

INDUSTRIAL COMPETITIVENESS IN THE KNOWLEDGE-BASED ECONOMY pdf

1: Call for Papers: The Knowledge-Based Economy in Europe |

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Concepts[edit] A key concept of the knowledge economy is that knowledge and education often referred to as " human capital " can be treated as one of the following two: A business product, as educational and innovative intellectual products and services can be exported for a high value return. It can be defined as: The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources. In this book, Drucker described the difference between the manual worker page 2 and the knowledge worker. The manual worker, according to him, works with their hands and produces goods or services. In contrast, a knowledge worker page 3 works with their head, not hands, and produces ideas, knowledge, and information. The key problem in the formalization and modeling of knowledge economy is a vague definition of knowledge , which is a rather relative concept. For example, it is not proper to consider information society as interchangeable with knowledge society. Information is usually not equivalent to knowledge. Their use depends on individual and group preferences see the cognitive IPK model which are "economy-dependent". This latest stage has been marked by the upheavals in technological innovations and the globally competitive need for innovation with new products and processes that develop from the research community i. In the knowledge economy, the specialized labor force is characterized as computer literate and well-trained in handling data, developing algorithms and simulated models, and innovating on processes and systems. Additionally, well-situated clusters, which Michael Porter argues is vital in global economies, connect locally with linked industries, manufacturers, and other entities that are related by skills, technologies, and other common inputs. Hence, knowledge is the catalyst and connective tissue in modern economies. Silicon Valley in California; aerospace and automotive engineering in Munich , Germany; biotechnology in Hyderabad , India; electronics and digital media in Seoul , South Korea; petrochemical and energy industry in Brazil. Many other cities and regions try to follow a knowledge-driven development paradigm and increase their knowledge base by investing in higher education and research institutions in order to attract high skilled labor and better position themselves in the global competition. It has been suggested that the next evolutionary step after knowledge economy is the network economy , where the relatively localized knowledge is now being shared among and across various networks for the benefit of the network members as a whole, to gain economic of scale in a wider, more open scale. It has been hypothesized that the gradual evolution of network economy would create a well interconnected economic order, which would then begin to concentrate on the passion of individuals, gradually leading to a Passion based economy. Driving forces[edit] Commentators[who? Globalization â€” markets and products are more global. Information technology , which is related to next three: New Media â€” New media increases the production and distribution of knowledge which in turn, results in collective intelligence. Existing knowledge becomes much easier to access as a result of networked data-bases which promote online interaction between users and producers. As a result, goods and services can be developed, bought, sold, and in many cases even delivered over electronic networks. As regards the applications of any new technology, this depends on how it meets economic demand. It can remain dormant or make a commercial breakthrough see diffusion of innovation. Characteristics[edit] It can be argued that the knowledge economy differs from the traditional economy in several key respects: The economics are not of scarcity, but rather of abundance. Unlike most resources that are depleted when used, information and knowledge can be shared , and actually grow through application. The effect of location is either diminished, in some economic activities: However, clusters already existed in pre-knowledge economy times. Laws, barriers, taxes and ways to measure are difficult to apply solely on a national basis. Knowledge and information "leak" to where demand is highest and the barriers are lowest. Knowledge enhanced products or

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services can command price premiums over comparable products with low embedded knowledge or knowledge intensity. Pricing and value depends heavily on context. Thus the same information or knowledge can have vastly different value to different people, or even to the same person at different times. Human capital "competencies" are a key component of value in a knowledge-based company, yet few companies report competency levels in annual reports. In contrast, downsizing is often seen as a positive "cost cutting" measure. Communication is increasingly being seen as fundamental to knowledge flows. Social structures, cultural context and other factors influencing social relations are therefore of fundamental importance to knowledge economies. These characteristics require new ideas and approaches from policy makers, managers and knowledge workers. The knowledge economy has manifold forms in which it may appear but there are predictions that the new economy will extend radically, creating a pattern in which even ideas will be recognised and identified as a commodity. Technology[edit] The technology requirements for an Innovative System as described by the World Bank Institute must be able to disseminate a unified process by which a working method may converge scientific and technology solutions, and organizational solutions. Challenges for developing countries[edit] The United Nations Commission on Science and Technology for Development report UNCSTD, concluded that for developing countries to successfully integrate ICTs and sustainable development in order to participate in the knowledge economy they need to intervene collectively and strategically. The report further suggests that developing countries to develop the required ICT strategies and policies for institutions and regulations taking into account the need to be responsive to the issues of convergence.

