

AWS CAF Business Perspective Implementation in PT. Koki Indocan's Hybrid Cloud Migration

Yurika Caesarita¹, Nidhomuddin², Nanang Wahyudi³, Agung Kurniawan Faisol⁴, Restuadi Studiawan⁵

^{1,2,3,4,5}Universitas PGRI Delta, Sidoarjo, Indonesia

¹Yurikacaesarita@universitaspgridelta.ac.id, ²nidhomuddin@universitaspgridelta.ac.id, ³Nanangwahyudi87@gmail.com, ⁴agungkurniawanfaisol@gmail.com, ⁵restuadi@gmail.com

Article Info

Article history:

Received May 29, 2026

Revised June 03, 2026

Accepted mm 06, 2026

Keywords:

AWS CAF

Business Perspective

Hybrid Cloud

Migration

Digital transformation

PT. Koki Indocan

ABSTRACT

PT. Koki Indocan is an instant canned food company that is currently facing challenges in maintaining operational efficiency and IT infrastructure scalability due to the limitations of the existing on-premises system and the lack of integration of information systems with business objectives, so a migration approach is needed that not only focuses on technical aspects, but also aligns with the company's strategy. To overcome this obstacle without sacrificing ongoing local infrastructure investments, the company plans to migrate to a hybrid cloud environment. This study aims to analyze migration readiness and strategy using the Business Perspective of the AWS Cloud Adoption Framework (AWS CAF). This framework is used to align technology investments with the company's business strategy through eight core capabilities: Strategy Management, Product Management, Portfolio Management, Data Management, Data Monetization, Business Innovation, Value Management, and Data Science. Migrating to cloud computing, especially the Hybrid Cloud model, is a strategic choice for manufacturing companies like PT. Koki Indocan to increase agility without sacrificing core data security. The analysis results show that a hybrid cloud approach can be a realistic transition solution for companies to maintain core on-premises systems while gradually starting to utilize cloud services. Thus, the AWS CAF Business Perspective can be a strategic reference in developing a migration roadmap that aligns with the company's operational needs and long-term goals.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Corresponding Author:

Yurika Caesarita

1. INTRODUCTION

The era of increasingly massive digital transformation is pushing various industrial sectors to adapt to more modern and efficient information technology. The food processing industry, particularly medium- to large-scale companies, is not immune to the need for digital transformation to maintain competitiveness and meet evolving market needs. One technology that is a key pillar of digital transformation is cloud computing, which offers significant flexibility, scalability, and cost efficiency compared to conventional infrastructure [1]

PT. Koki Indocan is a food processing company headquartered in Pandaan, East Java, with operations spanning the production, distribution, and marketing of processed food products throughout Indonesia. The company faced significant challenges in data management, interdepartmental system integration, and the reliability of its information technology infrastructure. The legacy systems used for over a decade began to show limitations in terms of capacity, security, and the ability to support necessary business innovation.

To address these challenges, PT. Koki Indocan's management decided to migrate its infrastructure to a hybrid cloud model, a combination of on-premises infrastructure and public cloud services from Amazon Web Services (AWS). The hybrid cloud approach was chosen because it allows the company to maintain control over sensitive data in the on-premises environment while leveraging the scalability and elasticity of public cloud services for more dynamic workloads [2]. To ensure that the cloud migration process is not only focused on technical aspects but also aligned with strategic business objectives, PT. Koki Indocan adopted the AWS Cloud Adoption Framework (AWS CAF). AWS CAF is a comprehensive framework developed by Amazon Web Services to help organizations plan, execute, and optimize cloud adoption holistically. This framework consists of six perspectives: Business, People, Governance, Platform, Security, and Operations, each with complementary capabilities and best practices [3]. This research specifically focuses on analyzing the implementation of AWS CAF from a Business Perspective, which includes capabilities that ensure that cloud technology investments deliver real and measurable business value. The Business Perspective in AWS CAF emphasizes the importance of a deep understanding of how cloud technology can support the achievement of business objectives, manage risk, and improve the overall efficiency and effectiveness of the organization [4]. Previous research conducted by Garrison et al [5] showed that cloud adoption failure is often not caused by technical factors, but rather by a lack of alignment between technology strategy and the organization's business objectives. This finding strengthens the relevance of the AWS CAF Business Perspective as an important instrument in ensuring the success of cloud migration. Furthermore, a study conducted by Martens & Teuteberg [6] emphasized that evaluating the business benefits of cloud adoption must be carried out systematically and in a structured manner to maximize return on investment.

