DIGITAL TRANSFORMATION IN CONSTRUCTION SECTOR

A SURVEY OF BUSINESS STAKEHOLDERS

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ROBOAUTAL

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INTRODUCTION

Construction industry has been undergoing a technology revolution. New materials, innovative processes, and transformed workflows are changing the very fabric of the sector in more ways than we realise. Digital transformation has the power to disrupt every aspect of construction, boosting productivity and cutting costs in previously unimaginable ways. In Singapore, the government is leading the charge towards a digital future for all industries, including construction. However, as usual, changes are difficult even in the most conducive environments. And construction sector being one of the oldest, is not immune to the challenges. There are still suspicions harbored as to the relative advantages and disadvantages of digital transformation. And addressing these issues related to change management might be crucial to the eventual extent and rate of digital transformation achieved.

Before diving into a deeper discussion on the benefits and drawbacks of digital transformation, it is crucial to objectively examine the stark reality of the current state of construction sector. This may include evaluating the understanding of digital transformation initiatives, the actual measures being take, and the challenges faced by stakeholders. Only by understanding and appreciating these crucial factors construction companies may be able to take accelerate their journey towards full advantage of the benefits of digital transformation.

Despite the growing awareness of the importance of data management and emerging digital technologies, construction sector still seems lag in adoption.

So, what is the reality of digital transformation in today's construction sector? What are the challenges they are facing? What are the opportunities lying ahead? What are the pain points in technology adoption?

With the intention to capture evolving trends, the team at Roboautal plans to conduct this survey annually and compare responses to drive innovation and progress in the industry.

In order to dig deeper, Roboautal conducted a survey of the various business stake holders in construction sector. By polling 100 over professionals with diverse backgrounds and roles in the Singapore construction sector, the survey aimed to reveal the current activities, initiatives, objectives, and attitudes of leadership regarding digital transformation and also related challenges.

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What is "Digital Transformation"? And how does it differ from "Digitization" and "Digitalization"?

"**Digitization**" generally refers to conversion of all of the physical ink-on-paper records to digital computer files. Conversion of files into pdf or other digital formats which were previously physical ink-on-paper is a good example of "Digitization". Digitization, done properly, makes finding and sharing data much easier and more organized.

"**Digitalization**" may be defined as the process of using digitized information and making traditional and established way of working simpler and more efficient. In other words, the business processes effectively remain the same.

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What's Digital Transformation then?

The term "Digital Transformation" generally refers to the use of technology to improve business processes leading to better results across the board. Digital Transformation can include any function within a construction firm including back office and supply chain applications, factory automation, sensors embedded in the goods produced, data analytics, and more. With digital transformation, companies could taking a step back, revisit their existing business process and come-up with radically different ways of achieving the same results.