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IMPACT OF TECHNOLOGICAL ADVANCEMENTS ON ECONOMY

Technological advancement refers to the progression and improvement of technologies over time. This is a natural process born out of human drive for constant optimization. The purpose of this scientific work is to investigate the profound impact of technological advancement on economic growth and development. The study recognizes technological advancements as a fundamental driver of economic growth, enabling more efficient production of goods and services within organizations.

The economy widely acknowledges that technological advancements are a fundamental driver of economic growth, enabling more efficient production of goods and services within organizations. New technologies encapsulate codified knowledge, manifested in the form of routines and protocols, enhancing understanding and utilization of economic resources for more effective production [1]. The continuous advancement of technology has notably heightened economic growth and efficiency. From production processes to overall business profitability, technology has played a pivotal role, facilitating global business expansion [2].

Moreover, technological progress induces positive changes in overall business productivity, fostering beneficial transformations for both productivity levels and profit margins. Enhancements in technology lead to a reduced need for costly inputs, contributing to a more streamlined and cost-effective operational environment. The rapid attainment of growth is achievable through the adoption of high-level technologies.

The other ways in which technological advancement has crucially affected the economy include:

- Enhanced efficiency in financial transactions is attributed to technology, which has accelerated, reduced costs, and bolstered security. The adoption of online banking, mobile payments, and electronic transfers facilitates real-time cross-border money transfers, significantly diminishing the time and expenses traditionally linked with conventional methods.
- Greater transparency in financial markets and companies is facilitated by technology, simplifying investor access to information. The introduction of big data

analytics enables the analysis of substantial financial data sets, allowing investors to discern trends and patterns that were once challenging to identify.

- Innovation and the emergence of novel industries are propelled by technological advancements, resulting in the development of fresh products, services, and sectors. This innovative wave frequently unlocks new economic prospects and markets [3].
- Technological progress and automation, in particular, had given rise to new kinds of specializations and created new workplaces [4].
- Greater financial inclusion, allowing people easier access to banking services. For example, mobile banking has made it possible for people in remote areas to engage in financial transactions.

As the impact of digital transformation grows, we will increasingly see its effects in the emergence of new business models, including free businesses, ad-supported businesses and crowdfunding businesses. At the same time, privacy concerns, changes in regulatory and compliance requirements, and the growing impact of cybercrime on businesses will be ongoing challenges. Whatever model a business chooses, it is important that these challenges are recognized. This means that anticipating and responding to them must become a central pillar of business strategy. For all companies, it will become increasingly important to balance the drive for transformation and growth with the need to consider ethical and regulatory responsibilities. This will require thought leaders to be constantly aware, educated and innovative [5].

Two exemplary instances showcasing the profound impact of technological advancements can be discerned in the cases of China and Japan. The respective governmental bodies of these nations have made substantive contributions to the enhancement of production capabilities and technical prowess, thereby playing a pivotal role in fostering their economic ascension. In 1949, Japan established the Ministry of Foreign Trade and Industry to stimulate production and exports based on the National Technology Policy. In 1980, Japan's Ministry of Foreign Trade and Industry introduced the Six-Aim Strategy, outlining six directions to advance the nation into technological leadership. Shifting to China, from 1986 to 1990, technology became the primary driver of production, significantly impacting GDP growth. From 1996 to 2000, China's annual GDP surged to 7.6%, with technology playing a central role in driving a 5% annual GDP expansion [6].

In the broader context, technology stands as the primary catalyst for economic development, with its ongoing evolution being crucial for the progress of underdeveloped countries. Economic development, in this sense, encompasses both the enhancement of social welfare and the expansion of market production. The significance of technology development extends to macro-level economic growth and micro-level firm profitability.

Ultimately, sustainable growth within society is attainable through ongoing technological advancements. It is important to adapt to progress and utilize technologies to their fullest potential to achieve maximum economic productivity, which, in turn, could increase the overall well-being of all humanity. Embracing these changes, understanding the risks and challenges they pose, is the key to thriving, no matter what transformations are around the corner.

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A ROLE FOR FINANCIAL AND MONETARY POLICIES IN CLIMATE CHANGE MITIGATION

This research aims to explore the potential role of financial and monetary policies in addressing climate change mitigation. By examining the intersection of economic instruments and environmental challenges, the study seeks to understand how these policies can be leveraged to promote sustainable practices and contribute to global efforts in combating climate change.

While fiscal tools are first in line, they need to be complemented by financial policy tools such as financial regulation, financial governance, and policies to enhance financial infrastructure and markets, and by monetary policy. The role of financial policy in addressing climate change risks is growing. It can regulate and supervise the financial sector to better ensure climate risks are reflected in investment decisions across many levels and scales, avoiding their build up in the financial system.

Mitigation remains core to climate action, as does finance for mitigation. Reductions in emissions can reduce the adverse impacts of climate change and therefore some adaptation needs. Yet, even with ambitious mitigation, adaptation to a changing climate will be needed [1].

Policies can be divided into two categories: climate risk-focused and climate finance-promoting.

Climate risk-focused tools aim to correct the lack of accounting for climate risks for individual financial institutions and support mitigation by changing the demand for green and carbon-intensive investments, as well as their relative prices [2].

On the monetary policy side, examples include developing central banks' own climate risk assessments, and ensuring that climate risks are appropriately reflected in central banks' collateral frameworks and asset portfolios. On the financial policy side,