

A Demonstration of How ChatGPT Can be Used in the Internal Auditing Process

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Running Head: Using ChatGPT in the Internal Audit Process

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Abstract:

For the past several years, internal audit functions (IAFs) have been significantly increasing their digitization efforts to enhance the efficiency and effectiveness of the IAF. The introduction of ChatGPT has increased the potential for IAFs to have a more significant impact; however, there is little guidance on how ChatGPT can influence the day-to-day work of internal auditors. This paper demonstrates with specific examples how ChatGPT can be used to enhance all aspects of the audit process. While not comprehensive in nature, the detailed, illustrative examples should help internal auditors see actionable steps they can take to be more efficient and effective and thus add more value to their organizations. Finally, it helps researchers to identify potential avenues for future research.

Keywords: ChatGPT; Internal Auditing; Generative AI; Prompt; Audit Process

I. INTRODUCTION

As the global economy undergoes a seismic shift from analog to digital (Menz et al. 2021), organizations are grappling with new risks and challenges. Buzzwords like “digitization, automation, data analytics, artificial intelligence (AI) and big data” are now needing to be transformed into tangible projects, necessitating significant adaptations in organizational strategies, especially for internal and external auditors (Kokina and Davenport 2017). Furthermore, the release of ChatGPT in November 2022 brought a new discourse around large-scale language models and AI. These AI models have successfully addressed both simple and complex tasks, even solving complex examination questions (Cheng et al. 2023; Eulerich et al. 2023; Gu et al. 2023; Wood et al. 2023). This development has sparked interest in the internal and external auditing profession of how to use AI to automate and to enhance the audit process (e.g., Bakarich and O’Brien 2021; Bao et al. 2020; Bertomeu et al 2021; Fedyk et al. 2022; Lehner et al. 2022).

Internal audit functions (IAFs) have been identified as a critical area where digitization and especially AI can bring significant value (e.g., Christ et al., 2019; Emmett et al. 2023).

However, research suggests a disparity between the implementation of digitization initiatives and the realization of their benefits in IAFs (Christ et al., 2021; Eulerich et al. 2022).

Challenges include, among other things, selecting appropriate technology, configuring

staffing, integrating technology into the audit process, and defining necessary skillsets. Given the digitalization of the business environment, IAFs are under pressure to modernize, necessitating changes in their planning methods, activities, and working practices (Betti and Sarens 2020).

The purpose of this paper is to demonstrate how AI can be incorporated into the IAF's strategy and to provide concrete examples of how one type of AI, ChatGPT, can be used to enhance each stage of the audit process. Based on conversations with practitioners and the authors own experiences, we identify multiple different ways ChatGPT can be used in internal auditing to enhance the efficiency and effectiveness of the IAF. We provide specific prompts as illustrative examples. While not comprehensive in scope, the examples do span all areas of the internal audit process to help internal auditors see the possibilities of how ChatGPT can enhance the work of internal auditors.

This research should help practitioners see the power of ChatGPT to enhance their work. It should also help academics see ways that ChatGPT can be used in practice and hopefully help spur additional, practice relevant research that can enhance the practice of accounting (Wood 2016; Burton et al. 2022, 2023).

II. A FRAMEWORK FOR USING ARTIFICIAL INTELLIGENCE IN THE INTERNAL AUDIT FUNCTION

To achieve the greatest success using AI in internal auditing, the objectives to use AI in the IAF must align with the overall (digitalization) strategy of the IAF, which should align with the organization's strategy. This helps avoid internal auditors using AI as a novelty, rather than as a tool to accomplish meaningful objectives. To help integrate AI into the IAF's strategy, we discuss relevant key considerations, listed in Figure 1.

First, the IAF AI strategy must tie to the overall organization's strategy. If an organization already has a digitization strategy in place, the IAF can use the organization's digitization strategy as a foundation for outlining the IAF's digitization strategy. Similar to

any corporate strategy, an AI strategy must seek to accomplish well-defined objectives. These objectives should be constructed in partnership with key stakeholders, such as the audit committee and senior management. Often, digitization strategies are tied to improvements in efficiency and effectiveness (Eulerich et al. 2023); but other objectives may also be considered such as employee satisfaction (Cooper et al. 2019, 2022), corporate responsibility, or sustainability.

Once the goals of using AI are established, the IAF should analyze how the AI relates to the current organization and structure of the IAF. As shown in Figure 1, questions the IAF should consider include the IT infrastructure that is available, data sources and structure, and requirements around data privacy and security. Depending on how the AI is implemented, AI can require significant resources and has weaknesses. For example, Emmett et al. (2023) note that risks related to ChatGPT include, among other risks, privacy, security, legal, and ethical risks.

With objectives set, and an understanding of the strengths and limitations of the organization and structure of the IAF, the internal auditors can analyze the audit process itself and begin to implement AI use cases. This paper provides detailed examples related to this step. To help structure our discussion, we use the framework for how AI can influence the internal audit process listed in Figure 2. Figure 2 shows the main steps of the audit process: risk-based audit planning, audit preparation, audit execution, reporting, and follow-up. A non-exhaustive list of examples of the audit process related to each of these steps is provided and a summary of a few potential use cases for AI related to the steps and process are listed. This visualization is meant to start the conversation of how AI can directly impact the audit process and not as an exhaustive list.

Figure 1 shows as the final component implementation and monitoring, since the IAF should implement AI for suitable use cases and constantly monitor the real efficiency and effectiveness gains as well as potential risks.

Based on this framework, we now turn to specific examples of how AI, and ChatGPT in particular, can be used to enhance the work of the IAF. These examples cover the breadth of the audit process, but not the depth. Similar to Figure 2, these are meant as illustrative examples to help professionals and academics see possibilities for how ChatGPT can be used in internal auditing. We encourage readers to build off these examples in creative and innovative ways.

III. AUDITING WITH CHATGPT – EXAMPLE PROMPTS AND RESULTS FOR EACH STEP OF THE INTERNAL AUDIT PROCESS

In this section, we show the integration of generative AI, specifically ChatGPT 4, within various steps of the audit process. This demonstration is based on significant discussions with internal audit professionals at multinational companies and external auditors at large accounting firms, and how they have experimented with ChatGPT to perform audit tasks. It is also informed by the authors' experience gained teaching professional workshops and training on this topic.

We present the results in a tabular format consisting of two columns: (1) the audit step, and (2) the ChatGPT prompt and output. We then provide commentary about each audit step. We also include in the Appendix a description of each phase, data requirements, and potential data security issues. The audit process is generally classified into several phases, including: planning, execution, reporting, and follow-up. The "Audit Step" column is a snapshot of the various tasks or activities performed within each phase of the audit process. The "Prompt" illustrates a possible query/prompt that can be presented to the AI model to assist with a certain audit activity. The prompt can be edited to better fit the auditor's situation. We have found that prompting is not an exact science but is best achieved after an iterative approach to generate the specific output desired. "Output" shows the response generated by the AI model to the given prompt, thereby showing how the AI can support conducting that specific audit activity.

In developing the examples to represent potential AI-driven audit activities, it was important to give the model as much information as possible, for example, the role the model should take (e.g., you are an internal auditor) and to be as specific as possible when it comes to the actual task the model should solve. For all prompts, we thought about a listed company from the pharmaceutical industry and used an audit engagement in the purchasing department as our example case.

We separate our discussion into the following sections: risk-based audit planning, audit preparation, audit execution, and reporting.

Risk-Based Audit Planning

ChatGPT could be employed during the risk-based audit planning phase to gain initial ideas and understanding of potential audit risks. It can provide insights into various areas, especially where auditors may not have detailed knowledge or expertise. For example, it could suggest potential risks related to emerging topics such as ESG-audits, or new regulatory developments.

The following example focusses on the design of the audit universe. The output gives some concrete ideas for the structure and content of the audit universe without any additional input data.¹

Audit Step	ChatGPT Prompt and Output
Audit Universe Design	<p>Prompt: Please define potential audit objects for a company in the pharmaceutical industry with multinational locations. The company is listed in the German DAX. The shareholders have a strong focus on financials and ESG.</p> <p>Output: For a multinational pharmaceutical company listed on the German DAX with shareholders emphasizing financials and ESG (Environmental, Social, and Governance) aspects, the potential audit objects can be expanded to cover a wide range of areas. Here are some specific audit objects that address the unique characteristics of the company:</p> <ol style="list-style-type: none"> 1. Financial Reporting and Accounting: Conducting a comprehensive audit of the company’s financial statements, ensuring accuracy, transparency, and

¹ We note that all examples could be enhanced by including more specific company (or at least audit) information. Given significant advances in data privacy being offered by OpenAI, it is now possible to enter this data and not have it shared with others.

compliance with accounting standards, such as International Financial Reporting Standards (IFRS). This includes reviewing revenue recognition, expense categorization, asset valuations, and financial disclosures.

2. Transfer Pricing: Examining the company's transfer pricing policies and transactions to ensure compliance with tax regulations across different jurisdictions. This involves reviewing intercompany transactions, transfer pricing documentation, and assessing the appropriateness of transfer pricing methodologies.

3. Country-Specific Regulatory Compliance: Assessing the company's compliance with country-specific regulations, such as pharmaceutical regulations, pricing controls, import/export requirements, and tax laws, in each jurisdiction where the company operates. This includes reviewing licenses, permits, and other regulatory documentation.

4. ESG Reporting and Compliance: Evaluating the company's adherence to ESG principles and its reporting on environmental, social, and governance factors. This involves assessing the company's sustainability initiatives, diversity and inclusion practices, supply chain transparency, ethical sourcing, and corporate governance structures.

5. Supply Chain Management and Vendor Due Diligence: Reviewing the company's global supply chain management practices to ensure compliance with ESG standards, as well as evaluating vendor due diligence processes to assess the company's commitment to ethical sourcing, labor standards, and environmental impact.

