

Article

Governing AI Adoption: A Business Management Framework for Risk and Accountability in U.S. Enterprises

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Abstract: The wide-spread use of Generative Artificial Intelligence (GenAI) has revolutionized company decision making, improving forecasting, fraud detection, workforce planning and performance analytics. Yet in spite of these advantages, a lot of organizations experience severe governance issues in regards to accountability, risk possession, compliance and value realization. Past AI governance studies tend to focus on technical, algorithmic, or regulatory aspects, and provide little actionable advice for business managers, project managers, and business analysts who oversee AI implementation. This study poses a management-oriented framework called Governing AI Adoption: A Business Management Framework for Risk and Accountability in U.S. Enterprises that will work to facilitate responsible implementation of AI without the development of a new technical model. This study draws on a systematic review of the literature on governance of AI, as well as an empirical analysis of the >100,000 enterprise records available in the Enterprise GenAI Adoption & Workforce Impact Dataset. The dataset is used to understand trends in AI adoption, the impact on workforce, employee learning, productivity gains and employee attitudes toward AI within US companies, giving practical insights to companies' outcomes around implementing GenAI. The findings are used to build a Five-Layer Business Governance Framework: Strategic Ownership, Business Risk Classification, Oversight and Escalation Processes, Financial Accountability, Governance Maturity and Continuous Review. The framework utilizes common management practices such as RACI matrices, AI-specific risk registers, stage-gate governance reviews, KPI and ROI dashboards, and governance maturity assessments to help guide decisions through a structured process and enable organizations to take ownership. This study not only serves as a practical governance model for managing AI's strategic impact but also connects the theoretical study of technical AI governance with its real-world implications for business management. The proposed framework sees both academic and managerial contributions by defining a governance approach that is actionable and can facilitate responsible, sustainable and value-based AI usage in modern enterprises.

Keywords: Generative Artificial Intelligence (GenAI), AI Governance, Business Management, Enterprise AI Adoption, Risk Management and Organizational Accountability.

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1. Introduction

Background

The advent of Generative Artificial Intelligence (GenAI) has become a game-changer for organizational decision-making and operations, influencing various sectors in ways

that are reshaping processes and expectations. Companies are increasingly incorporating AI-driven apps into various business processes like forecasting, fraud detection, workforce planning, customer relationship management, financial analysis, and performance monitoring. With the swift development of AI platforms like ChatGPT, Claude, Gemini, LLaMA, Mixtral, and Groq, companies have the ability to automate repetitive tasks, boost analytical functions, and increase productivity and strategic decision-making. AI integration has thus emerged as a strategic imperative for businesses aiming to gain a competitive edge, streamline operations, and drive innovation in today's digital-centric business landscape. Implementing enterprise AI carries its own with regard to governance [1]. The effective use of AI systems is frequently embedded in significant financial and technological investments, but there is considerably less focus on establishing organizational accountability, governance, decision ownership and business oversight processes [2]. Executives, project managers, business analysts, and functional leaders play a crucial role in guaranteeing that AI-driven recommendations are accurate, responsible, compliant, and aligned with the organization's goals in many organizations. But governance arrangements often don't have well-defined responsibilities, review procedures or clearly defined accountability measures, which means that the organization's activities can be subject to operational, financial, compliance and reputational risks [3]. Based on recent enterprise adoption trends, there are four key areas that are essential to the success of AI implementation: workforce readiness, employee training, organizational culture, and effective governance practices [4]. With the ongoing growth of AI's role in decision-making processes within businesses, the need for governance frameworks continues to rise, combining current business management practices with responsible AI governance [5]. This study puts forth a viable framework for business management that will allow U.S. businesses to manage the use of AI systematically and effectively, with structured ownership, risk management, financial accountability, and ongoing governance improvement to ensure sustainable value creation for the organization.

Enterprise AI Governance & Organizational Accountability

The growing impact of AI on business operations, customer engagement, HR management, and performance makes Artificial Intelligence governance a strategic priority for organizations. While there are many international frameworks and standards that highlight key ethical principles of AI, transparency, fairness, privacy and regulatory compliance, the current frameworks tend to focus more on the technical implementation and algorithm development than managerial decision making [6]. As a result, business managers can find it challenging to apply high-level governance principles to the day-to-day governance of their business's systems and processes to enable AI-powered operations. Good enterprise AI governance goes beyond technology; it involves well-defined organizational setups defining accountability, decision rights, risk ownership, and performance measurement [7]. Business leaders need to put in place governance structures that make sure that AI projects are aligned with business goals, compliant with regulatory demands, and deliver tangible business value. There should be a clear and systematic process of reviewing, cross-functional collaboration, financial monitoring, and performance evaluation throughout the AI lifecycle in governance practice [8]. As Generative AI increasingly becomes a staple of the business landscape, there are new challenges that must be addressed to ensure the workforce is capable of meeting these demands, such as employee reskilling and acceptance of AI-supported decision making, among others [9]. The dimensions of these organizations can be seen as a reminder that governance needs to be combined with traditional business management tools such as RACI matrices, risk registers, stage-gate project reviews, KPI dashboards and governance maturity assessments [10]. To this end, this study proposes an integrated business management framework between the technical governance of AI and organizational governance, to facilitate enterprises to effectively and responsibly implement AI

technologies with transparency and accountability, robust systems and processes, and strategic value.

Problem Statement

Despite the swift integration of Generative Artificial Intelligence (GAI) into enterprise decision-making, many companies face governance issues that go beyond just the technology's implementation [11]. AI governance frameworks tend to focus on algorithms, ethics or regulatory requirements and offer little practical advice for business managers tasked with AI governance [12]. This means that organizations often suffer from ambiguous accountability systems, inconsistent risk assessment practices, governance review systems, or lack financial performance indicators for AI projects [13]. This lack of business governance structure raises compliance, financial, reputational and operational risks. For this reason, there is an urgent need for a practical management framework that will allow U.S. businesses to manage the use of AI in a structured approach to accountability, organizational oversight, and ongoing governance improvement.

Objective of the Study

To define the objectives of this study is to

- To explore existing use of Generative AI in the United States of America businesses.
- To assess the correlation between workforce transformations, training of employees and impact on organizational productivity after adopting AI.
- To understand employee attitudes towards the use of AI in the workplace and employee adaptation [14].
- To determine some critical factors in the organization that will affect the successful implementation of AI responsibly.
- To create a Five Layer Business Management Framework for regulating U.S. enterprise adoption of AI.
- To create actionable governance instruments such as RACI matrices, AI risk registers, stage-gate reviews, KPI dashboards, and governance maturity assessments for organizational governance of AI.

Research Questions

The following questions are to guide to this study:

- What are the adoption patterns of Generative Artificial Intelligence in various industries of U.S. businesses?
- What kind of organizational elements affect the workforce transformation, employee training and productivity enhancement after adopting AI?
- What are the practical strategies for business managers to effectively manage the implementation of AI in a business with a framework for accountability, risk mitigation, and organizational control?
- What are the benefits of the suggested Five Layer Business Management Framework to U.S. enterprises in terms of responsible AI use and governance?

