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Optimizing Business Processes through Big Data Collaboration and Accounting Information Systems for Strategic Decision-Making

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Abstract

This study analyzes the role of collaboration between Big Data and Accounting Information Systems (AIS) in optimizing strategic decision-making in the financing sector. A case study was conducted at PT. Adira Dinamika Multifinance Tbk, which has integrated Big Data to improve operational efficiency, risk mitigation, and support data-driven decision-making. Using a qualitative approach, data were collected through in-depth interviews and analysis of company documents. The results show that the integration of Big Data and AIS enables the company to obtain more detailed, real-time information, thereby accelerating and optimizing decision-making processes. However, the company faces challenges in integrating structured and unstructured data, as well as system interoperability issues. This study provides both theoretical and practical contributions by suggesting solutions to enhance data processing efficiency and risk management through advanced analytical technologies. The implications of this study are that companies can become more adaptive to dynamic market changes.

Keywords: Big Data, Accounting Information Systems, Decision-Making, Risk Management, Operational Efficiency.

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Introduction

In today's digital era, technological advancements have brought about significant changes in the business world, particularly with the emergence of Big Data(Kidwell & Cainas, 2024). Big Data refers to an immense and complex volume of data that requires advanced analytical techniques to process. Modern companies are starting to leverage Big Data to manage various operational and strategic aspects of their businesses. The use of such large-scale data enables companies to gain deeper insights into market trends, consumer behavior, and even forecast future market conditions. As the volume and speed of data generation increase, the ability to effectively utilize Big Data becomes a key factor in many companies' success in winning the competitive business landscape.

The collaboration between Big Data and Accounting Information Systems (AIS) presents significant opportunities to enhance corporate performance. AIS is a system designed to collect, store, and process accounting data, which can then be used to generate relevant information for managerial decision-making(Anriva, 2024). By integrating Big Data into AIS, companies can obtain more detailed and real-time data, which is highly useful for both financial and non-financial analysis. Companies can monitor transactions more comprehensively and detect patterns that might not be visible when only using traditional accounting data. This allows companies to make faster and more accurate decisions, while also minimizing the risk of errors in decision-making.

The use of Big Data in AIS also opens up new opportunities in risk management(Huerta & Jensen, 2017). Through deep data analysis, companies can better identify potential risks, both financial and operational. By utilizing predictive algorithms, companies can forecast market risks or fluctuations in raw material

prices that may impact production costs. Therefore, the integration of Big Data with AIS enables companies to perform more proactive risk mitigation, thereby increasing competitiveness in an increasingly dynamic market.

In addition to risk management, the integration of Big Data into AIS is also beneficial for resource management within companies(Murthy & Geerts, 2017). By leveraging large data sets, companies can optimize the allocation of resources such as labor, capital, and time. Through productivity analysis based on operational data, management can make strategic decisions regarding workforce placement or more efficient scheduling. This can enhance overall operational efficiency and support the achievement of long-term corporate goals.

However, a major challenge faced by companies in integrating Big Data into AIS is the ability to process such vast and complex data(Hutchison et al., 2018). Many companies still struggle to implement analytical systems capable of efficiently processing large volumes of data. Additionally, issues related to data security and privacy are also significant concerns, given that the data being processed is highly sensitive and valuable to business continuity.

This study highlights the application of Big Data at PT. Adira Dinamika Multifinance Tbk, a leading finance company that has leveraged this technology in its accounting system(Song, 2022). The implementation of Big Data at PT. Adira Dinamika Multifinance Tbk is not only aimed at improving operational efficiency but also at mitigating risks and supporting strategic decision-making. With the large and diverse volume of data, the company can access more detailed and accurate information related to consumer behavior, market trends, and potential risks arising from financial market fluctuations. This helps the company to respond swiftly to changes in market conditions and reduce potential losses.

However, despite the significant benefits that Big Data has brought to PT. Adira Dinamika Multifinance Tbk, the company still faces major challenges in integrating structured and unstructured data(Guo, 2022). Structured data, such as financial records and transaction data, is typically stored in an organized format and can be easily analyzed using accounting information systems. In contrast, unstructured data, such as emails, social media, and customer reviews, tends to be more difficult to process due to its lack of consistent formatting. This challenge compels the company to invest in more advanced analytical technologies and to build expert teams capable of managing and analyzing this data effectively.

