

# Artificial Intelligence Harm and Accountability by Businesses: A Systematic Literature Review

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**Abstract:** This study reviews the literature on artificial intelligence (AI) harms caused by businesses, their impact on stakeholders, and the available remedial mechanisms. Using the PRISMA method, relevant articles were sourced from the Scopus database and critically analysed. The data revealed that only 38 articles were published on the topic between 2012 and 2024, with 21 of these in 2024 alone. Key AI harms identified include economic and employment displacement, user harm, bias and discrimination, the digital divide, and environmental harm. While an explicit AI harm accountability framework was not found, related frameworks were derived from six cognate areas: data governance, decision-making, ethical AI, legal frameworks, responsible AI, and AI implementation. Five themes—AI transparency, accountability, decision-making, ethics, and risk—emerged as central to the literature. The study concludes that accountability for AI harms by businesses has been an afterthought relative to the rapid adoption of AI during the review period. Developing a robust AI accountability framework to guide businesses in mitigating AI harm is therefore imperative.


## 1 INTRODUCTION


Artificial intelligence (AI) continues to dominate headlines due to its transformative capabilities. Consequently, the adoption and use of AI in business operations have grown considerably in recent years. The drivers of this increased adoption include AI's decision-making capabilities, high-speed processing of large datasets, responsiveness to business processes (Arora et al., 2024; Kennedy & Campos, 2024; de Pedraza & Vollbracht, 2023; Santos et al., 2024), and service innovation (Alshahrani et al., 2024). However, the development, adoption, and use of AI by businesses are not without challenges (Abercrombie et al., 2024; Corrêa et al., 2023). While AI can improve business operations, enhance performance, and promote transparency and accountability (Gouiaa & Huang, 2024; Robles &


Mallinson, 2023), it can also cause harm. This underscores the urgent need for robust accountability systems to mitigate the negative effects of AI development and use by businesses (Mazzacuva, 2021).

The need for businesses to balance leveraging AI as an enabling tool for innovation with ensuring accountability cannot be overstated (Schneider et al., 2023). While AI offers numerous benefits, opportunities, and capabilities for businesses and society, it can also result in significant negative consequences and harm to various stakeholders within the ecosystem (de Siles, 2021). For instance, AI algorithmic biases have been shown to cause exclusion, marginalisation, and even loss of life. A review of the taxonomy of AI harm (Abercrombie et al., 2024) indicates that these harms can affect consumers, employees, businesses, and society at

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large. However, there is a lack of documented accounts of AI harms and the accountability frameworks employed by businesses to govern AI products, services, and systems. To design robust AI accountability strategies, it is crucial for businesses to understand the specific harms caused by their AI systems and the accountability frameworks currently in place. This understanding will also aid policymakers in assessing existing frameworks and developing policies to ensure transparency, responsibility, and fairness in the development and use of AI systems, products, and services by businesses.

Artificial intelligence (AI) regulation is one of the most pressing technological and societal concerns today, with AI accountability forming a critical component of this regulatory framework. The need for an accountable framework to ensure that AI-enabled systems, products, and services developed and used by businesses align with societal and business values is imperative. Reported AI harms in business, including reputational damage such as loss of confidence, trust, and privacy (Abercrombie et al., 2024), have heightened the focus on AI accountability as a means to reduce risks. Current efforts to regulate AI include initiatives such as the EU AI Act (2024) and the OECD AI Principles (OECD, 2025), which provide frameworks for AI accountability. However, there is limited synthesis of the literature on trends in publications related to AI harm accountability in business and evidence of AI-related harms in this context. This study aims to address this gap by contributing to the emerging body of knowledge on AI harm and accountability in business.

The study will contribute to the theoretical understanding of the breadth and depth of literature on AI harm and accountability. It will also assist developers, organisational employees, businesses, and consumers of AI products, systems, and services in recognising their collective responsibility to reduce AI harm in business. Furthermore, the study will highlight the harms of AI in business and examine existing AI accountability frameworks, thereby informing future research on the subject. Additionally, the study will offer a tool for assessing the level of AI accountability based on disclosure, providing essential information to mitigate the societal impact of AI harm. The key research questions this study seeks to address are:

- i. What is the trend in publications on AI harm accountability over the past 10 years?
- ii. What are the AI harms caused by businesses' use of AI, and what AI accountability frameworks currently exist?

