# ENTERPRISE ARCHITECTURE CONTRIBUTION TOWARDS DIGITAL TRANSFORMATION

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***Abstract:*** *This paper will give an overview of enterprise architecture for the digital age. This paper talks about how important enterprise architecture is in the digital age, the problems that organizations face when trying to create and implement effective enterprise architecture, and the best ways to do this. In the digital age we live in now, businesses face problems they have never faced before as they try to stay competitive and relevant in a market that is becoming faster-more paced and changing all the time. Enterprise architecture is a key tool for companies that want to deal with these problems and reach their strategic goals. But making and putting in place effective enterprise architecture can be a difficult and complicated process.It will use a variety of academic and business sources, such as case studies, empirical research, and the opinions of experts, to give a full picture of this important topic. In the end of the paper, suggestions will be made for businesses that want to create and use an effective enterprise architecture in the digital age.*

**Keywords:** *Agile Mindset, Digital Transformation, Enterprises, IT*

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## INTRODUCTION

In today's digital age, enterprise architecture plays a crucial role in managing the ever-changing digital ecosystem and supporting business transformations. The goal of this study is to find out how traditional enterprise architecture can be made better to support digital transformation and keep businesses from falling behind in the market. Enterprise architecture is a plan for how people, processes, and technology can work together to help an organisation achieve its goal, vision, and strategy. Its major goal is to make IT work for a business by making sure that information is available for making decisions and keeping things under control and that there are well-structured plans for the development of an enterprise IT landscape. Enterprise architecture models show how to build and use enterprise architecture systems by giving guidelines, principles, and best practises (Chillingworth, 2023).

To stay relevant in the market, organizations must adapt to the digital ecosystem and implement digital transformation. Digital transformation refers to the integration of digital technologies into all areas of a business, leading to fundamental changes in the way it operates and delivers value to customers. Emerging technologies like cloud computing, big data, IoT, AI, and blockchain, among others, are driving this transformation. Organizations can achieve digital transformation by implementing digital strategies, culture change, customer-centricity, and innovation(Gartner, 2022).

The case study of Intel explains how the company modified its existing corporate architecture in order to facilitate digital transformation and generate favorable results. Intel adopted a strategy that involved defining the digital strategy, building and deploying the new architecture, and embedding the architecture into the organization's operations. Each part of the plan was accomplished using a three-step process. According to Kaushik and Aeron, the outcomes were an improvement in decision-making, agility, innovation, and pleasure of customers. fter you have created a transparent enterprise architecture and filled it with sufficient data, you will have the confidence to move forward with taking proactive measures towards a digitally transformed future(Kharade et al., 2017).

**Importance of Business Data**

It has been said that "data is the new oil," and it is absolutely necessary to have an understanding of the data that drives your company. After determining which apps are most important, resolving any urgent issues that have arisen, and making improvements to business procedures, it is time to turn attention to the data. This often takes place at two distinct granularity levels at the same time. It is impossible to place enough emphasis on the fact that the requirements of your stakeholders are of the utmost significance.In order to avoid the ivory tower fallacy, it is essential to keep in mind that the primary emphasis should continue to be placed on the generation of high-quality data and business value.

**Elimination of operational distractions**

With the constant operational concerns can distract you from the strategic projects you are working on because you are an enterprise architect. When dealing with pressing business support requests, operating system updates, unexpected technology crises, or initiatives to reduce expenses, it can be difficult to maintain perspective on the wider picture. It is essential to take preventative measures to recognize and deal with these problems before they become a source of distraction in order to escape this rat race (Rosado, 2019).

For instance, operating system or database changes can be a source of distraction if you are unsure about which applications they will impact. However, you will have the ability to take preventative action if you are able to identify the primary technologies that your most important business applications depend on. In a similar vein, if you have a thorough awareness of the landscape of your application portfolio, you will be able to manage urgent demands for business assistance in a more effective manner. You will be able to move quickly and prevent someone else from claiming these savings if you have all of the information that you need readily available to you (Sabitha et al., 2021).