Significance of the Study

This study is both academically relevant and practically useful in the sense of meeting the increasing demand for effective governance structures to facilitate responsible adoption of AI in business organizations [15]. Although much research has been conducted on the algorithm itself, ethical considerations, or regulations, little research has been directed toward the management processes needed for effective governance of AI projects. This research addresses this gap by proposing an all-encompassing business management framework focused on organizational accountability and defined governance processes, and strategic oversight that does not emphasize technical system development [16]. This study builds on existing literature on AI governance by combining the concepts of

enterprise risk management, project governance, organizational accountability, and business performance management in a holistic governance framework. It also shows the application of empirical evidence obtained from the data needed to understand how enterprise AI adoption works in practice to help create practical governance models, which can be applied to real-world organizations [17]. Manager's benefit from the proposed framework as it offers them practical governance tools to enable responsible AI implementation, from a business executive, project manager, business analyst, compliance officer and organizational leader level [18]. RACI matrices, AI-specific risk registers, stage-gate governance reviews, KPI/ROI dashboards, and governance maturity assessments provide additional tools to enhance decision ownership, increase transparency, systematically manage AI-related risks, and measure the business value created by AI investments [19]. The study's overall findings empower organizations to make better decisions and improve long-term governance to ensure sustainable AI adoption, while fostering operational resilience and accountability, and building stakeholder confidence.

Artificial Intelligence Governance in Modern Enterprises

The era of Artificial Intelligence (AI) has significantly reshaped the way organizations operate, strategically plan, and make decisions. AI is being adopted in various sectors for better forecasting, fraud prevention, workforce management, customer relationship management, and performance analysis [20]. These technologies bring great potential for operational efficiency and innovation, but also pose new governance challenges regarding accountability, transparency, risk management, and regulatory compliance [21]. This has made AI governance a top priority in management strategies, not just a technological one. The literature on AI governance highlights the importance of organizations having clear governance frameworks, executive oversight, accountability for decisions made about AI, and monitoring throughout the AI lifecycle [22]. Business leaders are now being put under growing pressure to make sure that AI systems meet the organization's goals and that there are less financial, operational, reputational, and compliance risks posed [23]. Many current governance structures are still heavily oriented towards developing the technical models and ethical principles, and offer little practical advice to those who are in charge of business processes which are enabled by AI. This study is a review of literature on enterprise AI adoption, business governance, organizational accountability, and enterprise risk management and governance maturity [24]. It draws on existing research and synthesizes it in order to identify the limitations of existing research and sets the theoretical foundation of the proposed Five-Layer Business Governance Framework [25]. The review highlights the importance of developing an effective, business-focused governance framework that allows organizations to leverage AI responsibly and enhance their governance, decision-making, and value creation processes.



Figure 1. This framework shows the enterprise AI adoption lifecycle, challenges, enablers and outcomes

Figure 1 provides an overview of an AI Governance framework for modern enterprises. The diagram starts with enterprise AI adoption drivers, such as forecasting, fraud detection, staffing levels, customer relation management, performance analytics, and innovation. It emphasizes the value of adopting AI as well as the governance issues of accountability, transparency, human oversight, and regulatory compliance [26]. The common ground of AI governance goals revolves around strategic alignment, risk management, accountability, and ethical AI practices. The governance lifecycle illustrates the six steps of planning, design, development, deployment, operation, and review. Governance enablers, such as executive leadership, policies, compliance, data governance, and performance monitoring, play a pivotal role in fostering responsible AI use, organizational resilience, compliance with regulations, and sustainable value creation.

Enterprise AI Adoption & Business Governance

The adoption of Generative Artificial Intelligence (GAI) has surged in the enterprise as businesses strive to enhance operational efficiency, decision-making accuracy, customer interactions, and overall competitiveness [27]. AI-enhanced applications have become indispensable for various business operations, such as predictive analytics, financial forecasting, fraud prevention, HR management and performance monitoring. The ubiquity of powerful AI platforms has made it possible for businesses of all sizes to use AI in their day-to-day operations, leading to substantial gains in productivity and business agility [28]. While technology is important, the effective governance of business is essential to successful adoption of AI. It is firmly noted in the literature that organizational governance frameworks need to be set up to ensure transparency, accountability, ethical decision making and compliance with regulations throughout the deployment of AI. The strategic objectives set by executive leadership, resource allocation, performance tracking, and the alignment of AI-generated recommendations with the organizational goals are all critical to the success of using AI. Human oversight is also crucial especially where AI is used to drive important business decisions that impact employees, customers or the bottom line [29]. The impact of AI on workforce transformation encompasses job redesign, up skilling employees, organizational learning, and cultural change [30]. It is crucial that organizations use technological innovation alongside governance policies that enable responsible AI use that still maintain stakeholder trust [31]. The need for more robust business governance frameworks that enable organizational accountability, strategic leadership, and operational oversight in enterprise AI adoption is evident.



Figure 2. This image depicts the adoption of enterprise AI, business governance, workforce transformation, and organizational outcomes

Figure 2 provides a business management view of enterprise AI adoption and management. It starts by outlining the factors driving AI's adoption, such as operational efficiency, decision quality, customer experience, innovation and sophisticated AI platforms [32]. It shows how AI can be used in various aspects of business including predictive analytics, financial forecasting, fraud prevention, HR management, customer

relationship management, operational surveillance, and supply chain optimization [33]. The diagram emphasizes key governance concepts, such as strategic alignment, accountability, transparency, ethical AI, regulatory compliance, and risk management, which are enabled by governance enablers like executive leadership, policies, data governance, human oversight, and monitoring [34]. Together they foster a workforce transition, organization performance, responsible AI use, trust in stakeholders, and sustainable business value.

Actionable Business Management Frameworks for AI Governance

Business management frameworks offer a structured approach that allows organizations to manage the use of AI tools and solutions using structured business management practices in addition to technical controls [35]. For enterprise risk management, frameworks like COSO ERM and ISO 31000 are effective in identifying, assessing, mitigating, and monitoring risks in an organization, which is relevant in an environment with AI. These frameworks promote the embedding of financial, operational, compliance and reputational risk associated with AI into enterprises' governance processes. Project governance frameworks, like the Project Management Institute (PMI) standards, reinforce AI governance by establishing accountability, governance, and decision-making processes during the project's lifecycle [36]. During AI projects, the RACI Matrix helps define who is responsible for decisions, who is accountable for cross-functional collaboration, and who is involved. Likewise, Stage-Gate governance structures offer formal review gates that help ensure that AI systems meet business goals, governance criteria, and organizational preparedness before moving forward to the next steps in their implementation [37]. Another key aspect of AI governance is financial accountability. The organizations are increasingly using Key Performance Indicators (KPIs), Return on Investment (ROI) dashboards, and business performance metrics to determine if their investment in AI is yielding measurable benefits for their organization [38]. There are governance maturity models that complement these practices, in that they allow to always evaluate the state of the governance and potential areas for improvement within the organization [39]. All of these management frameworks provide a pragmatic governance framework that enables the responsible use of AI, fosters accountability, alignment, risk management, and long-term organizational sustainability.

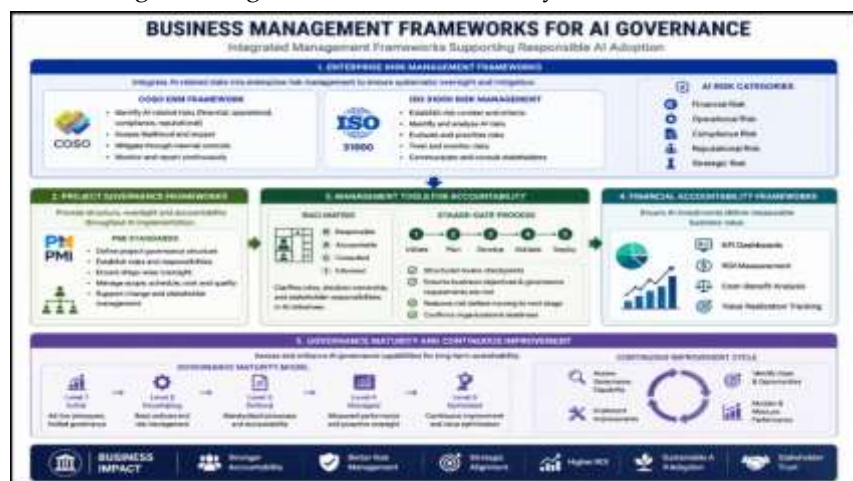


Figure 3. This image depicts integrated business management systems that enable responsible AI governance and organizational accountability

The integrated Business Management Framework for AI Governance in Figure 3 supports responsible AI adoption by establishing a structured framework of practices within organizations. The framework leverages Enterprise Risk Management best practices, such as COSO ERM and ISO 31000, for the identification, assessment, mitigation and monitoring of AI-related financial, operational, compliance and reputational risks [40]. It also incorporates PMI project governance methods, RACI matrices, and Stage-Gate

processes to create accountability, decision ownership, and governance oversight across the entire lifecycle of implementing AI. Financial accountability is delivered via KPI dashboards, ROI measurement and value realization tracking governance maturity models deliver continuous capability improvement [41]. These interrelated management frameworks increase the accountability, strategic alignment, risk management, sustainable AI adoption and long term business performance of organizations.