Moreover, the integration of structured and unstructured data also presents challenges related to the interoperability of the systems used by PT. Adira Dinamika Multifinance Tbk. Existing systems may not be compatible with one another, making it difficult to consolidate various types of data into a single analytical platform(Alles & Gray, 2016). To overcome this obstacle, the company needs to develop technological solutions capable of unifying various data sources into one integrated system, thus facilitating data analysis and decision-making. Such a solution will not only improve efficiency in data processing but also provide management with more comprehensive insights.

Another challenge faced by PT. Adira Dinamika Multifinance Tbk is how to maximize the potential of Big Data in decision-making. Although the analytical technology used can generate detailed data, challenges often arise in interpreting the results of the analysis(W. Zhang & Zhu, 2022). Data produced by Big Data is generally highly complex, requiring specialized skills for accurate interpretation. The company must ensure that management and decision-making teams possess sufficient analytical skills to understand and interpret the data provided, so that decisions are truly based on valid and relevant evidence.

In addressing these challenges, PT. Adira Dinamika Multifinance Tbk has taken several measures, including providing training for employees and management on the utilization of Big Data in accounting systems(Handoyo, 2024). Additionally, the company has enhanced its technological infrastructure by adopting software and platforms capable of efficiently integrating structured and unstructured data. These efforts are expected to help the company further maximize the potential of Big Data in supporting strategic decision-making, while also strengthening the company's resilience in navigating dynamic market risks.

Previous research indicates that the integration of Big Data in accounting systems has various implications for strategic and operational decision-making, as highlighted by Feng, H. et al. (2024) in their study on container ship port selection using a Big Data analytics approach. This study developed an Automatic Identification System (AIS) that enables ship identification without requiring additional information from commercial databases. The findings reveal that port selection is influenced by factors such as ship size, feeder networks, and port channel depth. The implications of these findings provide insights into how Big Data can be used to support strategic decisions in the transportation and logistics industry, particularly in enhancing port efficiency.

Furthermore, Cheng, C. et al. (2022), in their study on the evaluation of online sales tax nexus, utilized data visualization and robotic process automation to analyze online sales data. The study underscores the importance of data analytics skills in the context of accounting, particularly in understanding the impact of tax law changes on business decisions. By employing technologies like Tableau for data visualization and automation for tax nexus evaluation, this research demonstrates how Big Data integration can simplify complex analyses and assist in decision-making within the accounting sector.

Research by Sugrue, D. et al. (2021) further examines the efficiency of bulk carrier shipments through a Big Data analytics approach. They developed a predictive model for ship capacity based on water surface levels and presented travel time statistics based on historical AIS data. This study contributes to enhancing maritime logistics efficiency by identifying data-driven performance metrics. Through this approach, practitioners can predict and optimize the efficiency of marine transportation systems, contributing to more effective logistics planning and better resource management.

In Indonesia, the study by Anriva, D.H., and Hamidah (2024) explores publication trends in the field of Accounting Information Systems (AIS) using bibliometric analysis. The study highlights that the United States is the largest contributor to AIS research globally, while Indonesia also plays a significant role, especially in addressing increasingly complex business challenges. The research identifies key topics requiring further exploration, including technology acceptance models, artificial intelligence, and the use of information in small and medium-sized enterprises. This opens opportunities for AIS research in Indonesia to contribute more substantially to the global discourse on accounting technology developments.

The study by Huy, P.Q., and Phuc, V.K. (2024) focuses on optimizing Accounting Information Systems in the public sector for sustainable risk management using Big Data analytics. They utilized structural equation modeling to examine the role of forensic accountants' skills in risk management within public sector organizations. The findings show that forensic accountants' skills play a significant role in optimizing accounting systems to support sustainable risk management. This research offers practical implications for organizational management and policymakers in adopting digital initiatives and accounting practices that support sustainable development in the public sector.

Overall, these various studies demonstrate that the integration of Big Data into accounting information systems can offer significant advantages in risk management, resource optimization, and operational efficiency improvements. The studies also emphasize the importance of analytical and technological skills in harnessing the potential of Big Data to support strategic decision-making across different industry sectors.

Although considerable research has been conducted on the application of Big Data in the business sector, several aspects remain unexplored, presenting opportunities for further investigation. First, most previous studies, such as those by Feng, H. et al. (2024) and Sugrue, D. et al. (2021), focus on the transportation and maritime industries in utilizing Big Data to improve operational efficiency. However, in-depth research on the application of Big Data in Accounting Information Systems across other sectors, particularly in non-technology industries like finance or financing, remains relatively limited. This research can fill that gap by focusing on the financing sector at PT. Adira Dinamika Multifinance Tbk.

