

# Methodological Approaches to Developing the Auditing Investigation Records and Information (AIRI) Framework: A Case Study at a Major Enforcement Agency

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## ABSTRACT

This paper outlines the research methodology used to develop the Auditing Investigation Records and Information (AIRI) framework, focusing on a structured approach for similar studies. Grounded in a pragmatic philosophical foundation, the research employed a qualitative case study design, making it adaptable to the complex real-world environment of law enforcement. Data was collected using a combination of semi-structured interviews, document analysis, and direct observations, ensuring a comprehensive understanding of existing auditing practices within the Royal Malaysian Police (RMP). The purposive sampling strategy selected 13 informants directly involved in the auditing process, providing detailed insights into current challenges and procedural gaps. Thematic analysis was employed, using both inductive and deductive reasoning to identify key themes from the data. Triangulation across multiple data sources enhanced the reliability and validity of the findings. This methodological approach was instrumental in informing the design of the AIRI framework, offering a practical, adaptable solution for auditing investigation records. The study's focus on methodological rigor offers valuable insights for researchers seeking to structure their research methodologies in similar organizational contexts, particularly in the fields of records management and law enforcement.

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## INTRODUCTION

Developing a framework such as the Auditing Investigation Records and Information (AIRI) framework requires effective research methods, especially in a law enforcement environment where compliance, accuracy and accountability are paramount. Sensitive data under the management of the Royal Malaysian Police (PDRM) requires a thorough audit to ensure integrity and openness.

This research continues the method as in prior work on the formation of the AIRI framework that explored strategy for auditing investigation records and information within the RMP (Abd Kadir et al.,

2024). In the earlier publication, the theoretical construct of the AIRI framework was described. It exposed several significant issues, such as the lack of systematic coherence in the previous auditing practices, certain auditing techniques that seemed too archaic, and a little freedom that can be central for work with an operation to address its requirements when needed. This paper goes further, describing research method to develop the AIRI framework and why it was composed of the constituent elements.

This research chose a qualitative case study design and a pragmatic paradigm since it aimed at solving the real-world issues that elicited this study. The environment of the RMP is very complicated, which means that in order to pay attention to all the necessary audit refinements, one could not be following a strict method, which entails constantly probing right up to the final stage. The case study itself was made relevant by the RMP, as the Integrity and Standard Compliance Department (ISCD) was an area of focus to consider the audit process. According to Yin (2018), one good reason to use a qualitative method is an examination of a related case study in an actual setting.

The current practices identified within the case study were comprehensively examined by the use of data received from semi structured interviews, document analysis, and direct observations. All these methods were employed in such a way that they formed a triangular shape in an attempt to increase the reliability and validity of the findings. The sample was purposively selected and included 13 key informants whose views informed the design of the AIRI framework, making it practical and theoretically sound.

This structured methodology offers a clear path in the development of AIRI framework which serve as a model for improving governance, accountability, and compliance in managing investigative records.

## RESEARCH METHODOLOGY

The methodological strategies and study design used in developing the AIRI framework are described in this part. Underlying a pragmatic philosophical framework, the research used a qualitative case study method considering the difficulty of auditing investigative records in law enforcement. Along with ethical issues, this part addresses the main components of the methodology, the philosophical basis, study design, sampling strategy, data collecting techniques, and data analysis procedures.

### Philosophical Foundation: Pragmatic Approach

Driven by a pragmatic philosophical basis, the study concentrated on providing workable and relevant answers for contemporary issues. As a research paradigm, pragmatism is especially appropriate for studies aiming to solve challenging organisational challenges as it allows flexibility in choosing strategies most effective for the study environment (Creswell & Creswell, 2018). The aim of this research was to create the RMP-implementable practical auditing tool known as the AIRI framework. Pragmatism helped the researchers choose approaches fit for this goal free from the constraints of strict theoretical constructions. The focus was on using a variety of techniques to produce practical discoveries; hence pragmatism was the best fit for this kind of study.

Rather than looking to the AIRI framework through a theoretical lens, the study naturally focused on the real-world use of the framework. This degree of looseness was necessary, considering the ever-changing environment of processes related to the word of inculcates 'audit' within the sphere of law enforcement, where internal practices of an organization, legal rules, and outer elements are changing all the time. This appears to be a major principle of pragmatism which allowed for the research design to be flexible according to the real-life tensions in the site of the study, and paramount to ensuring that the tools implemented were appropriate for the study.

