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2. Information and Communication Technology (ICT) –Enabled Transformation into Development

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Abstract:

Organizations must adapt to a fast changing business environment and rapidly changing ICT in order to survive in the future. The "enablers" of ICT enabled Organisational transformation included change management, knowledge management, business process management, and IT governance.

Informatization of business, knowledge management, Organisational transformation, management of change, IT governance, and management of business processes. A society's norms, values, and ethos are passed down to future generations through the process of education.

The medium of transmission spans formal, informal, and non-formal situations. For the senior management of a company in transition, the problems they encounter and potential enablers in proactively managing those obstacles were examined and discussed.

As a result of these findings, the transformation program was a success. Finally, the conclusions of this study serve as a guidance for organisations that want to reform themselves for the sake of long-term survival.

Keywords:

ICT, Information and Communication Technology, Development, Enabled Transformation.

2.1 Introduction:

ICTs are reshaping the world economy and redefining the socialize and interact with each other. Nevertheless, despite ICTs' broad potential, their advantages have not been distributed fairly across society. A fundamental concern for public officials today is how to best use ICTs to promote social inclusion and economic growth.

ICTs have a positive impact on a wide range of areas. Economic growth and company competitiveness are both aided by the increased productivity that ICTs provide at the most basic level. Social development projects can benefit greatly from the use of information and communications technology (ICTs), which have previously done so in fields including healthcare, education, and environmental preservation. [1]

A rise in public sector use of ICTs is also making governments more efficient and transparent. Last but not least, fostering the development of indigenous ICT industries has resulted in significant economic dividends for many developing countries.

For the poor, ICTs are essential to alleviating poverty, enhancing access to healthcare and education, and establishing new sources of income and jobs. Competitiveness, economic growth, and social progress have all been boosted by greater access to and usage of ICTs. Mobile phones and other ICTs have also opened up new avenues for the free flow of ideas and opinions, boosting democracy and human rights in the past decade. [2]

As a society's whole activity, consciously or subconsciously, is geared at improving that society, the term "development" can be used to describe it. It is the combination of two words that makes up the descriptor "socioeconomic," and it refers to both social and economic factors, such as education and employment. The process by which a person, an organization, or a community as a whole undergoes changes or improvements in social and economic situations is referred to as socioeconomic development. [3] Development's "Information Chain" is shown in Figure 2.1 due to the use of ICT.

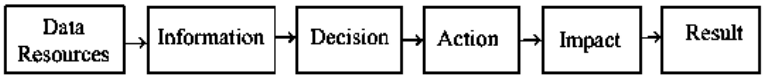

Figure 2.1: ICT Enabled "Information Chain" for Development.

ICT enables the following three sorts of development:

a. Direct Development
b. Networked Development
c. Grassroots Development

a. **Direct Development:** Other development players such as NGOs, PRIs, and SHGs are not involved in this approach, which relies solely on ICTs to deliver resources and services to the intended receiver. Using ICT to broadcast government programs directly to the public is a direct effort to improve the lives of citizens.
b. **Networked Development:** In this paradigm, instead of directly supplying information or data to the recipients, state or commercial agencies act through other actors or organisations that are connected and may effectively act through ICTs. In this case, the primary source is linked to other sources. It is not just the main sources of information that are linked to these intermediaries; they are also linked to one another. [4]
c. Grassroots Development: The primary development agency in the grassroots development model, for example, government, uses the assistance of nongovernmental groups and other members of civil society to reach the recipients. When it comes to development, the state is rapidly relinquishing its role as a major player. A number of community development models have been proven to work. In a democratic method, it is necessary to advance growth.

2.2 Need of Transformation:

The company's top executives enlisted the services of experienced consultants to assess its performance. Finally, the consultants presented their findings to the company's top management, revealing the following significant factors that had a negative impact on performance.

- This company's operational costs were excessively high as compared to those of its main competitor. It led to a decrease in the company's share price because of the financial losses.
- There was a lot of delay in reporting and integrating information for centralized decision making because of inconsistencies in work processes.
- a lack of the necessary ICT infrastructure and services
- There is a lack of up-to-date information for global strategy formulation.

2.3 Transformation Strategy:

As part of the interview process, managers participating in the organization's transformation were asked/examined on many areas of strategy development. [5] "People, process, and technology [3-wheeled vehicle] were critical to ensuring a seamless transformation journey," one manager remarked.

Furthermore, the following topics were examined:

a) Stakeholder participation (Business process owners, HR, IT etc.)
b) Business process reengineering
c) IT services can be outsourced.
d) Change management imperatives
e) Promoting the practice of information sharing
f) Governance of IT

2.4 Review of Literature:

In an attempt to understand the relationship between the Internet and socioeconomic growth in underdeveloped nations, Madon (2000) [6] put up a conceptual framework. According to literature, anecdotes, and speculation, the framework was created. Web-enabled economic growth, as evidenced by productivity; social well-being, including health and education; political stability, as seen by democracy; and the physical environment through sustainable development are all factors that the Internet positively affects. For Madon, intermediary institutions, such as government activities, are essential for the Internet's impact on socioeconomic development to be effective.

