

Thinking Outside of the Box: Engaging Auditors' Innovation Mindset to Improve Auditors' Fraud Actions in a Data-Analytic Environment

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FOUNDATION FOR
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RESEARCH

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Motivation & Research Questions

Innovation Mindset

Fraud



Auditors continue to fail to respond effectively to fraud risks (e.g., SEC 2022; PCAOB 2022; IAASB 2022)

NIEUWS | vandaag

AFM-onderzoek: Frauderisico's onvoldoende onderkend door accountant

Data analytics



Audit firms are increasingly investing in & relying on. Potential to reveal suspicious patterns - fraud in particular (e.g., CAQ 2021)

Innovation Mindset



“an ability to generate creative or novel solutions to problems” (CAQ 2018)

→ What is the effect of engaging an **auditor’s innovation mindset** on the effectiveness of planned audit procedures (i.e., procedures targeting a seeded fraud)?

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Motivation & Research Questions

Client Insights & Innovation Mindset

Auditors' provision of **client insights** when using data analytics during an audit is a **new trend**, used more now than in the past.

*“We see it as a way to **provide more value-added advice** to our clients.” -Big 4 Partner - (Austin et al. 2021).*

However, regulators are concerned that this will distract from auditor's main goal of providing high audit quality.

An innovation mindset may allow auditors to attend to multiple goals (cognitive flexibility).

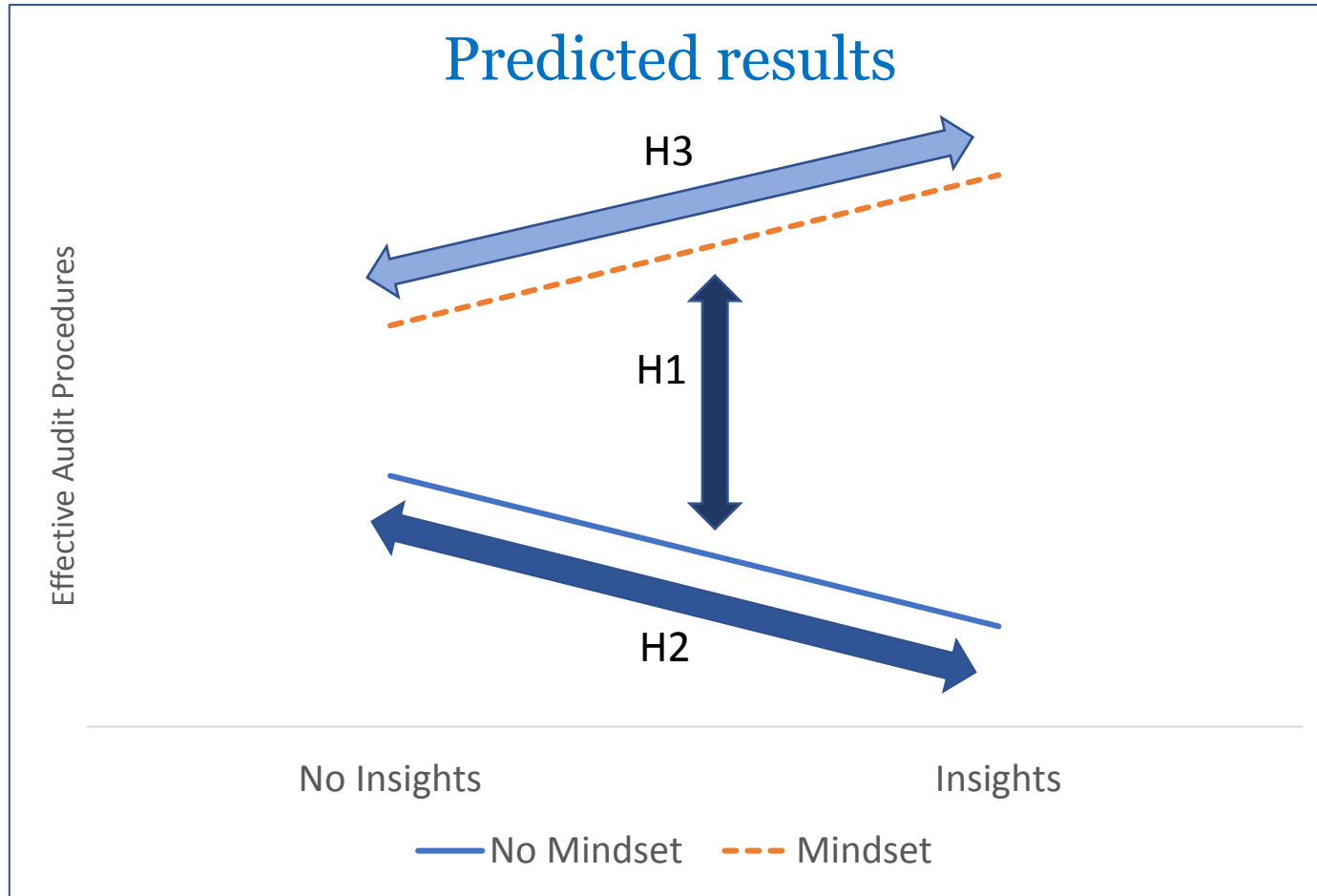
- Does the introduction of a **secondary goal – providing client insights** – decrease audit quality in the **absence** of an innovation mindset?
- Is this mitigated by an **innovation mindset**?