## Qualitative Case Study Design

The study involved a qualitative case study approach, which is appropriate when analysing phenomenon within real-life contexts (Yin, 2018). Utilising a case study research design enables the researcher to explore an issue in detail and offers information that could not be gathered using other research methods (Creswell & Poth, 2018). For this study the case was the RMP, more specifically its 'ISCD' responsible for overseeing the auditing of investigation records.

The need to investigate auditing processes in a particular, real-world setting drove the decision on a single-case study approach. The RMP was chosen because of its essential function in Malaysia's investigative record management and as it would be a perfect case study for analysing how the AIRI framework may be expanded to enhance auditing procedures.

Key benefits of the case study design in this research include:

- i. Contextual depth: Auditing practices discussed in the ISCD case description offered concrete material that provided richness that was necessary when identifying strengths and areas of deficiency within the practices currently in use (Stake, 2013).
- ii. Exploratory nature: Given that the AIRI framework is a relatively novel concept, the case study design used in this study allowed the researchers to start with a blank slate to understand at present how auditing practises are conducted, and how they may be elevated (Busetto et al., 2020).
- iii. Flexibility: The outcome of the case study design was the possibility to use a great amount of variety of sources of accumulating data like interviews, observations, and analysis of documents that helped to broaden the understanding of the auditing environment (Yin, 2018).

## Sampling Strategy: Purposive Sampling

In this study, purposive sampling was employed to identify participants and data sources that would be of most relevance to the study. Purposeful sampling is a technique of non-probability sampling commonly adopted in qualitative studies to guarantee that the sample is relevant to giving the appropriate data to answer the research questions (Patton, 2015).

For this study, the targeted sample population was senior staff, who was directly associated with auditing processes in the RMP's ISCD. In total, 13 informants were purposively recruited based on the sample's purpose of examining the auditing of records generated from investigations. The present sample was deemed sufficient for qualitative research of this type and size because it offered a rich store of data while maintaining practicable levels of data collection and analysis.

The selection criteria for the informants were:

- i. Experience: Essential criteria involved the participants providing evidence of prior experience of working with the RMP for at least 10 years focusing on the auditing investigation records. This made sure that they had detailed information of the current processes and could therefore input useful information to the development of the AIRI framework.
- ii. Role: Informants included auditing coordinators, lead auditors, and assistant auditors, which contributed diverse insights into the functioning of the system since all these participants contributed to the auditing process in one way or another.
- iii. Access to records: Special attention was paid to the participants who had the direct access to investigation records and had been engaged more actively in the processes of audit; Their opinions were considered to be valuable because the practical concerns and difficulties typical to the processes of audit

and the ways considered advantageous by the participants for dealing with them using the AIRI framework have been deduced from their responses.

This purposive sampling type made sure that the research got rich and appropriate data from participants with direct involvement in the auditing practices. Their input was vital for the development of the AIRI framework as well as for filling the gaps of the research area (Creswell & Poth, 2018).

### **Data Collection Methods**

In order to gather sufficient information over the auditing processes within the RMP setting, a qualitative research study was conducted which employed a sequential mixed method data collection approach. The techniques used here were semi-structured interviews, documentation analysis, and direct observation. Each techniques played their part in gathering diverse data (Creswell & Poth, 2018).

#### **Semi-structured interviews**

The main technique of data gathering was with the 13 informants through the use of semi-structured interviews. Semi-structured interviews were used because these interviews provide some structure, while at the same time provide more opportunity for probing than fully structured interviews (Patton, 2015). All interviews were conducted face-to-face and ranged from 30 to 60 minutes since the participants were able to explain these auditing processes and the difficulties that auditors encounter in handling investigation records.

The interview questions were designed to explore several key areas:

- i. Auditing as it is presently applied to the ISCD.
- ii. Auditing environment requirements and limitations within the existing auditing framework.
- iii. Aspects through which the use of the AIRI framework may be useful in enhancing the auditing procedures.
- iv. Some recommendations for particular changes that should incorporate into the AIRI framework.

The semi-structured style of the interviews provided the informants with the format for an unrestricting manner in which they could share their opinions while also providing the interviewer with tool to ask follow-up questions should they be necessary. The interviews were audio-recorded (with the participants' consent) and transcribed for analysis (Creswell & Poth, 2018).

#### **Document analysis**

The second method of data collection was analysing documents related to the RMP's auditing practices. Such documents include investigative reports, auditing reports, policies, and working procedures for operations performed by the ISCD. Interviews and observations were complimented by document analysis that revealed the presence of the above-mentioned gaps in the current auditing framework drawing objective evidence from extant literature. From these documents, the researchers could corroborate data given by the informants and also get a broader view of how the auditing processes were getting through (Patton, 2015).

