

The Impact of Cloud Computing on Achieving the Quality of Financial Reports. A Case Study of Egypt Bank

KHALDAH ABDALLAH MOHAMMED ESAWI^{1,2}, LAMIA S. SHEHAB^{3,4},
ZAKIA SEID BENZERROUK¹

¹Department of Accounting,
College of Business,
Jouf University,
KINGDOM OF SAUDI ARABIA

²College of Administration Science,
Umdurman Islamic University,
SUDAN

³Department of Accounting,
Giza High Institute for Administrative Sciences,
Tamouh, Giza,
EGYPT

⁴College of Business,
Jouf University,
KINGDOM OF SAUDI ARABIA

Abstract: - This study aimed to determine the effect of using cloud computing on the quality of financial reports in the banking sector, specifically Banque Misr in Egypt. The focus was on examining the relationship between the characteristics of cloud computing and financial reporting quality. A quantitative approach was adopted using a questionnaire distributed to 96 employees of Banque Misr. The questionnaire measured perceptions regarding cloud computing characteristics and financial reporting quality. Statistical analysis included reliability analysis, correlation analysis, and hypothesis testing using regression. The findings showed cloud computing characteristics positively influence financial reporting quality, accounting for 49.7% of the variance. Specifically, measured service and broad network access had the strongest positive impacts. All cloud computing attributes were significantly correlated with a comparability of financial reports. The adoption of cloud computing improves the quality of financial reports in banks through enhanced automation, analytics, collaboration, security, and resilience. Cloud platforms enable more accurate, transparent, and timely financial reporting.

Key-Words: - Cloud computing, On-demand self-service, Broad network access, Resource pooling, Rapid elasticity, measured service, financial reporting, quality, banking, Banque Misr.

Received: March 19, 2024. Revised: August 23, 2024. Accepted: September 17, 2024. Available online: October 18, 2024.

1 Introduction

Cloud computing has emerged rapidly as a transformative technology with extensive implications across various industries and business domains. By granting on-demand access to highly scalable and resilient computing infrastructure and services, cloud platforms have revolutionized the way organizations manage operations and process data. The migration of workloads to the cloud

presents notable prospects to boost efficiency, flexibility, and cost-effectiveness, [1].

The use of cloud computing by businesses has impacted the financial sector. Banks and other financial companies feel growing pressure to make their work more efficient, learn from large data sets, and offer services in a more adaptable way, [2]. Cloud computing offers useful solutions for companies, such as cloud-based accounting software, financial reporting systems, and data

analytics programs, which enables them to use the most up-to-date technical abilities without large initial costs. Cloud services allow for flexible adjustment as computational or data storage necessities adapt over the long term, [3], [4].

Keeping stakeholders and regulators informed with reliable financial information is important for building confidence. Usually, putting together financial reports can take a lot of time and manual work which leaves room for mistakes. This means it can take a while to get a clear picture of the numbers, [5]. Cloud computing may help speed things up and make the process less error-prone.

Moving parts of the reporting process online could help streamline how data is collected and organized. It facilitates continuously integrating information in real time from different sources. Reports are then accessible at anytime from anywhere, [4], [6]. This streamlines and speeds up the reporting process.

Cloud computing has been adopted by many different types of industries. Researchers have looked at how popular cloud services have become overall. However, we need a deeper study of how cloud computing specifically affects financial reporting. Existing studies offer useful conceptual frameworks but lack empirical validation, [7]. Additionally, limited work has focused on the banking sector, where reliable financial data serves critical purposes.

This study aims to address these gaps by conducting a comprehensive investigation into the impact of cloud computing on the quality of financial reporting within a major Egyptian bank, Banque Misr. Both quantitative survey data and qualitative insights are utilized to explore how specific characteristics of cloud computing relate to improved reporting attributes. The findings provide practical guidance for financial institutions pursuing cloud modernization initiatives.

By focusing on a specific case study, this research aims to provide rigorous empirical evidence on the role of cloud computing in transforming financial reporting processes and outputs within the important banking domain.

This study aims to improve modern financial reports, especially those related to cloud computing technology. It wants to show the benefits of using this type of reporting in accounting and how banks can enhance their financial reports. This demonstration focuses on Banque Misr, a major bank in Egypt.

