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College Of Management
Masters of Management



**The Impacts of Digital Transformation & Evolving Tech
On Manufacturing Industry in Saudi Arabia**
آثار التحول الرقمي وتطور التكنولوجيا في القطاع الصناعي في المملكة العربية السعودية

A Research Proposal

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RESEARCH PROPOSAL

Research Title

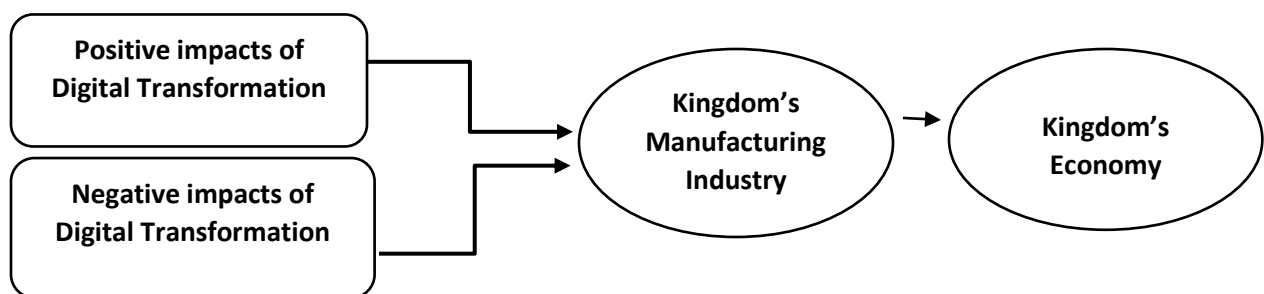
The Impacts of Digital Transformation & Evolving Tech on Manufacturing Industry in Saudi Arabia.

Introduction

Every sector in the business world, including manufacturing, has been transformed by digital adoption over the past decade. Digital technologies are being implemented across departments and businesses in Saudi Arabia as well because of digital transformation. It has made new business processes, enhanced conventional tasks, empowered developments and offered superior encounters to engage in with clients.

Saudi industry sector aims to keep up with the global shifts in manufacturing processes, in which companies use cutting-edge technology like the Internet of Things, robots, augmented reality, virtual reality, 3D printing, and artificial intelligence to increase production efficiency. In this study, we will discuss how digital transformation has helped manufacturing industries to speed up projects in the last decade by utilizing digital technology to their benefit.

Here is the model of our research:



Source: Self Made

Research Problem

The Vision 2030 of Saudi Arabia is a road map to the future. It was unveiled in 2016 and is a transformative and extremely ambitious plan to create a diverse, innovative, and world-leading nation to unlock the Kingdom's vast potential for the benefit of future generations. Digital

transformation is one of the objective of this vision for a vibrant society and a more sustainable future.

When we talk about digital transformational in the manufacturing sector of Saudi Arabia, many impacts it is having on the industry. As per the assumption, one of the most significant impact is the speed up in manufacturing process. So, the study is required to investigate the impacts of Digital Transformation & Evolving Tech on Manufacturing Industry in Saudi Arabia.

Research Importance

This research paper investigate the need for digital transformation in the manufacturing sector, its major impacts, key drivers and discuss the challenges in the digital transformation process. In addition, this paper identifying steps taken towards provision of digital transformation in the manifesting sector of Saudi Arabia.

Briefly, the general purpose of this study is to analyze the need for digital transformation in manufacturing industry. In addition, we will investigate that either digital transformation in manufacturing sector effects the Kingdom's economy or not.

Beside these, we study in our course journey that Digital Transformation is important in organizations and industries for several reasons, thus we want to study and analyze it practically through our research and understand the main effects of it.

Research Hypothesis

- H0: There is no significant influence of digital transformation & evolving tech on manufacturing industry in Saudi Arabia.
- H1: There is significant influence of digital transformation & evolving tech on manufacturing industry in Saudi Arabia.

There is two variables in the hypothesis and they are “Digital Transformation” and “Manufacturing Industry”.

