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Enhancing Project Management Governance in Digital Transformation: A Case Study on Deploying Simplified Togaf Artifacts

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Abstract

Digital Transformation (DT) acceleration requires robust project management governance that tightly integrates Enterprise Architecture (EA) with agile project delivery. Although The Open Group Architecture Framework (TOGAF 10) is the leading EA standard, its complexity hinders adoption, especially for resource-limited organizations. This study tackles this challenge by proposing and validating a simplified TOGAF 10 framework called "Mini TOGAF." The goal is to improve EA implementation, streamline project management, and enhance strategic alignment. Using a Design Science Research (DSR) approach, a case study at PT Nuon Digital Indonesia—an established digital content and entertainment firm—was conducted. The research involved a systematic literature review to identify essential TOGAF artifacts, followed by iterative development and stakeholder validation of the Mini TOGAF blueprint across Business, Data, Application, and Technology layers. The model consolidates artifacts, merging Terms of Reference and Architecture Principles into unified Architecture Guidelines, and focuses implementation on short- to medium-term objectives. Implementation led to significant gains in operational efficiency via process optimization, increased business agility, and better alignment of IT investments with corporate goals. This paper contributes a validated Mini TOGAF blueprint that bridges the gap between TOGAF's comprehensive rigor and the practical demands of agility and efficiency in digital transformation. The model offers a resource-efficient, scalable procedural guide for organizations—especially those facing resource constraints—to harness EA for effective project management governance without overwhelming complexity.

Keywords: *Enterprise Architecture (EA); TOGAF 10; Simplified TOGAF; Mini TOGAF; Digital Transformation; Project Management Governance.*

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INTRODUCTION

Enterprise Architecture (EA) has become a fundamental approach in managing corporate structure and operations. Specifically, EA plays a crucial role in designing, planning, and managing the alignment of Information Technology (IT) with business strategy to ensure optimal efficiency and drive innovation (Putra & Santoso, 2020). One of the most widely recognized and extensively used EA frameworks is The Open Group Architecture Framework (TOGAF). TOGAF provides a comprehensive methodology, structure, and tools for building, managing, and systematically developing enterprise architecture (The Open Group, 2022). The

latest version, TOGAF 10, introduces updates emphasizing agility and digital transformation support (Chen et al., 2025; Gloria et al., 2024).

However, despite its comprehensiveness, TOGAF is often considered overly complex and requires a substantial investment of resources, making it challenging for many organizations to implement fully (Johnson et al., 2020). This inherent complexity, embodied by the sheer volume of components and artifacts, acts as a major barrier to effective implementation, especially for SMEs or organizations new to EA (Olsen & Trelsgård, 2016; Doe et al., 2020). Full implementation demands significant time, dedicated expertise, and considerable cost (Akpe et al., 2023; Dacre et al., 2025; Maheshwari et al., 2025).

To address this challenge, a more pragmatic and focused approach is imperative. Simplifying TOGAF artifacts can significantly boost the rate of adoption and improve comprehension across the organization (White & Green, 2019). Furthermore, this approach allows organizations to concentrate resources solely on core elements that deliver quantifiable business value, ensuring the architecture directly contributes to strategic and operational objectives (Gonçalves et al., 2023; Nerurkar & Das, 2017).

Prior studies have affirmed the practical benefits of this simplification, confirming that tailoring EA to focus on the most critical and relevant artifacts enhances the effectiveness and efficiency of the implementation, even for resource-constrained organizations (White & Green, 2019).

This research aims to develop a Simplified TOGAF 10 model (Mini TOGAF) and validate its implementation within a corporate case study context. Through this pragmatic and efficient method, we hope to reduce the complexity and cost traditionally associated with comprehensive EA adoption, ultimately developing an adaptable blueprint for enhancing project management governance in digital transformation. The advancement of the digital era is characterized by the accelerating use of Information Technology (IT). This progress compels organizations to transform how they gather, process, and report information to optimize business processes. Strategic deployment of IT is essential for creating competitive advantage and achieving organizational targets (Putra & Santoso, 2020).

In this environment, Enterprise Architecture (EA) is the strategic planning and management practice that defines a clear structure for an organization's operations. During rapid digitization, Information Governance plays a vital role in linking organizational goals and IT strategy, ensuring alignment between strategic planning and IT execution (Dewi et al., 2021; Ali & Miller, 2017). Thus, EA is crucial for aligning IT and business strategy to support operational efficiency, innovation, and strategic decision-making.