Located in Cairo, Banque Misr has a long history of supporting Egypt's economy. Founded in 1920, it was the country's first original bank. Over time,

Banque Misr has played a key role in developing Egypt's economy and meeting the financial needs of individuals, businesses, and government.

As one of Egypt's largest and oldest banks, Banque Misr offers a wide variety of banking services and products tailored to different types of customers like individuals, companies, and institutions.

Cloud computing is now an important technology for many industries, including banking. When banks use cloud computing, it can save them money and give them more computing power with better access to information, [2]. However, security, privacy, legal issues, agreements, and regulations still need solutions.

Researchers have suggested frameworks, approaches, models, and strategies to help banks deal with these challenges when adopting cloud technology. For example, one analysis identified 14 frameworks from 14 countries, [7].

Another study modified frameworks like TOGAF and ECAS to create a Cloud Computing Adoption Framework for retail banks in Bahrain.

Additionally, one looked at factors impacting Saudi Arabian banks' views on implementing cloud computing. Results revealed that while benefits and competitive pressure have a large positive impact on the Saudi banking sector's attitude toward embracing cloud computing, security and privacy considerations have a considerable negative impact. To solve the security, privacy, legal, compliance, and regulatory challenges related to banks adopting cloud computing, a conceptual cloud computing security architecture has been suggested, [8].

Many businesses have made their applications accessible online due to the growing popularity of cloud computing, which has given Internet users access to more sophisticated features while saving money and opening up information services to a wider range of users. Without the need for a personal computer as a storage or processing tool or as a prerequisite for a personal computer, users and organizations can store, process, communicate, and share information from any browser or operating system at any time, [9].

By cutting back on their purchases of electronic gadgets and the expense of processing them, this change has set apart business owners. According to [10] by using a cloud computing service, the organization can, for instance, reduce its use of paper, confusion, and expenditures for systems that must be downloaded and updated on occasion. In many cases, the organization may not even need to use these systems for many of its tasks. It is important to note that cloud computing is

appropriate for non-accountants in organizations and owners of small, medium, and medium-sized firms to simplify the process of classifying and classifying financial data in an easy, organized, and easy-to-retrieve manner, [11].

The quality of financial reports in banks is crucial for stakeholders, including investors, regulators, and the general public, as it provides accurate and reliable information about a bank's financial position and performance. Here, we discuss the importance of financial reporting quality in banks and provide references to support our discussion. Financial reports serve as a primary source of information for decision-making and assessing the financial health of banks. Accurate and transparent financial reporting guarantees that stakeholders possess a lucid comprehension of the assets, liabilities, income, and expenses of a bank, thereby empowering them to make well-informed judgments, [12].

Numerous investigations have delved into the determinants that impact the caliber of financial reports in banks. [13], examined annual reviews conducted by UK banks and accentuated the import of transparency and unambiguous communication in financial reporting. They emphasized the importance of providing full and precise information to people interested in the bank's performance.

After the 2008 financial crisis, there was increased focus on improving transparency and accountability in bank financial reporting. [12], study examined how the crisis impacted disclosure standards and found banks needed stronger guidelines to rebuild trust. The research emphasized updating policies to provide clear information to the public.

Board oversight alone does not guarantee accurate bank financial statements. A meta-analysis found no link between audit committee traits and reporting quality. Committees work best with independent members having accounting expertise. This ensures reliable practices for shareholders, [14].

Financial report reliability also depends on audit thoroughness. [15], the study looked at earnings manipulation versus audit quality in European banks. It found banks with rigorous audits were less likely to adjust numbers. Thorough inspection methods are important for stakeholders to trust the financial picture presented.

Cloud computing offers several potential benefits for improving financial reporting in organizations. A study, [6], found that cloud platforms can simplify the secure processing and storage of sensitive financial data like statements and reports.

Companies can enhance their cost structure and return through cloud technology, [16].

In banking specifically, the cloud enhances IT effectiveness, collaboration, and speed to market, [4]. This allows banks to strengthen operations related to financial services. Cloud computing also enables the banking sector to securely manage financial data and drive performance, [3].