Uttama (2012) [7] proposed a model describing the effect of foreign direct investment on socioeconomic development in countries of the Association of Southeast Asian Nations (ASEAN).

According to the author, foreign direct investment is a major driving force for socioeconomic development because it stimulates the product market, the labour market, and the capital market, all of which lead to increases in income, employment, productivity, and human development.

ICT and socioeconomic development have been linked by Roztocki and Weistroffer (2016) [8]. Technology, such as the Internet and mobile telephony as well as the GPS and Wi-Fi systems that allow for e-commerce, e-government and on-line social networks are shown in the framework to enable these kinds of business operations and services. Individuals, organisations, and the country's socioeconomic development are all impacted by these business activities, as the framework shows in considerable detail. They can be viewed through a person's or organization's competing globally, as well as the country's national product, political freedom, wealth, esteem, and the labour market.

According to Roztocki, Soja, and Weistroffer (2017) [9], the use of enterprise systems (ES) technology is linked to socioeconomic development in transition economies, that is, economies that are transitioning from a centrally planned economic system to one that is market-driven. An analysis of the framework demonstrates that ES implementations enable commercial activities, which have a major impact on socioeconomic development at the organisational level. Government policy, corporate culture, and the business environment are all impacted by these socioeconomic changes, which in turn determine human and social capital.

After the initial ES implementation, successive deployments are influenced by factors like as the availability of human resources and the corporate culture, creating an interactive cycle. Customers, employees, suppliers, and investors are just some of the people an organization's connections with may be affected by the transformation, which is not merely a cosmetic change (Rouse and Baba 2006). [10]

Organizations in both the public and commercial sectors are always in flux and have a sense that they should be modified to meet the current challenges of globalization, mergers, acquisitions, new markets, and new technology (Davenport 2013; Eddy 2014). [11]

Companies that have made significant alterations to their working environment, according to Rouse and Baba (2006) [10], can find themselves confronted with issues relating to people, process, and technology. During ICT-enabled Organisational transformation, organisations may encounter both social and technical challenges.

2.5 Objectives:

- To examine the changing paradigms of ICTs and Development.
- To examine the use of ICT in the construction of an integrative framework
- Overview of ICT Development Stages
- Investigate the connection between technology, communication, and information.

2.6 Research Methodology:

Research technique is a way to systematically tackle the research challenge. It may be considered as a science of analyzing how research is done scientifically. In it we analyse the many steps that are commonly followed by a researcher in examining his research problem along with the reasons behind them. It is vital for the researcher to know not only the research methods/techniques but also the methodology. The data utilised for generating this study are secondary in nature which are taken from the many published sites. The data obtained for writing this report are from several relevant websites

2.7 Result and Discussion:

Information, communication, and technology (ICT) are inextricably linked, as the ICT has demonstrated. As depicted in Figure 2.2[12], the synergistic interaction between information, communication and technology.

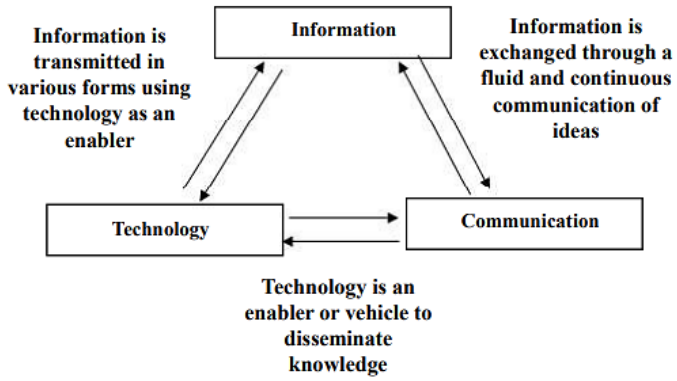

Figure 2.2: Synergistic Relationship between Information, Communication and Technology.

There are at least four major ways that educational systems and individual institutions often take when embracing and using ICT, according to studies of ICT development in both developed and developing nations. When it comes to using ICT in the learning system, there is a common understanding that it takes place in a succession of stages that can be viewed as either continuous or discrete. This cycle, known as Emerging, Applying, Infusing and Transforming (Figure 2.3[13]), is described in detail.

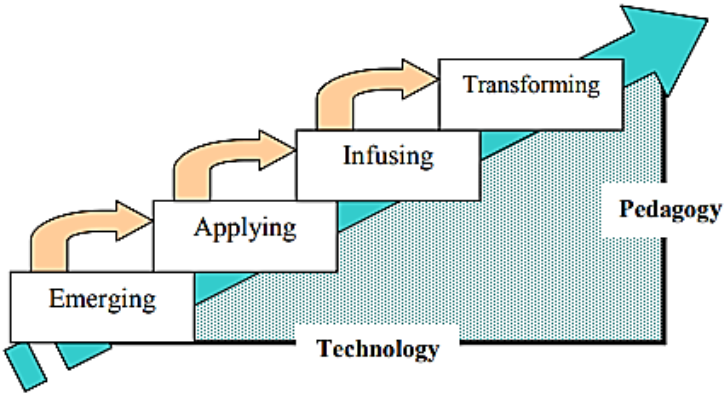

Figure 2.3: Stages of ICT Development

There are three conceptualizations of ICT that can be viewed to influence national development: ICT use, ICT viewpoints, and ICT impact (see Figure 2.4). While it is important to comprehend ICT products via the lens of tools and calculations, they believe that these perspectives have little impact on a person's capacity to expand. [14]

They suggest that we need to move up from the tool and computational view to the ensemble and eventually the proxy view, where the proxy view is defined in terms of knowledge creation.

