

From Chaos to Clarity: Overcoming Reporting Challenges in Mergers and Acquisitions with Scalable Data Solutions

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Abstract: Mergers and Acquisitions are important for organisations sometimes to improve their business efficiency. There are certain scalable data solutions which help to mitigate the risks and challenges in M&A. To prevent delays and reporting inaccuracies, businesses and organisations also consider financial transparency and regulatory compliance. The research also highlights the views of different authors which helps to analyse the research properly. The secondary quantitative and qualitative data collection is used for the research for better analysis. Different case studies are also evaluated to understand through real-world examples.

Keywords: M&A, SAP HANA, Scalable Data Solutions, Financial Reporting, Big-data analytics, AI analytics

I. INTRODUCTION

A. Background to the Study

The research is related to overcoming reporting challenges in mergers and acquisitions with scalable data solutions. The research shows the significant role of “data management” and reporting in the critical process of M&A. Merger and acquisition is one of the most demanding methods these days where two or more companies agree to a merger. This leads to the sharing of data amounts between the companies also sharing their operational and financial reports that must be consolidated towards the process of M&A [1]. Companies or organisations also look at the regulatory compliances and

financial transparency between them to avoid delays and reporting errors.

B. Overview

The merger and acquisition process also consists of some challenges that may reflect the errors of data and different management processes. The format of the two different companies is completely different which creates an inconsistent format. For example, one company uses SAP for business agility and another company uses a different format such as Oracle and this may lead to compatibility issues as well. Many companies still rely on manual data entry and spreadsheets which leads to a risk of mistakes that can be avoided through the help of scalable data solutions [2]. The companies manage these challenges through the help of scalable data solutions by applying cloud-based data platforms.

C. Problem Statement

Reportings are equally complex due to the need to integrate complex financials and operations in mergers and acquisitions. This time combination of the data silos, the format and the manual inefficient processes creates delays, and inaccuracies and exposes your company to a high risk of regulatory compliance. The M&A deal's success is negatively impacted by the fact that there is no unified reporting framework, which also hinders the decision-making process [3]. Volumes of data and their associated complexity are growing traditional reporting systems do not scale because of that.

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D. Objectives

Aim

To evaluate the role of scalable data solutions in overcoming reporting challenges during M&A, decision-making, compliance, and ensuring seamless data integration.

Objective

1. To address significant reporting challenges faced during M&A due to data inconsistencies and fragmentation.
2. To analyse the impact of scalable data solutions on enhancing the accuracy of financial reporting and regulatory compliance in M&A.
3. To address best practices for scalable data solution implementation to streamline reporting and improve decision-making during M&A.

E. Scope and Significance

The scope of this research aims to address M&A reporting challenges with a focus on data solution role, feasibility and chances in the market. Thus, it can help us understand the problem of data fragmentation, product inefficiencies in reporting and regulatory risks. On the other hand, the study puts in also advanced technology such as cloud computing, AI-driven automation, and data warehousing to make better reporting and decision-making accuracy [4]. Research takes real-world examples and the best practices so that business can use their findings to go on to make business decisions, as the financial analyst will evaluate if a business project is viable or not to adopt and start appropriate policies.

II. LITERATURE REVIEW

A. Challenges in data integration and reporting in Mergers and Acquisitions (M&A)

Financial data consolidation is one of the greatest M&A reporting challenges on account of its high risk. According to the author, inconsistencies of risk reporting in Item 1A of 10-K filings are caused by different incentives of merging firms resulting in gaps in transparency and compliance [5]. For instance, due to incompatible accounting standards, operating structure and internal controls, companies going through M&A find Board reconciling very difficult. Such discrepancies enlarge the possibility of misstatements and the requirement for greater auditing efforts and measures of risk mitigation. In addition, the integration of financial data is usually inhibited by legacy systems that may be incompatible with most modern reporting tools leading to delays and errors.



Figure 1: Successful Mergers and Acquisitions in Data Integration
[5]

Integration of such human resource (HR) data constitutes another significant challenge. The authors talk about M&A HR integration challenges and note that most employee data such as payroll, performance data and benefits information are stored in different non-interfacing systems [6]. Fragmentation of workforce management hinders the

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process of unifying workforce management, complying with labour laws and maintaining data privacy standards. Furthermore, no matter how similar the merging firms are culturally, their reports of HR may include differences in workforce planning and the facilitating of retention of talent.

B. Scalable data solution role in improving reporting efficiency during Mergers and Acquisitions (M&A)

In M&A transactions, the author encourages the integration of all technical and other due diligence beyond financial metrics. The author also argues that scalable data solutions like cloud-based data warehouses or automated reporting systems can significantly boost the accuracy as well as the rate of reporting of the financials [7]. Real-time data synchronization to merging entities allows for the elimination of the possibility of disagreements and misstatements in the consolidated financial reports. Besides, the advanced analytics tools go deeper for insight into a company's financial health, operational synergies, and risk assessment, ultimately leading towards well-informed decision-making.

