

# THRIVING IN A NEW ECONOMY

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# **DIGITAL ECONOMY**

# DIGITAL ECONOMY

- Digital Economy refers to the economy that is based on digital technologies
- Also called the internet Economy, the New economy, or Web Economy
- In this economy, digital networking and communication infrastructures provide a global platform over which people and organizations devise strategies, interact, communicate, collaborate and search for information.
- It is widely accepted that the growth of the digital economy has widespread impact on the whole economy

## COMPONENTS OF DIGITAL ECONOMY

- e-business infrastructures – hardware, software, telecoms, networks, human capital
- e-business - how business is conducted, any process that an organization conducts over computer-mediated networks
- e-commerce - process of buying, selling, transferring or exchanging of products, services and information via electronic network and computers

# **TWELVE THEME OF THE NEW ECONOMY**

# TWELVE THEME OF THE NEW ECONOMY

1. Knowledge
2. Digitization
3. Virtualization
4. Molecularization
5. Integration / Internetworking
6. Disintermediation
7. Convergence
8. Innovation
9. Prosumption
10. Immediacy
11. Globalization
12. Discordance

## **1. Knowledge**

- Information Technology enables an economy based on knowledge
- Rise of Artificial Intelligence (AI) and other knowledge technologies
- knowledge is created by knowledge workers and by knowledge customers Example :SmartClothes ,smart card etc.

## **2. Digitization**

- Age of Sand, racing through glass fibers
- All information can be represented as either 1 or 0
- If a picture is worth a thousand words, the right multimedia document retrieved at the right time is worth a thousand pictures

### **3. Virtualization**

- Physical things can become virtual changing the metabolism of the economy
- Virtual ballot box, Virtual bulletin board, Virtual business park, Virtual job, Virtual Reality and others Example: Virtual Reality

### **4. Molecularization**

- The old corporation is being disaggregated
- Replaced by dynamic molecules and clusters of individuals and entities that form the basis of economic activity
- Massmedia -> Molecular, Massproduction -> Molecular

### **5. Integration/ Internetworking**

- Integration molecules into clusters that network with others for the creation of wealth
- Internetworked Enterprise
- Style of networking from host computer



## **6. Disintermediation**

- Middleman functions between producers and consumers are being eliminated through digital networks; e-commerce
- Changing the single pattern

## **7. Convergence**

- Created by three converging industries that, in turn, provide the infrastructure for wealth creation by all sectors
- Becoming the basis of all sectors
- Transform the arts, scientific research, education eg: youtube

## **8. Innovation**

- “Obsolete your own products”
- For example; Microsoft technologist Ken Nickerson is proud to say that it was Microsoft (with Windows 95) that succeeded in making obsolete the best-selling software of all time, Microsoft's own DOS.

## **9.Presumption**

- The gap between consumers and producers blurs
- Mass production is replaced by mass customization
- Producers must create specific product that reflect the requirements and tastes of individual customers.
- Consumers are involved in the actual production process

## **10. Immediacy**

- Becomes a key driver and variable in economic activity and business success
- The new enterprise is a real time enterprise, which is continuously and immediately adjusting to changing business conditions through information immediacy •
- For instance; Electronic Data Interchange (EDI)

## **11.Globalization**

- Driving the extension of technology
- To meet the demand of global consumers
- Global business need to be able to link with customers, suppliers, employees, and partners throughout the world
- Boundary-less firms, global organization etc.

## **12. Discordance**

- Unpredicted social issues such as; privacy, access, quality of work life, quality of life etc. are beginning to arise
- The nature of work and the requirements of the workforce in the digital economy are fundamentally different
- The concept of labor is undergoing a radical redefinition
- The new economy is bringing high-paid, high-value jobs, but there is little job mobility between old and new

# **THE TEN TECHNOLOGY SHIFT**

## THE TEN TECHNOLOGY SHIFT

1. From Analog to Digital
2. From Traditional semi-conductor to Microprocessor Technology
3. From Host to client / server computing
4. From Garden Path Bandwidth to Information Gateway
5. From Dumb Access Device to Information Application
6. From separate data, text, voice and image to multi-media
7. From Proprietary to open system
8. From Dumb to Intelligent Network
9. From Craft to Object Computing
10. From GUI's to MUIs, MOLEs, MUDs, MODs, AVATARs and VR (Virtual Reality)

## **1. From Analog to Digital**

- Digitization turns analog waves into a version of Morse codes consisting of dots and dashes or of ones and zeroes.
- From 2002, when the world began storing more information in digital than in analog format.

## **2. From Traditional semi-conductor to Microprocessor Technology**

- Microprocessor advancement began in 1968 with the formation of Intel Corporation in Mountain View, California.

## **3. From Host to client / server computing**

- Business units work together in well-structured enterprises.
- Distributed computing on networked systems.

#### **4. From Garden Path Bandwidth to Information Gateway**

- The emerging technologies are equivalent to superhighways 1 mile and 16 miles wide respectively.
- An incredible advance in information-carrying capacity.

#### **5. From Dumb Access Device to Information Application**

- 'Dumb' access devices (like television) are becoming interactive, and thus more useful as 'information appliances'.

#### **6. From separate data, text, voice and image to multi-media**

- Technologies that used to work as separate technologies now share resources and interact with each other synergistically.

#### **7. From Proprietary to open system**

- In 1984 Richard Stallman developed the 'free software'- software which could be copied by others and made changes too as they pleased.

## **8. From Dumb to Intelligent Network**

- Concept of intelligent network with intelligent end-points is highly emerging.
- Data retrieval are done by specialized software programs called 'information agents'.

## **9. From Craft to Object Computing**

- Chunks of software are created instead of creating large and complex software programs.

## **10. From GUI's to MUIs, MOLEs, MUDs, AVATARs and VR**

- The standard graphic user interface (GUI) was replaced by much more compelling and flexible technologies -called multimedia user interfaces (MUIs), multi-user domains (MUDs), and just plain virtual reality (VR).



# **INTERNET ECONOMY INDICATORS**

## INTERNET ECONOMY INDICATORS

- Designed to quantify the **sales volume** and **employment** in various groups of Internet-related products and services
- Derived from analysis of four "Layers" of the Internet Economy
  - Internet Infrastructure
  - Internet Applications
  - Internet Intermediary
  - Internet Commerce.

## **1. The Internet Infrastructure Layer**

- This layer includes companies with products and services that help create network infrastructure.

## **2. The Internet Applications Layer**

- Products and services in this layer build upon the above IP network infrastructure and make it technologically feasible to perform business activities online.

## **3. The Internet Intermediary Layer**

- Internet intermediaries increase the efficiency of electronic markets by facilitating the meeting and interaction of buyers and sellers over the Internet.

## **4. The Internet Commerce Layer**

- Internet commerce involves the sales of products and services to consumers or businesses over the Internet.

# **E-COMMERCE**

- a process of buying, selling, or exchanging products, services, and/or information via electronic networks and computers

THANK YOU

