

Examination of Audit Planning Risk Assessments Using Verbal Protocol Analysis: An Exploratory Study

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Background & Motivation

- Audit planning literature is abundant with studies that examine the different components of the audit risk model as well as the factors that impact the risk assessment process
- Few studies have examined the risk assessment process of senior level auditors in practice
- Keen interest by various parties to better understand how auditors identify and respond to risk
- Investigate audit judgments that are currently made by more experienced auditors (managers and partners) during real-time risk discussion
- Minimal knowledge about how higher level auditors evaluate information and how they make subsequent judgments with respect to risk assessment

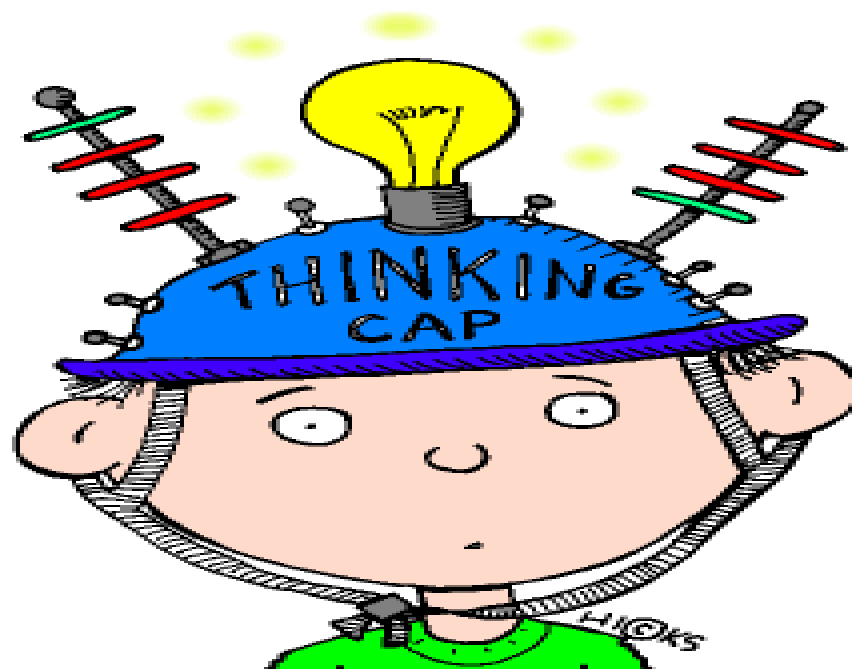
Literature Review – Inherent Risk Assessment

- Audit risk literature emphasizes the factors that influence inherent risk and how auditors judge inherent risk (Helliar et al., 1996; Peters et al., 1989; Boritz et al., 1987)
- Inventory levels, history of error and fraud, liquidity problems (Boritz et al., 1987); prior year changes (Peters et al., 1989); management incentives, management reputation and turnover influence inherent risk (Helliar et al., 1996)
- Auditors assess inherent risk qualitatively, on an account by account basis or at the financial reporting level (Peters et al., 1989; Martinov-Bennie and Roebuck 1998)
- ***RQ 1: What is the nature of the information processing operations auditors perform in completing a planning stage client risk assessment task?***
- ***RQ 2: What is the nature and frequency of risks are verbalized? How are the risks categorized?***
- ***RQ 3: What are the key audit decisions that result from the planning discussion?***

Literature Review – Combined Risk Assessment & Risk Assessment Approach

- Dependencies between IR and CR; auditors perform a combined assessment of control risk and inherent risk (Martinov-Bennie and Roebuck, 1998; Waller 1993; Cushing and Loebbecke 1983; Messier et al. 2000; Elder and Allen 2003; Miller et al., 2012); ARM suggests IR and CR are independent
- Business risk-based approach may lead to higher accuracy in assessing the risk of material misstatement at both the entity level and business process level (Kochetova-Kozloski and Messier, 2011; Kochetova-Kozloski et al. 2013)
- ***RQ 4: Do auditors perform a combined risk assessment?***
- ***RQ 5: Do auditors evaluate risks at the macro level (business risks→financial statement accounts) or at a micro level (financial statement account→business risks)?***