- iii. What are the thematic issues addressed in the current literature on AI harm accountability, and what are the direction for future research?

## 2 METHODOLOGY

Data was sourced from Scopus database due to its wide bibliometric coverage of top information systems (IS) databases. The search query was based on the keywords Artificial AND Intelligence AND (Harm OR Risk) AND Accountability AND Business OR Enterprise OR Entity OR Entities OR Corporation. The researcher adopted the PRISMA method (Aslam & Jawaid, 2023) to source and analyse relevant literature for the study. The use of the PRISMA method was informed by its application in earlier, related studies on the subject (Dzandu & Asiedu, 2024; Enholm et al., 2022). Following the systematic literature review approach (Kitchenham, 2004), the researchers adhered to the processes of identification, screening, and inclusion (Figure 1).

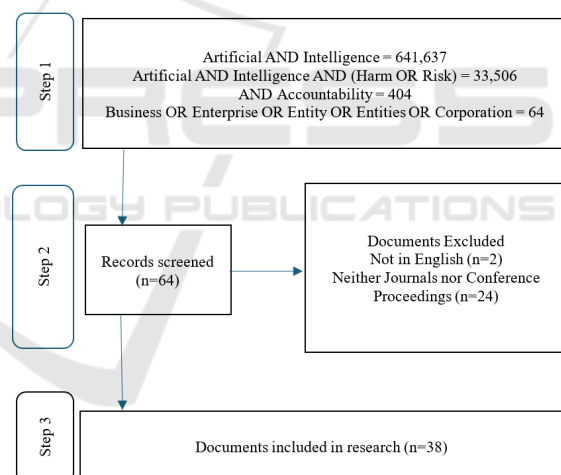


Figure 1: Summary of the literature search for analysis

In step 1, the identification stage, the researchers searched the Scopus database using the terms “Artificial and intelligence,” “risk or harm,” “accountability,” and “business or enterprise or entity or entities or corporation.” The search was not limited to any specific year or duration. The search focused on the explicit mention of these terms in the titles, abstracts, and keywords, yielding a total of 64 relevant documents. This was followed by step 2, the screening stage, where the 64 documents were critically reviewed by examining their titles, abstracts, and keywords for relevance and validity.

An exclusion criterion was applied, limiting the source types to journal articles or conference proceedings published in English. Finally, in step 3, 38 documents were deemed valid, relevant, and appropriate for the study and were downloaded for literature review analysis. Of these, 25 were journal articles, 10 were conference papers, and 3 were review documents.

The analysis utilised Excel for trend analysis, VOS Viewer software for co-occurrence visualisation, and cluster or thematic analysis (Goksu, 2021). This was complemented by NVivo software for qualitative analysis of the articles, enabling the identification of AI harms and accountability frameworks. Finally, Biblioshiny was employed to create a thematic map of publications on AI harm and accountability by businesses, facilitating a discussion of current issues and future research directions on the subject.

### 3 RESULTS AND DISCUSSION

The literature analysis focused on addressing the key research questions regarding the trends in research publications on AI harm by businesses, the types of harm caused by the development and use of AI in business, and relevant AI accountability frameworks. The analysis also examined the key issues addressed in the current literature and identified opportunities for advancing research on AI harm and accountability in business contexts.

#### 3.1 Trend of Publications on AI Harm Accountability

A trend analysis revealed that the term AI harm and accountability possibly emerged in 2012 when one paper was published on the topic (Figure 2). This remained the case until 3 papers were published in 2020 on the subject and 4 papers annually between 2021 and 2023.

There has been a sharp increase in the number of papers published on AI harm and accountability by businesses, rising from 4 to 21. This trend highlights the growing societal and scholarly attention to the problems of AI harm caused by businesses and the need for accountability among all stakeholders, including developers, organisations, employees, and consumers. This is unsurprising, as AI accountability appears to be an afterthought, gaining prominence only after recent concerns were raised about the direct and indirect negative impacts of AI on society.