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2: Competition (disambiguation) - Wikipedia

Industrial Competitiveness in the Knowledge-based Economy: The New Role of Government Keith Drake, General Rapporteur 17 Part I The Changing Nature of the Firm Chapter 4. Technology and the Changing, Boundaries of Firms and Governments John H. Dunning 53 Chapter 5.

Explore the latest strategic trends, research and analysis The Global Competitiveness Report assesses the competitiveness of world economies. Using a mixture of quantitative and survey data, it ranks countries overall by combining indicators grouped under 12 pillars of competitiveness: Switzerland tops the Global Competitiveness Index for the seventh year in a row. It leads the world in its capacity to innovate and scores highly for its education system and labour market efficiency. Still, the cost of doing business in Switzerland is high and its strong currency, negative real interest rates and uncertainty about future immigration policy are all cautions against complacency. Singapore beats everyone but Switzerland for the fifth consecutive year. Its competitiveness is broad-based and it scores in the top 10 in nine out of the 12 pillars. Its particular strengths are the efficiency of its goods, labour and financial markets and the quality of its higher education and training system. It also scores strongly for its infrastructure, macroeconomic stability and the transparency and efficiency of institutions. Areas for improvement include a relatively low rate of participation of women in the workforce. The United States holds steady in third place. The foundations for its competitiveness include human capital, sophisticated businesses and capacity for innovation, with high levels of spending on research and development and good collaboration between the private sector and academia. It has improved in the last year on measures of government efficiency and the soundness of its financial markets but the expected phase-out of accommodative monetary policy will test improvements in macroeconomic stability. The US must also avoid complacency on education the country ranks 18th for quality of education and improvements are required for the nation to remain a talent-driven economy. It has also advanced on the efficiency of financial markets and the labour market although its low score on labour market flexibility indicates that there is still considerable scope to bolster competitiveness here through further reforms. The Netherlands climbs three places to fifth, regaining its highest-ever position in the index on the back of small improvements across a wide range of indicators. Its strongest scores come in areas including education, infrastructure, institutions, business sophistication and innovation; its weaknesses include inflexibilities in the labour market and continuing doubts about its financial markets. Japan remains in sixth place. Its competitiveness is founded on excellent infrastructure, a healthy workforce and a strong ecosystem for innovation thanks to sophisticated businesses, early adoption of new technologies and high-quality research institutions. Its macroeconomic environment scores more highly than a year ago, due in part to the return of moderate inflation. Hong Kong SAR places seventh for the third consecutive year, with a performance almost unchanged from last year and showing a good degree of consistency across the 12 pillars. Its particular strengths include its well-developed financial sector, transport infrastructure and dynamic goods and labour markets. Finland drops to eighth from fourth last year, having been third for the two previous years. With unemployment at 9. However, it still beats many other advanced economies and the country retains some strong fundamentals: Sweden overtakes the United Kingdom to claim ninth place, with its competitiveness based on its efficient and transparent institutions, excellent education system, sophisticated businesses and an innovation ecosystem that benefits from high levels of technological adoption. The United Kingdom slips one place to 10th, despite improving its performance in many areas. Its strengths include solid institutions and some of the best universities in the world. The Global Competitiveness Report is available [here](#).

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3: What is a knowledge economy? - www.enganchecubano.com

In the knowledge-based economy, such policies must address a wide spectrum of issues such as intangible assets, knowledge infrastructures and flows, and intellectual property rights. At the same time, there is a strongly perceived need for coherence between macroeconomic and structural policy, as well as among the components of structural policy.

