Beyond Coconuts

The Quest for Informationalization in the Philippines

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Abstract:

Industrialization is an important area of discussion in the development arena. It receives much attention because of the historical economic success of industrialized countries. Nowadays, to be industrialized is automatically equated with being developed. More recently, the East Asian Tigers and Newly Industrializing Countries have been regarded as further evidence of the correlation between levels of industrialization and development status. But, is the ‘late, late industrializer’ status available to developing countries ad infinitum? This paper will argue that industrialization for development has an expiration date and the perception that it is an automatic key to success is outdated. In light of the continued rise of the new digital economy, it offers informationalization\(^1\) as an alternative to industrialization in order to successfully achieve developed country status. The Philippines will be used as the case study for supporting these arguments. And, the country’s specific geopolitical situation, economic history, and regional background will serve to illustrate the comparative advantages for a switch to the digital economy as a development policy. The focus of the paper will be strictly on political economic considerations.

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\(^1\) In this paper, the word “informationalization” will be used specifically to highlight the parallels with industrialization in terms of moving out from one mode of production to another….in this case, from manufacturing to the digital economy. Manuel Castells used the term in his book ‘The Rise of the Networked Society’ (1996a). But, the origin of the word and its first use is unknown.
Background on the Philippines

The Philippines is a developing country in Southeast Asia which relies on the combination of agricultural exports, industrial products, and services for its main source of GDP. Some 40% of the workforce is employed in the agricultural sector, producing crops for both domestic consumption and export. Rice and coconuts are the two largest agricultural sectors – Philippine coconuts account for nearly half the world supply (Economic Outlook, 2004). Appendix A provides additional information and general statistics on the Philippines.

The Philippines has a commonality with many countries in Asia and Latin America with respect to its development struggles. In particular, the Philippines’ recent focus on the importance of industrialization for its future economic standing contains valuable lessons for other emerging economies. In this respect, a case study on the Philippine economy from industrialization to informationalization has relevance which extends to other national settings.

Industrialization for Development

The industrial revolution has been the catalyst for many nations to move from a primarily agrarian economy into a manufacturing and factory-based mode of production. In this respect, the switch into an industrialized system of production precipitated a modernization of the societies that were able to successfully adopt this production system. Britain led the way in the late 19th century and was followed by the United States. Subsequent to that, other countries such as Germany and Japan industrialized their economies with enormous success. The common denominator among these countries is their high levels of GDP per capita. Industrialization has apparently paved the way to prosperity.
More recently, the Newly Industrializing Countries in Asia and Latin America have been regarded as poster children on how essential industrialization is to development. Brazil, China, and Mexico, for example, have succeeded in increasing their respective GDPs by switching to a manufacturing based economy and producing commodities in quantity for exports. Industrialization and “the switch to Kaldorian growth strategies”\(^2\) gave the LDCs a growth rate usually twice as high as the OECD\(^3\) economies as a whole”(Schwartz 1994, p.239).

These historical examples are the reasons why it is not a surprise that many developing countries, like the Philippines, view industrialization as a key strategy for development. It seems logical that if some nations can find prosperity through industrialization, others should also. However, the allure of economic betterment should not prevent critical questions regarding the soundness of this strategy from being asked. First of all, is past performance a valid indicator of future results with regards to industrialization for development? Secondly, is the status of ‘late, late, industrializer’ still truly available to the Philippines regardless of how late it joins the game? And finally, how viable of a domestic policy is industrialization in light of the continued rise of the digital economy?

**Industrialization and the Philippines**

The appeal of industrialization is not easy to dismiss, especially when neighboring countries have managed to extract economic surplus and increase per capita income from its application. Prior to the Asian financial crisis in 1997, the all consuming topic of discussion is how to become the next ‘Tiger’. Even though it is now slightly diminished, the desire for NIC-hood is still strong. Like other developing countries, the Philippines

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\(^2\) Reliance on an inter-related phenomena like increasing returns to scale, learning by doing, imperfect competition, and economies of speed to generate growth. (Schwartz 1994, p.60)

\(^3\) Organization for Economic Cooperation and Development
has persevered to upgrade its status in the global economy by tapping into the economic opportunities provided by industrialization. These attempts are manifested in the gradual shift of production from agriculture to manufacturing and the country’s expressed effort to attract foreign direct investments to catalyze several industry sectors. The National Economic Development Authority (NEDA) of the Philippines succinctly expresses this national drive for industrialization-led economic growth in its 1995 publication:

The Philippines has been steadily and firmly putting in place all the elements needed to become an industrializing country: adoption of open-door policy; a spirited domestic and foreign investments drive; massive infrastructure development; government decentralization; tariff structure rationalization; a flexible exchange rate policy; vigorous export promotion and streamlining of export procedures; and import liberalization.