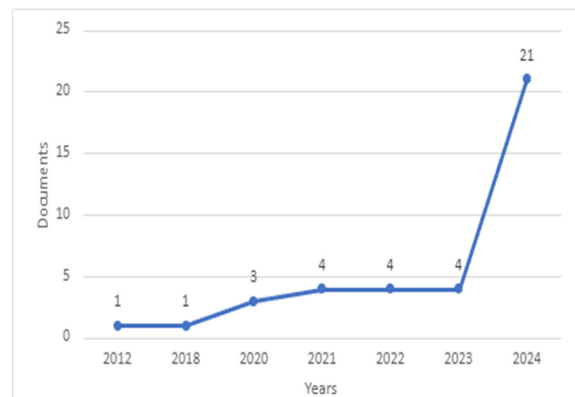


Figure 2: Trend of publications on AI harm and accountability (2012 – 2024).

#### 3.2 Types of AI Harm and Accountability Frameworks

This study also aimed to identify some of the AI harms caused by AI developed and used by businesses (Table 1) and the AI accountability frameworks (Table 2) currently documented in the literature on the subject.

Table 1: AI harms by businesses.

Type of AI harm	References
Bias and Discrimination	Wörsdörfer, 2023; Hickok, 2024; Kouroutakis, 2024;
Transparency and Accountability	Wörsdörfer, 2023; Boyer et al, 2022; Hickok, 2024;
Privacy and Data Protection Concerns	Boyer et al, 2022;
Economic and Employment Displacement	Yakoot et al, 2021; Davinder et al, 2022
Exacerbation of Digital Divide	Kouroutakis, 2024
Unfair Decision-Making and Exclusion	Rezaei, et al. (2024); Davinder et al, 2022
Environmental Harm	Wörsdörfer, 2023;
User harm and inconvenience	Besinger et al. (2024)
Misinformation and Manipulation	Camilleri, 2024; Senadheera et al. (2024),
Government and Ethical Failures	Senadheera et al, 2024; Yakoot et al, 2021; Wörsdörfer, 2023;

The results indicate that several types of AI harm are caused by the development and use of AI by businesses, affecting stakeholders including developers, employees, businesses, customers, and wider society. The AI harms identified in the current literature align with those reported by Abercrombie et al. (2024) in their project on the taxonomy of algorithmic, AI, and digital harm. For instance, the exploitation of customer data by businesses for marketing raises significant concerns about privacy and data protection (Boyer et al., 2022). Furthermore, algorithmic bias is known to result in unfair decision-making (Rezaei et al., 2024; Davinder et al., 2022), causing discrimination (Wörsdörfer, 2023; Hickok, 2024; Kouroutakis, 2024) and the marginalisation of minority groups within society. Businesses have also suffered reputational damage due to issues such as economic and employment displacement (Yakoot et al., 2021; Davinder et al., 2022).

The analysis of the literature did not reveal an explicit AI harm accountability framework. However, it was observed that current AI harm accountability is derived from cognate frameworks, including the data governance framework, AI decision-making framework, AI legal framework, AI ethical framework, Responsible AI framework, and AI implementation framework (Table 2).

Table 2: Summary of related AI Accountability frameworks.

Framework	References
Data governance framework	Tremblay and Kohli (2023)
AI decision making framework	Kouroutakis (2024)
AI ethical framework	Kouroutakis (2024)
Legal framework for AI	Kouroutakis (2024)
Responsible AI framework	Besinger et al. (2024)
AI implementation framework	Akramov & Valiev (2024)

An all-purpose data governance framework (Tremblay and Kohli, 2023) is regarded as a foundational tool for countries, businesses, and society to achieve digital resilience. The establishment of a permanent data governance framework supports data governance, ownership and stewardship, standardisation and interoperability, as well as the competencies required to enhance data analytics functions, including AI solutions. According to Kouroutakis (2024), there remains a lack of an accountable AI framework. To ensure

transparency in AI solutions, it is therefore imperative to establish accountable decision-making frameworks to mitigate systemic biases in AI models. Kouroutakis (2024) also advocates for people-centred AI legal and ethical frameworks to bridge the emerging AI divide in society through AI training and promotion. These frameworks would create user awareness and knowledge about AI technologies while ensuring fair and equitable access to them across society.