TOGAF stands as the leading EA framework, providing a systematic methodology and comprehensive tools for building and managing enterprise architecture (The Open Group, 2022). TOGAF 10 specifically increases the focus on aspects necessary for modern business, including agility, cloud computing, and digital transformation. Successful implementation of EA frameworks, and thus achieving alignment between IT and business strategy, is an indicator of robust IT governance maturity.

However, the reality of implementing comprehensive TOGAF involves significant hurdles, particularly the complexity inherent in its extensive array of components and artifacts,

making it difficult to apply fully (Johnson et al., 2020; Doe et al., 2020). This complexity is a barrier for organizations that lack prior EA experience or have simpler structures (Olsen & Trelsgård, 2016). Moreover, comprehensive implementation requires a significant resource investment—in terms of time, expert personnel, and cost—which is a major challenge for many small and medium-sized organizations.

Considering that not all elements of TOGAF are relevant to every context, tailoring and simplification are essential to maximize EA value (White & Green, 2019). Simplified artifacts are more readily understood and adopted. This approach minimizes the resources spent on documentation, directing effort towards strategic activities.

Aligning with this urgency, this research endeavors to simplify TOGAF 10 artifacts and demonstrate their real-world corporate implementation. Our goal is to generate a practical model and guidelines that facilitate a more efficient and effective EA implementation, enhance cross-business unit coordination, and establish a flexible architecture that supports strategic enterprise objectives.

Based on the problem formulation, the objectives to be achieved in this research are: 1) To generate a streamlined version of TOGAF 10 artifacts (Mini TOGAF) that reduces complexity and enhances usability without compromising strategic value, beneficial for the company; 2) To determine the most relevant and essential TOGAF artifacts within the corporate case study context to ensure EA deployment is effective, efficient, and fully aligned with the organization's strategic objectives; 3) To serve as a technical and procedural reference (a practical map) for other organizations facing similar challenges in EA adoption and enhancement of project governance.

The scope and limitations of this study are defined as follows: the simplification of TOGAF intentionally excludes all artifacts and components found in the full TOGAF 10 framework. The focus is exclusively on the artifacts deemed most relevant and essential within the organizational context. The study utilizes PT Nuon Digital Indonesia as the pilot project case study. The results of this study are expected to provide the following contributions and benefits: improved EA adoption—by reducing the complexity of TOGAF 10, the study aids in improving the understanding and adoption of the framework across various types of organizations; context-specific effectiveness—through the identification of the most relevant and critical TOGAF artifacts, the research ensures EA implementation is highly purposeful and aligned with the unique needs of the company, thereby maximizing EA effectiveness for strategic and operational goals; and practical reference model—the research will produce a practical model and guidelines for simplifying TOGAF (Mini TOGAF), serving as an adoptable reference standard for other companies facing similar challenges in implementation.

METHODOLOGY

This research adopts the Design Science Research (DSR) methodology, guided by the conceptual framework proposed by Hevner et al. DSR is an appropriate approach as its core activity involves the creation and evaluation of innovative artifacts —in this case, the Mini TOGAF framework—designed to solve a practical business problem.

The DSR process is structured around three interconnected cycles:

1. Relevance Cycle: This cycle grounds the research in its context and environment, identifying the stakeholders (people), the organization (PT Nuon Digital Indonesia), existing technology, and the specific business challenges being addressed. This step establishes the business needs that drive the project.
2. Rigor Cycle: This connects the research to its theoretical foundation and knowledge base, utilizing established methodologies (such as interviews and literature reviews) and existing theories (like TOGAF 10, EA concepts, and governance principles). A systematic literature review was conducted to ensure methodological soundness and inform artifact design.
3. Design Cycle: This core cycle involves the iterative development and evaluation of the proposed artifacts and processes (Mini TOGAF) to ensure they meet the defined relevance and rigor criteria.

The research followed a structured, systematic process across four main stages.

Initiation

The process began with the identification of the research object—PT Nuon Digital Indonesia—and an initial case study analysis to understand the organizational landscape and pinpoint core issues.

