

# Data Collection and Data Analysis in Survey Design: Views from a Finicky Examiner/Reviewer

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# Disclaimer

- ▶ Simply a sharing session from my limited experience as:
  1. Theses examiner
    - ▶ Accounting Research Institute (ARI)
    - ▶ Universiti Tenaga Nasional (UNITEN)
    - ▶ Edith Cowan University, Western Australia
    - ▶ Murdoch University, Western Australia
  2. Journals article reviewer (to list a few)
    - ▶ Corporate Governance (Emerald Group Publishing, USA)
    - ▶ Business Ethics: A European Review (John, Wiley & Sons Ltd)
    - ▶ Asian Journal of Business and Accounting (University of Malaya)
    - ▶ Asian Academy of Management Journal (Universiti Sains Malaysia)
- ▶ My knowledge is limited to survey-typed of studies.
- ▶ My approach - sharing my review/commentary notes on theses/articles that I was appointed to examine/review

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# INTRODUCTION

- ▶ The survey is a non-experimental, descriptive research method. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed.
- ▶ The major issues related to survey research are sampling issues and questionnaire design. These affect the accuracy, reliability, and representativeness of the research findings.

# a. Population & Sample Selection

## ► Population (Eldredge et al., 2014)

- An early step in research projects that involve humans consists of composing a clear and detailed definition of the study population.
- All experimental, observational, and qualitative research designs involving human subjects should define the study population in order to determine the eligibility of individuals for a study. The defined population then will become the basis for applying the research results to other relevant populations.
- Clearly defining a study population early in the research process also helps assure the overall validity of the study results.

## ► Sample

- it is rarely practicable for researchers to access the entire target population, given its size and geographical dispersion.
- it is necessary to gather data from a subset of the population. The findings can then be generalized to the wider population.
- In other words, using a sample, you can oftentimes assume that the research findings are representative of the broader population from which the sample was drawn.

# Issue 1: Population & Sample Selection

Title: THE PERCEIVED EFFECTIVENESS OF WHISTLEBLOWING POLICY: THE ROLE OF BOARD CHARACTERISTICS

► Candidate's remark:

- The population of this study is the Malaysian public listed companies with whistleblowing policies. As of 2018, there were 800 public listed companies and from those companies, only 663 companies had whistleblowing policies.

My enquiries:

- The candidate has chosen in-house internal auditors in Malaysian listed companies which have whistleblowing policies as her respondents for this study. These raised two questions:
  1. The candidate mentioned that, “as of 2018, there were 800 public listed companies and from those companies, only 663 companies had whistleblowing policies”. **Any evidence to back this information?**
  2. **What are the unique traits or the main reasons for choosing these in-house internal auditors as your sample?** Does the profession play major roles in upholding sound corporate governance practices within their organisation?
- I believe the matter above is worth to be explained to justify the selection of target populations.

# Issue 2: Population & Sample Selection

Title: Corporate Governance and Financial Reporting Quality of Firms: Evidence from Nigeria

Candidate's remark:

- ▶ 3.0 Methodology
- ▶ The study, which used the financials of all the quoted manufacturing (53) companies for the period 2013 to 2019, adopted the ex-post facto research design because the data used are already in existence. This study employed the panel 2SLS regression technique for estimation of the specified model.

My enquiries:

- ▶ The study has chosen 53 manufacturing firms in Nigeria. No further discussion or arguments were made concerning:
  - a. What was the population and types of industries of these Nigerian manufacturing firms?
  - b. What are the unique traits or the main reasons for choosing these manufacturing firms as the study's sample?
  - c. Were there any major issues about the CG practices among manufacturing firms in Nigeria?
- ▶ I believe the matter above is worth to be explained to justify the selection of target populations.

## b. Pilot Study

### ► The purpose of pilot study:

- A pilot study is, “A small-scale test of the methods and procedures to be used on a larger scale ...” (Porta, 2008).
- The fundamental purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to ultimately be used in a larger scale study (Leon et al., 2011).
- They can help identify design issues and evaluate feasibility, practicality, resources, time, and cost of a study before the main research is conducted (Simkus, 2022)

### ► What was the outcome of the pilot test?

- Any statistical analyses conducted?
- What was the outcome of content-validity of the survey instruments?
- What were the responses from the pilot test’s respondents then?
- any amendments were made to the questionnaires?



# Issue: Pilot Study

Title: Fraud Risk Assessment and Detection of Fraud Occurrences: Examining Individual and Situational Factors of Government Auditors

- ▶ Candidate's remark:
- ▶ Before the final questionnaire was distributed, a trial was conducted involving 30 students taking internal auditing courses. The trial aimed to obtain feedback on the understanding, content, and relevance of the questions in the questionnaire from the point of view of actual respondents (Creswell, 2014; Pallant, 2011). Their feedback is important to know whether the respondent understands the construction being investigated and to identify the accuracy of the words used.