6. Cybersecurity and Data Privacy: Assessing the company's cybersecurity measures and data privacy protocols to protect sensitive information, patient data, and intellectual property. This includes reviewing IT infrastructure, data breach response plans, privacy policies, and compliance with regulations like the General Data Protection Regulation (GDPR).

7. Anti-Corruption and Anti-Bribery: Evaluating the company's compliance with anti-corruption laws, such as the Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act, across all multinational locations. This includes reviewing policies, procedures, training programs, and third-party due diligence processes.

8. Internal Controls and Risk Management: Assessing the effectiveness of the company's internal controls and risk management systems to mitigate financial, operational, and compliance risks. This involves reviewing control frameworks, risk assessment processes, and monitoring mechanisms.

9. Intellectual Property Protection and Licensing: Reviewing the company's intellectual property portfolio, including patents, trademarks, and copyrights, to ensure proper protection and licensing. This includes assessing the management of intellectual property assets, licensing agreements, and potential infringement risks.

	<p>10. Corporate Governance: Evaluating the company’s corporate governance practices, including board composition, executive compensation, shareholder rights, and compliance with relevant codes and regulations, such as the German Corporate Governance Code.</p> <p>It is essential to tailor the audit scope and objectives to meet the specific requirements of the company, its multinational locations, and the expectations of the shareholders. Additionally, considering emerging trends, regulatory changes, and industry-specific risks in the pharmaceutical sector is crucial for a comprehensive audit.</p>
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This initial output gives guidance for the internal auditor about potential risk areas and describes the potential audit object. This can serve as a starting point for generating additional risk areas. The prompt starts the internal auditor on generating the entire audit universe. Internal auditors at the global company Uniper, estimate that ChatGPT can identify approximately 80 percent of the relevant risks to an audit (Emett et a. 2023). The auditor can now spend his or her time thinking about special risks that affect the company.

After generating the audit universe, the IAF would complete a risk assessment by assigning likelihood and magnitude to each risk. Without company specific data about risks, we skipped this step for this research paper.² Once the risks are generated and scored, ChatGPT can be used to create a draft of the risk-based audit plan. As part of the audit plan, ChatGPT can also make assignments for auditors based on their expertise, skills, and to accommodate restrictions (e.g., vacations, travel restrictions, etc.).

Audit Step	ChatGPT Prompt and Output
Development Audit Plan	<p>Prompt: Please create an annual audit plan for an internal audit function. Each audit should consist of two internal auditors based on their unique expertise: Rank in Plan Sales 2. Intellectual Property 3. Financial Reporting Process 4. Transfer Pricing 1. Auditor No. Main Skillset Auditor 1 Financials Auditor 2 Sales Auditor 3 Intellectual Property Auditor 4 General Business Knowledge</p> <p>Output: Sure, here’s an annual audit plan for the internal audit function based on the provided auditor skillset and the audit rank:</p> <p>Audit of Transfer Pricing Period: January to March</p>

² We have performed this type of analysis with data from another company and saw this done at the IAF of a third company. We are working to get permission to use that data for a research project to demonstrate this capability.

	<p>Auditors Assigned: Auditor 1 (Financials expertise), Auditor 4 (General Business Knowledge)</p> <p>The first quarter will be dedicated to auditing Transfer Pricing given its highest risk level. Auditor 1 will leverage their financial expertise to thoroughly inspect transfer pricing mechanisms and compliance. Auditor 4’s general business knowledge will ensure a holistic view of the business implications and operational aspects related to Transfer Pricing.</p> <p>Audit of Sales Period: April to June Auditors Assigned: Auditor 2 (Sales expertise), Auditor 4 (General Business Knowledge)</p> <p>In the second quarter, the focus will shift to sales, the second highest ranked risk. Auditor 2, with their sales expertise, will conduct a detailed review of sales processes, controls, and compliance. Auditor 4 will supplement this audit with their general business knowledge, looking into operational and business aspects of sales.</p> <p>Audit of Intellectual Property Period: July to September Auditors Assigned: Auditor 3 (Intellectual Property expertise), Auditor 4 (General Business Knowledge)</p> <p>The third quarter will focus on intellectual property, with Auditor 3’s specific expertise playing a critical role in assessing the management, protection, and valuation of the company’s intellectual property. Auditor 4 will again provide additional value with their broad business understanding.</p> <p>Audit of Financial Reporting Process Period: October to December Auditors Assigned: Auditor 1 (Financials expertise), Auditor 4 (General Business Knowledge)</p> <p>In the fourth and final quarter, the focus will shift to the financial reporting process. Auditor 1’s financial expertise will be critical for this audit. They will review financial statements, the process of preparing them, and the effectiveness of internal controls. Auditor 4’s general business knowledge will provide additional support in reviewing operational processes and business implications.</p> <p>This audit plan provides a comprehensive coverage of the identified risk areas with efficient allocation of auditor skillsets. However, it’s important to note that the plan should be flexible to accommodate any emerging risks or issues throughout the year.</p>
<p>Updates Audit Plan</p>	<p>Prompt: Auditor 1 has a planned vacation in Q1. Please update the audit plan.</p> <p>Output: Sure, the updated annual audit plan considering Auditor 1’s vacation in Q1 would be:</p>

Audit of Sales

Period: January to March

Auditors Assigned: Auditor 2 (Sales expertise), Auditor 4 (General Business Knowledge)

The first quarter will now be dedicated to auditing Sales, which is the second-highest risk level in the original plan. Auditor 2 will use their sales expertise to conduct a detailed review of sales processes, controls, and compliance. Auditor 4 will supplement this audit with their general business knowledge, looking into operational and business aspects of sales.

Audit of Transfer Pricing

Period: April to June

Auditors Assigned: Auditor 1 (Financials expertise), Auditor 4 (General Business Knowledge)

In the second quarter, the focus will shift to Transfer Pricing, which was originally the highest risk level. Now that Auditor 1 is available after their vacation, they can apply their financial expertise to thoroughly inspect transfer pricing mechanisms and compliance. Auditor 4's general business knowledge will ensure a holistic view of the business implications and operational aspects related to Transfer Pricing.

Audit of Intellectual Property

Period: July to September

Auditors Assigned: Auditor 3 (Intellectual Property expertise), Auditor 4 (General Business Knowledge)

The third quarter will remain focused on intellectual property. Auditor 3's specific expertise will be critical in assessing the management, protection, and valuation of the company's intellectual property. Auditor 4 will again provide additional value with their broad business understanding.

Audit of Financial Reporting Process

Period: October to December

Auditors Assigned: Auditor 1 (Financials expertise), Auditor 4 (General Business Knowledge)

In the fourth and final quarter, the focus will still be on the financial reporting process. Auditor 1's financial expertise will be needed for this audit. They will review financial statements, the process of preparing them, and the effectiveness of internal controls. Auditor 4's general business knowledge will provide additional support in reviewing operational processes and business implications.

This revised audit plan still provides comprehensive coverage of the identified risk areas while accommodating for the availability of the auditors. It's important to keep the plan flexible to accommodate any emerging risks or issues throughout the year.

Audit Preparation

During audit preparation, ChatGPT can assist with generating questions for interviews or creating a preliminary checklist of items or areas to be audited. This can help streamline the preparation process and allow auditors to improve their audit scoping, initial analyses, and preparation process. In the subsequent section, we will present some specific prompts that could be utilized with ChatGPT and discuss the expected outcomes.

Based on our hypothetical “Audit of the Purchase Function”, we first asked ChatGPT about relevant data (sources) that could be analyzed and received a detailed list of typical examples of relevant purchase data. Afterwards, we also asked for relevant SAP tables based on the previous results. The output generated all relevant SAP tables which would allow the auditor to prepare the data extraction.

Audit Step	ChatGPT Prompt and Output
Data Collection	<p>Prompt: Please list all relevant data points or input sources for an audit of the purchase function.</p> <p>Output: Performing an audit on the purchasing function of an organization will require access to a variety of data points and information sources. Here’s a comprehensive list:</p> <p style="padding-left: 40px;">Purchase Orders (POs): These will provide details about the quantity, price, and specifications of goods/services ordered, as well as the delivery schedule.</p> <p style="padding-left: 40px;">Vendor Contracts and Agreements: These documents will provide details about the terms and conditions agreed upon with suppliers.</p> <p style="padding-left: 40px;">Invoices from Suppliers: These documents are crucial to verify the quantity and price of goods/services delivered against what was ordered.</p> <p style="padding-left: 40px;">Purchase Requisitions: These are internal documents created by departments indicating the need for certain goods/services.</p> <p style="padding-left: 40px;">Goods Received Notes (GRNs): These are issued by the receiving department upon delivery of goods, and will help verify if the goods ordered were received in good condition and in the right quantity.</p> <p style="padding-left: 40px;">Payment Records: These would include bank statements, cheque books, and electronic payment receipts that can verify if payments were made timely and correspond to the invoices.</p>

	<p>Vendor Selection and Evaluation Records: These could include tenders, bid analysis reports, and supplier evaluation forms to assess the fairness and transparency of the vendor selection process.</p> <p>Inventory Records: These can help in tracking the movement of goods from receipt to storage or use.</p> <p>ERP System Data: Data from the organization’s ERP system can provide a wealth of information about purchasing activities, including cycle times, discrepancies, and patterns that might indicate inefficiencies or fraud.</p> <p>Internal Policies and Procedures: These documents can help in evaluating the organization’s compliance with its own internal controls and standards.</p> <p>Internal and External Communication: Emails, meeting minutes, and other forms of communication related to the purchasing function may provide additional insights.</p> <p>Audit Trails: If available, audit logs from the purchasing system can show who made specific transactions and when, which can be critical in assessing controls and identifying potentially fraudulent activities.</p> <p>Previous Audit Reports: These can provide insights on past issues and whether recommendations have been implemented and are effective.</p> <p>These data points, when properly analyzed, can provide a holistic view of the organization’s purchasing function, helping to identify risks, inefficiencies, non-compliance, or fraudulent activities.</p>
	<p>Prompt: Based on your previous results, please list all relevant SAP tables.³</p> <p>Output: SAP (System Applications and Products) is a widely-used ERP system that records data in different tables based on various business transactions. Here are relevant SAP tables that would be useful for auditing the purchasing function:</p> <p>EBAN: Purchase Requisition table. This table contains data about the purchase requisitions made within the organization.</p> <p>EKKO and EKPO: Purchase Document Header and Purchase Document Item tables. These tables store data regarding purchase orders.</p> <p>EKBE: History per Purchasing Document table. This stores the history of purchase orders including changes and goods receipt details.</p> <p>LFA1: Vendor Master (General section). This table contains general data about vendors, including name, address, and communication data.</p> <p>LFB1: Vendor Master (Company Code). This table contains data specific to</p>

³ Although not shown here, you can also ask ChatGPT to help explain how to extract data from each of these tables. For example, you can ask ChatGPT what transaction codes would extract data for vendor master data and the steps to do it. It will then reply by giving step-by-step instructions of how to do this.