Empirical Study and Research Gap

Agbadamasi, Opoku, Adukpo, and Mensah (2025) explore the legal and ethical implications of AI governance in U.S. corporations in their article, "Artificial Intelligence Governance in U.S. Corporations: Legal and Ethical Implications for Business Intelligence and Regulatory Compliance." The authors explore issues of transparency, fairness and accountability, along with regulatory and compliance considerations for AI oversight and a case-study approach. The results show that companies that have established AI governance frameworks, multi-functional team cooperation, specific AI policies, and sophisticated BI capabilities exhibit more effective ways to track AI activities and facilitate regulatory compliance [1]. This research is significant for the current research as it has shown that, while technology is a key component of AI governance, it is not sufficient, and that these organizations must have structures and oversight in place to ensure that AI is governed effectively. But there is a gap in the research to provide a viable governance model that can be actually applied by business analysts, project managers and executives with the business tools they know and love. The current research focuses on compliance, ethical, and regulatory aspects of BI, while giving rather limited operational insights into explicit ownership, AI specific risk register, escalation via the Stage-Gate model, financial accountability, and assessment of the level of governance maturity. The present research thus aims to fill this research gap by proposing and testing a Five-Layer Business Governance Framework that incorporates such management mechanisms into a viable AI adoption model for U.S. companies.

In the article titled "The Unified Control Framework: Establishing a Common Foundation for Enterprise AI Governance, Risk Management and Regulatory Compliance" Eisenberg, Gamboa and Sherman (2025) explore the current fragmentation of enterprise AI governance practices and recommend the Unified Control Framework (UCF) as a common approach for enterprise AI risk management and regulatory compliance. There are limitations due to the subjectivity of the risk management domains, regulatory differences and governance standards that don't give enough guidance on implementation, the authors identify. They have adapted a robust taxonomy of risk, a policy framework and 42 controls all of which address multiple scenarios of risk and compliance requirements at once [2]. The authors test the framework by aligning it with the Colorado AI Act and propose that it will help minimize duplication and offer more flexible mechanisms for governance implementation. Although this research is useful for bringing enterprise risks and regulatory controls together, the main focus in this study is on risk and control/regulatory standards. There is a lack of a comprehensive business-management structure that directly incorporates strategic ownership, managerial decision-making authority, human escalation, financial accountability and governance immaturity. This study, therefore, further broadens this view by providing a Five-Layer Business Governance Framework that can be practically applied by business managers, project managers, and business analysts in U.S. enterprises.

Jahan and Nashid (2025) explore, in this article, the use of AI-driven frameworks to aid organizational efforts in risk management, regulatory adherence, and digital transformation with sustainability in mind. The authors name governance, risk mapping, risk measurement and ongoing risk management as key elements of good AI risk frameworks. They also point out the challenges to implementation such as legacy systems, low funding, organizational resistance, technical complexity and regulatory uncertainty

[3]. The study suggests that AI driven risk and compliance systems can facilitate the transition from 'reactive' to 'proactive' risk management frameworks for organizations, whilst enhancing resilience, innovation, stakeholder trust and sustainable value creation. This study offers more of a landscape of fundamentals on AI risk, compliance, and sustainability, and not a practical guide on who is responsible for setting the course for AI, who is responsible for the risks, when to escalate to human, how to value the financial return of AI, and how to measure governance maturity. This establishes an obvious research gap which the current work aims to fill with its Five-Layer Business Governance Framework, which is a way to introduce AI governance principles to common management tools and decision making processes within the U.S. enterprise.

In the article titled "Redefining Corporate Financial Governance Through AI-Powered Predictive Models for Global Business Risk Management," Yanney (2025) examines how AI-powered predictive models can transform corporate financial governance and enterprise risk management. The research highlights the importance of predictive analytics using AI to analyze various financial and operational data, forecast market changes, detect credit and liquidity threats, aid compliance monitoring and enhance internal controls [4]. It claims that AI can assist organizations in moving from a reactive to proactive financial governance approach, with its ability to monitor constantly, stress test, scenario analyses, fraud monitor and warn. The research also emphasizes the role of CFOs, compliance officers, and corporate boards in harnessing these AI-driven insights to enhance financial decision-making, resilience, transparency, and accountability toward stakeholders. This study has not attempted to offer a governance structure for managers in charge of AI adoption itself, but rather a practical application of the AI-powered predictive models and financial risk management. It offers some guidance on a few aspects of operational control, such as strategic ownership, business-level risk classification, human escalation, governance maturity, and cross-functional accountability. Thus, the present study fills this void by embedding financial accountability into a strategic ownership, risk management, oversight, and constant governance maturity framework, in a single Five-Layer Business Governance Framework for U.S. businesses.

Conceptual Foundation

This study assumes a conceptual approach based on a set of key management and organizational theories that outline the concept of governance, accountability, strategic resource management, and enterprise decision-making. Drawing on Agency Theory, managerial accountability can be outlined in relation to the role of organizational decision-makers in managing decisions with AI and ensuring alignment with organizational goals. The Stakeholder Theory broadens that view by acknowledging that AI Governance should not just consider the interests of employees, customers, investors, regulators, and society, but also foster transparency and ethical organizational behavior. Enterprise Risk Management Theory brings a systematic perspective to the recognition, evaluation and reduction of financial, operational, compliance and reputational risks related to AI in current risk management frameworks. This view is in favor of embedding AI governance within the wider organizational risk management framework and not as a standalone technology program. The Resource Based View (RBV) highlights how organizational competencies, managerial knowledge and expertise, governance, and workforce capabilities can transform into strategic resources that give organizations a competitive edge by responsibly leveraging AI. The above theoretical background supports the conceptualization of the proposed Five-Layer Business Governance Framework. The framework brings together strategic ownership, business risk classification, oversight and escalation processes, financial accountability, and governance maturity into a single management model that can aid in responsible AI adoption in U.S. enterprises. The framework integrates existing management theories and tools with governance mechanisms to provide organizations with a structured approach to enhance

accountability, improve decision-making, manage enterprise risks, and realize sustainable value from the investments in AI.