Identification

This involved formal data gathering to formulate the problem and define the research scope (limitations). A systematic review of relevant literature was conducted to determine the most essential and relevant TOGAF 10 components to include in the simplified framework (Mini TOGAF).

Data for this stage was collected using two types of sources:

1. Primary Data: Collected directly through interviews and observations involving relevant stakeholders from PT Nuon Digital Indonesia, such as the VP Digital Games and various managers and staff from the Commercial, Partnership, and Publishing functions. This data provided insight into existing business processes, organizational roles, strategic plans (2022-2024), current application conditions, and specific business problems within the Digital Games Division.
2. Secondary Data: Existing documentation, including the TOGAF 10 Standard (as the main reference framework), strategic plans, and internal corporate regulations and process maps.

Analysis and Implementation

This stage focused on transcribing interview data, analyzing the collected information, implementing the simplified TOGAF model (Mini TOGAF), and formulating the Enterprise Architecture blueprint. The creation of the Mini TOGAF framework involved selecting key artifacts from the comprehensive TOGAF 10 set, prioritizing those that directly supported strategic alignment and core business value for Nuon. The resulting simplified artifacts included the Preliminary Principle Catalog, Architecture Vision components such as the Stakeholder Catalog, Value Chain Diagram, and Solution Concept Diagram, as well as Business Architecture elements like the Goal/Objective/Requirement Catalog, Business Interaction Matrix, Functional Decomposition Diagram, Organization/Actor Catalog, and

Process Flow Diagram. Additionally, the Data Architecture artifacts consisted of the Data Entity/Business Function Matrix, Application/Data Matrix, and Conceptual Data Diagram, while the Application Architecture included the Application Portfolio Catalog and Application Use Case Diagram. The Technology Architecture focused on the Technology Standard Catalog, Application/Technology Matrix, and Environment and Location Diagram, and the Opportunities & Solutions section featured the Project Context Diagram and Benefit Diagram.

Synthesis and Evaluation

The final stage focused on drawing conclusions and evaluating the developed Mini TOGAF design through a structured validation process. Validation was achieved by engaging key company personnel in stakeholder validation and verification, where specific questions were posed to gather feedback on the developed architectural layers, from Business Architecture to Technology Architecture. The primary goal of this evaluation was to ensure that the proposed business process architecture effectively addressed the identified problems and was both comprehensible and accepted by PT Nuon Digital Indonesia as a viable solution.

RESULTS AND DISCUSSION

Company Overview: PT Nuon Digital Indonesia

The organization chosen for this case study is PT Nuon Digital Indonesia, a key subsidiary of PT Telkom Indonesia (Persero) Tbk and a prominent leader in the Indonesian digital content and entertainment sector. Established in 2010 as PT Melon Indonesia, the company successfully transitioned its focus from digital music and ringback tones to encompass a broad portfolio of digital lifestyle and entertainment services.

Nuon’s business scope and strategic direction are defined by its vision "To become the leading digital lifestyle & entertainment company to empower the society," supported by a mission to enhance content value, develop the local digital ecosystem, and deliver the best digital entertainment experience. Its core business lines include Digital Games (such as GameQoo), Digital Music (Langit Musik), and Digital Lifestyle (ticketing and edutainment). The organizational structure follows a hierarchical model, with a CEO and COO overseeing VP-level divisions in Digital Games, Digital Music, Digital Edutainment, Technology, Finance, and Corporate Strategy. An organizational analysis revealed critical challenges faced by Nuon, highlighting the need for an Enterprise Architecture (EA) approach. These challenges include operational demands for improved efficiency through streamlined business processes and IT systems to reduce redundancy and costs. Additionally, the company faces market dynamics that require enhanced business agility to quickly adapt its IT architecture to changing customer needs and market trends. Complexity management is another challenge, as increasing IT system complexity necessitates a comprehensive framework to simplify the IT landscape. Lastly, ensuring strategic alignment between IT architecture and Nuon’s broader business strategy is essential for gaining a competitive advantage.

Deployment of Simplified TOGAF 10 (Mini TOGAF)

PT Nuon Digital Indonesia recognized that rigidly applying the comprehensive TOGAF 10 framework was impractical given resource constraints and the need for speed and agility.

Consequently, the company pursued a pragmatic and adaptive approach: simplifying TOGAF artifacts into a Mini TOGAF model that focuses on essential, value-adding components.