More prominently, the *Philippines 2000* initiative launched by the government of Fidel V. Ramos in the early 1990s exhibits the country’s clear desire to be regarded as a Newly Industrializing Country. Although Fidel Ramos is no longer the president and the initiative’s target date has passed, the drive towards industrialization still exists. The current administration of Gloria Macapagal Arroyo and the national Medium Term Economic Plans also highlight the goal to shift the economy increasingly more towards industry.

Although understandable, the obsession for attaining NIC status for the Philippines needs serious reevaluation. Industrialization for development is no longer a sound policy. And, several arguments can support this claim. First of all, industrialization at a very late stage exacts an exceedingly high price. The payoff for the investments will be insufficient to justify its costs. Secondly, the distinct political economy and historical characteristics

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4 The Philippines 2000 is the national initiative to attain New Industrializing Country status for the Philippines by the year 2000. It is a core component of NEDA’s medium term economic plan for the nation and the centerpiece for Fidel Ramos’ presidential policy.
5 Fidel V. Ramos served as the 12th President of the Republic of the Philippines. He succeeded Corazon Aquino in 1992 and governed until 1998.
6 Gloria Macapagal Arroyo was the elected Vice President of the Philippines in 1998. She took over the presidency of the country after the impeachment of Joseph Estrada in January 2001. She was elected to a full presidential term in May of 2004.
of the Philippine nation make it incompatible with industrialization as a system of production. Also, the marginal benefits of industrialization have been exhausted and its effectiveness in wealth generation is expiring. Finally, it is most important to consider that the emergence of the digital revolution makes the policy of industrialization for development outdated.

**Arguments against Industrialization**

Industrializing at this very late stage is accompanied by heavy costs that need to be burdened. In terms of economic costs, Gershenkron’s theories highlighted the co-variances between successful late industrialization and the necessary state intervention, industry support, concentration of industrial ownership, and required growth of output (Schwartz 1994, p.86). The financial and productive capital mobilized by Japan in order to fund its industrialization objective had been enormous relative to Britain. Likewise, South Korea and Taiwan, which industrialized later than Japan, had invested more intensively and needed to centrally coordinate their actions more. The Philippines, which is only at its early stages of industrialization, has to overcome an even larger hurdle to attain ‘late, late, industrializer’ status. Massive amounts of financial resources and capital need to be raised in order to fund a government directed industrialization initiative. In addition to the costly capital redirection and institutional investments, physical infrastructure needs to be laid out in order to foster the growth of industry. This is also prohibitively expensive. Furthermore, it is important to remember that early industrializers reaped the benefits of first-mover advantages and were able to distribute their products to untapped markets. Later industrializers, on the other hand, would have to compete with markets already saturated with suppliers from multiple countries exporting
industrial products. This is the folly of using the past success of nations with a significant head start as an indicator of industrialization’s future economic impact.

Besides the high expense of late entry, the nuances of the Philippines make it incompatible with industrialization. Although this claim is more controversial, it focuses on national characteristics that make the successful implementation of an ‘East Asian style’ industrialization policy unlikely. First of all, the Philippines possesses numerous, well-developed, and diverse civil society organizations\(^7\). These actors have been the primary source of resistance to policy that is perceived to have a deleterious effect on living conditions. The best case to illustrate the influence of Filipino agency over structure is the proposal for the construction of the Amaya Power Plant in Tanza\(^8\). It was on 35 hectares of land in Amaya that municipal councilors invited an international consortium of investors to locate a 330 megawatt power station in 1992 (Kelly 2000, p.151). Full federal backing has been provided for this project because of the government’s perception of the criticality in stabilizing the power supply\(^9\). But in spite of the coordinated effort, the project failed because of successful mobilization by local environmental groups and civil society organizations to prevent the construction of the power plant in an agricultural suburb. Another example is the successful resistance to the original construction of the Export Processing Zone (EPZ) in Cavite\(^10\) (Kelly 2000, p.151). Local NGOs have organized protests to prevent the EPZ expansion due to its reputation for poor labor standards and frequent human rights violations. On a general theme, the Philippines 2000 initiative by Fidel Ramos has also generated more than its share of resistance. Several domestic civil society organizations have recognized its

\(^7\) EarthTrends report that the Philippines have 1,985 international non-governmental organizations in 2000. This represents 26 NGOs for every 1 million population. The corresponding number for Asia (excluding the Middle East) is 9 NGOs for every 1 million population (2003).