2. Methodology

This study adopts an applied mixed-method research approach to develop and validate a practical business management framework for governing Artificial Intelligence (AI) adoption in U.S. enterprises [42]. The research methodology brings together quantitative analysis of enterprise AI adoption data, a qualitative analysis of literature and validation of scenarios. The empirical component is based on the Enterprise GenAI Adoption & Workforce Impact Dataset that includes over 100,000 records detailing enterprise AI adoption, industry, country, GenAI tools, year adopted, number of employees affected, new jobs created, training hours, impact on productivity, and employee sentiment. The dataset will be limited to entries in which the country is USA to follow the name of the research [43]. Data preparation includes detecting and removing missing data, eliminating duplicate records, inspecting numerical data for correctness, cleaning and normalizing categorical data, checking for inconsistencies and textually analyzing employee sentiment feedback [44]. Industry, tool and adoption year descriptive statistics will then be used to explore the adoption patterns of GenAI across different industries, tools and years of adoption, respectively, and measures like mean, median, frequency and standard deviation will be used to summarize workforce impact, training investment, role creation, and productivity outcomes [45]. Correlations and regressions between training hours, employees affected, and new jobs generated and changes in productivity will be explored [46]. The sentiment of employees within the organization will be analyzed to uncover shared perceptions and concerns about implementing AI. The qualitative part will involve analyzing literature on AI governance, responsible AI, enterprise risk management, COSO ERM, ISO 31000, project governance, organizational accountabilities and business oversight. Results of this review will contribute to identifying gaps in the current approaches and provide a basis for the proposed governance model [47]. The study comes up with a Five-Layer Business Governance Framework comprising Strategic Ownership, Risk Classification, Oversight and Escalation, Financial Accountability and Governance Maturity and Continuous Review. The framework includes established management tools such as RACI matrix, AI adapted risk register, Stage-Gate review process, KPI and ROI dashboards, maturity scorecards etc. [48]. Lastly, the framework will be tested in illustrative enterprise scenarios, such as forecasting with AI, workforce planning, fraud detection, and other contexts of business decision-making to understand its applicability. This study doesn't consider the technical development of AI models as a main pillar of its contribution; rather, it relies on empirical results to inform governance-related management decisions [49]. Ethical challenges involve: anonymising organizations, calculating organization sentiment on a mean level, protecting privacy, and being careful not to make unsubstantiated claims on how the organization is governed, which is not measured directly in the dataset.

Dataset

Screenshot of Dataset

111 New roles are exciting; transition was smoother than expected. Job rotations have increased.

	A	B	C	D	E	F	G	H	I
	Company Name	Industry	Country	GenAI Tool	Adoption Year	Number of Employees	New Roles Created	Training Hours Provided	Productivity Change (%)
1									
2	Davis LLC Pvt. Ltd.	Healthcare	USA	Mixtral	2022	5277	8	657	25.2
3	Wheeler, Warner and Brown Pvt. Ltd.	Advertising	USA	Groq	2022	16429	18	11692	20.4
4	Cantu Inc Pvt. Ltd.	Transportation	USA	Claude	2022	6908	13	18708	33.6
5	Stewart-Chang Pvt. Ltd.	Finance	USA	Gemini	2024	3887	16	12534	32.5
6	Murray-Walker Pvt. Ltd.	Transportation	USA	ChatGPT	2023	15807	11	7342	23.4
7	Jackson-Torres Pvt. Ltd.	Defense	USA	Claude	2024	3974	11	10974	18.2
8	Murphy, Shelton and Hanson Pvt. Ltd.	Retail	USA	Groq	2024	428	20	24618	7
9	Wolf, Rose and Thompson Pvt. Ltd.	Technology	USA	Groq	2024	18774	29	23570	25.6
10	Harris, Lucero and Hayes Pvt. Ltd.	Legal Services	USA	Groq	2022	12145	19	4437	4.2
11	Smith and Sons Pvt. Ltd.	Defense	USA	Claude	2022	8103	10	23806	5.8
12	Perkins-Green Pvt. Ltd.	Technology	USA	Mixtral	2023	13047	7	6037	22.1
13	McClough LLC Pvt. Ltd.	Hospitality	USA	LLaMA	2024	12227	28	12456	13.5
14	Patterson, Green and Dunn Pvt. Ltd.	Healthcare	USA	Mixtral	2022	15084	14	21085	9.5
15	Hubbard, Lin and Jones Pvt. Ltd.	Education	USA	Mixtral	2024	11226	34	1545	29
16	Smith Group Pvt. Ltd.	Transportation	USA	Claude	2023	13259	8	12663	3.3
17	Martinez-Thompson Pvt. Ltd.	Legal Services	USA	Claude	2022	13574	30	13928	5.1
18	Kelly, Spence and Bryant Pvt. Ltd.	Advertising	USA	Groq	2022	12852	17	18793	11.2
19	Sherman-Powers Pvt. Ltd.	Finance	USA	Claude	2024	2583	23	6875	15.8
20	Lang Ltd Pvt. Ltd.	Retail	USA	Mixtral	2023	4833	18	19693	6.2
21	Stark-Johnston Pvt. Ltd.	Entertainment	USA	LLaMA	2022	5849	14	14396	2.3

Enterprise GenAI Adoption Impact

	H	I	J
	Training Hours Provided	Productivity Change (%)	Employee Sentiment
1			
2	657	25.2	Productivity increased, but there's anxiety about job security. Job rotations have increased.
3	11692	20.4	Collaboration improved; documentation and meetings are more efficient. My team adapted faster than others.
4	18708	33.6	Collaboration improved; documentation and meetings are more efficient. HR hosted webinars weekly.
5	12534	32.5	Productivity increased, but there's anxiety about job security. Clients now expect faster results due to AI use.
6	7342	23.4	There's concern that AI will replace some of us soon. HR hosted webinars weekly.
7	10974	18.2	Productivity increased, but there's anxiety about job security. My team adapted faster than others.
8	24618	7	Job roles have shifted a lot, which is both good and scary. Overall, it's a big shift.
9	23570	25.6	Mixed responses. AI management excited, staff feel uncertain. Monthly town halls discuss the AI rollout.
10	4437	4.2	Mixed responses. AI management excited, staff feel uncertain. Some departments feel left behind.
11	22806	5.8	New roles are exciting; transition was smoother than expected. Job rotations have increased.
12	6037	22.1	Job roles have shifted a lot, which is both good and scary. My team adapted faster than others.
13	12456	13.5	I love using AI. AI makes my job easier and more fun. Clients now expect faster results due to AI use.
14	21085	9.5	Our workflows have improved drastically with generative AI. My team adapted faster than others.
15	1545	29	New roles are exciting; transition was smoother than expected. Managers were initially skeptical.
16	12663	3.3	We now finish tasks faster, but some older employees are struggling. Job rotations have increased.
17	13928	5.1	New roles are exciting; transition was smoother than expected. It changed how we communicate internally.
18	18793	11.2	AI helped me reduce repetitive tasks, but learning curve was steep. Some departments feel left behind.
19	6875	15.8	We now finish tasks faster, but some older employees are struggling. Job rotations have increased.
20	19693	6.2	We now finish tasks faster, but some older employees are struggling. Some departments feel left behind.
21	14396	2.3	There's concern that AI will replace some of us soon. HR hosted webinars weekly.