#### **Observations**

For the current study, the researcher accompanied auditors on the real-time audit conducted at selected RMP facilities to observe firsthand the auditing process. The researchers supplemented this with a study of the process of how auditors and assistant auditors make use of working papers; that is, how they scrutinise

case records, how they separately isolate problems and incidents, and how they document their conclusion. The use of observations enabled the researchers to gather contextual data that cannot be obtained from the interviews and document review to see how the process of auditing looked like in the real sense (Creswell & Poth, 2018).

As one of the research methodologies of this study, the three data collection techniques ensured the triangulation of data, which greatly augmented the validity and reliability of the study findings. In order to minimize error and give a holistic view of the auditing environment within the RMP, the study utilized different sources of data and cross checked the data obtained in order to arrive at conclusions that were valid across the various data inputs (Patton, 2015).

### **Data Analysis**

The data collected from interviews, documents analysis, and observation were analyzed using thematic analysis. Thematic analysis as a qualitative approach is aimed at identifying, analysing, and reporting patterns or themes within the data. It is used particularly in research that is designed to investigate such contextual social processes as auditing in the police service (Braun & Clarke, 2006).

The data analysis process involved the following steps:

#### **Data familiarisation**

The first stage of the employed analysis was the applicable as a method of introducing the researchers to the entire data. This entailed reviewing several times the interview transcripts, the factual notes made during observations, and documents collected with a view to identifying the emerging key issues and subjects.

#### **Coding**

Next, the data was coded. Coding is a systematic assignment of names and tags to significant data segments in order to answer the research questions. Both inductive and deductive coding were conducted for this analysis. Inductive coding meant letting new themes and concepts come up from the data collected and analysed while on the other hand deductive coding was done based on the research objectives (Creswell & Poth, 2018).

#### **Theme development**

After coding, the researchers started analyzing for themes; these are patterns or topics that the researchers came across in all the data sources. The themes were derived from the treatment areas of focus for the research study, which include current auditing practices, challenges in managing investigation records, as well as features in need of incorporation in the AIRI framework (Braun & Clarke, 2006).

#### **Reviewing themes**

Following the first themes' identification, they were checked for consistency and coherence. Overarching or overly broad concepts were refined, and any topic lacking enough supporting evidence was eliminated. (Patton, 2015).

## **Defining and naming themes**

Lastly, the themes were labelled to give them proper names that reflected the data and aided the authors in answering the research questions. Each theme was anchored in the objectives of the study hence keeping the analysis on track and balanced (Creswell & Poth, 2018).

## **Ethical Considerations**

There were major concerns on ethical issues in the conduct of the research. Due to the nature of the data being processed especially the RMP investigation records, some measures that will ensure the respect of ethical standards were implemented (Denzin & Lincoln, 2011). These measures included:

- i. Getting all participants' informed permission previous to interviewing them. Participants were advised of the aim of the research, the techniques of data collecting, and their ability to withdraw at any moment.
- ii. Ensuring for all participants anonymity and secrecy. The names and identifying details of the informants were removed from the transcripts, and when needed pseudonyms were employed.
- iii. Ensuring that all the analysis information accumulated during the research such as audio records, interviews' transcripts and other related documents are saved in encrypted manner to discourage unauthorized access to them (Patton, 2015).

By adhering to these ethical guidelines, the research ensured that the participants' rights were respected, and that the data was handled responsibly.

## **FINDINGS**

As shown in the Figure 1, the methodological approach used in this study followed a disciplined procedure wherein research questions and the research framework led both data collecting and data analysis to build the AIRI framework.

The first stage, data collection, involved three qualitative methods: document analysis, semi-structured interviews, and observations. These methods were employed in an aim of collecting massive information on the current auditing practices within the RMP. The assessment of the document yields useful information into the current guidelines, policies, and procedural gaps within the auditor's conduct of RMP. Practical scenarios allowed for identifying discrepancies between theory and practice as well as for analyzing organizational culture. A total of 13 key informants were selected to obtain significant information about the practical issues, auditors experience, and the procedural gaps within the RMP. These interviews were semi structured to give the informants the opportunity to narrate their experiences while aligning with the research goals. The researchers also were able to find practical differences between the documented procedures and the auditing methods used in the ISCD by observing real-time auditing sessions.