\(^8\) Tanza is a municipality in the suburbs of Metro Manila.

\(^9\) Frequent power cuts is a major problem in the Greater Metro Manila area that was strongly dissuading potential investors from locating in the Philippines.

\(^10\) Cavite is a province in the outskirts of Metro Manila.
ambitiousness and compressed timeline. And, it has responded with campaigns to expose the threat of social dislocations and livelihood interruptions to the public. Sweatshops, child labor, and non-existent labor standards have become associated with manufacturing plants. All of these cases illustrate the Gerschenkronian collective action problem\(^{11}\) that is more considerable for a ‘late, late industrializer’ like the Philippines. The difficulty in overcoming this hurdle is magnified by the strong presence of environmental, labor, and civil society organizations in the country.

The Philippines’ painful experiences with severely corrupt, authoritarian regimes in the form of the Marcos\(^{12}\) government, and more recently, the Estrada\(^{13}\) government make industrialization through a centrally planned, state-driven initiative widely unpopular and politically impossible. Currently, the Philippine constitution only allows one term for the sitting President. This limitation is a precautionary measure to avoid future abuses of power from the executive branch of the government. It is a logical safeguard considering past dictatorships and totalitarian regimes. However, it contributes to uncertainty in long-term economic planning. Government transitions do not guarantee that economic objectives will carry over from one administration to the next. And, industrialization requires a sustained and continued commitment from the government in order to project stability and build investor confidence. Likewise, economic power granted to large business conglomerates like the Chaebols in Korea and the Keiretsu in Japan is not viable in the Philippines. Past attempts have only yielded to crony capitalism and increased inequality. As a result, it accentuated the concentration of wealth and control among the oligarchic families in Filipino society. Table 1 shows that the

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\(^{11}\) That is, exporting for industrialization requires state mobilization of capital for social overhead capital such as the provision of the transportation networks needed to get exports to market, for the provision of capital to producers, and for the creation of a labor supply. (Schwartz 1994, p.60)

\(^{12}\) After declaring Martial Law in 1971, Ferdinand Marcos’ presidency lasted until 1988 when he was ousted out of power by the People’s Power revolution.

\(^{13}\) Joseph Estrada was elected as the 13th President of the Republic of the Philippines. He was impeached on January 2001 after wide evidence of graft and corruption.
Philippines has the highest concentration of corporate ownership that the wealthiest families control, relative to other countries in East Asia (Loungani 2000, p.100).

Table 1: Concentration of Family Control

<table>
<thead>
<tr>
<th>Country</th>
<th>% of Total Market Capitalization That Families Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Top Family</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>6.5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>16.6</td>
</tr>
<tr>
<td>Japan</td>
<td>0.5</td>
</tr>
<tr>
<td>Korea</td>
<td>11.4</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.4</td>
</tr>
<tr>
<td>Philippines</td>
<td>17.1</td>
</tr>
<tr>
<td>Singapore</td>
<td>6.4</td>
</tr>
<tr>
<td>Taiwan</td>
<td>4.0</td>
</tr>
<tr>
<td>Thailand</td>
<td>9.4</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund

Furthermore, sweeping mandates for implementing development policy granted to a select government agency like the MITI in Japan and the EPB in Korea is dangerous considering the legacy of kleptocracy and nepotism in the Philippines. Although it was most severe during the Marcos era, this problem prevails today as evidenced by the extremely poor ranking of 92 out of 133 countries evaluated by Transparency International in its annual Corruption Perception Index (2003). Considering these factors, the assertion of Ziya Onis in “The Logic of the Developmental State” is given much credence:

The East Asian model of the developmental state is the product of a unique historical circumstance with the logical corollary that there exist major constraints on its transferability to or replicability in alternative national contexts. (Onis 1991, p.120)

Finally, the potency of industrialization as an economic pill is waning. Technology driven revolutions in production systems arrive in cycles. The past century is
when industrialization ran through its full course of Schumpeterian creative destruction\textsuperscript{14}.