	<p>each company code, including payment terms, bank details, reconciliation account, etc.</p> <p>RBKP: Document Header: Invoice Receipt. This table provides information on invoice receipts.</p> <p>RSEG: Document Item: Incoming Invoice. This contains information on individual invoice items.</p> <p>BSIK: Accounting: Secondary Index for Vendors. This table keeps track of the accounting documents for vendor postings.</p> <p>BSAK: Accounting: Secondary Index for Vendors (Cleared Items). This table keeps track of the cleared vendor postings.</p> <p>MKPF: Header: Material Document table. This table is used for material management, with details about the material document.</p> <p>MSEG: Document Segment: Material table. This table is related to goods movements (like Goods Receipt).</p> <p>These tables can help in extracting valuable data points necessary for the audit of the purchasing function, including purchase orders, vendor information, invoices, payments, and material movements. Do note that access to these tables will need appropriate permissions and data protection measures must be taken into account while handling this data.</p>
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As another example of performing concrete audit tasks, we prompted ChatGPT to create a risk-control-matrix for the purchase to pay process. This type of audit procedure would help the auditor look for concrete risks and relevant controls. Furthermore, we let ChatGPT also add a control description and a control type classification.

Audit Step	ChatGPT Prompt and Output												
Control Assessment	<p>Prompt: Please create a risk control matrix for the purchase to pay process and include the control description and control type in your answer.</p> <p>Output: A Risk Control Matrix (RCM) is a useful tool that aids in understanding the risks associated with a process, such as the Purchase to Pay (P2P) process, and the controls put in place to mitigate those risks. Here is an example of a Risk Control Matrix for the P2P process:</p> <table border="1"> <thead> <tr> <th>Process Steps</th> <th>Risk Control Description</th> <th>Control Type</th> </tr> </thead> <tbody> <tr> <td>Purchase Requisition</td> <td>Unauthorized or unnecessary purchases are made</td> <td>Approval of purchase requisitions by a responsible manager or department head</td> </tr> <tr> <td>Vendor Selection</td> <td>The organization may select an unreliable or costly vendor</td> <td>Vendor evaluation and selection process, including checks on cost, reliability, and past performance</td> </tr> <tr> <td>Purchase Order</td> <td>Inaccurate purchase order details</td> <td>Regular review and approval</td> </tr> </tbody> </table>	Process Steps	Risk Control Description	Control Type	Purchase Requisition	Unauthorized or unnecessary purchases are made	Approval of purchase requisitions by a responsible manager or department head	Vendor Selection	The organization may select an unreliable or costly vendor	Vendor evaluation and selection process, including checks on cost, reliability, and past performance	Purchase Order	Inaccurate purchase order details	Regular review and approval
Process Steps	Risk Control Description	Control Type											
Purchase Requisition	Unauthorized or unnecessary purchases are made	Approval of purchase requisitions by a responsible manager or department head											
Vendor Selection	The organization may select an unreliable or costly vendor	Vendor evaluation and selection process, including checks on cost, reliability, and past performance											
Purchase Order	Inaccurate purchase order details	Regular review and approval											

	<p>of purchase orders by the appropriate authority before sending them to the vendor Preventive</p> <p>Goods Receipt Received goods don't match the Purchase Order Physical checking and verification of goods received against the purchase order Detective</p> <p>Invoice Receipt Invoice does not match the goods received or the Purchase Order Three-way matching: comparison of the invoice, the purchase order, and the goods receipt note Detective</p> <p>Payment Payment is made for incorrect amounts or fraudulent invoices Double-checking invoice amounts before payment, and regular reconciliations of supplier statements Detective</p> <p>Payment Unauthorized payments are made Dual signatory requirement or approval for payments above a certain limit Preventive</p> <p>In this matrix, each step in the P2P process has an associated risk and control. The control description provides an overview of how the control works, and the control type indicates whether it is preventive (designed to stop an error or issue before it occurs) or detective (designed to identify errors or issues after they have occurred).</p>
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Afterwards, we used the setup of a prior experimental study (Cardinaels et al. 2023) and let ChatGPT identify double payments as a typical example of a data analysis that an internal auditor would perform. The model was able to identify all relevant cases of double payments in the experimental instrument. We tried again by including more challenging double payments than what was included in the experimental study, by including things like quarterly payments for the same invoice. ChatGPT was able to correctly identify these double payments as well. Compared to the participants in the experimental study, ChatGPT solved the task in a few seconds, whereas experimental participants took much longer (mean of 8.4 minutes).

Audit Step	ChatGPT Prompt and Output
Data Analysis	<p>Prompt: You are an internal auditor and should identify double-payments during your audit engagement. Here is the list of cases. Please identify the critical cases and describe your findings in a 250 word summary: ID Supplier Year Company Code Quarter No. Payment Date Booking Key Value Reference</p> <p>2017_01 Revelation Security 2017 2 1 20170622 05.02.17 17 40758,00 € W 7005 7.16 5</p> <p>2017_02 Padlock 2017 2 3 20173027 17.08.17 30 73750,00 € 201725433</p> <p>2017_03 Essence Acoustics 2017 2 4 20171812 23.10.17 23 64944,00 € DE-RG_9596</p> <p>2017_04 Sunlightning 2017 2 3 20170119 22.07.17 29 36789,00 € 201717574</p> <p>2017_05 Dynamico 2017 2 4 20172607 13.12.17 30 55613,00 € R958</p>

2017_06 Buzzylectrics 2017 2 4 20170765 28.12.17 25 20332,00 € 2017-1521
 2017_07 Padlock 2017 2 3 20173028 17.08.17 30 73750,00 € 201725433
 2017_08 Pixelimited 2017 2 1 20170743 15.01.17 17 24552,00 € 2017Q1781
 2017_09 Yellowsys 2017 2 2 20172103 28.04.17 11 2866,00 € DE-RG_6608
 2017_10 Marshland 2017 2 2 20172463 27.04.17 30 85877,00 € 201700865
 2017_11 Stardust Technologies 2017 2 3 20170643 24.07.17 21 59294,00 €
 2016/60942951125
 2017_12 Labyrinth Acoustics 2017 2 1 20170122 14.01.17 10 85163,00 € DE-
 RG_1517
 2017_13 Nemotors 2017 2 4 20170333 30.03.17 16 35759,00 € Inv.-No.-2164
 2017_14 Lagoonavigations 2017 2 4 20171851 22.12.17 24 32537,00 € 2017-
 1612
 2017_15 Hummingbirdustries 2017 2 3 20170107 28.07.17 15 61761,00 €
 7020062341
 2017_16 Radiantelligence 2017 2 2 20172071 20.06.17 28 14852,00 €
 25868No_2017
 2017_17 Yellowsys 2017 2 2 20172103 26.04.17 11 2866,00 € DE-RG_6608
 2017_18 Dynamico 2017 2 4 20172607 14.12.17 30 55613,00 € R958
 2017_19 Apachespace 2017 2 1 20171335 08.03.17 24 30513,00 € 2017-1111
 2017_20 Chieffly 2017 2 4 20171596 25.12.17 28 10745,00 € DE-RG_4193
 2017_21 Pixelimited 2017 2 2 20170743 15.04.17 17 24552,00 € 2017Q1781
 2017_22 Ridge Entertainment 2017 2 3 20172142 19.08.17 22 31076,00 € DE-
 RG_9996
 2017_23 Pixelimited 2017 2 3 20170743 15.07.17 17 24552,00 € 2017Q1781
 2017_24 Nemotors 2017 2 4 20170333 30.06.17 16 35759,00 € Inv.-No.-2164
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 766437
 2017_27 Whirlpoolutions 2017 2 3 20170890 18.07.17 23 90418,00 € 2017-
 1326
 2017_28 Timbershadow 2017 2 3 20173084 11.09.17 19 50957,00 €
 26339No_2017
 2017_29 Spiritair 2017 2 2 20170905 02.06.17 12 27551,00 € RE17-338927
 2017_30 Jetscape 2017 2 4 20172880 21.10.17 22 16835,00 € 2017-1515
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 2017_32 Chieffly 2017 2 4 20172432 21.12.17 26 81391,00 € DE-RG_3235
 2017_33 Nemotors 2017 2 4 20170333 30.09.17 16 35759,00 € Inv.-No.-2164
 2017_34 Nemotors 2017 2 1 20172528 08.01.17 25 26642,00 € Inv.-No.-2165
 2017_35 Orangations 2017 2 3 20172659 27.09.17 25 16295,00 €
 57835No_2017
 2017_36 Hummingbirdustries 2017 2 3 20170107 28.07.17 15 61761,00 €
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 2017_37 Apachespace 2017 2 3 20172908 21.09.17 22 1989,00 € DE-RG_9167
 2017_38 Daydreamotors 2017 2 2 20171583 09.04.17 30 59240,00 € DE-
 RG_8020
 2017_39 Pixelimited 2017 2 4 20170743 15.10.17 17 24552,00 € 2017Q1781
 2017_40 Lagoonavigations 2017 2 3 20172265 02.08.17 22 67772,00 €
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 2017_41 Dreambooks 2017 2 3 20171175 04.09.17 10 85884,00 € RE17-