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Motivation & Research Questions

Theoretical predictions



Cognitive Flexibility

Creativity

Goal Conflict

② Data Gathering & Analysis

Participants

96 auditors at multiple Dutch audit firms through the FAR

3% staff

50% seniors

34% supervisors

10% managers

1% partners

76% employed by Big4 firm

30% females

94% had experience auditing revenue

Have utilized data analytics an average of 6 times

We are thankful to the FAR for providing participants and access to practitioners which was invaluable to our results and outcomes.

② Data Gathering & Analysis

Method

2 x 2 between-participants experiment

Manipulation 1: Innovation Mindset (yes/no)

Manipulation 2: Insights (yes/no)

No insights + No innovation mindset	Insights + No innovation mindset
No insights + Innovation mindset	Insights + Innovation mindset

Task:

- Participants used traditional audit evidence and data analytic dashboards to finalize the audit program for a hypothetical audit engagement (Precision).
- Case included a seeded fraud based on a real revenue recognition fraud case.
 - Newly introduced marketing strategy introducing management incentives and large increase in year-end revenue
- Participants received messages from the CEO of their firm and their audit manager containing the manipulations

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Data Gathering & Analysis

Manipulation 1: Innovation Mindset

Aaron Bean is the CEO of the audit firm you work for, Bean, LLC. He has sent you the following email to describe the firm philosophy:

Hello!

At our audit firm, Bean, we pride ourselves on providing audits of the highest quality in an efficient and effective manner. We are grateful for having smart, capable employees like you on our team.

I'd like to share some of our information about our "Think BEAN!" philosophy here at the firm. We are very proud of this mindset and the ideals it encourages.

Think BEAN! is an acronym that stands for **Be Focused and Excel, Embrace Efficiency & Effectiveness, Applaud Competence, and Need to Educate & Communicate.**

BE Focused and Excel

Employees are encouraged to be focused and excel at their jobs, which means having the freedom to work hard and act professionally. Often, the best work comes from auditors who are self-motivated, focused and allowed the freedom to work diligently. Take the time to work hard and you will excel.

EMBRACE Efficiency and Effectiveness

The most successful audits are efficient and effective. This also means there may be challenges along the way. Bean embraces efficiency and effectiveness, as well as challenges and persistence to keep trying. This makes your job more successful and rewarding because you have time to do the most interesting and challenging work.

APPLAUD Competence

At Bean, competence and hard work are recognized and applauded. Employees can take great satisfaction in knowing that competence ensures high audit quality, enhances our efficiency, and adds value. Competence makes Bean a better, more effective, and more successful place to work and we thank you for it!

NEED to Educate & Communicate

Management supports communication across our firm. When you have taken steps to improve your work, the next step is educate others. By educating and sharing your experiences with others, you will change our firm for the better!

Thank you,

Aaron Bean, CEO

Aaron Bean is the CEO of the audit firm you work for, Bean, LLC. He has sent you the following email to describe the firm philosophy:

Hello!

At our audit firm, Bean, we pride ourselves on providing audits of the highest quality in an efficient and effective manner. We are grateful for having smart, capable employees like you on our team.

I'd like to share some of our information about our "Think BEAN!" philosophy here at the firm. We are very proud of this mindset and the ideals it encourages.