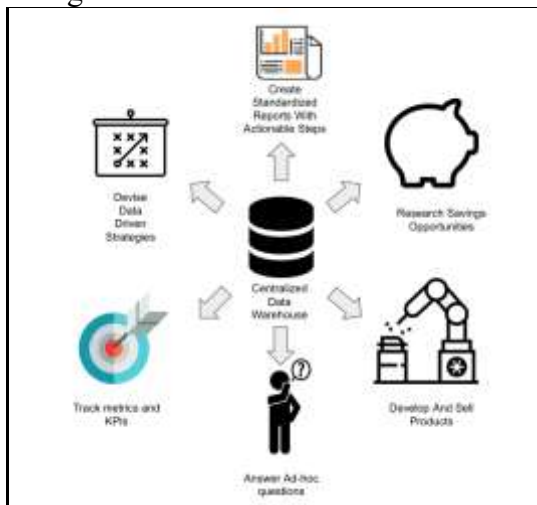


Figure 2: Advantages of a Cloud-Based Data Warehouse
[7]

The scalability of data solutions also covers the aspect of overcoming cultural and organizational disparity that is present after the merger. According to the authors, organizational culture is very crucial in the successful transitions through M&A [8]. Centralized data repositories and standardised reporting framework improve cooperation and openness inside teams that operate aside from each other. Such systems assist in promoting data-driven decision-making and ensuring that all interested stakeholders will have transparent and consistent data to base their decisions on throughout the system integration. Additionally, M&A reporting involves regulatory compliance that represents a major concern and scalable data solutions allow organisations to cope with such compliance requirements. Compliance tracking tools are enabled with AI understanding so firms can operate with fully automated compliance and minimize legal risks. Thus, all these technologies allow for seamless audit trails allowing regulatory bodies to have access to accurate and verifiable data as and when required.

C. Addressing best practices implementing Data-driven strategies in M&A reporting

According to Khowaja *et al* (2020), “strategic planning” in the environment of corporate is based on intuition and experience. Internal data is generally available and this can be one of the most important sources of information. On the other hand, predictive merger and acquisition events are one of the most important strategic management and yet not motivated by data analytics-driven controlling. The study highlights that there are some obstacles also such as the count data time series for M&A seems to be the fact that the intensity of M&A is time-varying at least in some of the business sectors. The study finds that the proposed approach allows a

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selection of adaptive windows in count data sets by detecting important changes in the intensity of events. This can also be generalised through other business lines such as managing sales forecasts and supply chains which can incorporate statistical modeling in strategic planning decisions.

According to Mueller (2019), merger and acquisition is one of the most effective agendas for the companies to develop strategies towards the growing market. Due to a lack of time and resources, it is important to use intelligent solutions for mergers and acquisitions by the companies. M&A is likely to be executed by multinational companies and on the other hand, the numbers are also increased by mid-sized companies as well. The study highlights the importance of Business intelligence in the process of merger and acquisition. The success rate of M&A is increasing by integrating due diligence (DD) in the same way the company controls its organisation by using BI solutions. The BI solution helps companies to make overall decision-making good and also cost-effective as well. The findings of the study are BI solution is an essential resource in context of merger and acquisition of companies.

III. METHODOLOGY

A. Research Design

The research design for this research is explanatory research design which entails exploring something that occurs when limited information is available for the research. The data is collected from accurate sources and this research design is one of the most important factor for this research because this helps analyse the challenges in merger and acquisition with scalable data solutions. Through the help of this research design, can increase the understanding of research more broadly.

B. Data Collection and Analysis

The data collection method for this research is “secondary qualitative and quantitative” data collection. Through the help of qualitative data collection, the information is taken from different sources such as journals, articles, industry reports, and websites. All the data is collected from the accurate and informative sources. On the other hand, quantitative data collection helps to gather different graphs and charts which helps to analyse the topic that is related to the challenges with mergers and acquisitions.

C. Case Studies/Examples

Case Study 1: Microsoft’s Acquisition of LinkedIn

Microsoft acquired LinkedIn in the year 2016 was one of the biggest news that reflected that year. Microsoft acquired \$196 per share in all-cash transactions valued at \$26.2 billion [11]. This acquisition happened due to LinkedIn required seamless integration of finance, operations, and HR in their business operations. Microsoft used the Azure cloud platform and AI analytics to combine the data of both companies which helped to ensure real-time compliances and reporting and also introduced the GDPR compliance to secure the data of both companies. The scalable data solution helps to maintain the integration process of the merger and also helps to decrease reporting errors and enhance the decision-making processes.