Second, several previous studies have explored the application of Big Data in Accounting Information Systems (AIS), but few have specifically addressed the challenges of integrating structured and unstructured data into these systems. Studies like Cheng, C. et al. (2022) highlight the importance of data analytics skills, but do not specifically discuss how unstructured data (such as customer reviews and social media data) can be effectively integrated into strategic decision-making. This research can fill the gap by focusing on the integration of different types of data and its impact on the effectiveness of decision-making within companies.

Third, while some studies, such as those by Huy, P.Q. and Phuc, V.K. (2024), discuss the use of Big Data in risk management in the public sector, research on the impact of Big Data on risk management in the financial sector, particularly within financing companies, remains underexplored. This research can address this gap by examining how Big Data can be effectively used to mitigate financial and operational risks in the context of financing companies.

Fourth, most previous studies have focused on short-term analyses of Big Data applications in decision-making. However, there is limited research that explores the long-term impact of using Big Data in strategic decision-making within companies. This research can contribute by examining the long-term effects of Big Data implementation on business strategy, innovation, and company sustainability, particularly in the financing sector.

Fifth, the study by Anriva, D.H. and Hamidah (2024) indicates that Indonesia's contribution to research on Accounting Information Systems is steadily increasing. However, empirical studies on the application of Big Data in AIS within Indonesian companies remain limited. This research can bridge the gap by providing a more in-depth case study on the implementation of Big Data in AIS in Indonesia, specifically in the financing sector, which has received little attention in global literature.

This research is both important and urgent as it addresses a critical gap in the literature regarding the integration of Big Data with Accounting Information Systems (AIS), a topic that is increasingly relevant in today's digital era. Amid rapid technological advancements, many companies still struggle to fully harness the potential of Big Data for strategic decision-making. This study offers a practical approach by highlighting real challenges encountered in the field, such as the integration of structured and unstructured data, and by providing innovative solutions to overcome these barriers. Therefore, this research not only contributes theoretically but also has a direct impact on improving operational efficiency and risk management in companies, making it highly relevant for both academics and practitioners. It also serves as a key reference in global discussions.

Methodology

This research uses a qualitative approach with phenomenological methods to analyze the process of business optimization through the collaboration of Big Data and Accounting Information Systems (AIS) in strategic decision making. This research was conducted at PT Adira Dinamika Multifinance Tbk, a finance company that actively implements the integration of Big Data with AIS in its risk management. This method was chosen because it allows researchers to explore in depth the practices carried out by companies in managing Big Data and information systems to improve the effectiveness of decision making(Berg, 2001).

Subjects and Data Sources

The subjects of this research include the risk managers, financial directors, and information technology teams. Primary data is collected through semi-structured interviews with the Head of the Risk Management Department and the company's Chief Financial Officer. These interviews aim to understand the application of Big Data and AIS within the company's context, particularly in decision-making processes(Johnson, 2014).

Data Collection Techniques

Data is collected through in-depth interviews, which are recorded with the respondents' consent. The interviews are conducted both in person at the company's location and remotely via online platforms. In addition to interviews, secondary data is obtained from the company's internal documents, such as financial reports and analytical documents relevant to the use of Big Data and AIS.

Data Analysis Techniques

The data analysis technique employed is thematic analysis, where the data obtained from interviews and documents is analyzed to uncover key themes related to the collaboration of Big Data and AIS in decision-making. This analysis includes identifying patterns of data usage, challenges faced in integrating Big Data with AIS, and the impact of Big Data implementation on strategic decision-making(Iosifides, 2016). The analysis process involves several stages, including data coding, identifying main themes, and composing narratives relevant to this study.