These three techniques were triangulated to guarantee cross-referencing of data from several sources would improve the dependability and profundity of the conclusions. This method enabled the research to provide a complete knowledge of the auditing process, spotting flaws and issues that guided the creation of the AIRI structure.

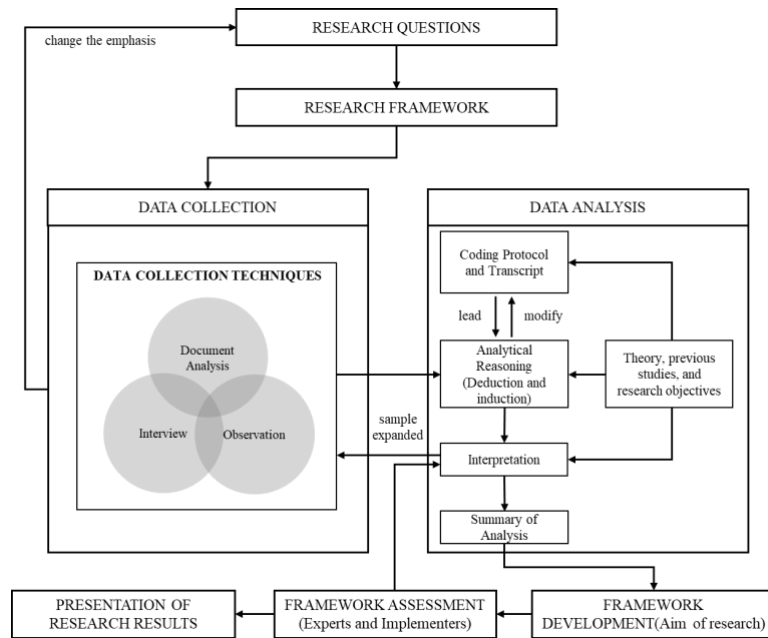


Figure 1 Qualitative research process

Source: Adapted and modified from Azlan (2018) and Busetto et al., (2020)

The research entered the phase of data analysis after data collection. Beginning with coding protocols and transcripts, this step methodically arranged the information acquired via interviews, documents, and observations. Recurring themes were found using both inductive which is based on the data itself, and deductive which is based on pre-existing assumptions. Driven by the research objectives of the study and existing literature, the analytical approach let one thoroughly investigate the problems the data revealed.

Following the themes, the emphasis should be on how the results matched or contradicted the theoretical underpinnings and past research on auditing procedures. The consolidated study findings offered unambiguous insights on how the AIRI framework may help to enhance the auditing procedures. The use of both deductive and inductive reasoning in the research guaranteed that the results were based on actual observations and yet matched theoretical constructions.

The final steps were therefore to disseminate study results to the RMP experts as well the practitioners in order to establish the actual practical usefulness and relevance of the AIRI framework. Such findings were especially useful in refining the framework to such an extent that practising it became achievable. The final phase, was the framework development and this was to be achieved using this systematic and explicit methodological model.

### Practical Implications for Similar Research

The present research methodological paradigm has important applications in other fields of study especially in records management and law enforcement research. The Figure 1 also shows that the systematic approach, from selection of subject to formulation of framework, provides a template for future operational framework research.

Using document analysis, interviews, and observations was useful when trying to fully understand auditing techniques. The above approach ensured that good results were achieved and followed a juxtaposition of various organisational structures, thus producing a clearer portrayal of existing problems. In a sense, triangulation may increase the reliability and validity of data collected for other researchers to use in similar fields in the future.

Another methodological advantage was the analysis of the data both with the help of deductive and inductive reasoning. The combination of these two strategies guarantees that theoretical models guide the research findings while simultaneously providing new data. The combination of reasoning methodologies could be beneficial for researchers improving the frameworks where they work, providing a balanced and complete method of analysis.

Finally, the evaluation of the expert and implementer ensures that research are applicable. This assessment made sure that the AIRI framework was improved and that its implementation was assured. The scholars in the relevant fields may apply this assessment phase to guarantee that their frameworks are theoretically sound and generalizable.

The systemic-scientific approach presented in Figure 1 serves as a strong and flexible foundation for creating operational models which are presented in the development of AIRI framework. This resource provides a sound background with which records management and law enforcement studies can be based. The methodology is flexible hence suitable for subsequent research in related area.