The artifact simplification process across the TOGAF phases is detailed below:

TOGAF ADM Phase	Original TOGAF 10 Artifacts	Simplified Mini TOGAF Artifacts (Focus)
Preliminary	Terms of Reference, Architecture Principles	**Architecture Guidelines** (Consolidated guidance and fundamental principles).
Architecture Vision	Vision Statement, Business Goals & Objectives	Focused on core **business goals** and essential **Key Performance Indicators (KPI)**.
Business Architecture	Business Capabilities Catalog, Organization Structure	Modeling focused on **core business processes** and the direct supporting **organization structure**, avoiding over-engineering.
Data Architecture	Data Entity Catalog, Data Flow Diagram	Concentrated on **key data entities** and **data flow** within the primary business processes.
Application Architecture	Application Portfolio Catalog, Application Communication Diagram	Modeled only **core applications** and their critical inter-communications.
Technology Architecture	Technology Standards Catalog, Infrastructure Diagram	Focused on essential **technology standards** and **IT infrastructure** that directly support core applications.
Opportunities & Solutions	Implementation Roadmap, Migration Plan	Focused plans exclusively on **short- and medium-term implementation goals** to maintain flexibility in the dynamic digital industry.

This tailored approach, implemented as Mini TOGAF, allowed Nuon to build a solid, structured, and adaptive EA foundation while mitigating risks and disruptions associated with overly complex implementations.

Discussion of Outcomes and Challenges

The deployment of the Mini TOGAF framework has yielded substantial positive impacts, validating the thesis that EA, even in a simplified form, can deliver significant organizational value.

Outcomes of Mini TOGAF Implementation

The implementation of a simplified architecture framework brought several key benefits to Nuon. First, it significantly improved architectural understanding among stakeholders, particularly through concise and relevant artifacts like the Architecture Guidelines and Business Capabilities Catalog, enhancing collaboration and informed decision-making across divisions. Second, by modeling and optimizing high-value business processes, Nuon increased operational efficiency, eliminating inefficiencies and reducing operating costs while improving resource allocation. Third, the flexible architecture, aligned with core applications and technology standards, enhanced business agility, enabling faster integration of new services and quicker responses to market changes. Lastly, the strategic alignment was

strengthened through Mini TOGAF, ensuring that IT architecture investments directly supported the corporate strategy, linking the company's Vision, Goals, and Objectives to the IT blueprint for optimal growth.

Challenges and Mitigation Strategies

Despite the positive results, implementation was met with common challenges that required active management:

Challenge Encountered	Description & Impact	Mitigation Strategy
Lack of EA Awareness	Stakeholders initially viewed EA as complex or disconnected from direct business goals, leading to confusion.	Continuous, comprehensive socialization and education campaigns were vital to frame EA as a strategic tool for value creation and goal achievement.
Resource Constraints	EA demands substantial commitment of time and expert personnel, challenging resource-limited operations.	Meticulous planning to prioritize the most impactful artifacts and activities, and leveraging external consultants for specialized expertise.
Resistance to Change	Implementation induced necessary changes to processes and technology, causing resistance among some staff.	Effective change management—involving all stakeholders, transparently communicating benefits, and providing support throughout the transition.

The successful adaptation of TOGAF 10 into Mini TOGAF by PT Nuon Digital Indonesia validates that frameworks can and should be tailored to meet organizational context. This pragmatism serves as a viable model for balancing the need for rigorous IT governance with the speed and flexibility demanded by the digital transformation era.

CONCLUSION

This research demonstrates that implementing a simplified TOGAF 10 framework, called Mini TOGAF, offers a practical and effective way to deploy Enterprise Architecture (EA) within dynamic organizations like PT Nuon Digital Indonesia. By focusing on core, high-value artifacts, Mini TOGAF reduces the complexity, and resource demands typical of full TOGAF implementations without compromising strategic oversight. The approach improved operational performance through process optimization and more efficient IT resource use, while also strengthening strategic governance by closely aligning architecture with business objectives and KPIs. The case study confirms Mini TOGAF as a scalable, adaptable model suited for resource-constrained organizations seeking agility in fast-evolving digital contexts. Future research could explore applying Mini TOGAF across diverse industries and evaluate its long-term impact on organizational agility and digital transformation success.

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