At this point, most of the efficiency and productivity benefits of industrialization have already been realized. This same argument was made clearly by John Ikerd:

Industrialization was the model or paradigm for human progress in the twentieth century. But, it is rapidly becoming obsolete as we approach the twenty-first century. Its time has come and gone. We should focus our scarce public resources on exploring approaches that have possibilities for progress in the century ahead, rather than on promoting a model whose century has passed. (1995)

Several signs point to this trend. First of all, the increased commoditization of manufactured products directly results in the lowering of prices. This is the same pattern that has happened to primary commodities produced by agricultural exporting countries. Volume of exports has to be increased correspondingly in order to compensate for the deteriorating terms of trade. Presently, this is made possible by the increase in consumer demand for manufactured products due to globalization and a growing worldwide middle class. But even with increased demand, there is still a finite number of suppliers that is optimal for providing the world with TTTs (Textiles, Toys, and Trash). Another telling sign of industrializations’ demise is the constant shedding of industrial products by OECD countries as a source of revenue. The last two decades have shown the gradual shift away from manufactured goods into services and intellectual property products. The OECD has also signaled its change in preference away from industry and towards intellectual property such as software, entertainment, and biotechnology by its adamant push for the implementation of TRIPS\textsuperscript{15} within the WTO. In order to incorporate this non-trade agreement, the developing country members of the WTO were convinced to accept TRIPS

\textsuperscript{14} Schumpeter argued that the emergence of new leading sectors caused economic upswings. These innovations force changes in the process of production and the objects produced across all industries, by threatening existing industries and production systems with creative destruction. Leading sectors can energize the economy through new, highly profitable investments. And, the dynamic growth of new leading sectors propels the economy forward. (Schwartz 1994, pp.67-68)

\textsuperscript{15} TRIPS refers to Trade-Related Intellectual Property Rights. The agreement prescribes worldwide minimum standards for patent protection and first came into being in 1994.
in exchange for the end to the Multi-Fiber Agreement\textsuperscript{16} (Panagariya 1999, p.6). This TRIPS-for-MFA deal is a clear indication that the most value-added in outputs and the preferences of developed nations are no longer in garments and other manufactured products but in intellectual property.

In light of these considerations, a national policy of industrialization for development is analogous to believing that a dry piece of regurgitated bread will be sufficient to provide nourishment.

\textit{Informationalization for Development}

With the rise of the digital economy\textsuperscript{17}, industrialization’s appeal as a development strategy becomes even more questionable. Since the early 1970s, a new mode of production has developed and has steadily increased its impact as an economic engine for growth. Information and communication technologies have brought about the Internet revolution, e-commerce, networked societies, and the rise of a new economy. “Central to the argument of the rise of a new economy is the notion that knowledge has become the most creative, value-adding factor in production. Whereas, in the old economy, land, labor and capital were the only three generic factors of production, in the new economy, the critical assets are expertise, creativity, and intelligence or information” (Held et al. 1999, p.110). Literature abounds on the potential for information and communication technologies (ICT) as an enabler for development or as a tool for alleviating poverty. However, its contribution as a central development strategy instead of simply a tool has become more prominent especially after the new economy has managed to produce

\textsuperscript{16} The Multi-Fiber Agreement (MFA) is an array of trade-related agreements in the garment and textile industry. It has permitted the use of import quotas to regulate the multibillion dollar in annual world trade of garments since 1974.

\textsuperscript{17} The digital economy is used to refer to modern production systems and business transactions facilitated by information and communications technologies. Other terms used to describe the digital economy is the information society, knowledge economy, or networked society.
tangible and consistent economic growth for countries that successfully apply it. The last
decade is witness to the emergence of e-commerce companies such as Ebay, Amazon, and
Google whose individual market capitalizations dwarf the GDP of many developing
countries in the world. Manuel Castells, a professor of economics at Berkeley and
Stanford, argues that we are undergoing a fundamental change in the nature of economic
production. “It is no longer possible to speak of the first and third world, or developed and
developing countries. Instead, we should think of regions of the world that are hardwired
to networks and information flows, and thus ‘switched on’ compared with the vast
disconnected, or ‘switched off’ regions of the world” (Castells 1996b). Since the 1990s,
wealth has been derived foremost from intellectual property. And, power is now an issue
of controlling the rights to digital information. All these developments should be viewed
as an indication of the beginning of a new wave of Schumpeterian creative
destruction….this time, ushered in by technological advances in computing, the Internet,
and telecommunications. Although at varying degrees, every country has the opportunity
to ride this new wave of economic growth. But, it is very important to know how to
position a society in order to take advantage of the situation.

