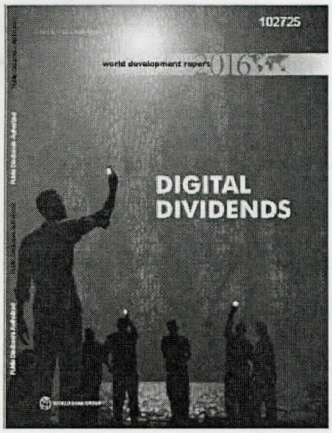
BOOK REVIEW



DIGITAL DIVIDENDS

World development report - 2016

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An advisory panel guided the preparation of this report with the support from many institutions, including government ministries of developed and developing nations. Consultation events were held in several countries, and detailed information about these events was published online, and initial findings were discussed at international conferences and workshops. Spotlights and sector focus pieces and many box articles were included in the report, while some background papers and notes helped to describethe report.

This report has two parts:Part 1 contains three chapters, which describe facts and analysis. The topic of chapter one is A*ccelerating growth,* in which, digital technology is viewed as an accelerating factor of economic growth.

A firm confronting higher competition has to use digital technology more intensely and efficiently to survive in the market. The protection is identified as a barrier, and thus, greaterprotection from the domestic or foreign competition will not create any incentive to adopt new technologies. The digital technology is viewed as a factor that provides more opportunities, yet, the protection will limit such opportunities to increase the firmís productivity and efficiency. Thus, the protection may act as a barrier for competition as well for as for market entry. Accordingly, economic consequences of protection are explained in this section.

The first topic of chapter one is connected to businesses. Here, the usage of digital technologies for communication among business firms is explained with the latest statistics, and the difference between internet usage in higher and lower income countries is described. According to the report, the usage of electronic mail service is same in developing and developed countries, signifying the considerable level of internet usage in lower income countries. Increasing growth rates and valuation of internet firms have been addressed in this section, and the transformation of firms from traditional production structures to digital technologies is clearly demonstrated.This report has proved that firms that function outside the ICT sector, but use online methods to sell their products, have made massive gains.

The impact of digital technology on economic growth is identified in three mechanisms in this report, as *Inclusion*, *Efficiency*, and *Innovation*. Latest Information on investments in internet infrastructure is provided, and accordingly, the relationship between productivity of a firm and the incentives for internet adaptation is properly explained.

Another finding here is that the web usage depends on the size of the enterprise; large firms have more incentives than small businesses. Advantages of using the internet are identified as reducing the transportation cost, allowing firms to enter

new markets, enhancing the efficiency, exploiting economies of scale, and leading to innovations. This report explains three types of problems confronted by a consumer; i.e. a buyer has to find a seller, has to make payments before receiving the goods, and trust the seller will deliver the correct amount of quality goods on time. According to the report, online market solves the above three issues.

A significant finding highlighted in this report is that the cost of trade can be minimized by avoiding the intermediaries when producers use online markets. This chapter also pays attention to an online rating system, and recognize that building trust for future transactions and encouraging more responsible behavior, as key advantages of online rating.

The report identifies a positive relationship between the internet usage in a country and the growth of bilateral exports of goods and services, and signifies that the internet market facilitates reaching new markets. According to the report, small firms can enter the export market and find new destinations through the online platform. Facilitating the unbundling of the task is explained as a plus point of the internet.

The chapter also highlights the "automation" of tasks. Automation is viewed as a factor, which can be used by the firms to save their costs. Data inclusive of production processes and routine processes can be automated easily. An interesting finding in the report is that automating data inclusive of production processes and recognizing their business models increases the productive use of capital and labour. An equally fascinating finding is that the usage of digital technology improves the management efficiency. This report highlights the practical usage of digital technology in inventory stock management/logistics operations and water management.

This chapter clearly demonstrates about accelerating the competition and creating new business models through digital technology. Three advantages of internet usage in businesses are highlighted as, reducing the search and communication costs, increasing the price transparency, and reducing the fixed cost of starting a business.

According to the report, the start-up firms can exploit scale of economies with a lower fixed cost and marginal costs. This process will lead firms to follow new business models. The report pays particular attention to price transparency, where the role of price comparator websites is identified. Lower and less dispersed prices for the consumers are identified as the final result of price transparency, and it is observed thatthe usage of digital technology promotes competition.

This report focuses on some particular projects based on digital technology. Most of these projects have supplied digital banking and digital financial facilities to non-bank customers. It is identified as a factor that increases the competitive pressure for traditional banking services. Accordingly, digital technology always enhances the welfare in many ways. However, this report emphasises that the welfare gain is not captured in GDP statistics.

The report also explains that the usage of digital technologies may lead firms and countries to diverge. A search on previous research works helped to identify some reasons for the divergence. Slow diffuse of digital technology, as compared to previous technologies, within the developing countries are identified as the main reason for cross-country divergence.

The market power in the online market is another issue addressed in this report. One interesting finding here is the fact that the online markets highly concentrate on a few, selected leading firms. This report has identified *Facebook* as the leading social network, *Google*as the dominant search engine, and *Amazon*as the top online e-book seller. Finally, it proves that the market power, scale, and network effect, leads to anticompetitive behavior in specific sectors.