Data Validity

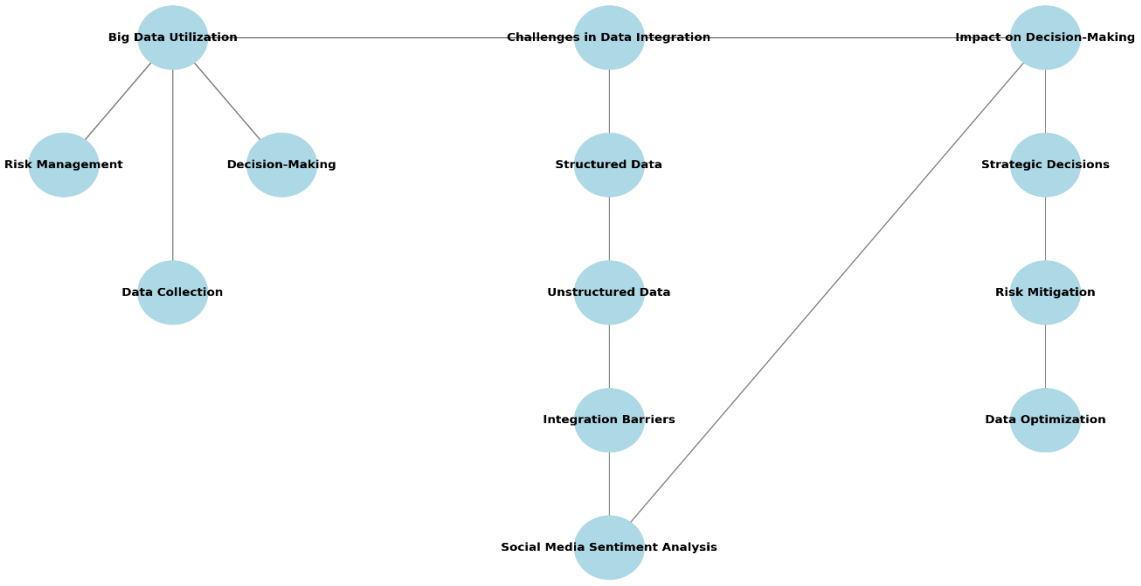
To ensure the validity of the data, this research employs source triangulation, where data from various respondents is compared to find consistency in the answers provided. Additionally, the researcher conducts member checking by confirming preliminary analysis results with the respondents to ensure the accuracy of the interpretations made by the researcher(Leavy, 2014). This process helps to validate the findings and enhances the reliability of the conclusions drawn from the study.

Results

Big Data Utilization for Strategic Decision-Making

From the interviews conducted, it is evident that PT. Adira has been progressively adopting Big Data in its risk management and decision-making processes. As noted by Pramono, the Head of Risk Management, while the concept of Big Data has been recognized since the early 2000s, its implementation became more significant from 2019 onwards. Pramono emphasized the importance of not just collecting large amounts of structured and unstructured data, but ensuring its utility in decision-making. However, challenges remain in maximizing the integration of this data for decision-making, particularly due to difficulties in combining structured data from internal systems with unstructured data from sources like social media (e.g., Twitter sentiment analysis).

Figure 1 Big Data and AIS Collaboration in Strategic Decision-Making



The concept map above illustrates the relationship between Big Data, challenges in data integration, and its impact on strategic decision-making at PT. Adira. At the center of the visual, Big Data Utilization stands

as the central concept, highlighting how PT. Adira employs Big Data in risk management and decision-making processes. Big Data encompasses not only massive data collection but also critical aspects such as risk management and decision optimization. In this context, Pramono, Head of Risk Management at PT. Adira, emphasized that Big Data started playing a key role after 2019 when the company began integrating structured data from internal systems with unstructured data, such as social media sentiment analysis.

The major challenge faced by PT. Adira, as depicted on the right side of the visual, is Challenges in Data Integration. Here, Structured Data from internal sources such as the company's accounting system and Unstructured Data from social media (e.g., Twitter) are difficult to merge. This integration barrier, reflected in the element Integration Barriers, is a primary challenge in fully utilizing Big Data. For example, social media sentiment analysis as a source of unstructured data provides valuable insights into public perception. However, technical and organizational challenges in integrating these two types of data slow down the optimization of decision-making processes.

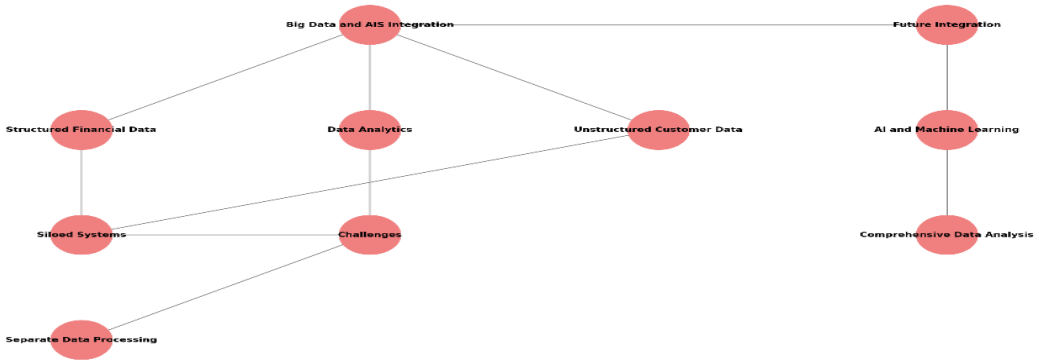
On the right side of the visual, Impact on Decision-Making underscores how successful or failed data integration affects the company's strategic decisions. The implementation of Big Data at PT. Adira influences Strategic Decisions, including those related to risk mitigation and resource optimization. For instance, if Big Data is integrated successfully, it will lead to more informed and data-driven decisions, positively impacting Risk Mitigation and Data Optimization. However, if integration barriers remain, the effectiveness of Big Data in strategic decision-making will be diminished.