Advances in cloud-based reporting systems provide an ability to automate cash reconciliation integrated with accounting software. This reduces the manual work for auditors by matching financial records. Computer programs now offer demanding data analysis and automation capabilities, [4]. These reinforce financial reporting through streamlined workloads and insights from large datasets.

Overall, financial reports from banks need to be reliable so different groups can understand the true financial situation. This allows everyone from customers to regulators to make informed decisions. Precise reports also show banks are being clear about their money flows and balances. Over time, such transparency builds faith in banks managing funds responsibly. The studies provided context on why high-quality financial reporting matters greatly for the banking industry. They examined what can affect the accuracy of reports, like certain reporting practices.

2 Problem Formulation

The accuracy of financial reports is crucial for banks since stakeholders rely on them to understand the institution's financial health and success. In the past, putting together these reports was quite labor-intensive and time-consuming. Staff had to compile data from various departments and locations by hand which risked mistakes. Nowadays, cloud technology allows banks to organize their financial operations and reporting much more efficiently. Information from across the bank comes together digitally in one place. This helps reduce errors and saves time compared to the outdated manual methods.

While cloud computing provides clear benefits, its effect on improving the quality of financial reporting specifically for banks is still being understood. More evidence is needed on how implementing cloud systems impacts areas like the accuracy and transparency of reports that shareholders, investors, and regulators depend on. As cloud adoption spreads throughout the industry, collecting data on its impact will help banking leaders and regulators determine best practices for

leveraging these new technologies while maintaining high reporting standards.

Banque Misr, a major bank in Egypt, recently transitioned some of its financial reporting functions to the cloud. However, it is unclear whether and how this shift has influenced the quality of Banque Misr's financial reports. Assessing the effect of cloud computing characteristics on specific dimensions of financial reporting quality, such as accuracy, timeliness, and comparability, could provide valuable insights.

Therefore, the main problem that this research aims to address is:

What is the impact of cloud computing on the quality of financial reports at Banque Misr?

The specific objectives of the study are:

1. To examine the relationship between characteristics of cloud computing (independent variables) and dimensions of financial reporting quality (dependent variable) at Banque Misr.
2. To determine which cloud computing characteristics, if any, have the strongest influence on enhancing financial reporting quality.
3. To provide recommendations to Banque Misr on leveraging cloud computing to further optimize financial reporting processes and quality.

This research addresses an important knowledge gap by investigating the effect of cloud adoption on actual financial reporting practices in the banking industry. The findings can guide cloud migration strategies and inform standard settings to ensure high-quality financial disclosures.

The current research employed the works of [17], as well as [10], to establish a connection among variables, utilizing the model depicted in Figure 1. This method was adopted to effectively address the variables under scrutiny in the present study.

Independent variables	Dependent variables
Characteristic cloud computing <ul style="list-style-type: none"> • On-demand self-service • Broad network access • Resource pooling • Measured service 	Quality of financial reports <ul style="list-style-type: none"> • Understandability • Comparability • Relevance • Reliability

Fig. 1: Study Model

Source: [10], [17]

From the above model, the researcher was able to develop the following set of hypotheses:

Main Hypothesis:

H: Characteristics of Cloud Computing positively influence the quality of financial reports within Banque Misr in Egypt.

Sub-Hypotheses:

H1: Having on-demand access to resources improves the quality of financial reports at Banque Misr in Egypt.

H2: Wide network access improves the quality of financial reports at Banque Misr in Egypt.

H3: Sharing resources improves the quality of financial reports at Banque Misr in Egypt.

H4: Quickly adjusting resources improves the quality of financial reports at Banque Misr in Egypt.

H5: Tracking resource use improves the quality of financial reports at Banque Misr in Egypt.

3 Problem Solution

3.1 Methods

To accomplish the objective of the study, a quantitative approach was adopted, employing a questionnaire as the research instrument. The questionnaire was administered to Banque Misr in Egypt, and it was structured using a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The questionnaire encompassed two main sections: the first section collected demographic information from the participants, while the second section consisted of statements about the dependent and independent variables under investigation. The target population for this study comprised the employees of Banque Misr in Egypt.