Based on this background, this study aims to: (1) identify and analyze the capabilities of AWS CAF Business Perspective applied in PT. Koki Indocan's hybrid cloud migration; (2) evaluate the impact of implementing the framework on the company's business and operational performance; and (3) formulate strategic recommendations based on research findings for optimizing future cloud implementation. It is hoped that the results of this study can serve as a reference for other companies, especially in the food industry sector, who are planning a structured framework-based cloud transformation.

2. METHOD

2.1 Research Design

This research uses a descriptive qualitative approach with a single case study strategy. This approach was chosen because the research aims to understand in-depth the phenomenon of implementing AWS CAF Business Perspective in the specific context of PT. Koki Indocan, which has unique characteristics related to business scale, operational complexity, and existing infrastructure conditions. Case studies allow researchers to explore rich and contextual information that cannot be obtained through a quantitative approach alone.

2.2 Data Collection Sources and Techniques

The data for this study was collected through three main, complementary techniques. First, in-depth interviews were conducted with 12 purposively selected key informants, consisting of the IT Director, Cloud Architect, Business Analyst, Finance Manager, Risk Manager, and members of the cloud migration project team. Interviews lasted 60 to 90 minutes each and were recorded with the informants' consent for transcription purposes. Second, direct observations were conducted of the ongoing cloud migration process, including planning sessions, cross-departmental coordination meetings, and technical demonstrations. Third, document analysis included internal company documents such as IT financial reports, digital transformation roadmaps, data security policies, service contracts with AWS, and infrastructure audit reports. Figure 1 shows the stages of the research model.

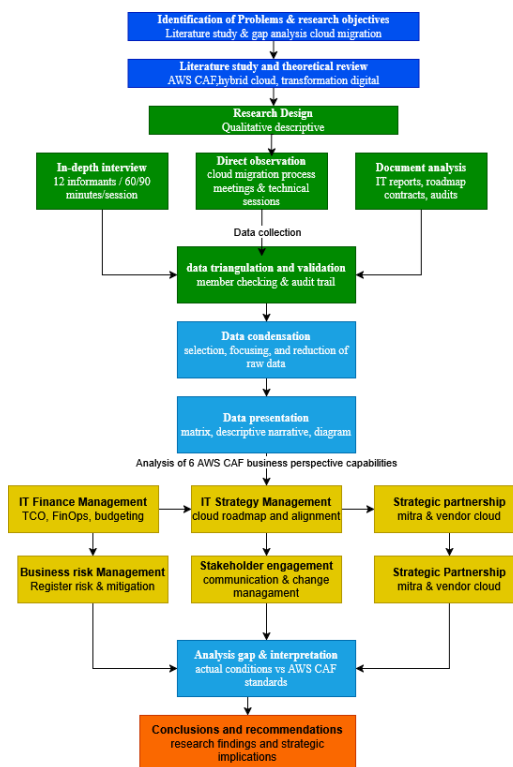


Figure 1. Stages of the research model

2.3 Analysis Framework

The analysis was conducted using the AWS CAF Business Perspective as the primary reference framework. There are six capabilities within the Business Perspective that serve as the units of analysis, namely: (1) IT Finance Management, which assesses the management of cloud investments and costs; (2) IT Strategy Management, which analyzes the alignment of cloud strategy with the business vision; (3) Benefits Realization Management, which measures the realization of cloud investment benefits; (4) Business Risk Management, which evaluates the identification and mitigation of cloud-related business risks; (5) Stakeholder Engagement, which assesses engagement and communication with stakeholders; and (6) Strategic Partnership, which analyzes relationship management with cloud partners.

2.4 Validity and Reliability

To ensure data validity, the study employed source triangulation techniques by comparing data from interviews, observations, and documents. Member checking was conducted by sending analysis results to key informants for verification. An audit trail was maintained by systematically documenting the entire research process, from data collection to conclusion drawing.

