

INTRODUCTION

the **DIGITAL TRANSFORMATION** of **MANUFACTURING/ PRODUCTION** and **ALLIED INDUSTRIES** as well as **VALUES CREATION PROCESSES** is known as **INDUSTRY 4.0**

1st Industrial Revolution
introduce of mechanization
steams engines
water



2nd Industrial Revolution
discover the technologies
electrification line
such turbin



3rd Industrial Revolution
become the key driver of
industries such as
computer, digital
machines and any
other else



4th Industrial Revolution
is the integration
of artificial
intelligence into
industries



EXAMPLE OF AUTONOMOUS ROBOT



AUTOMATED CAR FACTORY

AI KIOSK
SMART
SERVICE
ROBOT



PENASONIC
AUTONOMOUS
DELIVERY
ROBOT



TECHNOLOGY IR 4.0 :

AUTONOMOUS ROBOT

Autonomous robots are **intelligent machines** capable of doing activities in the real world without the intervention of a human. The relationship between humans and robots is **changing** as emerging technologies become more prominent.

Autonomous robots have the ability to **replace humans**, such as a cognitive virtual assistant

companies will be able to **improve efficiency and customer experience** while gaining a competitive edge

REFLECTION

From all these talk and slide given, we know autonomous robot is one of the useful technologies which **HELP MANY HUMANS LIFE** in our generations. We also know autonomous robots such as autonomous hand, automated car factory, and many else were really useful in many particular aspect. The first one is autonomous robots give **SAFETY** for human life as robots can save us from doing any dangerous task. The second one is robots can **SAVE OUR TIME** because they are able to produce many products which help us to boost our sale rapidly.



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Introduction

Industry 4.0 is majority on manufacturing while 4 industrial revolution is more focusing in all aspect of human life
Due to covid-19 pandemic, it has increase the speed of human to get used on internet.

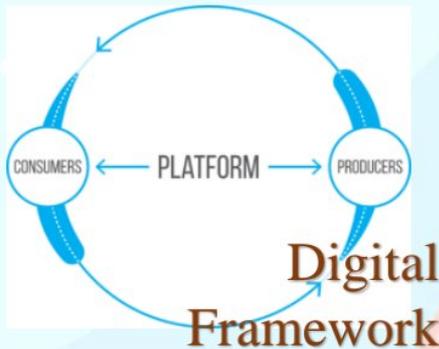


Summary

4IR has adopt certain vital areas in our daily life.

1. Digital & cloud
2. Smart City
3. 5G

This minor sector has turn our personal lifestyle into a whole new level.



A business model that creates value by facilitating exchanges between two or more interdependent groups, usually consumers and producers.
The purpose is to create a repeatable method or process when planning and guiding a digital transformation.

What is the outcome of this Transformation?

1. Innovative business model
2. Differential value proposition to beat competitor
3. Operationally efficient

Smart city is a technology to intuitively adapt and respond to the need of the citizen

4IR not only managing logistic performance & efficiency with Smart fleet

It also Driving the Production & speed up the Sales Transaction and Managing overall manufacturing Performance with Smart Manufacturing Solutions

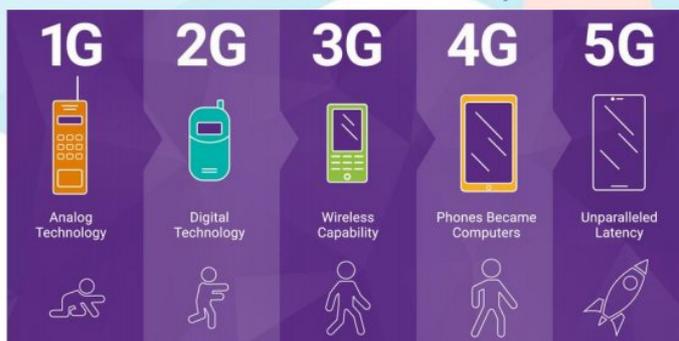
It could Suggest on new potential Areas or Distribution Channels to increase Sales Volume.



5G is a unifying connectivity fabric for society and an extensive mobile ecosystem to new industries.

5G opens up a wide range of use cases

The Evolution of 1G to 5G



Enhanced Mobile broadband (eMBB)
This will help to develop today's mobile broadband use cases such as Virtual and augmented Reality, UltraHD or 360-degree streaming video and so on.