**Informationalization in the Philippines**

The Philippines faces many hurdles in converting its production system into the
digital economy. Infrastructure and the high costs of ICT pose considerable barriers to
entry. However, it also has many comparative advantages in the knowledge economy.
First of all, the high literacy rate in the Philippines is a crucial asset in order to participate
effectively in the knowledge economy. Based on the population over the age of 15, the
nation’s illiteracy rate is at 5% which is significantly lower compared to 13% for the
whole region of East Asia and the Pacific (World Bank 2003). Computer hardware,
software programs, Internet technology, and telecommunications system are unarguably complex matters that take a significant learning curve prior to acquiring understanding. A country with a population that is highly literate is better positioned to grasp the concept. Secondly, a wide English speaking population is also beneficial since this facilitates the acquisition of ICT businesses from developed countries. Outsourcing of certain service sector areas in North America and Europe has provided employment to call centers in the Philippines, which offers a labor market with English proficiency. Another example is the employment that became available through the digitization of books and other text from corporations such as Amazon.com, which seek to expand their digital library. The Philippines was able to attract these types of jobs in part because of an English-speaking requirement. UNCTAD’s E-Commerce 2002 Report explains this relationship as follows:

There is a relationship between the availability of a skilled, English-speaking female workforce and where outsourcing normally happens. From this, one can also propose the hypothesis of the existence of a relationship between the availability of a skilled female workforce and foreign direct investment in information processing work in the developing countries. The software services sector in countries such as India and the Philippines could support this hypothesis. The salary differences between the United States and India, or the Philippines, for similar skills are considerable. Yet these differences cannot fully explain the absence of relocation of software services to countries such as Bangladesh or Uganda where salaries are even lower. In addition to the requisite skills, the success of replicating the experience of India or Philippines depends on creating the right policy framework. (UNCTAD 2002, p.95)

Moreover, the Philippines through its well-developed universities, colleges, and technical institutions has produced a considerable number of highly skilled software engineers, technicians, software programmers, and computer specialists. Although not widely known, the Philippines is a top source of world-class technology talent. The Meta Group’s\textsuperscript{18} Global New E-Economy Index for 2000 ranked the Republic of the Philippines on the top position with respect to knowledge jobs (followed by Australia, the USA,

\textsuperscript{18} The Meta Group is a national technology and business strategy consulting group in the United States.
Canada, and France). This ranking was based on a set of digital economy indicators such as the availability of qualified engineers, availability of IT skills, availability of senior management, and higher education enrollment (Meta Group 2000). In addition to the number and quality of software professionals, the Philippines also has a competitive advantage in the relatively lower wages in this field. Table 2 below outlines the average wage of software professionals in select countries (Carmel 2003, p.6):

Table 2: Direct Cost Comparison, Software Professionals

<table>
<thead>
<tr>
<th>Country</th>
<th>Wages for Software Professionals (Annual, USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>$63,000</td>
</tr>
<tr>
<td>Japan</td>
<td>$44,000</td>
</tr>
<tr>
<td>Russia</td>
<td>$7,500</td>
</tr>
<tr>
<td>Philippines</td>
<td>$6,500-10,000</td>
</tr>
<tr>
<td>India</td>
<td>$5,000-8,000</td>
</tr>
<tr>
<td>China</td>
<td>$5,000-9,000</td>
</tr>
<tr>
<td>Indonesia</td>
<td>$5,000</td>
</tr>
<tr>
<td>Ukraine</td>
<td>$5,000</td>
</tr>
<tr>
<td>Vietnam</td>
<td>$1,400-6,000</td>
</tr>
</tbody>
</table>


The affinity and natural inclination of Filipinos, in general, for incorporating technology into their daily lives is another point of advantage. To the extent that hurdles of availability and high costs are overcome, ICT has been considered as a welcome addition to the Filipino lifestyle. The best example is the proliferation of mobile phones in the Philippines and the extremely high utilization of SMS within the population in order to stay connected\(^\text{19}\). For the effective incorporation of ICT into the economic life of the