These findings demonstrate that while PT. Adira has made significant strides in adopting Big Data, particularly since 2019, the integration challenge between structured and unstructured data remains a major obstacle. The implementation of Big Data, especially in social media sentiment analysis, holds substantial potential to enhance decision-making processes. However, without the ability to merge all available data, the full impact of Big Data has yet to be realized.

Integration of Big Data and AIS

The study also found that PT. Adira has made strides in integrating Big Data with its existing AIS. This integration is particularly prominent in the use of data analytics to inform financial decisions. Sylvanus, the Director of Finance, explained that the company employs tools such as SAP for structured financial data, while leveraging Big Data for more in-depth customer profiling and behavior analysis. Despite this, the company's current systems are still siloed, with financial and customer data being processed separately. This limits the full potential of Big Data in enhancing financial reporting and decision-making. However, Sylvanus believes that future advancements in technology, such as AI and machine learning, will help break down these silos, allowing for more comprehensive data analysis that integrates both structured financial data and unstructured customer data.

Figure 2 Integration of Big Data and AIS at PT. Adira



At the top of the visual, Big Data and AIS Integration functions as a key concept, illustrating how PT. Adira utilizes Structured Financial Data through systems like SAP and Unstructured Customer Data from Big

Data to perform customer behavior analysis. Data Analytics becomes central in driving more informed financial decision-making processes.

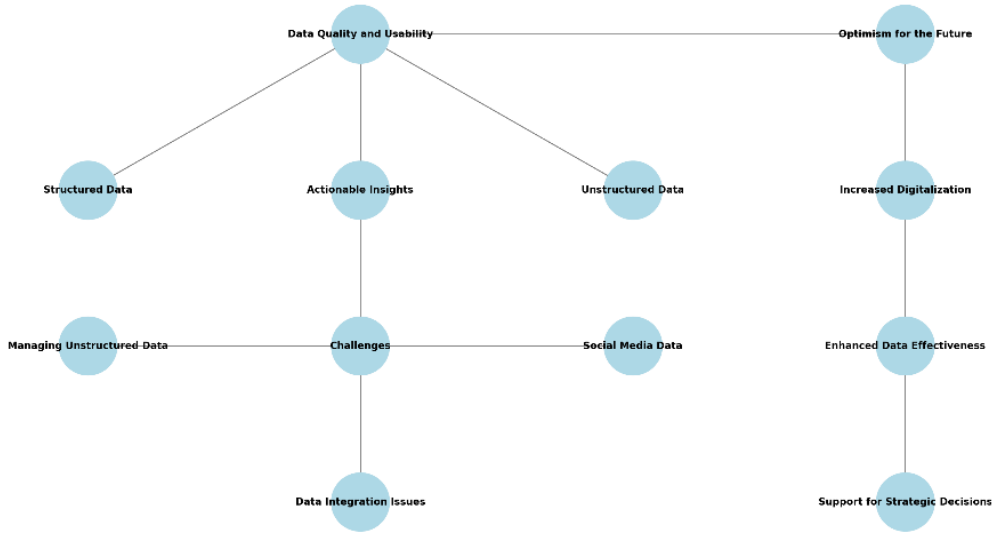
On the left side of the visual, Challenges such as Siloed Systems and Separate Data Processing highlight the current obstacles, where financial data and customer data are processed separately. This separation limits the full potential of Big Data in enriching financial reporting and decision-making processes. The disjointed data flow makes it harder to derive comprehensive insights that could otherwise support a more cohesive strategic direction.

On the right side of the visual, Future Integration conveys the belief that emerging technologies such as AI and Machine Learning will resolve these challenges. These technologies will help break down the silos between structured financial data and unstructured customer data, enabling more comprehensive data analysis and providing deeper insights for strategic decision-making. The integration of these technologies holds promise for more efficient, data-driven decision-making in the future, empowering PT. Adira to make more robust, informed strategic choices.