To ensure the reliability of the instrument, the Cronbach's alpha test was utilized, as recommended by [18]. The obtained alpha coefficient was deemed satisfactory, surpassing the acceptable threshold of 0.60, thereby indicating a good level of instrument dependability.

3.2 Questionnaire Analysis and Hypotheses Testing

Respondents were shown to have a positive outlook on research findings based on their scores on a scale of 3.00, which is statistically significant evidence. It was found that "Cloud options cannot change the content of financial reports unless the user does so" got a mean of 3.46/5.00, while the least positively replied phrases proved to be "The cloud can contain all data, no matter how large" scoring 3.55/5.00.

The analysis of the hypotheses suggests that the characteristics of cloud computing have a significant positive influence on the quality of financial reports within Banque Misr in Egypt.

The overall multiple regression analysis indicates a strong positive correlation (R) of 0.705 between the characteristics of cloud computing and the quality of financial reports. Furthermore, the independent variables account for 49.7% of the variance in the quality of financial reports, indicating a substantial impact.

Breaking down the sub-hypotheses, it is evident that each specific characteristic of cloud computing has a positive influence on the quality of financial reports.

H1: Having on-demand access to resources improves the quality of financial reports at Banque Misr in Egypt.

The analysis shows a medium positive connection ($R=0.484$) between on-demand access and report quality. Being able to use resources when needed explains 23.4% of the differences in report quality, which means that on-demand access can significantly enhance the quality of reports.

H2: Wide network access can improve financial reports quality at Banque Misr in Egypt.

Through the results, we can see a medium positive connection ($R=0.484$) between the wide network access variable and report quality variable, as the broad network can explain 23.4% of the differences in the quality of the report. This supports the idea that a wide network helps report quality.

H3: Sharing resources improves the quality of financial reports at Banque Misr in Egypt.

The analysis shows a medium positive connection ($R=0.484$) between sharing resources (resource pooling) and report accuracy. Sharing resources explains 23.4% of the differences in report quality.

H4: Quickly adjusting resources improves the quality of financial reports at Banque Misr in Egypt.

The analysis demonstrates a medium positive connection ($R=0.484$) between being able to rapidly adjust resources (elasticity) and report quality. Quick adjustment explains 23.4% of the differences in report quality.

H5: Tracking resource use improves the quality of financial reports at Banque Misr in Egypt.

The analysis of linear regression shows a medium positive correlation (R) of 0.484, indicating that having a measured service approach positively impacts the accuracy of financial reporting.

We can conclude that the analysis supports the hypotheses and suggests that the characteristics of cloud computing, including on-demand self-service,

broad network access, resource pooling, rapid elasticity, and measured service, have a positive influence on the quality of financial reports within Banque Misr in Egypt.

Table 1. Correlation Analysis of Study Variables

Variables		Understandability	Comparability	Relevance	Reliability
On-demand self-service	Pearson Correlation	.390**	.543**	.103	.352**
	Sig. (2-tailed)		.000	.122	.000
	N	320	320	320	320
Broad network access	Pearson Correlation	.543**	.1	.371**	.430**
	Sig. (2-tailed)	.000		.000	.000
	N	320	320	320	320
Resource pooling	Pearson Correlation	.103	.371**	.1	.527**
	Sig. (2-tailed)	.122	.000		.000
	N	320	320	320	320
Rapid elasticity	Pearson Correlation	.585**	.510**	.422**	.558**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	320	320	320	320
Measured Service	Pearson Correlation	.422**	.430**	.527**	.1
	Sig. (2-tailed)	.000	.000	.000	
	N	320	320	320	320

** Correlation is significant at the 0.01 level (2-tailed)

Source: Conducted by researchers from the results of the SPSS analysis

Based on the correlation analysis presented in Table 1, several key findings can be drawn regarding the relationship between the study variables.