## My enquiries:

- ▶ The respondents chosen for the pilot test were students undertaking an internal auditing course. As such,
  - ▶ • Which university was the students from?
  - ▶ • Why was this group of samples selected?
  - ▶ • Do they have similar characteristics or similar working conditions as the IAs for the purpose of this study?
  - ▶ • Were the questionnaire tested were given in Indonesian language or English?

# Example: Pilot Study

## My enquiries (Cont'd):

- ▶ I have concerns about the validity of the PS approach. This is due to the questions are meant for IAs who have gone through sufficient working experience to handle either audit or fraud cases. Referring to the survey instruments which measure variables on:
  - ▶ • Detection of fraud occurrences
  - ▶ • Reflective
  - ▶ • Professional skepticism
  - ▶ • Professional commitment
  - ▶ • Auditor experience
  - ▶ • Fraud risk assessment
  - ▶ • Workload compression
  - ▶ • Perceived organizational support
  
- ▶ Do these students have gone through the process to enable them to verify situations that they have not experienced before?

## c. Administration of survey

- ▶ There are a variety of ways through which a survey can be conducted.
- ▶ Each method of conducting surveys present their own advantages and disadvantages which are to be considered and weighed carefully before the actual execution of administering the survey.
- ▶ In addition to the method of administration, there are other factors that may influence the response rates and results of the survey.
- ▶ **Area of concerns:**
  - ▶ Distribution of questionnaire
  - ▶ Survey design
  - ▶ Variables measurement basis

## c. Administration of survey

### Issue 1: Distribution of questionnaire

**Title: Fraud Risk Assessment and Detection of Fraud Occurrences: Examining Individual and Situational Factors of Government Auditors**

**Candidate's remark:**

- ▶ in this study, the approach used in distributing questionnaires was through personal network contacts both via WhatsApp and via e-mail to respondents at several local governments. In addition, the questionnaires were also distributed through intermediaries in several local governments.

**My enquiries:**

- ▶ The study did not highlight from which Indonesian Province was the Regency or City government's IAs were chosen for the study? Recall that there are 34 Provinces (1<sup>st</sup> level) and 514 Regency and city governments in Indonesia (2<sup>nd</sup> Level) (Source: Wikipedia).
- ▶ Did the study concentrate its data collection in Regency or City government from one particular province or several other provinces?

## c. Administration of survey

### Issue 2: Survey design

Title: Effects of Professional Skepticism, Ethical Environment, Moral Intensity and Independence Threat on Auditors' Ethical Decision Making

Candidate's remark (summarize):

Types of study	IVs	DV	Participants
Study One	1. PS - Hurtt's 2010 2. EE 3. MI	EDM - Version 1, with: Scenario 1 Scenario 2 Note: separate EDM and MI for each scenario	Senior level and above(?) excluding partner
Study Two	1. PS - Robinson et al. (2018) 2. EE 3. MI 4. IT - self interest	EDM - Version 2	Partners as well as high experience audit team members, managers, senior managers & directors.

## c. Administration of survey

### Issue 2: Survey design

#### My enquiries:

- ▶ The study indicated that, “the distinction between two studies is required to provide holistic understanding of the framework of ethical behaviour of auditors when they are facing with ethical dilemma... “.
- ▶ These would raise some questions:
  1. How can distinction be made when the participants for both studies are coming from 2 different sets of groups?
  2. Moreover, DV for each group is a different version one another and was attempted by different group of respondents.
  3. The PS variable used in both studies are also from 2 different versions.

## c. Administration of survey

### Issue 3: Variables measurement basis

**Title: Analysis of Audit Competencies and Internal Control on Detection of Possible Fraud Occurrences among Government Auditors**

**Candidate's remark:**

- ▶ Professional skepticism is the auditor's attitude to always question and critically evaluate evidence in carrying out an audit engagement. The variable of professional skepticism was measured by a questionnaire that referred to Hurt's (2010) study.

**My enquiries:**

- ▶ Though the study acknowledged that all IVs were adopted from previous studies, how were these IVs be measured? For example, was audit experience be measured by the number of years the said auditors were working in their organisation?
- ▶ How the variables for PS, AE and IC be measured actually? This should be clearly explained.

## d. Bias

- ▶ Bias is defined as “an inclination of temperament or outlook.”
- ▶ The concept comes up frequently in sociology and psychology, because it’s associated with prejudice or favoritism.
- ▶ One of the most common causes of unreliable survey feedback is the biased survey question.
- ▶ Example of bias:
  - ▶ Response bias
  - ▶ Social desirability bias



# Bias

LR: Management support has been identified as a factor that influences internal auditor performance in Ethiopia (Mihret & Yismaw, 2007). Lack of support, in particular, has a detrimental impact on internal audit role, as auditors regard themselves as irrelevant to the organisation (Alzeban & Gwilliam, 2014).