Challenges in Big Data Implementation

One of the key challenges in implementing Big Data at PT. Adira, as highlighted by Pramono, is ensuring the quality and usability of the data. The company has access to a vast amount of data, including financial transactions, customer demographics, and behavioral data from external sources. However, the challenge lies in effectively combining this data to create actionable insights. Pramono noted that while structured data is relatively easy to manage, unstructured data from sources like social media can be more difficult to analyze and integrate into decision-making processes. Despite this, there is optimism within the company that as digitalization increases, so too will the effectiveness of Big Data in supporting strategic decisions.

Figure 3 Challenges in Ensuring Data Quality and Usability for Big Data at PT. Adira



The visualization above illustrates the challenges of maintaining data quality and usability at PT. Adira in relation to the implementation of Big Data. At the center of the visualization, Data Quality and Usability is the main focus, highlighting how PT. Adira strives to manage both Structured Data and Unstructured Data to generate Actionable Insights that support strategic decision-making. While Structured Data (such as financial transactions) is easier to manage, Unstructured Data (such as social media data) presents greater challenges in terms of handling and analysis.

On the left side, Challenges include difficulties in Managing Unstructured Data, Data Integration Issues, and challenges in analyzing Social Media Data. These obstacles hinder the company's ability to combine different types of data and use them effectively for decision-making processes. The complexity of

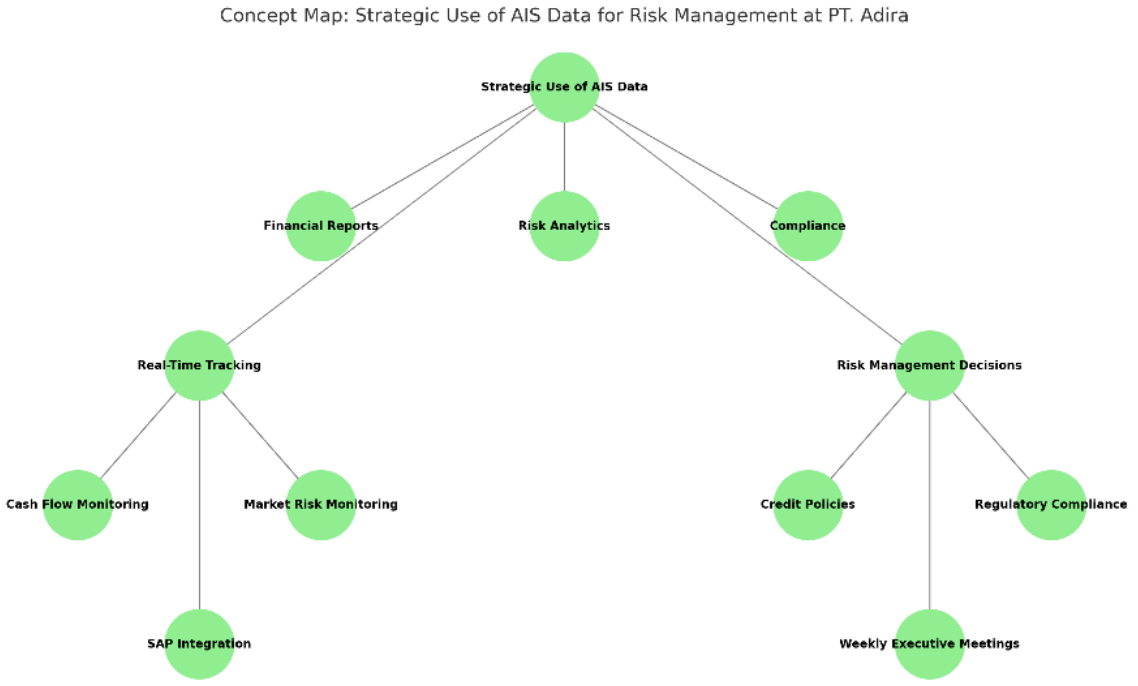
unstructured data, particularly from social media, requires more sophisticated tools and expertise to process and derive meaningful insights.

On the right side of the visualization, Optimism for the Future reflects the company's belief that with Increased Digitalization and advances in technology, the effectiveness of Big Data will improve. The expectation is that these technologies will enhance Data Effectiveness, thereby supporting better Strategic Decisions in the future. The company hopes that ongoing technological progress will resolve current data integration challenges and allow for more comprehensive and impactful decision-making.