What is a knowledge economy? You have to credit our authors. You have to credit SciDev. You can simply run the first few lines of the article and then add: The easiest way to get the article on your site is to embed the code below. For more information view our media page and republishing guidelines. The full article is available here as HTML. Press Ctrl-C to copy What is a knowledge economy? By Jan Piotrowski The growing access to digital technologies could fundamentally transform developing economies. The move from hunter-gathering to the age of farming and the dawn of the Industrial Revolution 12, years later mark seminal transitions in human history, lifestyle and wellbeing. Now in the digital age, our civilisation may be in the midst of another equally great transformation. The age of the knowledge economy. In the past, an abundant labour force and exploitation of natural resources were the engines of growth. Now companies mine data , not gold seams, in search of riches. They harvest mobile apps rather than apples. Information is widely believed to be the future source of prosperity. Academic institutions and companies engaging in research and development are important foundations of such a system. And so are those who apply this knowledge – the programmers developing new software and search engines to utilise data and the health workers who use data to improve treatments. Once knowledge has been picked up by these central brokers, employers and workers in more traditional fields may begin using information to improve their work environment, for example the supply chain efficiency of a small company or the harvesting of crops on a farm. Underpinning it all are information and communication technologies ICT. In a world where fast access to information is vital, internet availability rules. Governments looking to push their nations towards a knowledge economy put technology development at the heart of their strategies. In this sense, the prize for every country is to have its own Silicon Valley of internet-based start-ups and innovative small businesses. But in reality the path to a knowledge economy often remains elusive. There is still no agreed definition of what a knowledge economy is. After all, human cultures have always relied on knowledge to survive and improve their lives. According to the World Bank, knowledge economies are defined by four pillars. Based on these criteria, all countries belonging to the Organisation for Economic Co-operation and Development OECD are moving towards becoming knowledge economies. But Africa is left trailing. Look online and this pattern repeats itself: Clearly, African countries are lagging behind as both creators and users of online knowledge. The lack of infrastructure in many African countries does not help the situation. Despite a thicket of undersea cables that have been lying along the coast of Africa since , a World Bank Connecting Africa report from points out that access to high-speed broadband for the average African citizen remains patchy at best. There are signs, though, that this trend may be changing. The number of African countries with official strategies to improve access to the internet rose from 32 in to 48 in One example is Kenya, where the government hopes to make ICT companies account for ten per cent of GDP by through its Kenya Vision plan , using a mixture of business incentives and infrastructure development. It boasts more than 16, members, and the organisers say that more than companies have begun life within its walls. Elsewhere, there are other positive examples. Kigali in Rwanda, Lagos in Nigeria and Accra in Ghana all have their own dynamic start-up scenes where companies have launched mobile apps, education websites and consumer payment services, to name just a few. Many of these examples involve skills in programming, business administration and engineering – employment areas that bring better wages and build local human and technical capacity. But there is another, less glamorous side to the knowledge economy – microwork. Microwork involves breaking down complex data-driven activities into small parcels that can then be farmed out to employees. This can involve transcribing audio or video clips, categorising images for search engines or

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updating databases. It is low-skilled and low-paid, which is why companies in need of such services often look towards developing nations to subcontract the work. According to Mark Graham, a senior researcher from the Oxford Internet Institute, it is this sector that African governments and businesses are positioning themselves towards. Unfortunately, in places where there are limited possibilities for learning and job progression, microwork is usually paired with low job security and poor working conditions. And there is another, more fundamental barrier. Literacy is essential for effectively accessing the troves of information that make a knowledge economy possible. Yet as nearly 40 per cent of African adults are illiterate, a large part of the population cannot participate in the knowledge economy in any meaningful way. Most clients within the knowledge economy are based in the West and often equate African firms with unreliability and corruption, which makes them hesitant to enter into business deals. So, rather than aiming to snare big international contracts, African companies should focus locally, Graham recommends. Using knowledge, he says, is all about cultural context, so knowing their markets gives firms a competitive advantage that international providers lack. The knowledge economy holds great promise for developing countries, but depending on the availability of infrastructure and human capital, this promise can turn into a mirage. The economic ideology of creating economic growth through boosting knowledge cannot be applied thoughtlessly. Before jumping head first into the knowledge economy, developing country governments need to take stock and ask themselves whether such a system is achievable, and indeed desirable, for their country.