Enterprise GenAI Adoption Impact

(Source Link: <https://www.kaggle.com/datasets/tfisthis/enterprise-genai-adoption-and-workforce-impact-data>)

Dataset Overview

This study takes advantage of the Enterprise GenAI Adoption & Workforce Impact Dataset, a massive enterprise survey dataset of 100,000 responses from companies in various industries and nations from 2022–2024. This dataset will be used to analyse the organizational impact of the use of Generative AI, such as transformation of the people in the organization, changes in productivity, training of employees and perceptions of the implementation of AI. There are 10 variables in each record: Company Name, Industry, Country, GenAI Tool, Adoption Year, Number of Employees Impacted, New Roles Created, Training Hours Provided, Productivity Change (%), and Employee Sentiment. It includes data on various Generative AI platforms, such as ChatGPT, Claude, Gemini, Mixtral, LLaMA, and Groq, so that the adoption trends of enterprise organizations can be analyzed based on each different technology and context. Industry and country variables allow for comparisons between AIO in different business environments, and the adoption-year variable can be used to analyse differences between 2022 and 2024. Workforce related variables offer insights into the workforce impacted by the implementation of AI, the development of new AI related jobs and training and up skilling investments for employees [50]. Productivity Change (%) is a quantitative indicator of the reported productivity improvement after the implementation of AI and will be used as an important outcome variable in this study [51]. The Employee Sentiment variable also includes qualitative feedback which can be analyzed to gain insights into how employees are feeling, what concerns they have, and what they perceive about the use of AI in their enterprise. In this research, the dataset will only include U.S. enterprise records by

applying the Country variable to the dataset, so that the empirical analysis directly corresponds to the study that focuses on U.S. enterprises [52]. The data set is also well suited as it includes a number of organizational dimensions that align with the suggested governance framework such as strategic use of AI, readiness of the workforce, organizational transformation, productivity and stakeholder views [53]. The data set, does not directly measure governance structures, RACI responsibilities, risk registers, risk escalation, ROI governance, and governance maturity. These governance dimensions will thus be conceptualized based on literature research and will not be included as variables of the dataset, which will be empirical data.

Framework Development of the Five-Layer Business Governance Model

The Five-Layer Business Governance Framework was designed to handle the managerial and organizational problems of enterprise AI adoption by incorporating widely-used business management, rather than new technical approaches [54]. This framework has been built based on a wide-ranging review of existing governance literature regarding AI governance, enterprise risk management, project governance and organizational accountability. Modern management frameworks, such as COSO Enterprise Risk Management (ERM), ISO 31000 Risk Management, and Project Management Institute (PMI) governance, were reviewed for governance mechanisms that are relevant to AI-driven business contexts [55]. These pillars are complemented by practical management instruments like RACI matrices, AI specific risk registers, Stage Gate governance reviews, KPI and ROI dashboards, and governance maturity assessments, which help to facilitate structured governance of AI initiatives [56]. It's made up of five interdependent governance layers: Strategic Ownership, Risk Classification, Oversight and Escalation, Financial Accountability, and Governance Maturity and Continuous Review. These layers cover various areas of governance, and together form a comprehensive framework for responsible AI management [57]. These layers work together to ensure that AI projects are properly aligned with business goals, have accountability mechanisms in place, good risk management processes, ongoing monitoring of performance, and regular governance reviews. The proposed governance framework is practical, scalable, and offers a governance model that enhances transparency, accountability, regulatory compliance and sustainable value creation across the enterprise AI adoption lifecycle for business managers, project managers, and organizational leaders.



Figure 4. This image depicts the proposed five-layer business governance for responsible AI adoption

The proposed Five-Layer Business Governance Framework for AI Adoption, shown in Figure 4, is derived from existing business management principles, with the aim of helping to ensure responsible implementation of AI. The framework is made up of five linked governance layers: Strategic Ownership, Risk Classifications, Oversight and Escalation, Financial Accountability and Governance Maturity and Continuous Review.

Each layer specifies its governance purpose, key managerial activities, business management tools which support the layer, and expected organization results [57]. The framework incorporates practical concepts like COSO ERM, ISO 31000, RACI matrices, Stage-Gate governance, KPI dashboards, ROI analysis and governance maturity assessments [58]. These governance tiers help ensure AI projects are strategically aligned, held accountable, actively manage risks, perform well financially, sustain long-term AI use, and gain stakeholder trust.

Proposed Five-layer Business Governance Framework

The Five-Layer Business Governance Framework offers a structured and management oriented approach to the AI adoption governance in US enterprises. The framework focuses on strategic ownership, risk management, governance oversight, financial accountability, and ongoing organization value creation through the application of known business management tools, allowing organizations to manage the application of AI responsibly while also increasing the accountability, transparency, and value creation of the organization over time.



Figure 5. This image shows the proposed five-layer business governance for responsible enterprise AI adoption

The proposed 5-layer Business Governance Framework for responsible AI adoption in enterprises is shown in Figure 5. It has five inter-related governance layers: Strategic Ownership, Risk Classification, Oversight and Escalation Process, Financial Accountability, and Governance Maturity and Continuous Review. Each layer defines the business purpose, major governance activities, management tools used to support them and organizational deliverables expected. The framework includes practical governance tools such as RACI matrices, AI adapted risk registers, Stage-Gate governance review processes, KPI and ROI dashboards, governance maturity scorecards [59]. By showcasing how the layers of governance work together to enhance accountability, strategic alignment, risk management, financial performance, transparency, continuous improvement, and sustainable value creation across the enterprise AI adoption lifecycle, the interaction logic becomes apparent.

Strategic ownership and accountability of executives

The proposed governance model will be supported by strategic ownership, which will ensure that there is clarity about who is responsible for AI projects in an organization [60]. Each AI system should have a specific business goal, a business owner and an executive sponsor to ensure AI adoption is aligned to organizational strategy and operational priorities [61]. Instead of AI being a purely technical endeavor, strategic ownership makes AI governance a business responsibility that is shared amongst leadership, project managers, business analysts and functional departments [1]. Defining ownership eliminates confusion in decision making and helps allocate resources to the organization while using AI through the AI lifecycle [2]. The governance layer facilitates

cross-functional collaboration by specifying roles, responsibilities and expectations relating to planning, implementation, monitoring and evaluation of performance [3]. The basic governance document that defines the ownership of decisions, the role and responsibilities of stakeholders and reporting relationships is the RACI (Responsible, Accountable, Consulted, and Informed) matrix [4]. This means strategic ownership will foster greater accountability, commitment, and alignment within the organization between AI initiatives and long-term business goals.

Business-oriented AI Risk Classification

To effectively govern AI, organizations need to find and manage AI risks in terms that're understandable to business managers, not just technical experts [5]. This governance layer categorizes different types of risks such as financial, operational, compliance, and reputational, allowing organizations to assess potential impacts on their businesses before they deploy AI systems [6]. The financial risks involve investment overruns or low ROI, while operational risks are related to disruption of processes and decrease in organization efficiency [7]. Compliance risks are those associated with laws and regulations, whereas reputational risks are aimed at customers' trust and credibility [8]. A structured AI risk register offers a consistent framework for recording risks, assessing their probability and severity, ownership, and action plans to reduce risks [9]. Incorporating AI risks into enterprise risk management processes helps to align with enterprise governance practices and helps to make informed decisions [10]. By employing a business-first strategy, managers can take proactive steps to address uncertainties, foster responsible AI practices, ensure compliance with regulations, and build organizational resilience.

Governance Oversight & Decision Escalation Governance

Oversight sets up proper governance processes to review decisions made with the aid of AI prior to they having an impact on key enterprise functions [11]. This layer focuses primarily on human oversight, specifying which decisions are to be made by an AI, who should approve its decisions, and what steps should be taken if it is deemed incorrect [12]. Organizations do not use AI solely for automated production, but also have structured governance checkpoints where managers assess the performance of AI and identify potential risks and determine if further review is needed [13]. Stage-Gate governance is an effective way to manage AI initiatives, as it allows for regular checkpoints to evaluate their progress and ensures they align with organizational goals, governance policies, and ethical considerations [14]. Clear escalation procedures are in place to ensure those who can help solve high-risk issues or unexpected outcomes from AI are involved. This governance level will improve transparency, accountability and control in the organization and reduce operational and compliance risks [15]. Governance oversight helps ensure that AI aids managerial decision making and does not supplant critical human judgment in important business situations.