Case Study 2: Disney’s Acquisition of 21st Century Fox

One of the biggest mergers of all time was when Disney acquired 21st Century Fox in the year 2019. Disney completed the acquisition in a historic deal valued at \$71.3 billion [12]. To consolidate the data, revenue, digital assets, and operational costs by adopting big-data analytics and AI-powered financial reporting tools. These tools are very

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effective for this merger due to various reasons and also reflect the reporting of this merger as well. This helps to make the reporting accurate, also complies with financial regulations and streamlines the decision-making for their mixed content distribution and revenue forecasting.

Case Study 3: Dell-EMC Merger

The Dell and EMC merger is one of the biggest mergers as two of the big private companies formed an alliance and controlled the tech industry. Dell provides important infrastructure to EMC to enable digital business and transform IT. Dell acquires EMC at \$67 billion which help the company to become the world's largest privately controlled tech company [13]. Dell implemented a scalable data warehousing solution by using SAP HANA to control the reporting and also helps to identify accurate real-time financial consolidation and compliance with regulation of SEC regulations. This allows for to enhance the post-merger operational efficiency and automated financial reporting.

Figure 3 shows the largest cross-border merger and acquisition transaction worldwide. The acquisition of Mannesmann AG by Vodafone Air Touch PLC in the year 1999 was the biggest M&A. The transaction was valued at US\$202.8 billion. On the other hand, Anheuser-Busch InBev and SABMiller PLC are ranked second and the transaction is valued at US\$101.2 [14]. This M&A shows the transaction value which makes the M&A more efficient.

IV. RESULTS

A. Data presentation

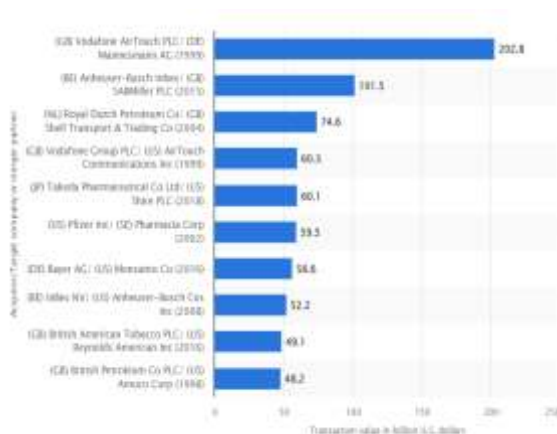


Figure 3: Largest cross-border M&A transactions worldwide [14]



Figure 4: Number & Value of M&A Worldwide [15]

Figure 4 highlights the number and value of mergers and acquisitions in the Middle East and North Africa. In the year 2021 has the highest number of M&A in last 34 years and with valued at 966 dollars. On the other hand, the year 2020 also has a good number of M&A and the total number of mergers was 2047 and valued at US\$594 dollars [15].

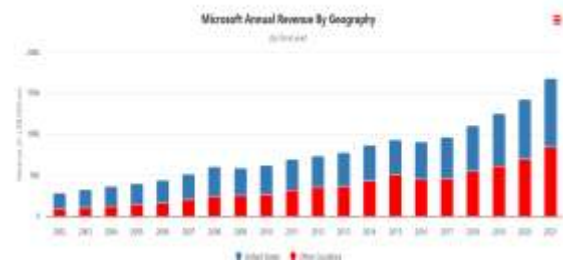


Figure 5: Post-Merger Revenue of Microsoft with LinkedIn [16]

After Microsoft acquired LinkedIn in year 2016, the revenue of the company continuously increased. In the year 2016, the revenue of the company was US\$46 million

and the next year in 2017, the revenue rose to US\$51 million [16]. This shows the growth in the company after acquiring LinkedIn in the year 2016. This shows the importance of M&A which helps the company to increase their revenue as well.

B. Findings

The findings from the graphs and charts show that mergers and acquisitions are important for companies to process their business operations through different factors. Sometimes mergers also help the companies to mitigate the challenges in business operations. The acquisition of Mannesmann AG by Vodafone Air Touch PLC in the year 1999 was the biggest M&A to date and valued at US\$202.8 billion. The number of M&A also increases day-by-day and in the year 2021 has the highest number of M&A and the number is about 2500 and valued at US\$966 dollars.

C. Case Study Outcomes

<i>Case Study</i>	<i>Key Findings</i>	<i>Relevance</i>
Case Study 1: Microsoft's Acquisition of LinkedIn	<ol style="list-style-type: none"> 1. Azure cloud platform and AI analytics. 2. Ensured real-time compliance and GDPR security [11]. 	The importance of real-time compliance and regulatory alignment
Case Study 2: Disney's Acquisition	<ol style="list-style-type: none"> 1. Big-data analytics and AI-powered 	Emphasizes AI and big data's role in

ion of 21st Century Fox	<ol style="list-style-type: none"> 2. Ensured compliance with financial regulations. 	financial reporting [12].
Case Study 3: Dell-EMC Merger	<ol style="list-style-type: none"> 1. SAP HANA for scalable data warehousing 2. Improved operational efficiency and automated financial reporting [13]. 	Highlights the importance of regulatory compliance in financial integration.