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 2017_42 Signal Corp 2017 2 3 20171650 28.07.17 11 10862,00 €
 4451No_2017
 2017_43 Motion Media 2017 2 2 20171598 15.06.17 30 2729,00 € DE-RG_347
 2017_44 Ridge Entertainment 2017 2 2 20171061 11.05.17 27 6252,00 €
 RE17-334471
 2017_45 Radiantelligence 2017 2 2 20172012 27.04.17 20 84974,00 €
 5839No_2017
 2017_46 Stardust Technologies 2017 2 3 20170643 24.07.17 12 59294,00 €
 2016/60942651125
 2017_47 Labyrinth Acoustics 2017 2 3 20170378 08.09.17 21 56751,00 €
 201797349
 2017_48 Nemotors 2017 2 4 20170333 30.12.17 16 35759,00 € Inv.-No.-2164
 2017_49 Padlock 2017 2 1 20172914 06.02.17 10 39807,00 € RE17-773846
 2017_50 Essence Acoustics 2017 2 3 20171838 01.07.17 19 20776,00 €
 14382No_2017

Output: From the data provided, there appear to be several instances of double payments which are critical issues during this audit engagement. The identified cases are as follows:

1. Case ID 2017_02 and 2017_07: The supplier 'Padlock' has the same transaction recorded twice in the same quarter. The same amount of 73750,00 € was paid on 17.08.17 with the same reference 201725433.
2. Case ID 2017_05 and 2017_18: The supplier 'Dynamico' has the same transaction recorded twice in the same quarter. The same amount of 55613,00 € was paid on different dates but with the same reference R958.
3. Case ID 2017_09 and 2017_17: The supplier 'Yellowsys' has the same transaction recorded twice in the same quarter. The same amount of 2866,00 € was paid on different dates but with the same reference DE-RG_6608.
4. Case ID 2017_08, 2017_21, 2017_23, and 2017_39: The supplier 'Pixelimited' has the same transaction recorded four times across different quarters. The same amount of 24552,00 € was paid on different dates but with the same reference 2017Q1781.
5. Case ID 2017_13, 2017_24, 2017_33, and 2017_48: The supplier 'Nemotors' has the same transaction recorded four times across different quarters. The same amount of 35759,00 € was paid on different dates but with the same reference Inv.-No.-2164.
6. Case ID 2017_27 and 2017_31: The supplier 'Whirlpoolutions' has the same transaction recorded twice in the same quarter. The same amount of 90418,00 € was paid on the same date with the same reference 2017-1326.
7. Case ID 2017_15 and 2017_36: The supplier 'Hummingbirdustries' has the same transaction recorded twice in the same quarter. The same amount of 61761,00 € was paid on the same date with the same reference 7020062341.

	<p>These findings are significant as they indicate a potential flaw in the payment system that has led to multiple payments for the same transaction. This may lead to financial losses for the company if not rectified. Further investigation is recommended to determine the root cause and apply necessary controls to prevent recurrence.</p>
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Next, we used ChatGPT to help prepare the scoping of the audit engagement and identify areas where the internal auditor should examine as part of the purchase audit engagement.

Audit Step	ChatGPT Prompt and Output
<p>Audit Scoping</p>	<p>Prompt: You are an internal auditor and want to prepare an audit of the purchase to pay function. Please create a detailed scoping for your engagement.</p> <p>Output: Sure, I can assist with that. Here is a high-level scoping for an internal audit of the purchase-to-pay function:</p> <p>Audit Scope</p> <p>Objective: The objective of the audit is to ensure that the Purchase-to-Pay (P2P) process is functioning effectively and efficiently, and is compliant with the company’s policies and procedures, as well as applicable laws and regulations. The audit will also identify any risks or control weaknesses in the process and provide recommendations for improvement.</p> <p>Scope of Work: The audit will cover the following aspects of the P2P process:</p> <p>Vendor Selection: We will evaluate the criteria for vendor selection and its adherence. This will also include a review of contracts and agreements with vendors to ensure compliance with company standards.</p> <p>Purchase Order Process: The audit will review the approval and issuance of purchase orders. We’ll assess the completeness and accuracy of PO documentation and verify the compliance with company policies and approval limits.</p> <p>Goods Receipt Process: We will audit the goods receipt process to ensure it is controlled and consistent, confirming that goods and services received match purchase orders, and that they are recorded correctly in the system.</p> <p>Invoice Approval and Payment Process: The audit will check whether the invoices received are matched against the POs and the Goods Receipt Note (GRN) before payment. We will also verify the authorization process for invoice payments.</p> <p>Payment Process: The audit will review the methods of payment to suppliers and ensure payments are made within the credit terms agreed with the vendor.</p>

	<p>Controls and Compliance: This will include a review of the segregation of duties in the P2P process to minimize the risk of fraud and error, and ensure that controls are in place and effective. This also involves ensuring compliance with applicable regulatory requirements.</p> <p>Systems and Information: The audit will assess the information systems used in the P2P process for robustness, data accuracy, and cybersecurity. This includes verifying the backup and restore procedures for critical P2P data.</p> <p>Performance Metrics and Reporting: The audit will review the key performance metrics used to manage and monitor the P2P process, ensuring they are relevant, accurate, and reliably reported.</p> <p>Approach: Our audit methodology will be risk-based, focusing on areas with a higher potential for risk. The audit will involve interviews, process walk-throughs, control testing, and substantive testing. The audit team will use sampling techniques to select transactions for review.</p> <p>Deliverables: At the end of the audit, we will produce an audit report detailing our findings, risk ratings, and recommendations. This report will be presented to senior management and the audit committee.</p> <p>Timing: The audit will commence on (start date) and is expected to be completed by (end date).</p> <p>Audit Team: The audit will be conducted by (names/positions of auditors).</p> <p>This scope is designed to be comprehensive but can be tailored to fit the specific needs and risk areas of the organization. The audit will provide assurance about the effectiveness of the P2P process and highlight areas for improvement.</p>
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We also asked ChatGPT to prepare an audit notification letter for the hypothetical audit. We performed additional steps to customize this letter based on specific risk factors previously identified by ChatGPT. While not shown, these types of modifications can be easily made to save the auditor time by better preparing the auditee for the auditor’s arrival.

Audit Step	ChatGPT Prompt and Output
Audit Notification	<p>Prompt: You are an internal auditor and want to prepare an audit of the purchase to pay function. Please create an audit notification letter that could be send to the auditee in advance to the audit.</p> <p>Output: Sure, here’s a template for an internal audit notification letter for a Purchase-to-Pay (P2P) audit:</p> <p>---</p> <p>[Your Name]</p>

[Your Position]
[Company's Name]
[Company's Address]
[City, State, ZIP Code] [Date]

[Recipient's Name]
[Recipient's Position]
[Department/Division]

Dear [Recipient's Name],

Re: Notification of Internal Audit

We hope this letter finds you well.

We are writing to inform you that the Internal Audit Department will be conducting an audit on the Purchase-to-Pay (P2P) function within your department. The audit will begin on [start date] and is expected to conclude on or before [end date]. This audit is part of our annual audit plan, which has been approved by the Audit Committee.

The objectives of this audit are to evaluate the efficiency and effectiveness of our P2P process, ensure compliance with the company's policies and procedures, applicable laws and regulations, and identify areas for improvement.

The scope of the audit will include, but is not limited to, vendor selection, purchase order process, goods receipt process, invoice approval and payment process, internal controls, systems and information, and performance metrics and reporting.

We kindly request your cooperation and assistance during the audit process. This may involve providing necessary documents, records, and explanations of the P2P process. We will endeavor to minimize any disruption to your day-to-day activities.

Upon completion of the audit, a report of our findings, along with any recommendations for improvements, will be provided. We believe that this process will not only help us ensure compliance with established policies and procedures but also enhance the overall effectiveness of our P2P function.

Should you have any questions regarding this audit or if you need to schedule specific times for testing, please feel free to contact me directly.

Thank you in advance for your support and cooperation in this audit process.

Best regards,

[Your Name]
[Your Position]
[Your Contact Information]

Finally, we used ChatGPT to help with the resource planning of the hypothetical audit engagement. We used some of the previous results and added additional information to make this prompt as realistic as possible. The results could help lead auditors to create an initial resource plan.

Audit Step	ChatGPT Prompt and Output
Resource Planning	<p>Prompt: For the purchase to pay audit, you are planning one week of audit preparation in headquarter, two weeks of fieldwork on site, and one week of report writing for a team of three internal auditors with different levels of experience. Your tasks are defined by your audit scoping as follows: Vendor Selection: We will evaluate the criteria for vendor selection and its adherence. This will also include a review of contracts and agreements with vendors to ensure compliance with company standards.</p> <p>Purchase Order Process: The audit will review the approval and issuance of purchase orders. We'll assess the completeness and accuracy of PO documentation and verify the compliance with company policies and approval limits.</p> <p>Goods Receipt Process: We will audit the goods receipt process to ensure it is controlled and consistent, confirming that goods and services received match purchase orders, and that they are recorded correctly in the system.</p> <p>Invoice Approval and Payment Process: The audit will check whether the invoices received are matched against the POs and the Goods Receipt Note (GRN) before payment. We will also verify the authorization process for invoice payments.</p> <p>Payment Process: The audit will review the methods of payment to suppliers and ensure payments are made within the credit terms agreed with the vendor.</p> <p>Controls and Compliance: This will include a review of the segregation of duties in the P2P process to minimize the risk of fraud and error, and ensure that controls are in place and effective. This also involves ensuring compliance with applicable regulatory requirements.</p> <p>Systems and Information: The audit will assess the information systems used in the P2P process for robustness, data accuracy, and cybersecurity. This includes verifying the backup and restore procedures for critical P2P data.</p> <p>Performance Metrics and Reporting: The audit will review the key performance metrics used to manage and monitor the P2P process, ensuring they are relevant, accurate, and reliably reported.</p> <p>Please allocate the available three auditors on the different audit areas from your scoping.</p>

Output: Sure, here is how you might allocate the three internal auditors with different levels of experience across the various aspects of the audit:

1. Preparation (1 week in HQ):

All team members should be involved in the preparation stage. This includes understanding the overall P2P process, reviewing previous audits, and understanding the organization's policies and procedures related to P2P.