Methodology – Modified VPA



Methodology – Modified VPA

- Capture four verbal protocols between audit partners and managers during the planning discussion to analyze what information is used and how that information is incorporated in the risk evaluation process to make audit decisions
- Experts have been found to be less able to verbalize their knowledge as they become more competent (Johnson 1983)
- Modified VPA methodology may provide richer information; audit risk assessment task performed by more experienced auditors
- Recorded, transcribed and coded about 45,000 words, 6,000 operators
 1. Task Structuring—involves the process of understanding the task
 2. Information Acquisition—involves the process of obtaining or retrieving information
 3. Information Processing—involves processes used in the evaluation of information
 4. Decisions—involves the process used in arriving at decisions

Data Analysis

- RQ 1: Information primarily retrieved from memory; focus largely on the evaluation of inherent risk factors; primary focus for decision processes are largely the reasons or basis for a particular decision

Addresses RQ 1: What is the nature of the information processing operations auditors perform in completing a planning stage client risk assessment task?

	Total Operators Coded	% within Category	Overall % of total operations
<u>Task Structuring operators</u>	170		3%
SG: Assigned to verbalizations related to understanding the task.	170	100%	3%
<u>Information Acquisition Operators</u>	1,282		21%
R: Read a document [indicate what document if feasible, e.g. audit documentation, standards]	0	0%	0%
IRM: Information Retrieval from Memory⁹	993	78%	17%
IRW: Information retrieval from workpapers, notes, etc.	167	13%	2%
IOET: Information obtained from other members of the engagement team	118	9%	2%
AC: Algebraic Calculation of relevant item	4	0%	0%
<u>Information Processing Operators</u>	2,412		40%
GA: Generate an Assumption, a premise.	435	18%	7%
CN: Comparison	109	4%	2%
GO: Generate a Query	426	18%	7%
E: an Evaluation, a risk assessment judgment	1,442	60%	24%
<u>Decision Operators</u>	2,100		35%
DS: Decision support	1,394	67%	23%
DR: Decision rule	51	2%	<1%
AD: Audit Decisions	655	31%	12%
TOTALS	5,964		100%

Data Analysis

- RQ 2: Financial and non-financial information to identify risks and that similar risks are consistently evaluated; certain risks (earnings management, economic conditions, related parties) required to be evaluated by the standards were not discussed

Risk Type	Verbal Protocol			
	VP # 1	VP # 2	VP # 3	VP # 4
Client Industry	Electronics/Publicly held	Equipment rental company in CA/ Owned by PE	Restaurant/Publicly held	Retail-Home/Publicly held
Non Financial	Business Strategy	Business Strategy	Business Strategy	Business Strategy
	Cyber Security		Cyber Security	Cyber Security
	Industry	Industry	Industry	Industry
	Litigation	Litigation	Litigation	Litigation
	Management	Management	Management	Management
	Corporate Governance		Corporate Governance	Corporate Governance
	Customer Base	Customer Base	Customer Base	
		Economic	Economic	
	Analysts Following			
	Weather		Geography/Weather	Geography/Weather
	Market Competition	Market Competition	Market Competition	
	Regulatory	Regulatory	Regulatory	Regulatory
	Financial	Accounting Estimates	Accounting Estimates	Accounting Estimates
Earnings Management		Earnings Management		
Valuation		Valuation	Valuation	Valuation
Consolidation/Segment Reporting			Consolidation/Segment Reporting	Consolidation
Materiality		Materiality		Materiality
Financial Statement Account Level		Financial Statement Account Level	Financial Statement Account Level	Financial Statement Account Level
Financial Statement Level		Financial Statement Level	Financial Statement Level	Financial Statement Level
Fraud		Fraud	Fraud	Fraud
Controls		Controls	Controls	Controls
Going Concern		Going Concern	Going Concern	Going Concern
Revenue Recognition		Revenue Recognition	Revenue Recognition	Revenue Recognition
Use of Specialist			Use of Specialist	Use of Specialist
Impairment		Impairment	Impairment	Impairment
Prior Period	Prior Period	Prior Period	Prior Period	
Related Parties	Related Parties	Related Parties		
Consistency of information discussed	96%	78%	93%	78%

Data Analysis

- RQ 3:
 - Audit decisions may or may not be expressed in detail (e.g “perform recalculation of earnings per share” versus to “focus on earnings per share”);
 - Consistent with RQ2, more decisions about risks at the financial statement account level;
 - Auditors consider “material non-significant accounts” to assess risk, however, the discussion is not clear as to why the accounts would be classified as material non-significant
 - Of note, auditing standards do not provide guidance regarding the classification of material non-significant accounts