First of all, they say that the way in which ICT is employed categorizes how different kinds of ICT-related development efforts are implemented.

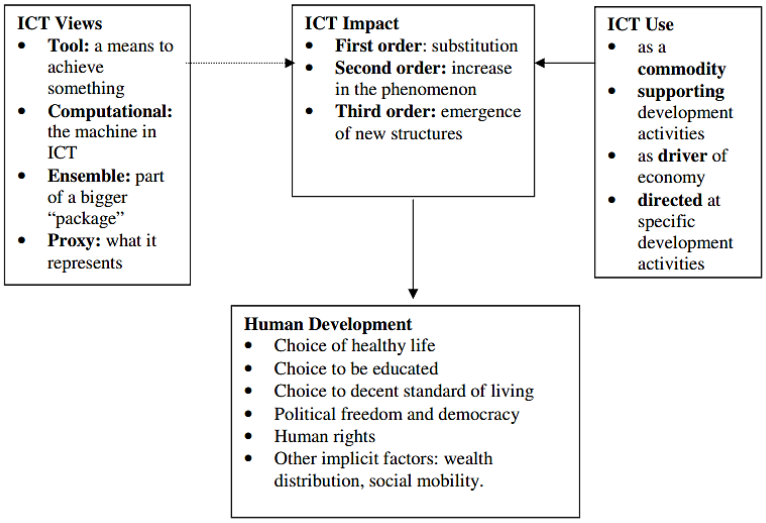

Figure 2.4: Integrative Framework of ICT in Development.

To round things off, although the impact notion implies a hierarchy (i.e., a new technology's tertiary effect has a higher impact on society than its secondary effect), they emphasize that primary and secondary effects are required but not sufficient prerequisites for progress. We need to look at the tertiary impacts to understand the influence of ICTs on national development, which they conceptualise in terms of human development, they claim. [15]

ICT and Exclusive Development

Digital information and communication technologies (ICTs) and international development can be separated into three paradigms – "pre-digital," ICT4D, and "digital development" – that change through time, according to a long-term perspective.

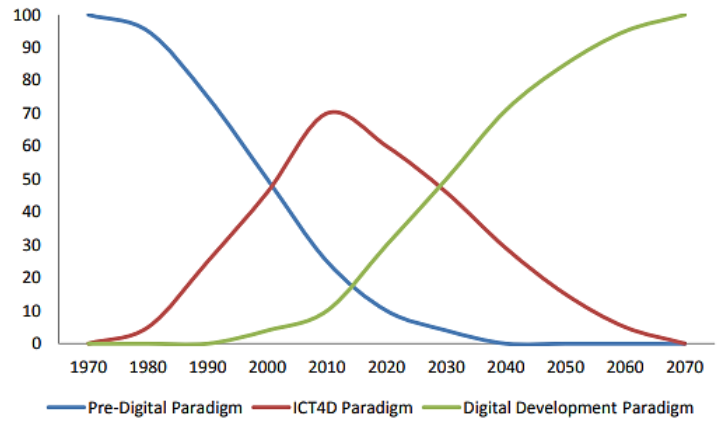

Figure 2.5: Changing Paradigms of ICTs and Development.

From the mid-1940s through the mid-1990s, the pre-digital paradigm reigned and conceptualized a boundary between digital ICTs and development (Heeks 2009). When it came to digital ICTs, the mainstream ignored them for a long time throughout this period.

It has been about since the mid-1990s that the ICT4D paradigm has formed, and it views digital ICTs as a valuable development instrument (ibid.). [16-18]. As a result of the convergence of the Internet's availability and the Millennium Development Goals, the concept of the paradigm was created. ICTs were initially hailed as a godsend for the delivery of development, but in recent years, they have been increasingly integrated into development plans and programs as a means of doing so. [19]

However, just as this paradigm is beginning to be widely accepted in national and international development systems, a new form is emerging: a digital development paradigm that conceptualizes ICT as the platform that increasingly mediates development [20].

2.8 Conclusion:

It was discovered that people, process, and technology could all be used to transform the situation. At the commencement of the Organisational transformation endeavor, the senior management would priorities a proactive approach for such means.

In addition to these "means," it has been realized that the enabling function of change management, knowledge management, ICT governance and business process management is a key part of successfully executing and maintaining the transformation process in the company. As part of the transformation program, HR, IT, and business process owners were found to be helpful in identifying and solving challenges related to human resistance, process standardization, and technology acceptance.

The success of the transformation program was made possible in large part by top management support, collaboration, and effective communication among stakeholders, but more crucially by the participative approach taken by the top management.

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