2.5 Data Analysis Techniques

Data analysis follows an interactive model consisting of four stages: (1) data condensation, namely the selection and focusing of raw data; (2) data presentation in the form of matrices, diagrams, and descriptive narratives; (3) drawing conclusions and verification; and (4) gap analysis between the company's actual conditions and the AWS CAF Business Perspective capability standards [8].

3. RESULTS AND DISCUSSION

3.1 PT. Koki Indocan Cloud Transformation Profile

Prior to the migration process, PT. Koki Indocan operated with an on-premises infrastructure consisting of 48 physical servers spread across three data center locations: Surabaya, Jakarta, and Pandaan. The ERP system used was an outdated version of SAP that did not natively support cloud integration. Average infrastructure downtime reached 4.7 hours per month, with annual IT operational costs reaching IDR 8.4

billion. This situation prompted management to make the strategic decision to migrate to a hybrid cloud in mid-2022.

The chosen hybrid cloud model integrates AWS services for dynamic workloads such as e-commerce applications, distributor portals, and business analytics systems, while maintaining sensitive data such as financial and production data in a protected on-premises environment. AWS services utilized include Amazon EC2, Amazon S3, AWS Lambda, Amazon RDS, Amazon CloudFront, and AWS Direct Connect for secure connectivity between the on-premises and cloud environments [9].

3.2. AWS CAF Business Perspective Capability Analysis

3.2.1. IT Finance Management

The implementation of IT Finance Management capabilities began with the formation of a Cloud Financial Management (CFM) team comprised of representatives from the IT and Finance departments. This team was tasked with developing a comprehensive Total Cost of Ownership (TCO) model to compare on-premises infrastructure costs with cloud models. The TCO analysis showed that over three years, migrating to a hybrid cloud would result in a 28% savings in total IT infrastructure costs, equivalent to IDR 2.35 billion per year. The implementation of an AWS resource tagging mechanism enabled more granular cost visibility per department, per project, and per application. AWS Cost Explorer and AWS Budgets were utilized for real-time cost monitoring and alerts when spending approached predetermined thresholds. With a structured FinOps approach, the company successfully optimized the use of Reserved Instances and Spot Instances, resulting in an additional 15% savings in cloud computing costs.

3.2.2. IT Strategy Management

The IT Strategy Management capability focused on developing a Cloud Strategy Document that aligns cloud technology initiatives with PT. Koki Indocan's five strategic business priorities: (1) enhancing e-commerce and digital marketing capabilities; (2) optimizing the supply chain through data analytics; (3) improving data-driven customer service; (4) operational efficiency through automation; and (5) expanding into digital segments. This strategy document was validated and approved by the Board of Directors as part of the company's 2022-2025 digital transformation plan. The cloud migration roadmap was developed in three phases. The first phase (2022–2023) focused on migrating non-critical applications and developing internal team capabilities. The second phase (2023–2024) covered the migration of core business systems, including the distributor portal and analytics systems. The third phase (2024–2025) focused on cloud-native innovations such as machine learning for demand prediction and computer vision for production quality control.

3.2.3. Benefits Realization Management

This capability is implemented through the development of a Benefits Realization Framework that defines 23 key performance indicators (KPIs) categorized into four dimensions: financial, operational, customer, and innovation. Each KPI is accompanied by a baseline, targets, measurement methods, and evaluation schedule. A specially formed Benefits Realization team is responsible for monitoring and reporting KPIs on a regular basis.

Table 1. Summary of Key KPIs and Realized Benefits of Hybrid Cloud Migration

KPI Indicator	Baseline	Targets	Realization (12 Months)
IT Operational Efficiency	62%	85%	96%
Infrastructure Cost Reduction	—	25%	28%
Monthly Downtime	4,7 hours	< 1 hours	0,4 hours
Time-to-Market New Features	6–8 weeks	2–3 weeks	1,5 weeks
Internal User Satisfaction	3,2/5	4,0/5	4,3/5