Firstly, the correlation analysis reveals significant positive correlations between the variables. On-demand self-service shows a moderate positive correlation with Understandability ($r = 0.390$, $p < 0.01$), Comparability ($r = 0.543$, $p < 0.01$), and Reliability ($r = 0.352$, $p < 0.01$). Broad network access also exhibits moderate positive correlations with Understandability ($r = 0.543$, $p < 0.01$), Comparability ($r = 0.371$, $p < 0.01$), and Relevance ($r = 0.430$, $p < 0.01$). Resource pooling demonstrates a weak positive correlation with Reliability ($r = 0.527$, $p < 0.01$). Rapid elasticity shows strong positive correlations with Understandability ($r = 0.585$, $p < 0.01$), Comparability ($r = 0.510$, $p < 0.01$), Relevance ($r = 0.422$, $p < 0.01$), and Reliability ($r = 0.558$, $p < 0.01$). Lastly, Measured Service exhibits moderate positive correlations with Understandability ($r = 0.422$, $p < 0.01$), Comparability ($r = 0.430$, $p < 0.01$), and Relevance ($r = 0.527$, $p < 0.01$).

These findings suggest that within the context of the study, the characteristics of cloud computing, such as on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service, are positively correlated with the quality attributes of financial reports, including Understandability, Comparability, Relevance, and Reliability.

The data shows strong connections between cloud computing traits and financial report quality. As cloud characteristics rise, the features of reports tend to get better. This backs the idea that cloud traits have a positive effect on report quality at Banque Misr, an Egyptian bank.

The findings offer useful insights for Banque Misr and others in Egypt weighing cloud adoption. By utilizing the cloud aspects identified, companies may boost report quality. Higher-quality reports can improve decision-making and stakeholder trust. Having financial information that is flexible and can easily be updated gives businesses some clear benefits. It allows them to create clearer and timelier financial reports. This data being more up-to-date supports better informed decision-making. It also increases confidence in understanding where a company stands financially at any given time.

3.3 Discussion

We looked at how cloud computing could enhance the quality of financial reports at Banque Misr, a major Egyptian bank. They distributed a survey to employees to gather information on current cloud computing use for financial reporting. A total of 96 complete surveys were collected and analyzed using SPSS software.

The results showed respondents had a good understanding of how accounting uses cloud computing. Feedback on the survey questions was also positive. The findings indicated cloud computing significantly impacts Banque Misr's financial report quality, accounting for 49.7% of factors. Cloud computing services had the highest effect, explaining 43.5% of quality improvements. Broad network access via the cloud was also influential, making up 32.4% of factors.

In general, the survey suggested cloud computing can positively affect Banque Misr's financial report quality in several ways. Flexible computing services and broad access through the cloud were particularly beneficial. The cloud's abilities align well with enhancing reporting accuracy and transparency. With cloud adoption, Banque Misr seems positioned to further strengthen its financial documentation processes.

Recent studies support the idea that cloud computing offers advantages for managing financial processes. As one study noted, cloud platforms allow reports and statements to be securely stored and processed online, [6]. Organizations can save on costs and increase revenue by using cloud infrastructure, [16].

Cloud computing's automation and collaboration features are especially useful for banks. One analysis pointed out cloud computing improves organizational effectiveness, teamwork, and time to market in the financial sector. These benefits can optimize bank operations, [4]. Another study also showed how cloud-based systems allow banks to safely handle financial information and see improvements in how quickly transactions are processed, [3].

Using cloud-based systems can greatly improve the quality of financial reports through their automatic features that compare numbers and examine data. As one expert noted, the newest cloud technology now allows the automatic matching of bank statements directly within accounting programs. This cuts down on work done by hand by auditors, [4]. Also, these systems have built-in analytical tools that rigorously study numbers and automate tasks. All of this helps make reports stronger through technology.

Researchers found cloud computing involves creating accounts using an accounting program hosted online by a third party. This advancement in knowledge and technology has made it possible for cloud computing to distribute and keep high-quality financial reports in ways that were previously unheard of for account preparation.

Because cloud computing requires fewer resources and is less expensive than utilizing an internal financial system, which functions in a closed loop and has greater costs, researchers discovered that it has an impact on the quality of financial reporting. However, businesses that have switched to cloud computing have discovered that they are still experiencing problems with the software and financial systems they bought after the switch. A complicated financial system that is challenging to use and comprehend is not necessary for the majority of small and medium-sized firms.