## **DISCUSSION**

The research method used in this study proved useful in identifying contemporary AIRI practices within the RMP, and in the process, formulating the AIRI framework. This research utilised a qualitative case study research style based on a pragmatic philosophy, which served the purposes of addressing practical issues encountered by auditors in the handling and reviewing of investigation records. Adopting this methodological approach let the research to adapt the process to the specifics of the auditing whilst still providing the results that are useful and feasible.

Using document analysis, semi-structured interviews, and observation is an important paradigm in facilitating the rich collection of diverse data that enhances the study. Document analysis enabled the researchers to learn about the existing rules and standards, to stand on the right starting point and define the areas for improvement. Document analysis was complemented by interviews and direct observation. Data triangulation was one of the study's major methodological strengths as it increased the likelihood of accurate findings.

The semi-structured interviews provide a flexible and perceptive means of gathering data. Rich qualitative data may be collected through the ability to probe deeper into specific domains during interviews. By sharing their own experiences, difficulties, and recommendations for development, auditors and other staff members gave first-hand information not available via document analysis alone. These iterative interviews, in which results from earlier participants guided the questions posed to subsequent participants, let the study develop as fresh ideas surfaced. This versatility of the interview process illustrates the potential of qualitative techniques to answer difficult, context-dependent research issues.

Direct observations of the practical side of auditing provide researchers with insightful analysis of the pragmatic problems the auditors run against during daily operations. Seeing the operations in action helps the researchers to see many problems, including the overreliance of the process on the manual documentation that would not be readily apparent from the documents analysis or the interviews. These



results were especially helpful as they revealed a difference between procedural documentation and real organization operations, therefore providing a rich contextual foundation for the research. Seeing the process helped the researchers to see where auditors had it easy and where they struggle, especially in handling large volumes of records.

Another main advantage of the study's approach was the data analysis process, especially the use of thematic analysis. Using both inductive and deductive reasoning and categorising the data, the researchers found recurrent themes and patterns directly guiding the creation of the AIRI framework. The topic study made it possible to classify data into important spheres like the requirement of standardising, and the management of sensitive information. This methodical approach to data analysis guaranteed that the research results addressed the more general theoretical and practical goals of the study as well as founded in the real experiences of auditors.

The method's iterative character was among its clear merits. The study plan allowed for ongoing evaluation and adaption all through the data collecting and analysis stages. The research questions and emphasis areas were revised when new themes surfaced from the data, therefore guaranteeing that the study stayed in line with the RMP's pragmatic requirements. A characteristic of qualitative research, this iterative technique guaranteed that the final AIRI framework responded to the real-world difficulties noted throughout the study.

However, the methodology was not without its limitations. Although fitting for a qualitative case study, 13 informants' sample size can restrict the generalisability of the results. Though the gathered data was comprehensive and thorough, a bigger sample size would have given more viewpoints and supported the conclusions even more. Furthermore, while observations and document analysis gave important new perspectives, the researchers found significant difficulties locating specific sensitive documents, therefore restricting the depth of the document study. Fuller picture of the auditing procedures would be provided by wider access to these documents, therefore benefiting future study.

## **CONCLUSION**

This research sought to develop the AIRI framework to address the weaknesses and defects in the conventional AIRI practices within the RMP. The study adopted a qualitative case study approach as the research method, and the pragmatic paradigm to enrich the understanding of the challenges faced by auditors. Document analysis, semi-structured interviews, and direct observations were used in fulfilling the research objectives in order to enhance understanding of the practical issues of auditing investigation records.

Particularly the use of triangulation and thematic analysis, the methodological approach guaranteed that the results were dependable, genuine, and true reflection of the experiences of the auditors. The research found important areas for growth included the requirement of standardising auditing practices, the integration of digital technologies to expedite operations, and the creation of explicit rules for managing private data. These results immediately helped shape the AIRI framework, which provides a methodical, flexible answer catered to the particular requirements of the RMP.

However, the research acknowledges several limitations, including concerns to sample size and challenges of measurement especially when dealing with sensitivity information. Future study may extend from these outcomes by involving a more significant number of participants and acquiring better access to investigational data to strengthen the AIRI framework validation and make refinements as needed.

There is a strict and flexible way of developing a framework by using the research methodology used in this study. The organised methodological process, which includes semi-structured interviews, document analysis, and observations as ways of gathering qualitative data, can be used as an example for future research in the areas of records management and law enforcement. Because this method is flexible, it can be used to look into complicated problems related to reporting, compliance, and managing private records. The study makes a big contribution to the ways that researchers do research in records management. The study contributes to research methodologies in both records management and law enforcement, giving a foundation for future studies aimed at optimizing practices in these areas.

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