Think BEAN! is an acronym that stands for **Be Creative, Embrace Risk Taking, Applaud Innovation, and Need to Educate & Collaborate.**



BE Creative

Employees are encouraged to be creative and innovative, which means having the freedom to generate new ideas, take risks and think outside of the box. Often the best ideas come from auditors who see the big picture from multiple perspectives. Take the time to try new things – you might just have the next big idea!

EMBRACE Risk Taking

The most successful innovation encourages flexibility, agility and adaptability. This also means there may be failed ideas along the way. Bean embraces risk taking, learning from failed ideas and persistence to keep trying. This makes your job more enjoyable and rewarding because you have time to do the most interesting and challenging work.

APPLAUD Innovation

At Bean, creative and innovative ideas are recognized and applauded. Employees can take great satisfaction in knowing that their innovative ideas ensure high audit quality, enhance our efficiency, and add value. Innovation creates progress and makes Bean a better, more effective, and more enjoyable place to work and we thank you for it!

NEED to Educate & Collaborate

Management supports collaborative idea flow across our firm. When you have developed innovative and creative ideas to improve our work, the next step is to educate others. By educating and sharing your ideas with others, you will change our firm for the better!

Thank you,

Aaron Bean, CEO

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Data Gathering & Analysis

Manipulation 2: Insights

Hi,

It is time to get started with the audit. Remember, it is always important that we exercise professional skepticism and conduct a high quality audit.

Today you're responsible for finalizing the audit program plan for the 2019 Precision Equipment, Inc. audit engagement.

Your responsibility is to review client background information, financial statements, and the data analytic output prepared by your team. Then you will document all audit procedures you would like completed before concluding on the audit.

The engagement partner and I had a long meeting with Precision's CEO yesterday. She emphasized that Precision is very happy to have us as their auditor. Also, she believes we are in a great position to provide additional insights about their business. Remember, our clients value when we can provide additional insights about their business, so **please keep an eye out for business insights to share with Precision.**

Before you start, please read the following background information on Precision.

Thanks,

John Reynolds
Audit Manager



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Data Gathering & Analysis

Measure of Effective Fraud Procedures

Effective Audit procedures

- Open-responses about planned procedures
- Counted non-redundant procedures that would aid in detecting seeded fraud, including DA-related procedures

“Would this procedure help detect the seeded early revenue recognition issue?”