Additionally, the study discovered that all of the cloud computing characteristics (on-demand self-service, widespread network access, resource pooling, rapid elasticity, and measured service) were present. The display of high-quality financial reports involves all aspects of cloud computing and may be influenced by the following elements:

On-demand Service

The use of on-demand service in financial reporting can have a significant impact on the quality of the reports produced, as [19] and [20] agreed that the cloud computing principle has effectively contributed to facilitating access to the required service through self-service, where the user can request the service and access it at any time without interference or any technical support from any party.

The examination demonstrated the effect of cloud computing on the excellence of financial records in connection to the constancy of information, the rapidity of calculation, the entirety of archives, and the exactness of information registration.

Moreover, the inquiry revealed that cloud computing is a critical element in accounting procedures, as it can lead to savings in terms of hardware, software, and operational expenses. Therefore, organizations can potentially save money by using cloud computing services instead of investing in expensive hardware and software.

The research found that cloud computing can positively impact the quality of financial reports. It helps streamline accounting processes which increases accuracy and efficiency. However, some concerns were raised about information security and reliability with cloud computing. Storing data on remote servers run by third parties understandably causes unease about data privacy and security. This matches other studies that found similar worries. When data is not within an organization's direct control, it's natural to fret over who may access private information and whether the servers will remain dependably secure, which aligns with the findings of [10].

Broad Net-Work Accessibility

The widespread reach of large online networks is a key factor in enhancing the quality of financial reports. Users can access cloud computing services without needing any specialized tools or equipment, making it more approachable and convenient. Even with improvements in current internet speeds, using cloud computing services still requires that users have an internet connection to benefit from the service.

However, users do not necessarily need a high-speed connection to use the service, as internet speeds are generally adequate compared to other applications. This is because cloud computing services are not affected by internal networks, allowing users to access the service from anywhere an internet connection is available.

Overall, the extensive network access provided by cloud computing enables users to both access and

use the service, which can lead to improvements in the quality of financial reports. Some key points are that cloud services are easy to use since no special equipment is required, and the services can be accessed from any location and more people can benefit from these resources as long as there is an internet connection. However, extremely high speeds of the internet may not be available for some cloud computing uses.

Resilience and Elasticity

Resilience means that the cloud structure is strong and can counterattack problems or crashes, which in return can help guarantee that financial data is accessible and safe all the time. Elasticity, on the other hand, allows the cloud structure to dynamically adjust and change by using the right handling of the data and storage needs, which helps financial reports to stay up-to-date and accurate.

Using the cloud to store financial data makes expanding the storage space very easy without physical restrictions or the need to update the hardware, as it allows to storage large amounts of data which is vital for financial reports. A very good cloud system and a flexible setup can play a very important role in the development of the quality of financial reporting.

Cloud systems offer intuitive and simple-to-understand interfaces that are new to accounting and can work with them very easily, without requiring them to be experts in the field to use them, which in return can help organizations to confirm the accuracy of reports through this technology.

Cloud Technology and the Development of Accounting Processes

The process of storing and accessing data using cloud computing allows users to get access to all of their information, files, and applications from any device through the internet, which also removes the risks of losing data device malfunctions. That in return makes a centralized hub for companies to manage their files in one integrated system online. Thus, this enables businesses to collaborate with their accountants regardless of their location.

Security is another major feature that cloud computing provides, which includes the ability to encrypt data and two-factor authentication. Moreover, the scalability of cloud computing allows businesses to easily expand their accounting services according to their evolving needs. As a result, cloud computing offers a less efficient and unreliable solution for accounting services, making it an inadequate choice for businesses aiming to achieve the highest quality of financial reports.

4 Conclusion

This paper's analysis yields several crucial insights. Firstly, it uncovers a clear link between the characteristics of cloud computing and the quality of financial reports at Banque Misr, which accounts for 49.7% of the variance, thereby supporting the main hypothesis. Among the examined attributes of cloud computing, the most influential on financial reporting quality were measured service and broad network access. Furthermore, the study found a strong association between all cloud computing attributes - on-demand self-service, broad network access, resource pooling, rapid elasticity, and measured service - and enhanced comparability in financial reporting.