Data Analysis

- RQ 4: Auditors perform a combined risk assessment; extent to which COSO components (control environment/control activities) are discussed vary; area PCAOB highlighted

	Verbal Protocol			
	VP # 1	VP # 2	VP # 3	VP # 4
Client Industry	Electronics/Publicly held	Equipment rental company in CA/ Owned by PE	Restaurant/Publicly held	Retail-Home/Publicly held
Control Environment	Management is focused on getting things right; management's operating style; company is well structured	Nicely run company; stringent budget; appropriate tone in the company; management want to do what's right;	Management has robust processes in place; Controller is competent; transparency in reporting of compensation elements	Well run company (good culture/tone at the top); company is transparent, no surprises
Control Activities - IT Controls	What controls are in place to mitigate opportunities for doing something inappropriate with accounting; understand controls in place for contract management; incorporate acquisitions into control testing (controls will fail); may be able to reduce testing if good entity level controls are in place; controls around cybersecurity; automated and manual controls for revenue	Discussion around risks of IT infrastructure	Proper segregation of duties; operational controls and procedures; impact of technology; controls over revenue analysis; controls over payroll process; controls over rental/lease system	Data protection and security is a big area; understand quality of IT system; how they secure data; processes and procedures are important; IT controls for inventory; timeliness of markdowns; policies and procedures for shrinkage; ERP systems critical from controls perspective; IT and application controls; data used to perform control and audit procedures; understanding of systems; especially with acquisitions; application level controls for EPS
Control Activities - Financial Controls	What controls are in place to mitigate opportunities for doing something inappropriate with accounting; understand controls in place for contract management; incorporate acquisitions into control testing (controls will fail); may be able to reduce testing if good entity level controls are in place; controls around cybersecurity; automated and manual controls for revenue	Company reviews budget to actual results	Proper segregation of duties; operational controls and procedures; observation of inventories; controls over revenue analysis; controls over payroll process	Manual controls for inventory for application of retail method; timeliness of markdowns; policies and procedures for shrinkage; inventory estimate
Control Activities - Entity Level Controls	What controls are in place to mitigate opportunities for doing something inappropriate with accounting; understand controls in place for contract management; incorporate acquisitions into control testing (controls will fail); may be able to reduce testing if good entity level		Consideration of entity level controls;	
Monitoring			Monitoring and Prevention of CyberSecurity	Monitoring of shrinkage and receivables; cybersecurity
Information and Communication	Management reports deficiencies to audit committee		Regular communication with audit committee	

Data Analysis

- RQ 5: Three of the four assessments employ a top-down approach

Assessment Approach	Verbal Protocol			
	VP # 1	VP # 2	VP # 3	VP # 4
Client Industry	Electronics/Publicly held	Equipment rental company in CA/ Owned by PE	Restaurant/Publicly held	Retail-Home/Publicly held
Top down		<ul style="list-style-type: none"> • Risk assessment was discussed first from a global economic and environmental (e.g., weather) perspective (systematic strategy). The focus then turned to key changes from prior period audit, with a focus on management incentives to manage earnings (e.g., compensation, debt covenants, etc.), as well as, any significant changes in key financial statement accounts, such as revenue. Finally, risk was assessed at a financial statement account level. 	<ul style="list-style-type: none"> • Risk discussion was based on macro level perspectives (economic, weather, and regulatory factors). Risks more specific to the company included cyber security, fair value measurement, management turnover, and financial reporting policies. Finally, financial statement 	<ul style="list-style-type: none"> • The risk assessment strategy is more systematic; addressed business risk at a macro level and then focused on risk at the account level
Directed	<ul style="list-style-type: none"> • Approach appears to focus on financial reporting risks (i.e., where is the company most susceptible to fraudulent financial reporting); thus, the risk assessment process is more of a directed strategy 			

Conclusion

- Think aloud concurrent verbal protocols were employed to capture how auditors perform the risk assessment process
- Provide insight that can potentially enhance the risk assessment process
- Next steps: Develop a rule-based system based on expert knowledge derived from the VPAs
 - Reduce the variance in risk assessment (consistency)
 - Formal process to help guide decisions



**Thank
You!!!**