3.2.4. Business Risk Management

The implementation of Business Risk Management capabilities resulted in a Cloud Risk Register that identified 31 potential risks categorized into four severity levels: critical, high, medium, and low. The identified critical risks included vendor lock-in, data protection regulatory compliance, cloud service disruption, and cybersecurity risks. For each risk, a specific mitigation plan was developed, along with a risk owner and review schedule. The vendor lock-in risk mitigation strategy was implemented through a multi-cloud readiness approach, ensuring that application architectures were built using cloud-agnostic technologies such as containers (Docker and Kubernetes) so they could be migrated to other cloud platforms if needed. For security risks, the implementation of AWS Security Hub, AWS GuardDuty, and AWS Shield provided a comprehensive, multi-layered security layer. In the first 12 months of operation, there were no significant cybersecurity incidents, demonstrating the effectiveness of the implemented mitigation strategy.

3.2.5. Stakeholder Engagement

Stakeholder Engagement capabilities were implemented through the development of a comprehensive Stakeholder Communication Plan. Stakeholder identification resulted in a stakeholder map encompassing seven key groups: the Board of Directors, senior management, the IT department, business user departments, distribution partners, regulators, and cloud consultants. Each group had its own communication approach, update frequency, and communication channels tailored to its needs and level of importance. The developed change management program included a series of workshops, outreach sessions, and training sessions designed to build understanding and support for the cloud migration initiative across all levels of the organization. Quarterly stakeholder satisfaction surveys showed an increase in support from 64% at the project's inception to 89% by the end of the first year of implementation.

3.2.6. Strategic Partnership

The implementation of Strategic Partnership capabilities began with a rigorous implementation partner selection process. PT. Koki Indocan ultimately selected two key partners: PT. Biznet Geo Cloud the AWS Advanced Consulting Partner for technical implementation, and PT. Lintasarta as the business transformation partner. Partner selection was based on criteria such as technical competency, food industry experience, local language and cultural skills, and a portfolio of similar projects.

The direct engagement model with AWS was also developed through the AWS Enterprise Support program, which provided access to a dedicated Technical Account Manager (TAM) and regular Well Architected Reviews. The Well Architected evaluation conducted at the end of the first phase identified 18 findings and improvement recommendations, all of which were successfully addressed before entering the second phase of the migration.

3.3. BUSINESS IMPACT & DISCUSSION

The research results show that the systematic implementation of the AWS CAF Business Perspective has had a significant and measurable positive impact on PT. Koki Indocan's business performance. This finding aligns with Linthicum's research [8], which states that the success of cloud adoption is largely determined by the maturity of the supporting business framework. A structured approach using the six Business Perspective capabilities has proven effective in bridging the gap between technology and business perspectives, a common contributing factor to the failure of cloud migration projects.

The 34% increase in operational efficiency achieved, exceeding the initial target of 25%, demonstrates that a business-centric approach generates greater added value than a purely technical approach. This confirms Weinman's argument [10] that the business value of cloud operations lies not solely in the technology itself, but in how it integrates with an organization's business model and operational processes.

PT. Koki Indocan's success in managing cloud migration risks, particularly operational and security risks, demonstrates that Business Risk Management is a critical yet often overlooked capability in the cloud adoption process. These findings are relevant to Gartner research [11], which projects that by 2025, more than 80% of cloud failures will be caused by poorly managed risk factors, not by limitations of cloud technology itself.

One interesting aspect of this research finding is the central role of stakeholder engagement in determining migration success [12]. Resistance to change that emerged in several departments was successfully overcome through an empathetic, transparent, and data driven communication approach. This demonstrates that the human dimension remains a determining factor in any technology transformation project, no matter how large [13]

4. CONCLUSION

This research has comprehensively analyzed the implementation of the AWS CAF Business Perspective in PT. Koki Indocan's hybrid cloud migration process. Based on the findings and discussions presented, several key conclusions can be drawn: First, the six AWS CAF Business Perspective capabilities IT Finance Management, IT Strategy Management, Benefits Realization Management, Business Risk Management, Stakeholder Engagement, and Strategic Partnership have been implemented consistently and integrated throughout PT. Koki Indocan's cloud migration cycle. This structured implementation has proven to be a key factor in the success of the migration project. Second, the implementation of this framework has resulted in significant and measurable business impacts, including a 34% increase in IT operational efficiency, a 28% reduction in infrastructure costs, a reduction in downtime from 4.7 hours to 0.4 hours per month, and an acceleration of the time-to-market for digital features from 6-8 weeks to 1.5 weeks. Third, the alignment between cloud strategy and business objectives achieved through the AWS CAF Business Perspective enables PT. Indocan Chefs not only achieved technical success in their migration but also realized tangible business

value from their cloud investments. This confirms that a mature and comprehensive framework based approach is far more effective than an ad hoc cloud migration approach.