- Senior Auditor: Oversee the entire preparation process, set objectives, and guide team members.
- Intermediate Auditor: Conduct research on best practices, potential risks, and compile an initial list of required information and data.
- Junior Auditor: Assist in gathering and organizing documentation for review, including prior audit reports, process flowcharts, and system manuals.

2. Fieldwork (2 weeks on-site):

- Vendor Selection and Purchase Order Process:
 - Senior Auditor: Lead these key areas as they require more experience to navigate vendor contracts and assess compliance with company standards.
- Goods Receipt Process and Invoice Approval and Payment Process:
 - Intermediate Auditor: Take responsibility for these processes, which involve checking controls and consistency.
- Payment Process:
 - Junior Auditor: Given guidance and oversight, this task is suitable for a less experienced auditor, focusing on matching payments with agreed credit terms.
- Controls and Compliance:
 - Senior Auditor: This is a critical area needing deep knowledge of internal controls, segregation of duties, and regulatory requirements.
- Systems and Information:
 - Intermediate Auditor: This area requires understanding of information systems, data accuracy, and cybersecurity considerations.
- Performance Metrics and Reporting:
 - Junior Auditor: Under the guidance of the senior and intermediate auditors, handle this area which involves verifying metrics used to manage and monitor the P2P process.

3. Report Writing (1 week):

All team members should contribute to the final report, with tasks assigned according to complexity and required experience.

- Senior Auditor: Write the executive summary, key findings, and recommendations. Review and approve the entire report.

	<ul style="list-style-type: none"> - Intermediate Auditor: Draft sections related to their areas of responsibility during fieldwork. Help develop recommendations based on their findings. - Junior Auditor: Assist with drafting their section, create visual aids such as graphs or charts, and compile supporting documentation. <p>Note: The allocation above assumes that each auditor is capable of handling their allocated areas. Actual allocation should consider each auditor’s skills, experience, and knowledge of the audited processes. Each stage should include regular team meetings for updates, discussions, and continuous guidance.</p>
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Audit Execution

In the audit execution phase, ChatGPT can offer support in various tasks that do not require complex calculations (newer versions of ChatGPT with plugins can be used to perform more complex calculations). It can help to query specific program codes, understand data or table structures, and even provide initial suggestions for test steps. This could significantly facilitate the process of data analysis and lead to a more efficient audit execution. We will now present some prompts that could be used with ChatGPT in this phase, along with the outcomes.

Our initial audit step focused on control testing. For this task, we prompted different situations and asked ChatGPT about an evaluation of the situation and potential recommendations to improve the effectiveness of the internal controls. The results gave a very detailed assessment of the control quality and identified internal control weaknesses and also recommendations to improve the internal control effectiveness.

Audit Step	ChatGPT Prompt and Output						
Control Testing	<p>Prompt: You are an internal auditor and are working on an audit engagement with a focus on the purchase to pay process. During your control testing you identified the following situations: - Some purchase cases had no approval by the supervisor. - Some purchase cases had invoices before the creation of a purchase order. -Some purchase cases were monitored using a three-way-matching. Based on these three observations, please assess the effectiveness of the underlying controls. Report your results in a table format.</p> <p>Output: Sure, I can definitely help you with that. Here’s a simple table representation of the assessment of the effectiveness of the underlying controls based on the observed situations:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Observed Situations</th> <th style="text-align: left;">Implications</th> <th style="text-align: left;">Assessment of Control Effectiveness</th> </tr> </thead> <tbody> <tr> <td>Some purchase cases had no approval by the supervisor.</td> <td>This indicates a lack of</td> <td></td> </tr> </tbody> </table>	Observed Situations	Implications	Assessment of Control Effectiveness	Some purchase cases had no approval by the supervisor.	This indicates a lack of	
Observed Situations	Implications	Assessment of Control Effectiveness					
Some purchase cases had no approval by the supervisor.	This indicates a lack of						

	<p>enforcement of a key control, i.e., supervisor approval for purchases. Without this, there's a heightened risk of unnecessary or fraudulent purchases.</p> <p>Ineffective: Controls around supervisor approval for purchases are not consistently applied, which presents a risk of unauthorized purchasing. Some purchase cases had invoices before the creation of a purchase order. This is against the usual purchase-to-pay process, as a purchase order typically comes before the invoice. This might indicate purchases being made without following the proper procurement process. Ineffective: Controls around the correct sequence of purchasing process (PO then invoice) are not functioning as intended, which can lead to irregularities in the process and potential fraud. Some purchase cases were monitored using a three-way-matching. This indicates that the company has a control process in place where the purchase order, receipt of goods or services, and the invoice are matched before payment is made. This is a good control to prevent overpayment or payment for non-received goods or services. Effective: When used consistently, three-way matching is an effective control for ensuring accurate and authorized payments. However, this control seems to be inconsistently applied, which diminishes its effectiveness overall.</p> <p>Recommendations:</p> <ul style="list-style-type: none"> Ensure all purchase cases are approved by a supervisor before processing. Enforce a process where a purchase order is created before an invoice is received. Consistently apply the three-way-matching system to all purchase cases. <p>Note: The effectiveness of a control system can only be as good as its consistent application. Therefore, a clear process and rules, as well as adequate training for all staff involved in the purchase-to-pay process, are essential. Additionally, regular monitoring and internal audits of the process are recommended to ensure ongoing compliance and effectiveness.</p>
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As a next step, we used ChatGPT to create suitable interview questions for the same internal control scenarios. The system offered a broad variety of relevant questions which could be used during the interviews.

Audit Step	ChatGPT Prompt and Output
Interviews	<p>Prompt: Please create suitable interview questions for this audit engagement that could be used by the internal auditors.</p> <p>Output: Absolutely, here are some interview questions the internal audit team could ask during the audit of the Purchase-to-Pay (P2P) function:</p> <p>Vendor Selection:</p> <ol style="list-style-type: none"> 1. What are the criteria for selecting a vendor? 2. How is adherence to these criteria ensured? 3. Could you walk us through the process of setting up a new vendor in the system?

4. How do you verify the authenticity and reliability of a new vendor?

Purchase Order Process:

1. Can you describe the process of creating and approving a purchase order?
2. Who has the authority to approve purchase orders, and how are these limits set and controlled?
3. How do you ensure that purchase orders are issued properly, accurately, and promptly?
4. How do you handle changes to purchase orders after they have been issued?

Goods Receipt Process:

1. What is the process for receiving goods and services?
2. How do you ensure that goods received match the purchase orders?
3. How are discrepancies between received goods and purchase orders handled?
4. Can you describe the process of recording received goods in the system?

Invoice Approval and Payment Process:

1. Can you explain the process of matching the invoices received against the purchase orders and the goods receipt note (GRN)?
2. Who has the authority to approve invoices for payment, and how are these limits set and controlled?
3. How are invoice discrepancies handled?
4. How do you ensure that invoices are paid in a timely manner?

Payment Process:

1. Can you describe the process of making payments to suppliers?
2. How do you ensure that payments are made in accordance with the credit terms agreed with the vendor?

Controls and Compliance:

1. Can you explain the segregation of duties within the P2P process?
2. What controls are in place to detect or prevent errors or fraud within the P2P process?
3. How are these controls monitored and tested?
4. How do you ensure compliance with relevant laws and regulations in the P2P process?

Systems and Information:

1. Can you describe the information systems used in the P2P process?
2. How do you ensure the accuracy and reliability of data within these systems?
3. How do you manage cybersecurity risks within the P2P process?
4. What procedures are in place for backing up and restoring critical P2P data?

Performance Metrics and Reporting:

1. What key performance indicators (KPIs) are used to manage and monitor the P2P process?
2. How are these KPIs measured and reported?
3. How are these KPIs used in decision-making related to the P2P process?

Remember, it's important to listen actively during these interviews, ask follow-

up questions as necessary, and ensure that all responses are documented accurately.

Afterwards, we once again focused on data analysis. Now with a stronger focus on potential on-site analysis. Our example used three-way-matching and interestingly, ChatGPT was able to correctly assess correct and incorrect cases. This type of analysis would allow internal auditors to save significant amounts of time by reviewing output rather than having to create and then review output from testing.

Audit Step	ChatGPT Prompt and Output
Data Analysis	<p>Prompt: Three-way-Matching: You are an internal auditor and should perform a "threeway match", where you teste if the purchase order value, the invoice value, and the goods received value are identical. Please use the following data for your analysis. As an output, please create a list the differences between the correct and incorrect cases. Here is the data:</p> <p>Invoice No. Invoice Value Purchase Order No. Purchase Order Value Goods Received No. Goods Received Value 102254 2252,21 102254 2252,21 102254 2252,21 165425 1421,28 185425 1225,24 185425 1421,28 165475 784,56 135475 978,41 165475 784,56 124578 941,25 124578 941,25 124578 941,25 124112 1135,24 124112 1135,24 124112 1135,24</p> <p>Output: Based on the data provided, below is a list that differentiates between the correct and incorrect cases.</p> <p>Correct Threeway Matches:</p> <p> Invoice No. 102254: Invoice Value = 2252.21, Purchase Order No. 102254: Purchase Order Value = 2252.21, Goods Received No. 102254: Goods Received Value = 2252.21</p> <p> Invoice No. 124578: Invoice Value = 941.25, Purchase Order No. 124578: Purchase Order Value = 941.25, Goods Received No. 124578: Goods Received Value = 941.25</p> <p> Invoice No. 124112: Invoice Value = 1135.24, Purchase Order No. 124112: Purchase Order Value = 1135.24, Goods Received No. 124112: Goods Received Value = 1135.24</p> <p>Incorrect Threeway Matches:</p> <p> Invoice No. 165425: Invoice Value = 1421.28, Purchase Order No. 185425: Purchase Order Value = 1225.24, Goods Received No. 185425: Goods Received Value = 1421.28</p> <p> Mismatch in Purchase Order No. and Purchase Order Value vs. Invoice and Goods Received.</p> <p> Invoice No. 165475: Invoice Value = 784.56, Purchase Order No. 135475: Purchase Order Value = 978.41, Goods Received No. 165475: Goods Received Value = 784.56</p>

	<p>Mismatch in Purchase Order No. and Purchase Order Value vs. Invoice and Goods Received.</p> <p>In conclusion, while there is matching among some of the data sets, there are two cases (invoice numbers 165425 and 165475) where the purchase order number and purchase order value do not match with the invoice and goods received information. These should be investigated further.</p>
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As a last step during the audit engagement phase, we asked ChatGPT to generate a working paper for the audit activities and once again used the primary information for our prompting. The output was a suitable initial working paper based on the given information.