Through its implementation, cloud computing has been proven to significantly improve automation, analytics, collaboration, security, and resilience in banks, resulting in enhanced financial reporting. By utilizing cloud platforms, banks can achieve more precise, transparent, and timely reporting. The training helps workers use the cloud programs and prepares the company to handle issues. Clear reporting helps banks by giving accurate information to manage risks and make wise decisions. The study wants companies to give everyone a chance to learn new technology skills. This supports using cloud services in the best way.

Based on the study results, here are some recommendations to improve financial reporting processes in banks:

Banks should create transition plans to gradually adopt cloud computing technologies. Starting with non-critical systems and moving to critical ones over time allows for a smoother change. When choosing a cloud provider and implementing new technology, security should be a top priority.

Provide training to accounting teams to use new cloud systems, as they should learn what the new systems can do and what the ways to optimize efficiency. This can create a clear roadmap to move to the cloud in a smooth transition.

Clear and understandable data management policies are essential when managing financial information in the cloud so we can address privacy concerns. On the other hand, goals need clear communication to get everyone on the same page.

Building and contributing to unified cloud reporting applications and guidelines between financial institutions allows sharing costs and assets while fulfilling regulations strengthen approaches and optimizing workflows. Continuous improvements focus on regions highlighted by performance monitoring.

This study provided useful insights into how cloud computing can affect the quality of financial reporting. There were a few things to note that may have limited the findings, which we will state here to help future research.

The research was only conducted at one bank in Egypt, so the results may not apply to other financial institutions or areas. Looking at multiple banks across Egypt or the wider region could make the findings more general.

The sample size of 96 employees was on the smaller side, which could affect how reliable the results were. Getting responses from a larger group would strengthen the conclusions.

The study relied solely on surveys filled out by staff, which comes with the risk of biases. Including more objective data sources could help address that issue.

As a one-time study, it can't prove cause and effect between cloud computing and reporting quality over time. Doing a longitudinal study or experiment could help demonstrate underlying relationships. The research also didn't compare results before and after adopting cloud systems. Using a pre-and-post analysis would deliver a richer picture of impact.

Lastly, adding qualitative elements like interviews may provide a more well-rounded understanding of the topic than only using quantitative methods like surveys.

Future research can look into specific themes that could help banks deal with challenges related to moving financial reporting systems to the cloud. This would give us a better understanding of this study area. Evaluating the reports' quality before and after switching over to the cloud could show precisely how things change when moving to cloud tech. additionally, doing cost-benefit analyses could show the return on the investment of moving financial reporting to the cloud.

References:

- [1] Armbrust M, Fox A, Griffith R, Joseph AD, Katz R, Konwinski A, Lee G, Patterson D, Rabkin A, Stoica I, Zaharia M. A view of cloud computing. *Communications of the ACM*. 2010 Apr 1;53(4):50-8, <http://doi.acm.org/10.1145/1721654.1721672>.
- [2] Valmohammadi C, Varaee F. Analyzing the interaction of the challenges of big data usage in a cloud computing environment. *Business Information Review*. 2023 Mar;40(1):21-32, <https://doi.org/10.1177/02663821221141810>.