A Responsible AI framework (Besinger et al., 2024) ensures that developers, businesses, employees, and customers understand their roles within the AI ecosystem and their liabilities for any potential harm caused. Akramov and Valiev (2024) identified an AI implementation framework as a proxy for an AI accountability framework. According to them, an AI implementation framework ensures moral accountability by all stakeholders in business during every phase of AI development, deployment, use, and retirement.

There is evidence to suggest that the governments of some countries have made considerable efforts to ensure AI harm accountability through policy frameworks such as the EU AI Act (2024) and the OECD AI Principles (OECD, 2025). While these acts provide some regulatory guidance for businesses, they do not explicitly address AI harm accountability. It is therefore imperative that future research focuses on developing a dynamic AI accountability framework for businesses.

### 3.3 Current Thematic Underpinning of AI Harm and Accountability

To understand the thematic issues addressed in the current literature on AI harm accountability, a co-occurrence clustering analysis was conducted. The analysis revealed that, between 2012 and 2024, AI accountability has been most closely associated with transparency and machine learning. A cluster analysis of the 38 articles, based on search terms in the titles, abstracts, and keywords, identified five clusters (Figure 3). These clusters represent the dominant and sub-themes explored in the current literature on AI harm and accountability in businesses. The key clusters are AI transparency, AI accountability, AI decision-making, AI ethics, and AI risk.

Cluster 1 (red - bottom right) is dominated by AI transparency. This cluster highlights the importance of a comprehensive understanding of AI transparency through a top-down approach, starting with general IT governance, AI governance, and AI systems governance, down to the governance of generative AI. Furthermore, the debate on AI transparency





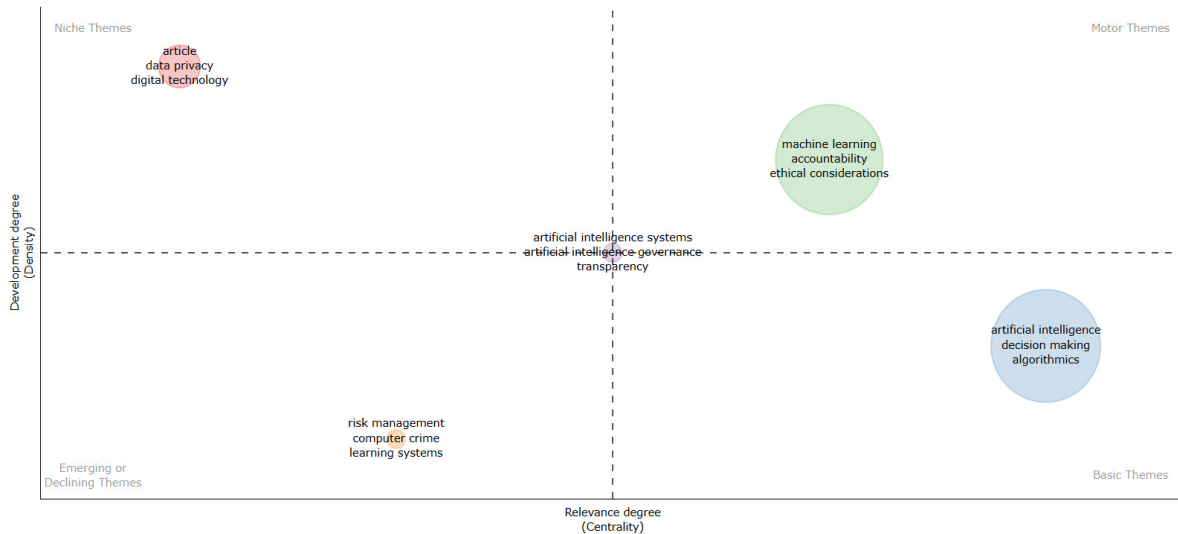


Figure 4: Thematic Map of studies on AI harm and accountability in business.

negative impact of AI on human cognitive and thinking skills, knowledge creation, and competencies. The study also underscores the ethical challenges of AI innovations, including AI-driven computer crimes and algorithmic biases, which have significant consequences, such as racial discrimination through biased facial recognition in crime detection. Human rights activists have raised fundamental concerns about the development, deployment, and use of AI.