Audit Step	ChatGPT Prompt and Output
Working Paper Writing	<p>Prompt: You are an internal auditor on an audit engagement on the 2nd of July where you audit the purchase to pay audit. The internal audit engagement is no. 6 of 2023. The only auditor staffed is Max Mueller. You identified during your observations of the purchase process the following situations: - There are some controls ineffective and some effective. You identified during your data analysis that in the three way matching multiple cases did not meet the three way matching criteria. Please prepare a working paper of your internal audit engagement.</p> <p>Output: Internal Audit Engagement Working Paper</p> <p>Engagement Details: Engagement No.: 6 of 2023 Date: July 2, 2023 Auditor: Max Mueller</p> <p>Objective: To assess the effectiveness of the purchase-to-pay process and identify any control deficiencies.</p> <p>Observations: 1. Ineffectiveness of Controls: a. Control XYZ: During our review, it was observed that Control XYZ was ineffective in preventing unauthorized purchases. Several instances were identified where purchase requests were approved without the appropriate authorization, leading to potential risks of fraudulent activities.</p> <p>b. Control ABC: We found that Control ABC, which ensures the accuracy and completeness of vendor master data, was not consistently followed. As a result, outdated or incorrect vendor information was present in the system, increasing the risk of payment errors or misappropriation.</p> <p>2. Effectiveness of Controls: a. Control PQR: The review of Control PQR revealed that it is functioning effectively. This control ensures that purchase orders are properly authorized</p>

before processing. We observed consistent adherence to this control, which mitigates the risk of unauthorized or unnecessary purchases.

b. Control LMN: During our evaluation, we found Control LMN to be effective in preventing duplicate payments. The system accurately detects and rejects duplicate invoices, reducing the risk of financial loss and improving overall efficiency.

Data Analysis Findings:

Upon conducting data analysis on the purchase process, we identified multiple cases that did not meet the three-way matching criteria. The three-way matching involves comparing the purchase order, receiving report, and invoice to ensure consistency and accuracy. The instances where the three-way matching criteria were not met indicate a potential breakdown in the control environment and raise concerns regarding payment accuracy and fraud prevention.

Recommendations:

Based on our observations and data analysis findings, we suggest the following recommendations to enhance the purchase-to-pay process:

1. Strengthen Control XYZ: Implement a robust approval hierarchy to ensure that all purchase requests are authorized by appropriate personnel, minimizing the risk of unauthorized purchases.
2. Improve Control ABC: Establish a periodic review process to validate and update vendor master data, ensuring accuracy and completeness to reduce payment errors and fraud risks.
3. Enhance Three-Way Matching Controls: Conduct a comprehensive review of the three-way matching process, identify the root causes for deviations, and implement necessary controls to ensure consistency and accuracy between purchase orders, receiving reports, and invoices.

Management's Response:

Management should review our findings and recommendations and provide a formal response outlining their agreement or disagreement with the identified issues. If they agree, management should provide an action plan detailing the steps they will take to address the control deficiencies and improve the purchase-to-pay process.

Conclusion:

The purchase-to-pay audit engagement revealed both ineffective and effective controls within the process. We identified deficiencies in Control XYZ and Control ABC, which may expose the organization to risks related to unauthorized purchases and inaccurate vendor data. Additionally, our data analysis highlighted instances where the three-way matching criteria were not met, indicating potential breakdowns in control effectiveness. Our recommendations aim to strengthen the control environment and improve the overall efficiency and accuracy of the purchase-to-pay process.

	Auditor's Signature: _____ Date: _____
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Reporting

For reporting, ChatGPT can be leveraged to improve the quality of written content. It can assist in automating repetitive tasks and help in drafting the preliminary findings, conclusions, or even the whole audit report. This will not only save time but also enhance the quality of the report through ChatGPT's ability to generate concise and well-structured content. The following section will provide some concrete prompts and expected outcomes when using ChatGPT in the reporting phase.

ChatGPT excels in producing audit reports (Eulerich, et al. 2023). As a first step, we asked ChatGPT to assess the quality of a working paper. We used the previous results generated by ChatGPT as described above. Interestingly, the system offered multiple points where the working paper could be improved.

Audit Step	ChatGPT Prompt and Output
Working Paper Assessment	<p>Prompt: You are an internal auditor and responsible for the quality assurance of internal audit reports in your internal audit function. You received the following working paper: (Results from previous prompt inserted here)</p> <p>Output: Upon reviewing the internal audit engagement working paper, it appears to be professionally written and structured logically. However, the following improvements can be made to enhance the quality, clarity, and effectiveness of the report:</p> <ol style="list-style-type: none"> 1. Detailed Description of Controls: The report should include a brief but comprehensive description of each control being reviewed. This would make the report more understandable for non-audit readers and provide context to the deficiencies noted. 2. Quantify Instances and Impact: The report states that there were instances of non-compliance or failures in controls, but it does not quantify how many instances or what the financial or operational impact was. Providing such data would give management a better understanding of the magnitude of the problem. 3. Specificity in Recommendations: The recommendations should be more specific and actionable. For example, instead of generally recommending a 'robust approval hierarchy', the report could suggest specific positions that should be involved in the approval process based on their level of authority and expertise.

	<p>4. Risk Ranking: Consider ranking the deficiencies found in order of risk severity. This can help the management in prioritizing their response and resource allocation.</p> <p>5. Testing Methodology: The report should include details on the audit methodology, including sample sizes, methods used for selecting samples, etc. This provides transparency and allows readers to understand how rigorous the audit was.</p> <p>6. Follow-up Actions: The report could include a section discussing the proposed timeline for follow-up audits or reviews to assess the effectiveness of the changes made.</p> <p>7. Management Response Section: It could be beneficial to add a section for management responses directly within the report. This allows readers to see management’s plan of action and expected timeline for implementation alongside the audit findings and recommendations.</p> <p>Remember, while the report is intended to highlight issues and make recommendations, it is also a communication tool and should be as clear, concise, and actionable as possible.</p>
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Afterwards, ChatGPT created an initial audit report based on the previous results and working papers.

Audit Step	ChatGPT Prompt and Output
Draft Report	<p>Prompt: You are an internal auditor and want to finalize your internal audit report based on your previous audit of the purchase to pay process. You prepared the following working paper: (Results from previous prompts inserted here)</p> <p>Output: Internal Audit Report</p> <p>Engagement No.: 6 of 2023 Date: July 2, 2023 Auditor: Max Mueller</p> <p>1. Objective: The objective of this audit was to assess the effectiveness of the purchase-to-pay process, with a focus on the operational controls, and identify any control deficiencies that might expose the organization to financial or operational risks.</p> <p>2. Methodology: The audit was conducted using a combination of control testing and data analysis. Control testing involved direct testing of Control XYZ (designed to prevent unauthorized purchases), Control ABC (ensuring the accuracy and completeness of vendor master data), Control PQR (ensuring that purchase orders are properly authorized before processing), and Control LMN (designed</p>

to prevent duplicate payments). Our data analysis involved an extensive review of the purchase process, specifically focusing on the three-way matching process. The sample size selected for testing was 15% of all transactions for the past year, selected using a stratified random sampling approach.

3. Findings:

3.1 Ineffectiveness of Controls:

- a. Control XYZ: Several instances were identified where purchase requests were approved without the appropriate authorization, potentially exposing the organization to risks of fraudulent activities.
- b. Control ABC: Inconsistent adherence to this control was observed, leading to the presence of outdated or incorrect vendor information in the system.

3.2 Effectiveness of Controls:

- a. Control PQR: The review revealed consistent adherence to this control, indicating its effectiveness in mitigating the risk of unauthorized purchases.
- b. Control LMN: The control effectively prevented duplicate payments by accurately detecting and rejecting duplicate invoices.

3.3 Data Analysis Findings:

Data analysis revealed multiple instances that did not meet the three-way matching criteria, indicating a potential breakdown in the control environment.

4. Risk Assessment:

Based on the observed control deficiencies and their potential impact, the risks have been ranked as follows:

- a. Risk from ineffective Control XYZ: High
- b. Risk from ineffective Control ABC: Medium
- c. Risk from inconsistencies in three-way matching: High

5. Recommendations:

- a. Strengthen Control XYZ: Implement an approval hierarchy involving senior management for purchases above a certain threshold.
- b. Improve Control ABC: Establish a monthly review process to validate and update vendor master data.
- c. Enhance Three-Way Matching Controls: Assign a designated team to review the three-way matching process and propose solutions to identified deficiencies.

6. Management Response and Action Plan:

Management is requested to provide their agreement or disagreement with the identified issues and submit an action plan detailing how they intend to address the control deficiencies.

7. Follow-up:

A follow-up audit is proposed in six months to assess the implementation and effectiveness of the changes made in response to this audit.