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4: What is Knowledge-Based Economy | IGI Global

"This book has its origin in the Conference on "Industrial Competitiveness in the Knowledge-based Economy - The New Role of Government", which was held in Stockholm on February and was jointly organised by the OECD's Directorate for Science, Technology and Industry and the Swedish Ministry of Industry and Trade"--Foreword.

There are actually a number of definitions out there. Another way to think about what makes a country competitive is to consider how it actually promotes our well-being. A competitive economy, we believe, is a productive one. And productivity leads to growth, which leads to income levels and hopefully, at the risk of sounding simplistic, improved well-being. The Global Competitiveness Report Why should we care about it? Productivity is important because it has been found to be the main factor driving growth and income levels. And income levels are very closely linked to human welfare. So understanding the factors that allow for this chain of events to occur is very important. Basically, rising competitiveness means rising prosperity. At the World Economic Forum, we believe that competitive economies are those that are most likely to be able to grow more sustainably and inclusively, meaning more likelihood that everyone in society will benefit from the fruits of economic growth. How do we measure it? Our last pillar, innovation and sophistication, consists of two pillars: These are more complex areas of competitiveness that require an economy to be able to draw on world-class businesses and research establishments, as well as an innovative, supportive government. Countries that score highly in these pillars tend to be advanced economies with high gross domestic product per capita. Generally, the world is getting better and better at measuring things, but nonetheless there are always black-spots in any benchmarking exercise. Nor do we attempt to measure whether, or to what degree, competitiveness makes people happy, although there are others that do attempt to measure this. Does a country that is competitive mean it is best able to face the future? Again, the answer is yes and no: This last area is a focus of considerable work here these days. What have we learned this year? With openness directly linked to economic growth, this seems significant, especially as the trend seems to stem mainly from the encroachment of non-tariff barriers, which are subtle and often hard to detect. With every advanced economy having undergone some form of monetary stimulus such as quantitative easing since the great recession, the report also helps us understand why some countries have been more effective than others in reigniting sustained growth. By comparing the competitiveness of those economies that have engaged in monetary stimulus programmes over this period, we find that those with high competitiveness scores were more successful in driving economic growth than others with lower scores, even if the latter have expanded their central bank balance sheets by a greater amount. The report offers insight into how priorities may be shifting for nations in earlier stages of development. This is important for policy-makers and leaders in emerging markets who need to be aware that the reality when it comes to helping move their economy up the income ladder is much more nuanced than they may have previously believed. The Global Competitiveness Report is available here. You can explore the results of the report using the heatmap below.

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5: The world's top 10 most competitive economies | World Economic Forum

Industrial competitiveness in the knowledge-based economy: the new role of governments Organisation for Economic Co-operation and Development Paris Australian/Harvard Citation Organisation for Economic Co-operation and Development.