Strategic Use of AIS Data for Risk Management

The role of AIS in supporting decision-making, particularly in risk management, was a recurring theme throughout the interviews. Both Pramono and Sylvanus highlighted how data from the AIS, especially financial reports and risk analytics, are crucial for monitoring market and liquidity risks. Pramono explained that tools integrated into the AIS, such as SAP, allow for real-time tracking of key financial indicators like cash flow and market risks. These insights are used to inform decisions regarding credit policies and to ensure compliance with regulatory requirements. Sylvanus added that AIS data is frequently used in weekly executive meetings to assess financial performance and to adjust strategies accordingly

Figure 4 Strategic Use of AIS Data for Risk Management at PT. Adira



The visualization above illustrates the strategic use of data from the Accounting Information System (AIS) for risk management at PT. Adira. At the center, Strategic Use of AIS Data is the main concept, encompassing the utilization of Financial Reports, Risk Analytics, and Compliance. This data is drawn from the AIS to support the management of market and liquidity risks.

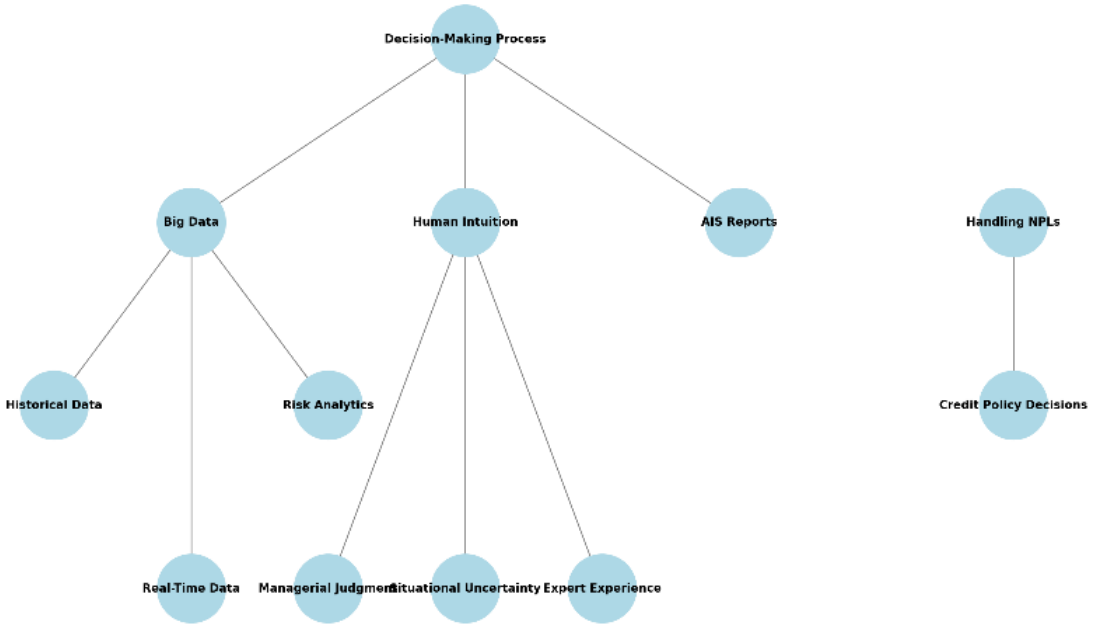
On the left, Real-Time Tracking highlights how PT. Adira monitors Cash Flow and Market Risks in real-time through SAP integration. This monitoring enables the company to respond quickly and accurately to market changes, ensuring timely decision-making and risk mitigation.

On the right, Risk Management Decisions outlines how AIS data is used in formulating Credit Policies, ensuring Regulatory Compliance, and serving as the foundation for discussions in Weekly Executive Meetings. These meetings assess financial performance and adjust corporate strategies continuously, reinforcing the role of AIS data in driving informed and sustainable business decisions.

The Role of Human Intuition in Decision-Making

Interestingly, while Big Data and AIS are integral to PT. Adira's decision-making processes, human intuition remains an important factor, particularly in uncertain situations. As noted by Pramono, historical data can provide valuable insights, but in dynamic environments—such as during the COVID-19 pandemic—decisions must also incorporate managerial judgment and intuition. This was especially evident in the company's handling of non-performing loans (NPLs), where data was combined with expert intuition to make informed decisions about credit policies.

Figure 5 Human Intuition in Decision-Making at PT. Adira



The visualization above illustrates the crucial role of human intuition in decision-making at PT. Adira, complementing Big Data and reports from the Accounting Information System (AIS). While PT. Adira heavily relies on data to support decision-making, particularly through risk analytics and financial reports, managerial intuition remains a vital element, especially in dynamic and uncertain situations.