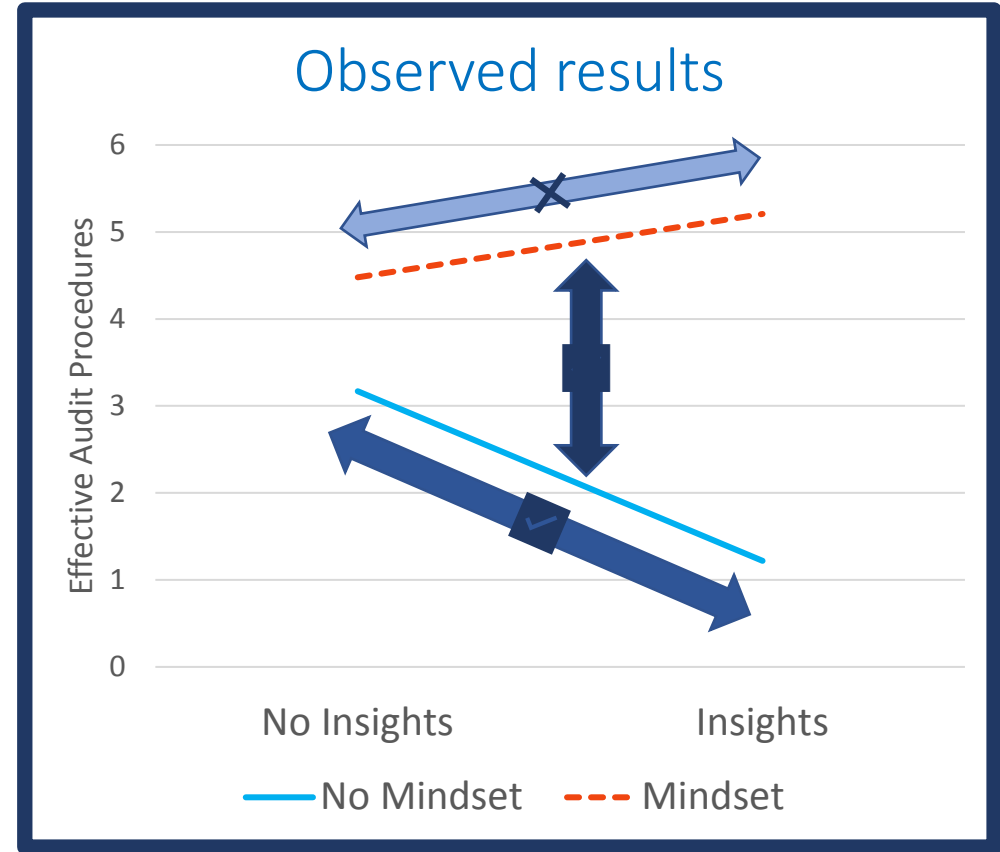
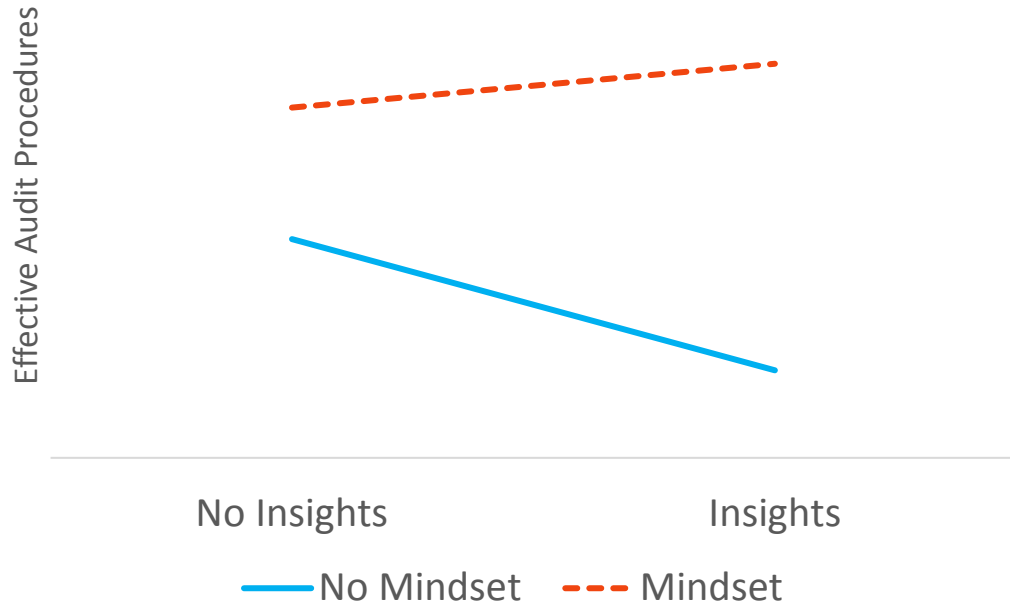


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Results & Findings

Main effect & Interaction

Predicted results



- Prompting an innovation mindset increases effective fraud procedures. ✓

- Prompting an innovation mindset mitigates negative effects of goal conflict providing insights may have on audit quality. ✓

- Combining innovation and insights does not have an additive effect. ✗

5 Contribution to academic knowledge

Literature contribution



Contribution to the mindset literature by examining a creativity-based and practice-driven mindset
(innovation mindset)



Add to goal conflict literature by examining a **way to mitigate goal conflict**



Introduce cognitive flexibility as a cognitive process in the auditing literature

⑤ Contribution to academic knowledge

Future Research

Under which contexts does an innovation mindset improve audit quality?

- Is this still the case in less “creative” tasks as fraud is more abstract?

How do/can firms really implement this innovation mindset in practice?

What are barriers and enablers for innovation?

With the changing audit environment, is creativity an important skill for new auditors?

⑥ Contribution to audit quality

We provide evidence that **prompting creativity** through an **innovation mindset** enhances cognitive flexibility, which in turn enhances audit quality.

Regulators' and firms' emphasis on an **innovation mindset** is **important** and should continue to be encouraged.

Providing **client insights** (an additional goal) can **detract from performance** but **NOT** when engaging an **innovation mindset** .

The additional goal to provide client insights CAN be bad for audit quality but using the **right mindset** with multiple goals can improve performance

Be innovative!
Look for insights
(as long as you have
an innovation mindset)!





THANK YOU

“On a mission to reveal audit quality drivers, one insight at a time”

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