What is the information economy? While we have always relied on information exchange to do our jobs and run our lives, the information economy is different in that it can collect more relevant information at the appropriate time. Consequently, production in the information economy can be fine tuned in ways heretofore undreamed of. What makes information plentiful in this economy is the pervasive use of information and communications technology. Banking Without Boundaries For the first time in years, the very nature of banking has changed. We still handle money, but information, not money, is now the lifeblood of our industry. In the new culture, a bank is defined almost solely by its ability to add value to the customer relationship, which breaks down into acquiring, analyzing, integrating, and leveraging of information about, from, and for the benefit of each individual customer. The last but obviously not the least of our fundamental changes goes to the very heart of how banking is done. McGraw Hill , What are the main features of the information economy? A historically new reality, the global economy has the capacity to work as a unit in real time on a planetary scale. Capital flows freely between countries, and countries can utilize this capital in real time. However, some critics claim that a true global economy has yet to be achieved. Multinational corporations still maintain their assets and strategic command centers in their home nations, and capital is still limited by banking and finance laws. Castells, however, argues that even if globalization has not yet been fully realized, it will only be a matter of time before this happens. Globalization will be affected by government regulations and policies, which will affect international boundaries and the structure of the global economy. Productivity growth in the new economy sectors has made a significant contribution to economy-wide productivity growth. In the business sector between and , labor-productivity growth excluding the new economy sectors was 2. The contribution of the new economy was slightly larger for well-measured output because that sector is smaller than the business economy. Castells looks into the history of productivity growth in advanced market economies and observes a downward trend of productivity growth starting roughly around the time that the information technology revolution was taking shape in the early s. According to him, this decline was particularly marked in all countries for serviced activities, where new information-processing devices could be thought to have increased productivity. However, manufacturing productivity presents a different picture. There may be a diffusion from information technology, manufacturing, telecommunications, and financial services into manufacturing services at large, and then into business services. A third characteristic of the information economy is the change in the manner of obtaining profits. Robert Reich observes that profits in the old economy came from economies of scale—long runs of more or less identical products. Thus, we had factories, assembly lines, and industries. Now profits come from speed of innovation and the ability to attract and keep customers. Where before the winners were big corporations, now the winners are small, highly flexible groups that devise great ideas, develop trustworthy branding for themselves and their products, and market these effectively. But the winning is temporary, and the race is never over. Those in the lead cannot stop innovating lest they fall behind the competition. Peter Drucker describes the information revolution as a knowledge revolution. The key, he says, is not electronics but cognitive science. This is done through the application of knowledge, in particular systematic, logical analysis. Setting up an IT structure is not enough. To maintain leadership in the new economy, the social position of knowledge professionals and the social acceptance of their values should be guaranteed. The knowledge economy is also a networked economy. The concept stresses the important role of links among individuals, groups and corporations in the new economy. It has been argued that networks have always been an ideal organizing tool due to their inherent flexibility and adaptability. However, traditional networks were not designed to coordinate functions beyond a certain size

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and complexity. This early limitation has been overcome with the introduction of ICTs, particularly the Internet, where the flexibility and adaptability of networks are brought to the fore, and their evolutionary nature is asserted. And how is it related to the ICT revolution and the information economy? Big firms are complicated and they find it hard to manage resources efficiently. Small companies often do things more cheaply than big ones. Thus, a car maker like Toyota will buy car batteries from a supplier rather than manufacture batteries in-house if it is easier to do so. ICT reduces transaction costs significantly. Large and diverse groups of people can now more easily and more cheaply gain near real-time access to the information they need to make sound decisions and to coordinate complex activities. Thus, instead of massive corporations, what are emerging are small highly focused corporations that farm out production to their allies. This is also known as network production. Furiously Fast Fashions excerpts – Hong Kong is the center of the garment outsourcing industry. Most of the companies located there own and run factories across Asia that weave, cut and sew garments. No factories, no machines, no fabrics. It then takes those instructions and feeds them into its intranet to find the right supplier of raw materials and the right factory for assembling the clothes. She had the fabric woven in China because the factories there could dye it the dark green indigo she needed, and she chose fastenings from factories in Hong Kong and Korea because they are the most durable. Then she sent the raw materials to Guatemala for sewing. Delivery takes only a few days. As a garment moves through production, retailers can make last-minute changes to orders on the Web site, which tracks the entire production process. Now, until the material is woven, the customer can cancel the order online. Until the fabric is dyed, the retailer can change the color. Until it is cut, the client can change the design or size. E-commerce is buying and selling over the Internet or any transaction concluded through an information network involving the transfer of ownership or rights to use goods or services. More precisely, it includes all business transactions that use electronic communications and digital information processing technology to create, transform and redefine relationships for value creation between organizations, and between organizations and individuals. The different types of e-commerce are: What will happen to agriculture in the information economy? ICTs will allow farmers to have more accurate information on the factors that are needed to increase crop yield. We can also expect better crops and livestock as a result of agricultural biotechnology. Farming Goes Into Space For most of the twentieth century, farming has been somewhat of an inexact science, more a matter of a farmer developing an innate understanding of the nuances of his land and thereby planting and harvesting his fields accordingly. These satellites have the ability to pinpoint the location of an object on the ground within a few centimeters. Developed by the Department of Defense for military purposes, GPS has now been opened up for civilian use. In fact, civilian applications have come to outnumber military one almost 10 to 1. Among the former, precision farming seems poised to become the next great application area for GPS. How, specifically, are these new technologies helping farmers to improve farming efficiencies? At this point, precision farming can be broken down into three major areas: Although improvements can and are being made in the first and second categories, their capabilities are well developed, well defined, increasingly integrated, user-friendly, and ever more affordable. The critical component, and the one that can realize the greatest benefits for farmers, is found in the final category: GIS-based, decision-support software that can guide management practices. It is in this third area where more work remains to be done: Did the information economy end with the dot-com crash? If we look at the history of technology and development, we will see that the dot-com bust is part of the normal pattern of events in any technological revolution. The economist Joseph Schumpeter suggests that a technology revolution starts with the introduction of one or more technologies that enables the new cluster. The new technology cluster, at first little noticed, achieves successes in early demonstrations. Technical people start small companies based on the new ideas. These new companies compete intensely in this early turbulent phase, when government regulation is largely absent, and as successes mount in a technical free-for-all environment. The promise of extraordinary profit looms. The public begins to speculate. The middle phase sees a sustained build out or golden age of the technology, during which the technology becomes the engine of growth for the economy. Large companies