At the center of the visual, the key concept, Decision-Making Process, connects three essential components: Big Data, AIS Reports, and Human Intuition. Each of these components plays a distinct role in supporting the company's decision-making process. Big Data provides historical data that helps identify past patterns, as well as real-time data that allows the company to monitor market conditions and risks directly. The risk analytics generated from Big Data offer valuable insights to mitigate uncertainty across various business aspects, including credit policy and risk management.

However, while data is instrumental in providing insights, human intuition is still necessary when data alone is insufficient to predict future outcomes, particularly in unprecedented situations, such as during the COVID-19 pandemic. Pramono emphasizes the importance of managerial judgment in these situations. When market conditions change rapidly, judgments based on managerial experience and intuitive understanding of the business environment become crucial. This intuition is also supported by situational uncertainty, where the existing data may not always be fully reliable, requiring managers to use their experience and knowledge to make more careful decisions.

An example of the effective combination of data and intuition can be seen in PT. Adira's handling of Non-Performing Loans (NPLs). In facing increased credit risks, the company did not solely rely on data-driven risk analytics but also utilized managerial intuition to make appropriate credit policy decisions. Data provided insights into risk trends, but managerial intuition helped guide more strategic and prudent decisions in a highly dynamic and unpredictable context.

Discussion

The research findings indicate that one of the main challenges faced by PT. Adira Dinamika Multifinance Tbk is integrating structured data (such as financial data) and unstructured data (such as social media reviews)(Nofel et al., 2024). This gap is relevant to the lack of previous research on how unstructured data can be utilized in strategic decision-making. Successful integration could expand the scope of analysis, providing deeper insights into consumer behavior. Davenport's (2014) theory emphasizes the importance of big data analytics, encompassing various types of data, to support innovation in decision-making.

Furthermore, the findings identify that PT. Adira has successfully used Big Data in financial risk mitigation through AIS(X. Zhang, 2023). This addresses the gap in the literature regarding the use of Big Data for risk mitigation in the financing sector, as noted in Huy and Phuc's (2024) research. The use of predictive data to identify potential market risks can provide significant benefits to the company in anticipating risks, reinforcing Knight's (1921) argument regarding uncertainty and risk in business.

In addition, the research shows that although the integration of Big Data and AIS has been implemented, the existing systems are still siloed or separated(Dai & Vasarhelyi, 2023). However, the potential to use this data more comprehensively could improve the quality of strategic decision-making. This aligns with the view of Brynjolfsson and McAfee (2014), who state that the use of Big Data in decision-making must be accompanied by better technological capabilities to fully harness the potential of the data.

This research also highlights the importance of future technologies such as AI and machine learning in addressing data integration issues at PT. Adira. The existing gap related to technological limitations in processing complex data can be mitigated by the advancement of these technologies(Pham & Vu, 2024). The theory by Russell and Norvig (2021) suggests that AI can enhance big data analysis by facilitating the automatic and faster processing of unstructured data, ultimately improving data-driven decision-making.

The research findings also show that human intuition remains a crucial component in decision-making, especially in uncertain situations such as the COVID-19 pandemic(Huy & Phuc, 2024). This addresses a gap in the literature that focuses on data-driven decision-making while overlooking the role of human intuition. This argument is supported by Simon's (1997) theory of bounded rationality, which asserts that decision-making often involves intuitive factors when the available information is insufficient.

Conclusions

The conclusion of this research demonstrates that the collaboration between Big Data and Accounting Information Systems (AIS) significantly contributes to enhancing the efficiency of strategic decision-making at PT. Adira Dinamika Multifinance Tbk. The findings show that the company effectively utilizes both structured and unstructured data to minimize risks and accelerate the process of mitigating financial and operational risks. However, the research also identifies data integration challenges that could hinder the full utilization of Big Data, particularly in merging data from various sources. These results provide a vital foundation for developing more comprehensive and efficient data-driven business strategies.

Theoretically, these findings enrich the literature on optimizing Big Data within AIS, particularly in the context of financing companies. Practically, the research offers concrete solutions for companies to harness the potential of Big Data for faster and more accurate decision-making. The implementation of more advanced analytical technologies is recommended to overcome data integration barriers, allowing the company to achieve better operational efficiency. The primary limitation of this study is its focus on a single case and the financing sector. Future research is encouraged to broaden the scope across various industry sectors and explore the long-term impact of Big Data use in AIS in other business sectors.

Conflicts of Interest: The authors declare no conflict of interest.

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