8. Conclusion:

The audit identified several control deficiencies in the purchase-to-pay process that may expose the organization to risks. Implementing the recommendations

<p>provided in this report will help strengthen the control environment and improve the overall process's efficiency and accuracy.</p> <p>Auditor's Signature: _____ Date: _____</p> <p>Management's Response: (To be filled by Management)</p> <p>Response Signature: _____ Date: _____</p>
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Once again, we leveraged ChatGPT to test the quality of the generated report. This prompt generated additional comments and recommendations for further refining the report. We then asked ChatGPT to produce a final version of the report.

Audit Step	ChatGPT Prompt and Output
Final Draft Report	<p>Prompt: You are an internal auditor and responsible for the quality assurance of all audit engagements within your internal audit function. Please assess the following draft report and give potential recommendations or identify potential issues: (Results from previous prompts inserted here)</p> <p>Output: This is a well-drafted internal audit report that includes all the necessary sections and provides a clear and succinct summary of the audit process, findings, and recommendations. However, there are several areas where it could be improved to enhance its clarity, comprehensiveness, and usefulness. Here are some suggestions:</p> <ol style="list-style-type: none"> Objective: The objective section is generally clear, but it might be helpful to include the specific scope of the audit, such as the departments or business units covered and the time period reviewed. This can help to clarify the boundaries of the audit. Methodology: The methodology section is well-detailed but does not provide information about the criteria or benchmarks used to evaluate the effectiveness of controls. It is also unclear how the 15% sample size was determined to be representative of the entire population. These details should be included to enhance the transparency and credibility of the audit. Findings: The findings section clearly states the control deficiencies identified. However, it could be enhanced by including specific examples or further details about the instances of non-compliance observed, to help management understand the nature and extent of the problems. Risk Assessment: The risk assessment section could benefit from more detailed explanations of how the risk levels were determined. For example, what factors were considered in assessing the risk from ineffective Control XYZ as "High"?

	<p>5. Recommendations: The recommendations provided are appropriate and action-oriented. However, it may be beneficial to also include expected benefits or impact of these recommendations, such as cost savings, improved efficiency, or reduced risk. This can help management understand the value of implementing the recommendations.</p> <p>6. Management Response and Action Plan: While it is standard to request a management response, it could be helpful to specify a deadline for this response, to ensure timely feedback.</p> <p>7. Follow-up: The proposed follow-up audit in six months is a good plan. It would be helpful to clarify what aspects will be reviewed during this follow-up audit, and the criteria that will be used to assess the implementation and effectiveness of the changes.</p> <p>8. Conclusion: The conclusion summarizes the overall findings of the audit effectively. It might be useful to also include a statement on the overall effectiveness of the purchase-to-pay process in managing the risks it is designed to mitigate.</p> <p>In summary, while the draft audit report is generally well-structured and detailed, these additions and clarifications could enhance its value and usefulness for management.</p>
Final Report	<p>Prompt: Please create an improved version of the audit report. (Results from Final Draft Report prompt inserted here)</p> <p>Output: Internal Audit Report</p> <p>Engagement No.: 6 of 2023 Date: July 2, 2023 Auditor: Max Mueller</p> <p>1. Objective: The objective of this audit was to assess the effectiveness of the purchase-to-pay process, focusing on the operational controls within the Procurement and Finance Departments from January to December 2022. The goal was to identify any control deficiencies that might expose the organization to financial or operational risks.</p> <p>2. Methodology: The audit involved control testing and data analysis. Control testing examined Control XYZ (to prevent unauthorized purchases), Control ABC (accuracy and completeness of vendor master data), Control PQR (proper authorization of purchase orders), and Control LMN (prevention of duplicate payments). Benchmark criteria were drawn from industry best practices and our organization’s policies. Data analysis focused on the three-way matching process. A stratified random sample of 15% of all transactions for the past year was selected, justified by statistical theory ensuring a 95% confidence level with a 5% margin of error.</p> <p>3. Findings:</p>

3.1 Ineffectiveness of Controls:

a. Control XYZ: There were ten instances where purchase requests, amounting to a total value of \$500,000, were approved without the necessary authorization, potentially exposing the organization to fraud.

b. Control ABC: Non-adherence to this control led to outdated or incorrect vendor information in 20% of the records reviewed.

3.2 Effectiveness of Controls:

a. Control PQR: The review revealed 100% adherence to this control, proving its effectiveness in mitigating unauthorized purchases.

b. Control LMN: The control prevented \$200,000 of duplicate payments by accurately detecting and rejecting duplicate invoices.

3.3 Data Analysis Findings:

Data analysis revealed 12% of transactions reviewed failed the three-way matching criteria, indicating a potential breakdown in the control environment.

4. Risk Assessment:

Control deficiencies and their potential impact have been evaluated as:

a. Risk from ineffective Control XYZ: High - this could potentially lead to unauthorized purchases.

b. Risk from ineffective Control ABC: Medium - incorrect vendor information could lead to incorrect payments or fraud.

c. Risk from inconsistencies in three-way matching: High - this could result in overpayments, duplicate payments, or fraud.

5. Recommendations:

a. Strengthen Control XYZ: Implement an approval hierarchy involving senior management for purchases above a threshold of \$50,000. This could reduce the risk of unauthorized purchases.

b. Improve Control ABC: Establish a monthly review process to validate and update vendor master data. This could ensure more accurate and timely payments.

c. Enhance Three-Way Matching Controls: Assign a dedicated team to review the three-way matching process and propose solutions to identified deficiencies. This could help to prevent overpayments and duplicate payments.

6. Management Response and Action Plan:

Management is requested to provide their agreement or disagreement with the identified issues and submit an action plan detailing how they intend to address the control deficiencies within 30 days.

7. Follow-up:

A follow-up audit is proposed in six months to assess the implementation and effectiveness of the changes made in response to this audit. The follow-up audit will re-evaluate the effectiveness of Controls XYZ, ABC, and the three-way matching process.

8. Conclusion:

The audit identified several control deficiencies in the purchase-to-pay process

	<p>that may expose the organization to significant risks. Implementing the recommendations provided in this report could strengthen the control environment, improve efficiency, and reduce potential financial losses.</p> <p>Auditor's Signature: _____ Date: _____</p> <p>Management's Response: (To be filled by Management)</p> <p>Response Signature: _____ Date: _____</p>
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Then, we let ChatGPT create an email message about the report. Although not shown below, this email, and the related report, could be easily customized to best meet the needs of the audience. A different report could be generated for management, the audit committee, or the auditee that is relevant to their needs.

Audit Step	ChatGPT Prompt and Output
Report Mailing	<p>Prompt: Please prepare the email of this audit report to the different stakeholders.</p> <p>Output: Subject: Internal Audit Report – Engagement No. 6 of 2023 – Purchase-to-Pay Process</p> <p>Dear [Recipient's Name],</p> <p>I hope this message finds you well.</p> <p>I am writing to share the final report for the internal audit engagement No. 6 of 2023, focusing on the purchase-to-pay process within the organization. This audit was conducted to assess the effectiveness of the process's operational controls and identify any control deficiencies that might expose us to financial or operational risks.</p> <p>The audit was comprehensive, involving control testing and data analysis with a focus on Controls XYZ, ABC, PQR, and LMN, and the three-way matching process. We have identified several areas of concern, which are detailed in the report, and provided recommendations for improvement. The identified risks have been evaluated and ranked accordingly.</p> <p>You will find the audit report attached to this email, which includes our findings, risk assessments, and recommendations. Your attention is specifically drawn to the 'Management Response and Action Plan' section. We request your feedback and an action plan addressing the identified control deficiencies within the next 30 days.</p> <p>The objective of this audit and the ensuing report is to aid in improving our</p>

	<p>processes, mitigating potential risks, and ensuring that our organization continues to operate effectively and efficiently. We look forward to collaborating with you on implementing the recommended changes and would be more than willing to provide any further clarification or support needed.</p> <p>In six months, a follow-up audit is scheduled to review the changes made in response to this audit. We will notify you closer to the date with more details.</p> <p>Please feel free to reach out if you have any questions or concerns about the contents of the report.</p> <p>Thank you for your attention to this matter and for your ongoing commitment to improving our organizational processes.</p> <p>Best regards,</p> <p>[Your Name] [Your Position] [Your Contact Information]</p> <p>Attachments: Internal Audit Report – Engagement No. 6 of 2023</p> <p>Cc: [Other relevant stakeholders]</p>
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Finally, we used ChatGPT to create a potential data filing structure for the audit engagement that resulted in a usable filing structure.

Audit Step	ChatGPT Prompt and Output
Data Filing	<p>Prompt: Please prepare the data filing for this audit engagement.</p> <p>Output: The filing system for an audit engagement should include all the pertinent data, such as audit planning documentation, risk assessment, work papers, communications, and the final report. Here’s an example of how the filing might look:</p> <p>Engagement No.: 6 of 2023</p> <p>A. Audit Planning</p> <ol style="list-style-type: none"> 1. Audit Plan 2. Audit Scope and Objectives 3. List of departments or areas to be audited 4. List of key personnel involved 5. Timeline for the audit <p>B. Risk Assessment</p> <ol style="list-style-type: none"> 1. Risk Assessment Matrix 2. Identified potential risks 3. Risk mitigation strategies

	<p>C. Work Papers</p> <ol style="list-style-type: none"> 1. Documentation of the testing process <ul style="list-style-type: none"> - Tested Control XYZ - Tested Control ABC - Tested Control PQR - Tested Control LMN 2. Details and results of data analysis 3. Sample selection methodology and justification <p>D. Communications</p> <ol style="list-style-type: none"> 1. Emails and correspondence with management 2. Meeting minutes 3. Any queries raised and responses received <p>E. Audit Report</p> <ol style="list-style-type: none"> 1. Draft audit report 2. Final audit report 3. Management responses and action plans <p>F. Follow-up</p> <ol style="list-style-type: none"> 1. Follow-up audit plan 2. Evidence of changes made in response to the audit 3. Follow-up audit report <p>Each document within these categories should be properly named, dated, and indexed for easy retrieval. Also, all documents should be securely stored in compliance with your organization’s information security policies.</p> <p>Finally, the audit file should be reviewed for completeness before it’s officially closed, ensuring it includes all the necessary documentation as evidence of the audit work performed, and the conclusions and recommendations made.</p>
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Follow-Up

During the follow-up phase, ChatGPT can help track the implementation of recommendations, generate reminders, and draft progress reports. It can also aid in updating the risk assessment based on the implemented recommendations and changes in the audited environment. This can lead to a more efficient follow-up process and ensure that the implementation of recommendations is adequately tracked and reported. In the subsequent section, we explore specific prompts for ChatGPT in this phase.