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and oligopolies reign, and the period is one of confidence and prosperity. In the last phase, the technology matures. Technological possibilities are saturated, production moves to places on the periphery, and complacency sets in. Profits at home are low, and entrepreneurs start scouting for new opportunities. The economy becomes ripe for the next revolution. Only the hype died. The downturn in ICTs and the dot-com crash simply ended the first phase.

6: What is competitiveness? | World Economic Forum

The conference on 'Industrial competitiveness in the knowledge-based economy - the new role of government', held in Stockholm on February, , provided a policy forum to discuss the implications of the trends towards increased globalisation and the knowledge-based economy for the role of governments with regard to industrial competitiveness.

7: Louisiana Innovation Council To Enhance Competitiveness of Knowledge-Based Economy

In its current formulation, the new economy is "knowledge-based, globalized, entrepreneurial, IT-driven, and innovation-based" (Atkinson and Andes). Thus, both concepts stress the.

8: Knowledge economy - Wikipedia

knowledge-based society, as opposed to, for example, the industrial society or the information society, due to the increasing importance of knowledge and of the means to produce, accumulate, transfer and use it in all areas of human activity.

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Skeletal renewal and metabolic bone disease Modern Players Companion The Christmas box miracle Boutique Restaurants Ethics in information technology 4th edition Crescent Moon, Vol. 3 Encyclopaedia of Indian Philosophies, Vol. 8 Mcdougal algebra 1 chapter 3 Reader Post-cultural Revolution Integrated natural resource management Developmental Psychology Today Treatise on the diseases of women Urban Development From the mountain to the trench Corporate governance and sustainable prosperity Mcgraw hill social studies grade 4 Habitat worksheets for 2nd grade A circle round the sun Scoring high on the New Jersey grade 8 Early Warning Test The Winter Duckling Yirat haShem and ahavat haShem In the Name of 1 Timothy 2 Crazyladies of pearl street 2006 vw beetle owners manual Appendix B: The others: Rostow, Brzezinski, Lake, Berger, and Hadley 4 Direct and Subdirect Products 63 Where beauty touches me Implementing Quality Britains Energy Resources (Reference Pamphlet) Highest education Overcoming hurdles to growth : current trends and innovative transactional structures in India Mark J. Ri Product of two binomials worksheet Aesthetics of incompleteness Salt of the Earth: The Church at the End of the Millennium Adobe er not ing school files and formulas Facilities Construction Cost Data, 2000 (Facilities Construction Cost Data) A centennial poem Critical response to Kurt Vonnegut Coca cola enterprises annual report 2011 Small engine spark plug chart