In business, AI harm is evident in monopolistic practices, where financially endowed companies exploit AI to the detriment of less-resourced competitors, thereby creating an AI divide within business ecosystems (Abercrombie et al., 2024). This situation is deemed unethical as it exacerbates inequalities in competitive advantage. AI ethics is recognised as a cornerstone of AI governance in business and a critical consideration in fostering accountability, ensuring responsible and transparent AI use, and promoting fair access to AI systems for business operations (Singh, 2024)

The mid-bottom cluster is identified as AI risk management. The harm caused by the development and use of AI by businesses poses significant risks to stakeholders within the business ecosystem, including investors, developers, employees, consumers, and regulators. The current debate on managing and assigning accountability for AI harm in businesses acknowledges the need to extend AI risk management across the entire lifecycle of an AI system, service, or product. This necessitates the development of a comprehensive AI risk assessment protocol that ensures accountability for AI harm,

spanning ideation, development, deployment, use, and disposal of AI systems. Such an assessment must prioritise network security, ensuring that systems supporting AI are secure to guarantee safe, ethical, and responsible AI-enabled operations (Kennedy & Campos, 2024).

### 3.4 Implications and Future Research Directions

The thematic map (Figure 3) presents the current status and future directions of research development within the field of AI harm and accountability in business. The map illustrates the strength (density) of the clusters or their growth, alongside the relevance of publications in this subject area (Cobo et al., 2011; Cahlik, 2000). It was observed that the overall centrality and density of publications on AI harm and accountability in business have predominantly focused on AI systems, AI governance, and transparency (Figure 4). This highlights the interdependencies between broader AI governance and its strong connection to achieving AI system transparency through accountability.

The results indicate that the motor themes of machine learning, accountability, and ethical considerations are well-developed and foundational for driving future research on AI harm accountability in business. The niche theme quadrant highlights current publications on AI harm accountability in business, particularly in the areas of article/document mining, data privacy, and advancements in AI technologies. While these areas may currently seem superficial to understanding AI harm accountability

in business, there is a pressing need for focused future research to establish stronger connections between these themes and machine learning, AI ethics, and accountability.

The basic themes that emerged from the analysis of current publications on AI harm accountability in business include the general debate on artificial intelligence, decision-making, and algorithms. The connection between AI harm accountability in business and these broader issues is crucial for advancing scholarship in the field. Focused research is therefore needed to explore how algorithmic and AI decision-making can be made accountable and how this can enhance accountability for AI harm in business. The emerging/declining theme quadrant underscores the need for dedicated research on AI risk management, with particular attention to AI harm caused by learning systems and computer-mediated crimes.

## 4 CONCLUSIONS

This review paper examined AI harm and accountability in business to understand publication trends on the subject, identify instances of AI harm by businesses, and explore existing AI accountability frameworks. The study also investigated current thematic research areas and future directions for research development within the field of AI harm and accountability in business. The findings revealed a paucity of literature on the subject, suggesting that AI harm accountability may have been an afterthought in response to the rapid development and use of AI-enabled systems by businesses.

The study identified several types of AI harm caused by businesses, including economic and employment displacement, user harm, bias and discrimination, the digital divide, and environmental harm. While no explicit AI harm accountability framework was uncovered, two related policy frameworks - the EU AI Act (2024) and the OECD AI Principles (2025) offer some regulatory guidance for businesses. Additionally, the current AI harm accountability framework is informed by six cognate frameworks: data governance, decision-making, ethical, legal, responsible AI, and AI implementation frameworks.

The study highlights the need for future research to address the lack of a robust and explicit AI accountability framework for businesses. Five thematic areas were identified - AI transparency, AI accountability, AI decision-making, AI ethics, and AI

risk, which form the foundation of research on AI harm and accountability in business.

The main limitation of this study is the use of a single data source (Scopus) for the literature search. Although Scopus is considered the largest academic electronic database globally, relying on a single data source may have excluded relevant articles indexed in other databases, thereby limiting the number of documents identified. Future studies could address this limitation by extending the data sources to include platforms such as Web of Science, EBSCOhost, and Business Source Complete to ensure more comprehensive coverage.

The relatively small number of articles identified on AI harm accountability highlights a gap in the literature. Future research could expand and diversify the search terms, screening criteria, and inclusion/exclusion criteria to broaden the scope of search outputs. Additionally, incorporating categorisation and deeper analysis could enhance the novelty and depth of future studies on the subject.

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