Financial accounting and performance measurement

Financial accountability provides the business with a way to measure the business value the investment of AI brings, and their contribution to the organization's performance [16]. Financial results should be tracked on an ongoing basis through implementation costs, operational savings, productivity gains and the entire return on investment (ROI). This governance layer focuses on the business evaluation approach rather than just technical performance indicators, including using Key Performance Indicators (KPIs), ROI dashboards, and cost benefit analysis and value realization metrics [17]. These financial tools can help managers figure out if AI projects align with strategic goals and sustain organizational gains [18]. By conducting continuous financial monitoring, companies can identify their AI projects that are not working well, optimize the resources used, and rationalize future investments in AI assets based on the measurable results or outcomes that it yields to the business [19]. AI dashboards give executives real-time visibility into

the performance of AI, which allows them to make data-driven decisions and monitor effectively [20]. The introduction of financial accountability into the governance of AI ensures greater transparency around investments, broadens executives' confidence in the investment, and allows organizations to get the maximum value out of their AI adoption investment in the long run.

Governance Maturity and Continuous Improvement

Governance maturity is the last step in the suggested governance framework, involving the ongoing development of organizational AI governance capabilities. Governance should be seen as a recurring governance effectiveness evaluation work, rather than a one-time implementation effort, and take a structured approach and a maturity model with four progressive stages including Ad hoc, Managed, Structured and Optimized [21]. These maturity levels will help leadership to gauge governance performance, assess areas of weakness, and prioritize improvement initiatives. Periodic governance reviews include a review of organizational policies, accountability frameworks, risk management frameworks, financial performance and effectiveness of compliance and how these are aligned with the changing business objectives and regulatory requirements [22]. Previous AI efforts enable ongoing organizational learning and refining of governance. These improvement plans can range from changes in governance policies, to increased responsibilities for stakeholders, to increased employee awareness and to improved processes of measuring performance [23]. Organizations evolve governance skills that enable them to be more resilient and adapt to an evolving landscape while promoting responsible AI use, organizational agility, regulatory compliance, and sustainable long-term business success through continuous evaluation and adaptation.

Interactions and Governance Logic of Integrated Framework

The proposed Five-Layer Business Governance Framework will be effective if the layers of governance are connected and interdependent. Strategic Ownership creates clear executive ownership and organizational alignment around AI initiatives [24]. On top of this, Business-Oriented AI Risk Classification helps identify and prioritize financial, operational, compliance and reputational risks that need to be managed. Governance Oversight and Decision Escalation then outline structured review processes and human intervention points to ensure that decisions made with the aid of AI are transparent, accountable and consistent with organizational policies [25]. Financial Accountability checks the business value of AI investments by monitoring KPIs, assessing ROI, and conducting cost-benefit analysis [26]. Governance Maturity and Continuous Improvement evaluates the effectiveness of governance practices and opportunities for improvement, based on an ongoing review of the organization [27]. These interrelated layers form a seamless governance cycle, enhancing accountability, aiding in data-driven managerial decisions, fostering organizational resilience, and facilitating responsible, transparent, and sustainable AI integration within U.S. businesses.



Figure 6. This graphic represents the integrated governance cycle of ownership, risk, oversight, value and continuous improvement

The logic of integrated interaction and governance presented in the proposed Five-Layer Business Governance Framework is shown in Figure 6. The framework is designed to be a continuous process that starts with Strategic Ownership, defining accountability and alignment, through Risk Classification, identification, and prioritization of AI-related risks. The roles assigned to decisions, thresholds for reviewing decisions and decisions requiring human intervention are established through decisions and oversight, and decisions and escalation. Financial Accountability is used to report KPIs, ROI, benefits realization and costs, and Governance Maturity and Continuous Improvement is used to report capability and improvement opportunities [28]. The framework also adds to the business strategy, stakeholder expectations, regulatory requirements, market conditions, processes and data organizational inputs. Governance enablers help to ensure that the adoption of AI is accountable, transparent, sustainable and value-driven.

3. Results

The results of this study provide empirical evidence regarding Generative AI adoption, productivity outcomes, workforce transformation, training investment, and employee engagement across U.S. enterprises. Analysis of the U.S. subset of the Enterprise GenAI Adoption & Workforce Impact Dataset demonstrates that AI adoption increased between 2022 and 2024, while reported productivity improvements were observed across a wide range of industries. The findings also reveal that workforce transformation was happening at different GenAI tools, in the form of new roles [29]. These results suggest that AI's value to businesses is not driven by any single factor, such as investments, workforce size, and productivity, but rather by a governance approach focused on business benefits. The findings also offer evidence of stakeholder engagement around enterprise AI use, highlighting the importance of strategic ownership, risk classification, human oversight, financial accountability, and ongoing governance improvement [30]. The results are presented in detail in the following subsections and linked to the proposed Five-Layer Business Governance Framework.

GenAI Adoption Trends across U.S. Enterprises

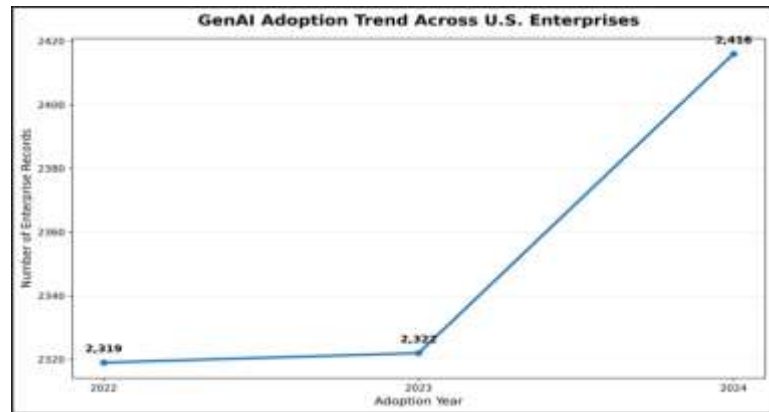


Figure 7. This image displays increasing Generative AI adoption across U.S. enterprises from 2022 to 2024

Figure 7 shows how U.S. enterprises are adopting Generative AI from 2022 through 2024. Enterprise adoption has remained fairly stable over the first two years, rising slightly from 2,319 in 2022 to 2,322 in 2023. The number of records also increased significantly in 2024 to 2,416. The positive trend indicates that enterprise GenAI adoption is ongoing, with the most recent timeframe depicted in the data showing the highest levels of growth [31]. As AI becomes more integrated into enterprise operations, the business governance trend highlights the importance of organizations having a clear sense of accountability, risk-management procedures, oversight mechanisms and performance-monitoring practices. The trend therefore gives empirical evidence for establishing a formal governance system for the responsible and sustainable use of AI.

Productivity impact of enterprise AI adoption at the industry level



Figure 8. This image shows the productivity gains that have been reported in industries after implementing enterprise AI in companies in the United States

Figure 8 is a comparison of the average reported productivity gains by industry for AI adoption among 14 U.S. enterprise industries. The greatest productivity change is seen in Technology (19.28%), Retail (19.12%) and Telecom (18.85%). Other industries reporting productivity changes greater than 18.60% are Transportation, Legal Services, Education and Manufacturing. On the lower end are Entertainment (18.16%), Healthcare (18.27%) and Finance (18.29%). Taken as a whole, the small spread between the top and bottom scores suggests that the productivity gains reported are not only spread across a wide variety of industries, but are not occurring in any one of them. Governance-wise, these findings underscore the importance of industry-tailored governance and performance assessment frameworks to guarantee that the investments in AI yield tangible and enduring business impact.

Relationship between training investments and productivity outcomes



Figure 9. This image shows the poor link between changes in training investment and the outcomes reported in terms of enterprise productivity

The correlation between hours of training received and change in productivity by U.S. firms is shown in Figure 9. The scatterplot includes values for a wide variety of training investments and productivity results. The linear regression line is just a bit upward sloping, showing that there is very little linear association between these two variables. The regression equation is $y = -0.000013x + 18.760$, while the R^2 value is 0.0001 and Pearson correlation is -0.010. Results of this analysis show that these training hours account for almost none of the variability in reported productivity change in this dataset. The result underscores the need to consider a wider range of performance measures when assessing the return on investments in AI, as increased investment in AI training does not necessarily lead to increased productivity.