The report also pays attention to the risks and costly failures of digital technology in business, and identify the complimentary investment on skills and organizational restructuring of the firm as the factors that make the digital technology usage successful. Another important outcome is the factors influencing the efficient use of ICT, which is the investment on skills and logistics, since online trading always require an efficient logistic infrastructure and a better online payment system.

A negative correlation is identified between regulatory barriers and a f irm's investments in digital technologies since private firms lack incentives to invest in risky or costly new technologies without a competitive pressure. Also, the countries need policies to encourage the competition. Here, the internet promotes the competition, and the competition encourages the internet usage. This is viewed as a ëpotential virtuous cycle.í

Sector focus one emphases on agriculture. The way of developing agriculture and increasing the welfare of farmers through digital technology is discussed, and the digital technology is identified as a mode to transmit information to farmers. As per the report, technology increases the price transparency, cutout the middlemen, and develop more efficient markets. Accordingly, increasing the welfare of both producers and consumers is explained, and the Digital technology is identified as a factor that improves the agricultural supply chain management.

This study proves that if the small holders use digital technology to improve the collection, transportation, and quality control, they can become cooperatives and aggregators. However, a failure to scale-up and achieve a wi der acceptance of above innovations are observed, where market fragmentation and lack of financially sustainable business models are identified as t he reasons for such failure. This report also highlights some lessons to remember when using digital technology in agriculture.

Spotlight two mainly focusses on digital finance and identifies the significant impact of the internet and related technologies on the financial sector. Some unique features of digital financial markets are observed, as reasons for the rise of non-traditional providers of financial services and bringing many people into the financial system for the first time. Digital technology promotes the financial inclusion, and this study identifies that digital finance provides access to the financial services to poor people, who are excluded from the regulated financial sector. The advantages of digital finance are also discussed in this section; i.e. digital finance makes businesses more productive, allows individuals to reap

benefits and opportunities in the digital world, increase the efficiency, streamline the public-sector services delivery, and spurs financial innovations.

Risks of cybercrimes and illicit or illegal financial flows have been discussed as the risks involved in digital finance. Other risks discussed here are money laundering (cyber laundering), tax evasions, corruptions, drug dealing, online casinos, and collecting monetary funds for terrorism. Regulation and supervision of digital finance are suggested to face these issues. Accordingly, this report has discussed the method/s to supervise and regulate financial markets, and the main concerns involved. Nevertheless, too much and/or too little intervention by policy makers entails the risks. Finally, the report monitors that the advantages outweigh the risks.

The title of chapter two is expanding *opportunities*. It explains that the digital technology provides opportunities for all, but people should have internet access and basic IT literacy to grasp those opportunities. It also highlights that people have access to mobile phones rather than secondary schooling, clean water, or sanitation; and the most common uses of mobile phones and the internet communication are, entertainment and searching for information. In some countries, social networking, sending/receiving e-mails and the internet messaging, and checking facts and definitions, are the most common usages, while certain other countries use it for education and works.

This chapter provides the latest information on mobile phones and internet usage. Accordingly, more than 800 million people lack mobile access and 4.3 billion lack internet access worldwide. This digital difference may lead to inequalities and act as a barrier for productive usage of the technology.

The ability of the internet to create jobs, increase worker productivity, and benefited consumers, are discussed in this chapter. Under job creation, ICT sectors and occupations, expanding businesses that use ICT, enabled off-shoring and outsourcing including online work, and enabled entrepreneurship and self-employment, are discussed. Increasing workersí productivity is examined with growing returns to human capital, connecting people to work and markets, making

works more flexible, and improving access to markets and productive inputs. Finally, the topic benefited consumers brings a clear understanding about consumer convenience, expanded choice, better quality leisure time, and access to more knowledge. This chapter also highlights that those benefits (consumer surplus) are not captured in GDP statistics. According to the information provided, the annual consumer surplus from google search is estimated at USD 500 per user, or USD 150 billion for 300 million users.

Chapter two provides a clear understanding of hazards on w orkers, with a discussion of the risks associated with digital technologies; i.e. the risks related to the speed of labour market changes and the destruction of jobs, risks associated with the changing nature of works and the quality of internet enabled jobs in the on-demand economy, and the risk of technological changes. With the above possibilities, this chapter discusses "polarisation" of the labour market. Rising inequality due to declining the share of labour in the national income and polarisation is highlighted.

Another significant finding is the race between skills and technology, in which the automation of tasks using digital technologies is mentioned as the key reason. The digital technology is viewed as labour-saving. The given literature review on skill-biased technological changes clarifies the understanding of above matters.

Digital technology is considered as a f actor that kills jobs and decrease wages, especially in advanced countries. According to the given information, over 200,000 industrial robots enter into use each year, and that number continues to rise. Then the technology replaces human workers, especially in routine works. This report has providedmany examples to prove this point.

The future of jobs is another remarkable topic. It has been discussed that new employment opportunities can emerge from the ICT industry, and three main factors that make an impact on earnings by digital technologies were identified. They are the complementarily with technologies, product demand, and labour

supply. Another interesting finding is that the digital technology most likely benefits young and better-educated people.

Finally, the policy agendas are considered. The requirement of complementary policies to improve the overall welfare and reduce poverty is discussed, which prevents the unrealised benefits and inequality. These policies have to ensure the education and training system, labour regulations, and the support of social protection institution. Finally, the requirement of up-to-date skills in the modern economy is emphasised, where skill development is considered as t he most important task.