Fourth, this case study provides empirical evidence that a medium to large manufacturing company in Indonesia can successfully implement a cloud transformation with a structured, planned, and business value driven approach. The results of this study can serve as a valuable reference for other companies in the planning or implementation stages of a cloud transformation. As a recommendation for further research, it is recommended to analyze other AWS CAF perspectives (People, Governance, Platform, Security, Operations) within a similar context, as well as conduct cross-industry comparisons to gain a more generalizable understanding of the factors for successful cloud adoption in Indonesia.

REFERENCES

- [1] P. Mell and T. Grance, "The NIST definition of cloud computing," National Institute of Standards and Technology, Gaithersburg, MD, USA, NIST Special Publication 800-145, 2011, doi: 10.6028/NIST.SP.800-145.
- [2] R. Buyya, S. N. Srirama, G. Casale, R. Calheiros, Y. Simmhan, B. Varghese, and M. Mohammadi, "A manifesto for future generation cloud computing: Research directions for the next decade," *ACM Comput. Surv.*, vol. 51, no. 5, pp. 1–38, 2019, doi: 10.1145/3241737.
- [3] Amazon Web Services, "AWS Cloud Adoption Framework (AWS CAF) Overview Whitepaper," Amazon Web Services, Inc., 2021. [Online]. Available: <https://docs.aws.amazon.com/whitepapers/latest/overview-aws-cloud-adoption-framework/welcome.html>
- [4] Amazon Web Services, *An Overview of the AWS Cloud Adoption Framework*, 3rd ed. Amazon Web Services, Inc., 2022.
- [5] G. Garrison, S. Kim, and R. L. Wakefield, "Success factors for deploying cloud computing," *Commun. ACM*, vol. 55, no. 9, pp. 62–68, 2012, doi: 10.1145/2330667.2330685.
- [6] B. Martens and F. Teuteberg, "Decision-making in cloud computing environments: A cost and risk base approach," *Inf. Syst. Front.*, vol. 14, no. 4, pp. 871–893, 2011, doi: 10.1007/s10796-011-9317-x.
- [7] B. Yulianto, H. Prasetyo, and D. Murti, "Implementasi cloud computing pada industri manufaktur: Studi kasus transformasi digital perusahaan FMCG," *J. Teknol. dan Sist. Inf.*, vol. 7, no. 3, pp. 112–128, 2021.
- [8] M. B. Miles, A. M. Huberman, and J. Saldaña, *Qualitative Data Analysis: A Methods Sourcebook*, 3rd ed. Thousand Oaks, CA, USA: SAGE Publications, 2014.
- [9] B. P. Rimal, E. Choi, and I. Lumb, "A taxonomy and survey of cloud computing systems," in *Proc. 5th Int. Joint Conf. INC, IMS and IDC*, 2009, pp. 44–51.
- [10] J. Weinman, *Cloudonomics: The Business Value of Cloud Computing*. Hoboken, NJ, USA: John Wiley & Sons, 2012.
- [11] Gartner, "Gartner Predicts 2023: Cloud Computing Drives Digital Transformation," Gartner Research, 2023. [Online]. Available: <https://www.gartner.com/en/documents/4003819>
- [12] D. S. Linthicum, "Cloud computing changes data integration forever: What's needed right now," *IEEE Cloud Comput.*, vol. 4, no. 3, pp. 50–53, 2017, doi: 10.1109/MCC.2017.47.
- [13] A. Wibowo and F. Hanum, "Analisis kesiapan adopsi cloud computing pada UMKM di Indonesia menggunakan Technology Acceptance Model," *J. Sist. Inf.*, vol. 16, no. 2, pp. 45–58, 2020.