Transforming Workforce through the Creation of New AI-Driven Roles

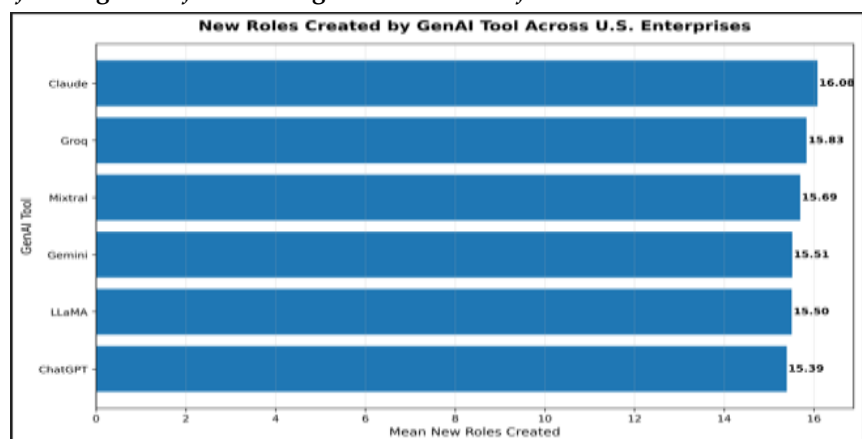


Figure 10. This image illustrates how various GenAI tools relate to the patterns of creating new roles within U.S. enterprise

The average number of new job roles generated by enterprises using six different Generative AI tools are shown in Figure 10. Claude leads the way with an average of 16.08 role creations, with Groq (15.83) and Mixtral (15.69) coming in close behind. In comparison, Gemini has an average of 15.51, LLaMA has an average of 15.50, and ChatGPT has the lowest at 15.39. The variance in results among the tools is fairly minimal, but overall, the results show that there are measurable changes in the workforce when GenAI is used. In business governance, these insights emphasize the need to plan for workforce transition, clarify the accountability for roles, manage employee transitions and ensure organizational preparedness in the adoption of AI technologies [32]. Technological adoption and its

impact on the workforce structure should therefore be taken into account by governance mechanisms.

Improve workforce impact and productivity outcomes

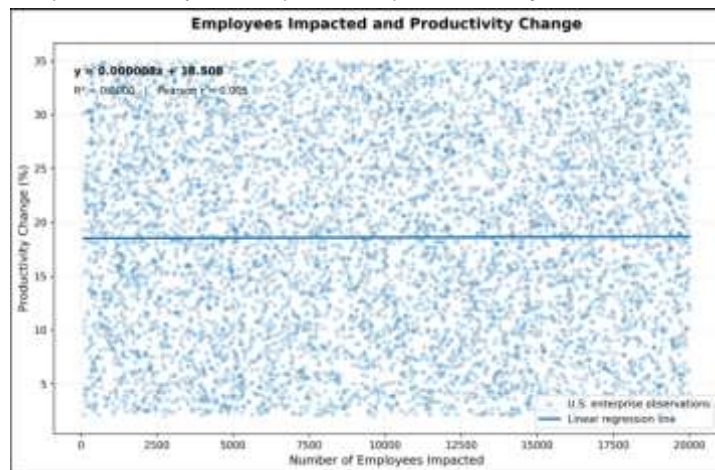


Figure 11. This image shows that there is a very weak correlation between the impact of the workforce and the reported productivity results of U.S. companies

Figure 11 shows that within U.S. enterprises, reported productivity change is positively related to the number of workers affected by Generative AI. There are significant variations in productivity results between organizations of any size of workforce.

The fitted linear regression line is almost flat (nearly parallel to the x axis):

$$y = 0.000008x + 18.508.$$

Pearson correlation coefficient ($r = 0.005$) and $R^2 \approx 0.0000$ suggest that

There is virtually no linear correlation between the number of employees affected and change in productivity. The results indicate that the extent of AI exposure isn't solely responsible for productivity results. Hence, from a governance perspective, the organizations should appraise the AI programmers based on wider strategic, operational and financial metrics than the number of employees.

Employees' Engagement and Sentiment Response Patterns

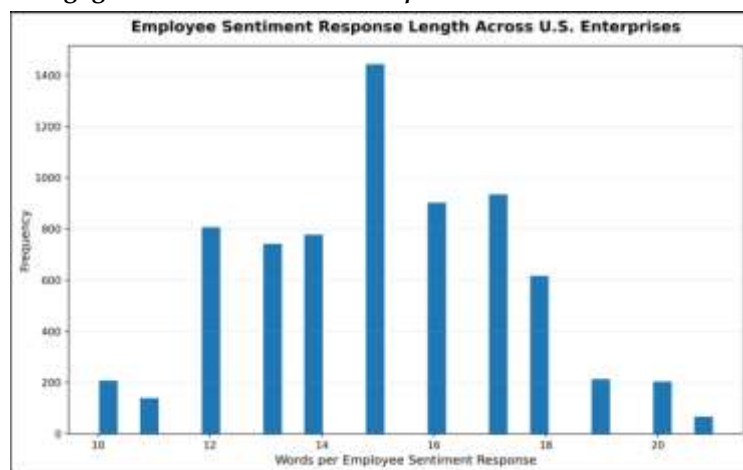


Figure 12. This image shows how employee sentiment responses vary over the length of the adoption of Generative AI across U.S. companies

The graph in Figure 12 shows the distribution of the lengths of employee sentiment responses for U.S. enterprises that use Generative AI. The answers are between the range of words from 10 to 21 words, where the average number of words is 15.09 and the median is 15 words. The most common length of feedback is between 12 and 16 words, with 15 being the most common, suggesting that feedback typically is fairly short and consistent in length. There are also significant frequencies at 16–17 words and 20–21 words, but the

shorter frequencies at 10–11 words and the longer frequencies at 20–21 words are less significant [33]. In terms of governance, this distribution provides insights into the regular feedback that employees can contribute to an organization's evaluation of AI use. This feedback can be used for stakeholder engagement, workforce issues, communication plans and governance practices that focus on humans.

4. Discussion and Analysis

The findings offer significant evidence on how enterprise adoption of Generative AI is correlated with organizational performance and transformation and governance needs in U.S. enterprises [34]. The adoption trend grew from 2,319 in 2022 to 2,416 in 2024, showing that AI is continuing to expand in business environments, and that there is a need for the governance to scale with it [35]. Productivity gains were reported in all industries studied, ranging from a maximum mean productivity gain of 19.28% in Technology to a minimum mean productivity gain of 18.16% in Entertainment [35]. While the range of this estimate is fairly limited, it does indicate that AI can be used to create reported productivity gains in a variety of different settings, but it does not necessarily indicate that the use of AI causes such productivity gains. Perhaps more important is the correlation between training investment and productivity, which is very low with a Pearson coefficient of -0.010 and an R^2 of 0.0001 . Likewise, productivity change had almost no linear relationship with the number of employees affected by AI, as evidenced by the lack of a linear trend (Pearson's correlation of 0.005 , R^2 of nearly 0.0000). The findings are especially pertinent to the proposed governance structure as they show that the size of the organization and how much it invests in training are not enough to be a proxy for AI success. In contrast, management teams will require more governance capabilities to decide if AI projects are aligned, and if they are creating value [36]. The workforce analysis also shows that there is a correlation between the adoption of GenAI and new role creation for various tools, with Claude having the highest mean number of new roles created (16.08) and ChatGPT having the lowest (15.39). While the variations between the tools are relatively small, the findings underscore the significance of workforce planning, restructuring of work roles, accountability, and employee preparedness in AI governance [37]. The lengths of employee sentiment responses (15.09 words on average) also show that the dataset is composed of structured employee feedback that can be used for stakeholder-oriented governance analysis [38]. All of these results are put together, supporting all five levels of the suggested framework [39]. To effectively ensure that AI outcomes are responsible, organizations will need to adopt strategic ownership, risk classification, oversight and escalation, financial accountability, and governance maturity to ensure that human judgment is in the loop for important decisions, that adoption and training are not sufficient evidence of business value, and that AI practices are continuously evaluated and improved [40]. The findings confirm a move towards 'whole of organization' approach to the use of technology-based AI, focusing on accountability, risk management, tangible return on investment and a continuous journey of improvement.