Table 1: Case Study Outcomes

(Source: Self-developed)

Table 1 highlights the outcomes of case studies that are taken for this research. Microsoft's Acquisition of LinkedIn involves the Azure cloud platform and AI analytics to ensure business operations. On the other hand, Disney's acquisition of Fox ensured the AI-powered financial reporting tool to enhance further business operations. SAP HANA is also used by Dell after the merger with EMC to enhance operational efficiency.

D. Comparative Analysis

<i>Author</i>	<i>Focus Area</i>	<i>Key Findings</i>	<i>Limitations</i>
[5]	Challenges in	Inconsistent risk	Requires high

	financial data consolidation	reporting due to different accounting standards and internal controls.	auditing efforts to mitigate reporting discrepancies
[6]	HR data integration challenges in M&A	Employee data is stored in fragmented and non-interfacing systems	Lack of system compatibility leads to delays in HR integration
[7]	Scalable data solutions like cloud-based warehouses	Cloud-based data warehouses and automated reporting	Implementation of scalable solutions requires significant investment and technical expertise
[8]	The role of organizational culture and centralized data	Cultural differences affect post-merger integration and decision-making	Organizational culture shifts take time and require strong leadership

			ip
[9]	The role of strategic planning and predictive analytics in M&A decision-making.	Adaptive data windows can improve M&A forecasting which helps to improve sales and supply chain management.	Challenges in predictive analytics due to time-varying M&A intensity
[10]	The importance of Business Intelligence (BI) solutions	Integrating due diligence (DD) with BI improves the overall success rate of mergers.	Dependence on data availability and quality affects BI effectiveness in M&A.

Table 2: Comparative Analysis
(Source: Self-developed)

Table 2 highlights the comparative analysis from different authors where focus areas, key findings, and limitation is mentioned. Some of the author focuses on the Challenges in financial data consolidation. On the other hand, some author also discusses the limitations such as Requiring high auditing efforts to mitigate reporting discrepancies. The importance of Business Intelligence (BI) solutions is also the focus area where the reliability of BI is also important after the merger.

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V. DISCUSSION

A. Interpretation of Results

Overcoming reporting challenges in M&A with scalable data solutions shows the important role of different data management and reporting in the significant process. Two or more two companies combine to mitigate the issues and enhance business performance through the help of different scalable solutions such as SAP HANA, ERP Platforms, and many more. Different authors also overview their opinions through the help of different articles which involve the challenges of data integration and reporting in M&A. Some of the solution tools such as BI help to enhance the M&A process as well [10]. The help of different data related to M&A also helps to know the importance of M&A.

B. Practical Implications

Implementation of scalable data solutions in mergers and acquisitions has changed the game for businesses and also acquired different benefits as well. This helps to enhance the data integration and consolidation and this helps to enable seamless merging of financial and operational efficiency of businesses. This implementation also helps in making quick decision-making and strategic planning for the businesses through the help of predictive analysis. For example, Microsoft involves the Azure cloud platform and AI analytics to improve the business efficiency after the merger with LinkedIn [11].

C. Challenges and Limitations

Due to limited informative sources related to research, a lack of information and data exist in this research which may become a challenge for the secondary data collection. The fact that all of the information and data

came from journals may have an impact on future studies because data might change with time and omit viewpoints, making it difficult to comprehend how others perceive things [17]. Another challenge for this research is the reliability of data from publicly available reports that may manipulate data to improve corporate images as well.

D. Recommendations

Some of the recommendations that need to improve the research have been mentioned in this section. The study should evaluate the real-time data analytics and AI-driven financial reporting which help to enhance the integration of post-merger. The research should be more appropriate in analysing the automation in financial reporting which helps to decrease human errors [18]. The data collection should be more appropriate and collected from accurate sources. The research should also focus on the BI tools to enhance the process of decision-making after the merger.

VI. CONCLUSION AND FUTURE WORK

Merger and Acquisition has different factors and sometimes this process helps the companies to enhance their business operations and also enhance their revenues as well. The help of scalable data solutions, such as SAP HANA, ERP, and data analytics are very useful in enhancing the operations of businesses. Different authors also discuss the challenges in data integration and reporting in M&A. Through the help of case studies, the importance of mergers is also highlighted and companies use different factors for solutions such as Azure cloud platform and AI analytics to process the post-merger analysis.

Future work should evaluate the predictive analysis which will derived from AI and also

secure the financial reporting and evaluate properly the data integration in merger and acquisition. The use of BI tools will also help to improve business efficiency and decision-making. The real-world examples will provide advanced implementation.

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