## Issue: 1. Response Bias

Title: Factors affecting internal audit efficacy in the Malaysian public sector: A survey on the Ministry of Finance

Candidate's remark:

Position	Assistant Accountant	63	61.2
	Assistant Director	15	14.6
	Senior Assistant Director	12	11.7
	Principal Assistant Director	5	4.9
	Senior Principal Assistant	3	2.9
	Director	4	3.9
	Deputy Director	4	3.9
	Director	1	1.0

### My enquiries:

- ▶ According to the regression results, Management Support has a significant relationship with Internal Audit Efficacy. According to Table 3, for its "Position" variable of its respondents, 38.8 percent of its respondents are in managerial positions (from Assistant Director to Director positions).
- ▶ As a result, this group may be prone to prejudice when answering questions about its Management Support variable. I would advise explaining the outcome with caution.

# Bias

## Issue: 2. Social Desirability Bias

- Title: SENIOR AUDITORS + WHISTLEBLOWING INTENTION

Table 2: The Demographic Profile

Candidate's remark:

Characteristics	Items	Frequency	Percentage
Gender	Male	37	31.1
	Female	82	68.9
Race	Malay	75	63.0
	Chinese	40	33.6
	Indian	3	2.6
	Others	1	0.8

### My enquiries:

- The measurement of whistleblowing intention in this study is through the use of a case scenario. Referring to the study's Table 3, I can see that the actor of the scenario is an employee named **Abdul Fatah** who is **male** and a **Malay**.
- This could lead to social desirability bias which would affect the study's validity and reliability (Ahmad, Ismail, Azmi, & Zakaria, 2014). The study should have used a first-person approach rather than a third-person approach. By using the first-person approach, the study would avoid gender bias (and possibly racial bias) as the majority of the respondents are female (68.9%).

# Descriptive data analysis

## Issue 1: Questionable demographic profile

Title: SENIOR AUDITORS + WHISTLEBLOWING INTENTION

Candidate's remark:

Age	20-29	51	42.8
	30-39	52	43.7
	40-49	11	9.2
	Over 50	5	4.3
Number of years working experience	1-4 years	20	16.8
	5-10 years	65	54.6
	11-15 years	18	15.1
	16-20 years	12	10.1
	More than 20 years	4	3.4

My enquiries:

- ▶ Table 2 presented the demographic profile of the 119 senior auditor respondents of the study. This is where I would find the data is awkward as whether the respondents are representative and matched with the sample of senior auditors' profile. I wonder whether the selection process of the respondents for this study is reliable when examining these 2 characteristics of the study's demographic profile.
- Age - 42.8% of these respondents are from the range of 20 - 29 years.
- Years of working experience - 16.8% of them had worked between 1 - 4 years.
- ▶ This would raise a question whether some of the senior auditors are that young and has just had a minimal number of working experiences.

The population chosen for this study was employees from various Indonesian government organisations at the central government level - likely to be concerned about risk management issues.

# Descriptive data analysis

## Issue 2: Questionable demographic profile

**Title: Risk Management and Organisational Performance in the Indonesian Public Sector: An Empirical Study**

**Candidate's remark:**

Total	202	100.0%	
Understanding of organisational business processes			
Very low	0	0.0	0.0
Low	16	7.9%	7.9
Moderate	122	60.4%	68.3
High	53	26.2%	94.6
Very high	11	5.4%	100.0

### My enquiries:

- ▶ Table 4.2 in this section reveals a question asking the respondents about their understanding of their organisational business processes. 16 of them (7.9%) reported it as being "low".
- ▶ Now, this is where the concern on items 3.b.ii and 3.b.iii above would arise, as the candidate has specifically stated that she would avoid response bias. Anyhow, the candidate does not have control in choosing specifically the intended respondents where she relies only on her key persons to distribute the survey instruments.
- ▶ As these 16 have indicated that they have a low understanding of their organisational business processes, these 16 respondents should not be part of the study! In the end, any study would like to ensure that they get valid responses to secure valid results!

# Concluding remarks

- ▶ **Reliability** and **validity** are both concepts used to evaluate the quality of research.
- ▶ **Reliability** reflects the extent to which the results of the research can be reproduced when repeated under the same conditions.
- ▶ **Validity** reflects the extent to which the results of a research measure what the study was meant to measure.
- ▶ It is indeed quite a tedious task to obtain accurate, reliable, and valid assessments of respondents' opinion.