Managerial Implications

The results have a number of practical implications for executives, project managers, business analysts, and other organizational decision makers who are tasked with the adoption of AI. The first step is to create a clear strategic ownership to ensure that all AI initiatives have a named executive sponsor, business owner, objective, and accountability [41]. Leveraging AI demands a clear strategic ownership, where each AI initiative has a named executive sponsor, business owner, objective, and accountability [42]. Second, managers should not only measure the success of AI by the number of organizations that adopt it, the amount of training they invest in, or the number of employees they hire [42]. The very low relationships between training hours, the number of employees affected, and productivity make it clear that the use of broader KPI, ROI, and value-realization measures

are crucial [43]. Third, managers need to integrate AI-related risks, such as financial, operational, compliance, and reputational ones, into the existing enterprise risk registers and not approach them as a technical challenge. Fourth, workforce transformation needs to be part of governance planning as AI adoption can introduce new roles and transform responsibilities [44]. Good communication, involvement of employees, training and job transition planning can help build organizational readiness [45]. Fifth, humans should be put in place to oversee and escalate decisions made with the help of AI that could have large financial, operational, employee or reputation impacts [46]. Last but not least, there should be a periodic review of the governance maturity of the leadership to identify if AI governance practices are moving towards Ad hoc to Managed, Structured, and Optimized levels [47]. The results emphasize the need for managers to manage AI as a business transformation and accountability problem and not just as a technical problem; AI should be placed within existing project management, risk management, financial management and organizational review frameworks.



Figure 13. This image illustrates some of the essential management activities required for responsible, accountable, and value-driven enterprise AI governance

In Figure 13, the managerial implications of the proposed business-oriented AI governance framework are outlined. The diagram lists six practical actions for organizational leaders:

- 1) To define strategic ownership,
- 2) To measure the value of the business and not just its adoption of AI,
- 3) To incorporate the risks of AI into enterprise risk management,
- 4) To plan for workforce transformation,
- 5) To set up human oversight and escalation, and
- 6) To review the governance maturity periodically.

The central message does not just highlight AI governance as a technical matter, but as a business transformation and accountability challenge [48]. This will encourage managers to embed the use of AI in the management strategic, financial, risk, project management and organisation review processes. These can foster responsible AI use, quantifiable value creation, risk management, workforce preparedness, accountability and sustainable organizational success.

Ethical Concerns and Limitation

This study takes an in-depth look at some of the ethical implications of enterprise AI implementation and the utilization of employee data. The information in the dataset is anonymised organisational data and employee sentiment responses and analysis is undertaken at an aggregate level rather than an attempt being made to identify any individual employee or organization [49]. Employee feedback is taken seriously to not necessarily misrepresent their perceptions or to simply assume things about certain

employees' attitudes about AI. The proposed governance structure also focuses on accountability, transparency and human oversight as well as responsible decision-making to minimize potential harm to organizations and stakeholders [50]. One significant drawback is that the data is not directly reported on AI governance structures, accountability of the executive, compliance performance, escalation procedures, ROI governance, and maturity levels [51]. For these dimensions, the conceptualization is undertaken via literature and framework analysis and not directly observed. In addition, the data is based on a survey and measures organizational outcomes, so causal relationships between AI use and productivity cannot be determined [52]. Therefore, the analysis is not causal, and associations are only identified [53]. This study only covers observations from 2022–2024 and does not necessarily reflect the adoption of AI or the current and future state of all U.S. businesses.

Future Work

Future studies would benefit from gathering primary data directly from the U.S. enterprise manager, project manager, business analyst, compliance officials and executives who are responsible for AI initiatives [54]. This research may include governance variables that are not part of the existing data set, such as executive ownership; implementation of RACI; use of risk-register; use of escalation; human oversight practices; ROI monitoring; and governance maturity [55]. A future study may be developed and statistically proven for a dedicated AI Governance Maturity Scale based on the five proposed layers including Strategic Ownership, Risk Classification, Oversight and Escalation, Financial Accountability, and Governance Maturity and Continuous Review. Another advantage of such longitudinal research would be the fact that organizations' governance skills can evolve as AI use shifts from experimentation to broad adoption and use in operations [56]. Additional years and more detailed organizational information could be added to future datasets to investigate if better governance over time is related to productivity, financial performance, employee acceptance, and/or overall organizational risk [57]. One avenue for comparative research is to look at varying sectors that might have significant differences in regulatory exposure and AI-related risks, such as healthcare, finance, technology, manufacturing, retail, and government [58]. Future research could also investigate employee sentiment in more detail through qualitative coding or through validated sentiment analysis methods, with the aim of uncovering employee concerns about job security, trust, transparency and organizational change [59]. The validation may be extended to structured interviews, expert panels or case studies of actual enterprise AI projects [60]. Future studies could evaluate the proposed framework against existing AI governance frameworks and enterprise risk management strategies to gauge its comprehensiveness, usability, and scalability [61]. These extensions would enhance the empirical validation and contribute to making the proposed framework into a practically tested governance tool for responsible and accountable use of AI.

5. Conclusion

This study has developed a practical, business-management based framework for governing AI adoption in U.S. enterprises, where there is a growing need to be held accountable, to manage risk, to have human oversight, and to be able to demonstrate business value. The study analyzed U.S. enterprise AI adoption, productivity impact, transformation of the workforce, training investments, and employee sentiment using the Enterprise GenAI Adoption & Workforce Impact Dataset. The results showed that GenAI usage grew from 2022 to 2024 and productivity gains were reported in various industries, highlighting the growing relevance of GenAI in enterprise decision-making and organizational processes. The very low correlations between hours of training, and between people affected and productivity do indicate that there is no direct correlation between the size of the AI investment or adoption and measurable business value. The

results support the case for organizations to adopt governance processes to assess AI projects through a more comprehensive lens of strategy, finance, operations, workforce, and accountability. The study, on the other hand, suggested the Five-Layer Business Governance Framework: Strategic Ownership, Business Oriented Risk Classification, Oversight and Escalation, Financial Accountability and Governance Maturity and Continuous Review. The framework combines the common management tools, such as RACI matrices, risk registers, Stage-Gate processes, KPI and ROI dashboards, and governance maturity assessments, making it easy for non-technical managers to integrate AI governance into their existing organizational practices. The study also shows that workforce transformation and employee perspectives should play a role in AI governance in order for responsible use of AI to be prepared in the organization and trusted by employees. The study acknowledges limitations due to the fact that the data was not collected for this study and governance variables were not directly observed but offers a useful framework for future empirical testing. As the study concludes, effective enterprise AI governance is not just a technical and compliance role, but a business transformation and accountability role. By embedding governance in strategic planning, risk management, financial assessment, workforce management, and ongoing organization review, U.S. businesses can more responsibly, transparently and sustainably embrace AI, while enhancing their long-term organizational value and stakeholder trust.

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