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DİJİTAL ANADOLU

Dönüşüm İçin Yeni Dünya Kuralları ve Çözümler

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EXECUTIVE SUMMARY

Since the beginning of 1990's, technological innovations are gaining momentum and have been transforming the global economy. This transformation, which is sometimes referred to as the '**New Economy**', has become the main driving force of growth in consumer and business economy, lead by internet, computers with higher performances, and other technological developments. These inventions have physical, digital and biological dimensions; and they change not only the way of making business, but also the way we live. Hence often times, the current change that the global economy is going through is named as a new industrial revolution.

Even though there is a lack of consensus regarding the opportunities and risks associated with the 'new industrial revolution', it is widely acknowledged that it is transforming economies, sectors, businesses and the social structure at a very high speed and with huge impact.

What Are The Revolutionary Technologies?

The new technological innovations are changing economic, social, cultural structures. In the physical world 3D printing, robots, new materials are setting new trends while internet of things, blockchain and technology platforms are shaping the digital environment. Synthetic biology is another part of the recent transformation.

Why Now?

Even though technological improvements have been affecting the global economy for a while now, the reason why the recent innovations have been interpreted as the next industrial revolution is the increase in the slope and scope of the change. Exponential, digital and combinatorial change in technological innovations are pointing out that our economies are at an inflection point.

What Does Digital Transformation Change?

Digital transformation signifies a shift to a new techno-economic paradigm. It implies integration of new technologies with physical and digital systems, active use of these combinatorial systems, emergence of new business models and smart products and services. As for the impact of this transformation, this report focuses on three: 1) Economies of scale and marginal costs are changing 2) With the deflationary impact of new innovations, there is a shift from cost to innovation 3) Asymmetric market structures are emerging

Within the **economic structures**, we are observing that players of the 'new economy' are increasing their market share and value faster than the traditional players. As a result, economic recoveries do not result in employment and inflation increases as much as economic models usually suggest. The increasing share and impact of these new players also result in increasing skill and compensation differences between the labour force of traditional and 'new economy' sectors. The productivity focus increasingly shifts from labour to process and data.

Importance of physical capital in new investments is overshadowed by the existence of intangible assets in **business structures**. Within **sectoral structures**, companies and sectors, which support collaborative structures and strategies, stand out as potential winners.

Digital public services are increasing both in supply and demand and they are changing the **public governance structures**. Countries, developed or emerging, go at different speeds in digital transformation and it is observed that digital transformation strategies have become a part or centre of economic development models. Some countries prioritise combining area expertise with technology; and use digital transformation not as a substitute or precondition but as a leverage of economic and sustainable development.

How Is Digital Transformation Measured?

In order to assess digital transformation within companies, sectors and at a general level in countries, different measurement indices are being developed. While international indices make country-level comparisons, company level assessment helps prioritization according to strategic decisions.

Digital infrastructure, digital investments and access to finance, demand and supply for digital skills, digital leadership and entrepreneurship are listed as digitalization supportive indicators. Result indicators, on the other hand, are tracked by the supply of ICT sector products and services, and their integration with the rest of the economy.

Who Benefits from Digital Transformation and How?

Actors, leading digital transformation, aim different targets; but they follow similar paths: They combine technical and governance skill sets, bring together institutions and networks around digital transformation, foster leadership, set a clear and understandable strategy around the issue, develop a local ICT sector and learn from international best practices.

Countries, which have started benefiting from digital transformation, combine different paths according a wider strategic perspective and dwell on an existing or potential area expertise and develop further competitive advantages with the help of digitalization. Within the emerging countries, infrastructure investments around technology and digitalisation are fairly sound; but forward linkages that help the countries to actually benefit from this transformation, are generally weak.

Turkey's Digital Transformation in International Indices

In international comparisons, one of the issues that stand out for Turkey is the difference in small and bigger companies in use of technology and digital transformation. Even though infrastructure is relatively well developed and ICT imports are high, ICT exports share is not increasing sufficiently over the years. Integration of ICT with the rest of the economy and human capital skill sets are areas of development for the Turkish economy.

These international comparisons point out that Turkey needs to integrate ICT and digital transformation into its development strategies and formulate its country-specific macro and microeconomic policies accordingly.

Results

For TÜRKONFED's future studies, there are two results, which stand out from this position paper:

Recent technological innovations and digital transformation are important levers for the developing countries to switch to higher-value-added economies. Different from the previous episodes of revolutionary economic developments, the speed and content of this transformation provide an important opportunity to bring together area expertise and technology according to each country's unique differences, mainly strengths and weaknesses; but digital transformation should be used as leverage of economic and sustainable development; not as a precondition or substitute.

Examples of countries, which pace a higher speed in digital transformation, reveal that there are no consensus recipes in integrating digital transformation to the rest of the economy. Turkey also has to create its own recipe and combine digital transformation with its economic structure as to be able to increase its productivity and competitiveness levels. With only a clear strategic prioritization on combining digital transformation to its institutional, capital and structural strengths (and weaknesses) can Turkey become a producer, not a consumer of 'new economy' and find a sustainable path out of middle-income trap.

In order to contribute to this countrywide strategy building exercise, sectoral assessments will be important to draw out area expertise and find sector specific innovative solutions. Each sector, company, platform should have a idea on how digital transformation will help overcome bottlenecks, which traditionally bring productivity down. Following this position paper, TÜRKONFED will assess digital transformation in various sectors with an aim of providing sector-specific policy recommendations. The final study aims at making material contributions to the wider strategic policy formulations at the regional and national level.