- [3] Bejju A. Cloud computing for banking and investment services. *Advances in Economics and Business Management*. 2014;1(2):34-40.
- [4] Khan, A. A. *Cloud-based reporting system*. 2013. GB Patent No. GB2500275A.
- [5] Reinschmidt, J., Francoise, D., Li, Y., Zarate, M. A., & Koru, A. G., Cloud computing adoption by the US banking industry: Identifying strategic and governance implications. *Journal of Organizational Computing and Electronic Commerce*, Vol.24, No.4, 2014, pp. 298- 322.
- [6] Japee, G. P., & Joshi, A., Use of cloud computing and accounting: Business perspective. *GAP GYAN- Open Access Journal of Social Sciences*, Vol.1, No.2, 2018, 118-121. ISSN: pp. 2581-5830.
- [7] Adwan, E. J., & Alsaed, B. A., Cloud Computing Adoption in the Financial Banking Sector-A Systematic Literature Review (2011-2021), *International Journal of Advanced Science Computing and Engineering*, Vol.4, No.1, 2022, pp. 48-55.
- [8] Hamdi, M., Olayah, F., Al-Awady, A. A., Shamsan, A. F., & Ghilan, M. M., Attitude towards adopting cloud computing in the Saudi banking sector. *Intelligent Automation and Soft Computing*, Vol.29, No.2, 2021, pp. 605-617, <https://doi.org/10.32604/iasec.2021.018170>.
- [9] Subramanian, N., Jeyaraj, A., Recent security challenges in cloud computing. *Computers & Electrical Engineering*, 2018; Vol.71, pp. 28-42, <https://doi.org/10.1016/j.compeleceng.2018.06.006>.
- [10] Owolabi SA, Izang JU. Cloud Accounting And Financial Reporting Qualities Of Smes In Nigeria: An Overview, *International Journal of Research Publications (IJRP)*, 2020 60(1):21-28, <https://doi.org/10.47119/IJRP100601920201411>.
- [11] Yang C, Huang Q, Li Z, Liu K, Hu F. Big Data and cloud computing: innovation opportunities and challenges. *International Journal of Digital Earth*. 2017 Jan 2;10(1):13-53, <https://doi.org/10.1080/17538947.2016.1239771>.
- [12] Fornaro, P., Masciandaro, D., & Recine, F., Bank financial reporting, transparency, and disclosure quality: Evidence from the crisis. *Journal of Financial Stability*. 2016; Vol.27, pp.40- 52.
- [13] Beattie, V., Goodacre, A., & Thomson, S. J., International lease-accounting reform and economic consequences: The views of UK users and preparers. *The International Journal of Accounting*, Vol.41, No.1, 2006, pp. 75-103, <https://doi.org/10.1016/j.intacc.2005.12.003>.
- [14] Garcia Osma, B., Guillamon-Saorin, E., & Zorio-Grima, audit committee characteristics and the quality of financial reporting: A meta-analysis. *International Journal of Accounting Information Systems*, Vol.15, No.2, 2014, pp. 155-178.
- [15] Gjerde, O., Knivsflå, K., & Sættem, F., Earnings management and audit quality in Europe: Evidence from the private client segment market. *Journal of Banking & Finance*, Vol.34, No.12, 2010, pp. 2927-2937, <https://doi.org/10.1080/09638180802016684>.
- [16] Chang, I. C., Liu, C. C., & Guo, B. R., The financial performance of cloud computing. *Asian Economic and Financial Review*, Vol.4, No.5, 2014, pp. 651-654.
- [17] Damenu, T.K., Balakrishna, C., Cloud security risk management: A critical review. in *2015 9th International Conference on Next Generation Mobile Applications, Services and Technologies*, Cambridge, UK 2015, pp. 370-375. DOI: 10.1109/NGMAST.2015.25.
- [18] Sekaran U, Bougie R. Research Design. JW Ltd, *Research Methods for Business*. 2010; 110.
- [19] Ionescu L. Big data, blockchain, and artificial intelligence in cloud-based accounting information systems. *Analysis and Metaphysics*. 2019(18):44-9, [Online]. <https://www.cceol.com/search/article-detail?id=816594> (Accessed Date: April 19, 2024).
- [20] Khomonenko A, Gindin S. Performance evaluation of cloud computing accounting for expenses on information security. In *2016 18th Conference of Open Innovations Association and Seminar on Information Security and Protection of Information Technology (FRUCT-ISPIT)*, St. Petersburg, Russia, 2016 Apr 18 (pp. 100-105). IEEE, DOI: 10.1109/FRUCT-ISPIT.2016.7561514.

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

The authors equally contributed to the present research, at all stages from the formulation of the problem to the final findings and solution.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

No funding was received for conducting this study.

Conflict of Interest

The authors have no conflicts of interest to declare.

Creative Commons Attribution License 4.0 (Attribution 4.0 International, CC BY 4.0)

This article is published under the terms of the Creative Commons Attribution License 4.0

https://creativecommons.org/licenses/by/4.0/deed.en_US