Response to Innovation**

## Our analysis yielded 3 important insights:

- IA does not seem to have a seat at the table
- Lukewarm ratings internal auditors give themselves regarding preparedness & effectiveness
- Innovation stretches and requires internal auditors to change





## Questions





## Let's continue the conversation!

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