Initial Literature Review

According to the Digital Economic Report 2019, the term "digital transformation" refers to the revolutionary ways in which the technological revolution is altering value chains and providing

new opportunities for value addition and structural change. The report characterizes it as a feature of economic output got exclusively or principally from digital innovations with a plan of action in light of computerized labor and products characterized effortlessness as the extent of monetary result got from broad mechanical inputs, for example, "PC abilities, PC gear (equipment, programming, and interchanges hardware), and middle person computerized labor and products. Such broad undertakings are the foundations of the digital transformation (Report, 2019).

Digitalization has the potential to boost global economic expansion. Beside this, it is normal that more prominent effectiveness underway because of advanced change would prompt lower costs and expanded efficiency. This would lead to higher aggregate demand, higher employment, and potentially higher wages, thus making up for the underlying interruption. Since countless firms and industries are embracing high level advanced innovations to reshape action plans, digital advancements expect labor forces to have an extensive variety of skill, like as self-direction, critical thinking, correspondence skills, and web management. With the appearance of digitalization, certain parts of the businesses have gone through monstrous changes. These progressions sought after for abilities and business made bound work vanish. These changes in demand for skills and employment caused bound employment to disappear. This changed the positions of companies in terms of development, market capitalization, and many more. In the innovative era, the most effective strategies are still in progress or uncertain (Ping, He, & Gao Yao Ying, 2018).

Thus, Digital adoption in the last decade has transformed every industry, and manufacturing is no exception. Digital transformation in manufacturing entails incorporating digital technology into manufacturing processes and products to boost productivity and quality. One study says that this transformation has two parts: the technology they offer and the components they're improving. Digital transformation in manufacturing focuses primarily on diminishing expenses and working on functional proficiency, keeping a top notch of finished items, embracing quicker to fluctuating business sector prerequisites and customer requirements (Joshi, 2022).

Since 2006 Saudi Arabia has had an established plan for digitization, called to the National Strategy for Digital Transformation. All the Saudi Arabia business organizations supporting the Saudi Vision 2030 and manufacturing industry of Saudi Arabia making its path toward digital transformation. However, experts always discuss how the kingdom can take

advantage of the opportunities associated with digital transformation in manufacturing industry as the application of new digital and automated technologies contributed to production processes and service delivery and also because this industry have a great impact on the Kingdom's economy (Flanders, 2021).

Research Methodology

Our research will based on both primary and secondary data. For primary data, we will use questionnaire survey with sample size of around 50 respondents. While for secondary data, we will collect the information from different already available online study sources.

Research Structure

The structure of our research is disturbed in to four parts as follow:

1. First part: Introduction

- 1.1. Cover
- 1.2. Acknowledgments
- 1.3. List of Content Tables
- 1.4. Charts Appendixes

2. Second part: Theoretical Framework of the study

- 2.1. First chapter: Problem of the study and its importance.
 - 2.1.1. Research Title
 - 2.1.2. Research Overview
 - 2.1.3. Research Objectives
 - 2.1.4. Research Importance
 - 2.1.5. Research Problem
 - 2.1.6. Research Questions
- 2.2. Second chapter: First variable of the study.
 - 2.2.1. Digital Transformation
- 2.3. Third chapter: Second variable and the correlation between variables
 - 2.3.1. Manufacturing Industry of Saudi Arabia
 - 2.3.2. Impacts of Digital Transformation on Manufacturing Industry in Saudi Arabia

3. Third part: Practical study and its methodological procedures

3.1. Fourth chapter: Methodological procedures

3.1.1. Primary Research (Questionnaire)

3.1.2. Secondary Research (Literature Review)

3.2. Fifth chapter: Field results

3.2.1. Findings Overview

3.3. Sixth chapter: Results and Proposal Analysis

3.3.1. Proposal Analysis

3.3.2. Research Results

4. Fourth part: References and Abstract

4.1. Conclusions

4.2. References

4.3. Appendices

Research Limitations

Our research is very limited due to limited number of respondents, future research should be conducted with high number of respondents to better analyze the effectiveness of Digital Transformation in the manufacturing industry productivity and in the rise of economy in Saudi Arabia.

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