We asked ChatGPT to create a general process for the follow-up monitoring of this engagement. This created a set of tasks that the internal auditor could perform to follow-up on

the previous audit. Although not shown below, ChatGPT could be used to help generate content for each of these follow-up steps.

<p>Audit Step Follow-Up-Monitoring</p>	<p>ChatGPT Prompt and Output</p> <p>Prompt: You are an internal auditor and responsible for the follow-up of this engagement. What should you do?</p> <p>Output: As an internal auditor responsible for the follow-up on this engagement, you would need to do the following:</p> <ol style="list-style-type: none"> 1. Set a follow-up date: As indicated in the audit report, the follow-up audit is proposed in six months. Set a specific date for this follow-up and notify all relevant stakeholders. 2. Review Management’s Action Plan: Once management provides their response and action plan to address the deficiencies identified in the audit, review it to ensure that it adequately addresses the recommendations. It should be clear, specific, and include timelines for implementation. 3. Maintain Communication: Regularly check in with management and other relevant parties to monitor the progress of the action plan’s implementation. This will help to identify any issues or delays early and adjust plans accordingly. 4. Document Progress: Maintain a log of the progress made towards implementing the recommended changes. This should include noting any issues encountered, how they were resolved, and the current status of each recommendation. 5. Conduct the Follow-Up Audit: When the time comes, conduct the follow-up audit. This should include re-testing the previously failed controls to verify that the changes have been effective and confirm whether any previously identified issues remain unaddressed. 6. Prepare a Follow-Up Report: After the follow-up audit, prepare a report summarizing the status of the previously identified issues and the effectiveness of the changes made. The report should highlight any areas where further action is needed and may also include new recommendations based on the latest findings. 7. Present the Follow-Up Report: Share the follow-up report with the relevant stakeholders. Discuss the results, including improvements and ongoing areas of concern, and answer any questions they might have. Also, discuss the next steps and any further actions needed. <p>The goal of the follow-up is to ensure that the organization addresses the identified issues effectively and that improvements are being made to mitigate the risks identified in the original audit.</p>
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IV. DISCUSSION AND CONCLUSION

The integration of generative AI into internal auditing offers a range of opportunities, yet brings significant challenges. One of these challenges is learning how ChatGPT can be useful to internal auditors. This paper helps address this need by providing examples of how the internal audit process can be enhanced using ChatGPT. ChatGPT is more likely to be useful in certain audit stages—such as test preparation, writing audit reports, suggesting test steps, formulating interview questions, and creating risk assessments could be automated, increasing efficiency and freeing up auditors to focus on tasks requiring human insight. Successfully implementing AI in auditing is contingent on a well-structured IAF, standardized processes, motivated staff, and the ability to navigate practical challenges like identifying appropriate use-cases, managing algorithm aversion, and ensuring quality of available data and necessary IT infrastructure. Furthermore, introducing AI creates risks such as concerns around data privacy, security, and confidentiality, which must be carefully managed.

AI systems' potential to unintentionally reveal confidential or sensitive information, susceptibility to cyber-attacks, and potential for generating biased outputs due to training on biased data are important risks. These systems could also present challenges related to accountability and transparency, given the “black box” nature of some AI models. Mitigating these risks requires robust data governance strategies, which include rigorous data anonymization processes, using secure AI service providers, continuous AI systems monitoring, and implementing AI ethics guidelines. Future internal auditing research could focus on developing guidelines for effectively integrating AI into the auditing process, exploring stakeholder acceptance of AI-generated results, and balancing human expertise with AI capabilities. Furthermore, research could compare the cost-benefits-ratio of the AI lifecycle, since AI normally comes together with increased costs, maintenance, or monitoring costs, which should be weighed against the potential effectiveness and efficiency gains.

Research could also analyze the potential effects of AI in the IAF on the auditee and the main stakeholders, e.g. if the audit committee relies more or less on AI supported audit results or if the auditee will trust the IAF more or less, when AI is used. Finally, the technical implementation of AI tools is an important and broad field of research.

The deployment of AI is anticipated to transform the internal audit profession significantly. Despite potential hurdles associated with technology adoption, breakthroughs in information technology, particularly AI, offer unique applications and a promising outlook for the modern IAF. However, a successful transition to AI-driven auditing demands a foundational understanding of digitization and AI, alongside the critical human intuition that underlies every audit engagement. The profession's future will involve a mixture of AI tools, other technological aids, and the unique mindset of internal auditors, ensuring it continues to offer unparalleled services in a rapidly digitizing world.

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Appendix
Data Requirements and Data Privacy Issues in each Audit Step of the Internal Audit Process

PHASE	AUDIT STEP	DATA REQUIRE D	DATA PRIVACY ISSUES
Risk-based audit planning	Audit Universe Design	No	No
Risk-based audit planning	Risk Assessment	Yes	Maybe
Risk-based audit planning	Development Audit Plan	Yes	No
Risk-based audit planning	Updates Audit Plan	Yes/No	No
Audit preparation	Data Collection	Yes	No
Audit preparation	Control Assessment	No	No
Audit preparation	Data Analysis	Yes	Yes
Audit preparation	Audit Scoping	No	No
Audit preparation	Audit Notifaction	No	No
Audit preparation	Resource Planning	Yes/No	No
Audit execution	Control Testing	Yes	Yes
Audit execution	Interviews	No	No
Audit execution	Data Analysis	Yes	Yes
Audit execution	Working Paper Writing	Yes	Maybe
Audit execution	Working Paper Assessment	Yes	Maybe
Audit execution	Draft Report	Yes	Yes
Reporting	Final Draft Report	Yes	Yes
Reporting	Report Mailing	Yes	No
Reporting	Data Filing	Yes	No
Reporting	Final Report	Yes	Yes
Follow-up	Follow-Up-Monitoring	Yes	Yes

“Required Data”, indicates whether any particular data is needed for the AI model to respond to the posed query. “Data Privacy Issues” provides evaluates potential data security and privacy concerns when utilizing AI within the corresponding audit activity based on the experience of the author and further anecdotal evidence.

Figure 1
From Corporate Strategy to AI-driven IAF activities

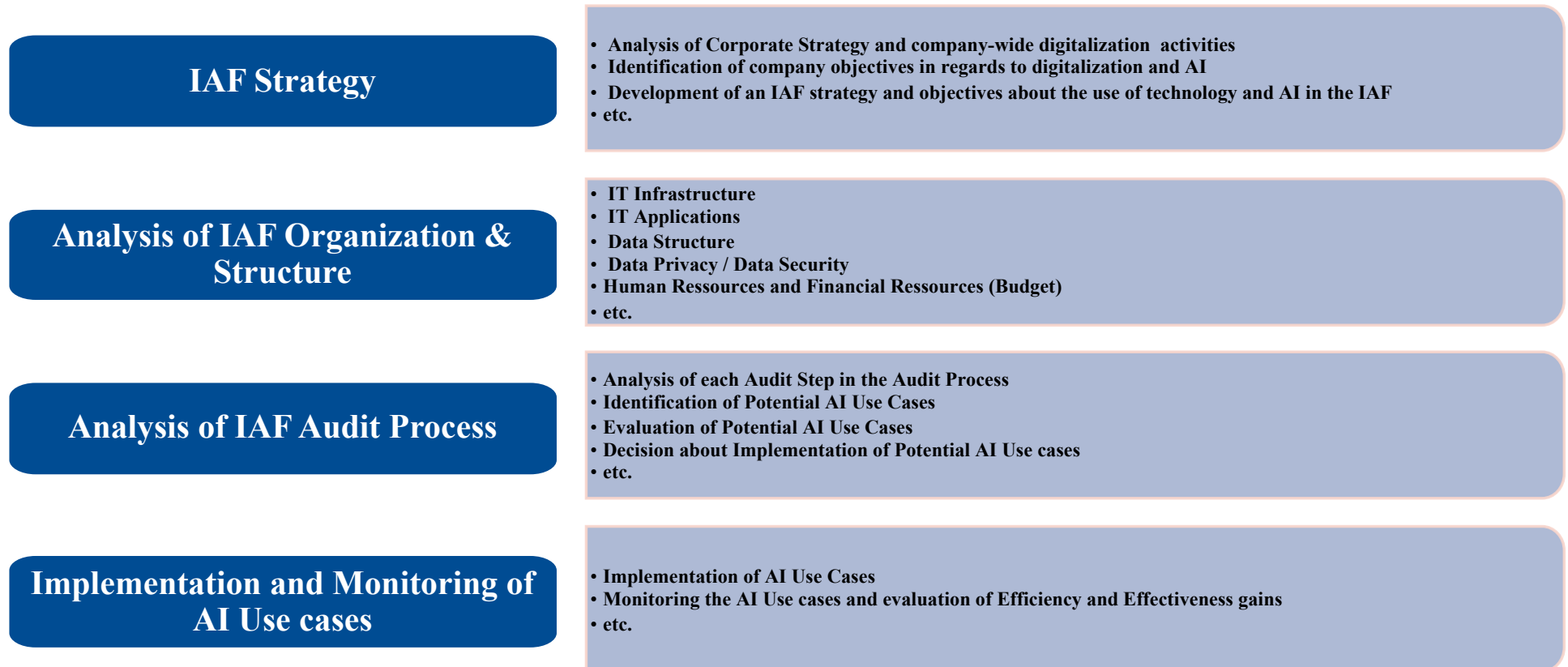


Figure 2
Framework for an AI-driven Internal Audit Process