Massive Machine type communications (mMTC)
has been already developed as part of 3GPP Release 13/14 low power wide area (LPWA) technologies for example, Smart energy networks, Smart agriculture & smart retail

Ultra-reliable and low latency communications (uRLLC)
It require the 5G Core deployment for full end-2-end latency reduction which is highly unlikely in Autonomous monitoring & Smart manufacturing

Reflection

In this 4.0 Industrial Revolution talk, we know about the new generation will become more on 5G. Not only 5G, SMART city will also appear in our life in the next few years. We also know that Digital Framework is a trend in this era, because it has a win-win business model for consumers & producers. From this 4IR talk, I know that Internet has become something necessary for daily life. In the next few years, we are more on Internet and we need to get used to it.

Industry Talk 2



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IR4.0: A MALAYSIA PERSPECTIVE

SUMMARY

Fourth Industrial Revolution from Malaysia's point of view explained through the factors affecting the future of manufacturing, issues and challenges faced by Malaysia and how they are addressed, the framework and how Malaysia is going to move forward.

INTRODUCTION

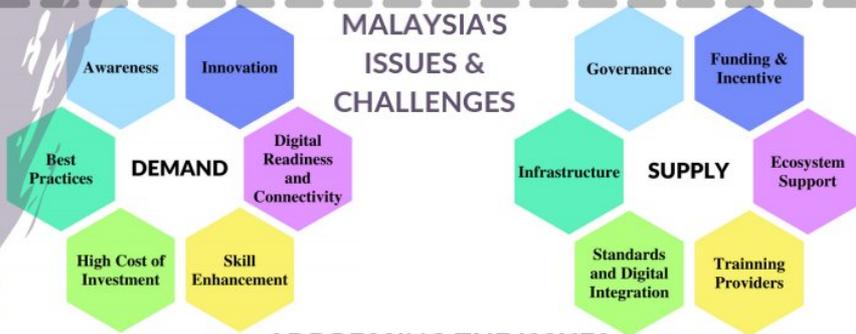
The Fourth Industrial Revolution (4IR) is expected to alter how we live, work, and communicate in the future, as well as the things we value and how we value them. Automation and artificial intelligence are change agents in 4IR. (StudyMalaysia, 2020)



FACTORS AFFECTING THE FUTURE OF MANUFACTURING:

1. Global value chains and production geographies are shifting.
2. Higher productivity and labour quality, but not lower labour costs.
3. New technologies are disrupting and promoting a production model based on technology.

MALAYSIA'S ISSUES & CHALLENGES



ADDRESSING THE ISSUES

- A** Attract stakeholders to Industry 4.0 technologies & processes, and further increase Malaysia's attractiveness as a preferred manufacturing location.
- C** Create the right ecosystem for Industry 4.0 to be adopted and align existing and future development initiatives.
- T** Transform Malaysia's industry capabilities in both a holistic and an accelerated manner.

VISION

- Strategic partner for smart manufacturing & related services in the Asia Pacific.
- The primary location for the high-tech industry.
- Provider of complete advanced technology solutions.

NATIONAL GOALS

- Increase in Labour Productivity
- Manufacturing's Economic Contribution
- Capacity for Innovation
- High-skilled Positions

SHIFT FACTORS

- People
- Process
- Technology

ENABLERS

- Funding
- Infrastructure
- Regulations
- Skills & Talents
- Technology

THE FRAMEWORK

MALAYSIA MOVING FORWARD

1. Skill development and reskilling
2. Involvement of small and medium enterprises
3. Significant advancement in innovation
4. Targeted funding assistance
5. Reliable digital infrastructure



REFLECTION

From this industry talk, we got to know the Fourth Industrial Revolution (4IR) from Malaysia's point of view. In our opinion, Malaysia is doing well as they are staying ahead of the 4IR curve. However, the evolution remains in the people's hands. The people will be the ones determining whether the country will keep on rising in the 4IR or remain on the same level. This somehow explains the issues that Malaysia faces. We all agree that the method that Malaysia uses, that is, the A-C-T is very systematic and well-thought. Even the framework shows that the whole thing has been planned thoroughly, which make us think that the vision stated by Malaysia will not be hard to achieve.

REFERENCE

StudyMalaysia. June 16, 2020. The Fourth Industrial Revolution (IR 4.0) and what it means for students like you. Retrieved November 7, 2021, from <https://www.studymalaysia.com/education/top-stories/the-fourth-industrial-revolution-ir-4.0-and-what-it-means-for-students-like-you>