**Core contributor in Digital transformation**

Within the context of digital transformation, the function of an Enterprise Architect (EA) is of the utmost importance. Both the leaders of a firm and those who practise enterprise architecture can find it unsettling if enterprise architecture is not managed efficiently.One of the most important factors that contributes to the significance of enterprise architecture in digital transformation is the rising desire for transparency and business-IT alignment. It is difficult to address the difficulties of continual transformation, which are necessary for survival, if one does not have a crystal clear awareness of the data, applications, and business skills that an organisation possesses. They are required to provide evidence that the primary focus of their work is not merely the development of models and frameworks, but also the production of business value and the enhancement of operational efficiency(Westmoreland, 2022). The identification of important data objects, applications, and business capabilities that drive the business should be given priority in an effective enterprise architecture. This information can be utilised to construct a communication instrument that stakeholders in both the company and IT can use to identify possibilities for improvement and address operational problems.In addition, EAs have the responsibility of proactively identifying and resolving any operational difficulties that can divert attention away from strategic efforts (Algabri et al., 2021). This includes keeping up with the latest technological advancements and being proactive in anticipating potential problems before they occur.In a nutshell, the function of an EA is absolutely necessary within the framework of digital transformation. EAs are required to make transparency and the alignment of business and information technology their top priorities, while also demonstrating their worth to the organisation by enhancing operational efficiency and delivering business value. EAs may assist organisations successfully negotiate the challenges of continuous transformation and secure their survival in a quickly changing digital landscape by efficiently managing enterprise architecture and addressing operational issues. This is made possible by EAs' ability to solve operational concerns(Babar & Yu, 2015).

In order to meet the challenges of digital transformation, modern Enterprise Architects must possess five key traits:

The first key aspect is the ability to execute. The traditional approach of creating enterprise models from a disconnected perspective is no longer sufficient in today's fast-paced business environment. A modern Enterprise Architect needs to assess the current systems and processes and anticipate future challenges and opportunities. They must possess the capability to understand, organize, and analyze information that may assist in solving upcoming enterprise landscape problems. Proactive Enterprise Architects propose and explore feasible solutions while remaining approachable, supportive, and ready to provide additional assistance until a resolution is attained (Pattij et al., 2022).

a) **Technologically Proficient:** It is essential for enterprise architects to have a comprehensive awareness of emerging technologies and the possible influence these technologies may have on the organisation in this age of digitization. An enterprise architect that is well-versed in technology is extremely important to the company and is willing to take the initiative to learn the digital skills essential to achieve digital transformation. APIs, microservices, DevOps practises, and emerging database technologies are all areas that modern enterprise architects have a responsibility to be knowledgeable with. They are also tasked with determining whether the proposed technology or service will have a good or negative effect on the organization .
b) **Fact-based decisions:** According to the predictions of Bjorn Goerke, "Data will become a strategic asset to the adaptive enterprise," and "analytics will enable the organisation to distinguish the signals from the noise and focus on outcomes, resulting in business ROI." In the modern business world, enterprise architects are required to base all of their judgements on data. The leadership of an organisation can strengthen its competitive advantage by working on the most impactful tasks and making investments in the right areas if they base their decisions on data and use that information to guide their deliberations (Sonavane, 2021).
c) **Evangelistic:** An Evangelistic EA is someone who is enthusiastic about a recently released piece of software or service and is able to effectively articulate the benefits of this new addition to their team. They decide on a single significant subject that the company stands to gain the most from, such as cloud migration, DevOps, or microservices, and then they conduct research in order to become an effective advocate for that particular cause. Enterprise Architects who are successful are aware that it is vital to undergo a mental shift in order to achieve success in digital transformation. It is possible that different businesses will have different standards for what constitutes an ideal modern Vanguard enterprise architect, but prosperous businesses will make sure that the EA is not tucked away in the IT department and has a pleasant space to work close to the office of the CXO. Although it is preferable for CXOs to enhance the visibility of the EA department directly, enterprise architects can also take the initiative to get involved in a proactive manner. CXOs can be given reports, for instance, that help design and implement technical initiatives or that produce business value from technology (Naikwadi, 2021).
d) **Agile Mindset**: Agility has become a critical trait of top-performing Enterprise Architects. Modern EAs are knowledgeable in agile development methodologies such as Scrum and Kanban. They utilize these methodologies to accelerate software deployment timelines and drive faster results. By shifting from an "Ivory Tower" mindset to a project manager mindset, EAs can proactively map out systems that promote high project deliverable rates, generate quick results, and produce reliable critical business data while maintaining crucial requirements like security, data privacy, and compliance.

## CONCLUSION

Enterprise architecture has been utilized for many years by a variety of businesses to either revive already existing architecture or to establish a new amazing business architecture using IT infrastructures as an enabling factor to create an environment of the business that delivers value to their clients and makes them stand out in a crowded market. In the current digital generation, adopting a new corporate architecture to fulfill the demands of digital transformation is crucial due to the surge in internet usage brought on by an increase in the number of disruptive technologies. Although the majority of the literature we looked at suggested adaptive EA that can promote digital

transformation, the adaptive capabilities that characterize a modern EA were not covered in great detail in this paper. Any firm in the digital era should consider implementing digital enterprise architecture, which may be used to integrate both legacy and cutting-edge technologies and move the organization towards digital transformation.

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