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\(^\text{19}\) In December 2000, Filipinos were sending almost 50 million short messages a day, or around 9 per subscriber. The Philippines is the leader in per capita SMS usage, accounting for some 10 per cent of all short messages sent around the world. The Philippines had 8.5 million mobile telephone subscribers in June 2001. The number of mobile telephones in use exceeded the number of fixed lines in 2000; it continues to grow rapidly and is expected to reach 15 to 20 million. (UNCTAD 2002, p.123)
Philippines, it is important that there is no ambivalence towards its use. Embracing the technology is a critical prerequisite to its proper application. Furthermore, being open to new technology, learning the process, and understanding it is key to reaping the benefits of technology transfer and essential for informationalization to lead to development. Local businesses in the Philippines have already demonstrated the capacity to maximize technology transfer benefits. For example, as early as 1986, a small company in Manila was able to produce the Chico Computer. This was a lower cost, domestically produced version of the Apple computer, which was the most widely used PC at the time. The Chico did not reach widespread distribution. But, its development shows the awareness of domestic companies to the idea behind reverse engineering and learning by doing. And, it spotlights the hard skills, inventiveness, and entrepreneurial ability that are already present even at the very early stages of ICT introduction in the Philippines.

The Role of States and Markets in Philippine Informationalization

All the previous examples of the Philippine’s comparative advantages in the digital economy shows that the general population, local markets, and domestic businesses have already taken considerable strides in moving towards informationalization. However, there is an obvious contrast between the development strategies of the Philippine government and the economic motivations of local businesses and the overall population. While the state is pre-occupied with attaining NIC-hood and following suite with the manufacturing based, export-oriented growth by the East Asian Tigers, the market is tapping into the window of opportunity that is offered by the digital economy. This contradiction is not isolated to the Philippines. The relative newness of ICT as an economic engine for growth makes it difficult to have a unified vision for its role in a country’s developmental strategy. However, it is important for the Philippine government
and the market to synchronize their actions and complement each other’s objectives in order to fully take advantage of the economic benefits informationalization can bring. Although it is tempting for the Philippines to model its policies to the developmental states of East Asia, it is important to know that the digital economy is radically different from the industrial production in terms of its requirement to foster growth. Protection of infant industries is a logical process for the cultivation of a selected industry initially marketed in a large domestic market. But, the same logic does not carry over to ICT products. It is almost impossible to shelter domestic ICT companies from competition from foreign companies. First of all, it is the very nature of the networked society that connectedness be maintained in order to facilitate the flow of new information and transportation of knowledge. Tariffs and quotas are not tools that are available to the state in order to promote domestic ICT companies. Secondly, the government’s traditional role in the build-up of physical infrastructure to encourage commerce is no longer a main function. Bridges, roads, and dams are not the lubricants of the digital economy.

However, this does not imply that the role of the government has been made obsolete in the digital economy. The physical infrastructure that was needed desperately by industry has been replaced by the network backbone that is critical to the information society. Bandwidth, cable, and satellites are the highways of the information age. And, it is the Philippine state that is best positioned to provide these network connections… directly, via joint ventures, or through straight subsidy to local providers. Access to the Internet is another area that the state must take responsibility in spearheading. The government should recognize the relationship of being connected to economic well-being. Nations that have a high level of ICT penetration also experience high levels of wealth (Figure 1).
Although it does not necessarily imply causality, there is a direct correlation to the level of Internet penetration and GNP per capita. Presently, the Internet access in the Philippines is still constricted to a small number of the population. According to a World Bank report in 2003, there are only 44 Internet users in the Philippines for every 1000 people. Internet penetration needs significant improvement because, at a minimum, access to the Internet will prevent marginalization in an increasingly global economy and society.

Even though the role of the state is not diminished in this post-industrial age, there is a definite need to change its function and composition to adapt to the new mode of production and accommodate the changing market. This government restructuring that is essential for the digital economy is best expressed by Thomas Friedman in *The Lexus and the Olive Tree*:

[The state matters more now, not less. What has changed is what we mean by the state. Today, you need a smaller state because you want the free market to allocate capital, not the slow, bloated government. But you need a better state, a smarter state and a faster state, with bureaucrats that can regulate a free market, without either choking it or letting it get out of control. The trick for governments today is to get the quality of their states up at the same time that they get the size of their states down. One]
of the most important and enduring competitive advantages that a country can have today is a lean, efficient, honest civil service. (1999, p.158)

Instead of East Asia, the Philippines should look towards the Baltic States to find a suitable role model for development policy. Estonia, for example, has effectively made Internet access a basic human right. Last February 2004, the Estonian parliament voted to guarantee Net access, just like any other right, to its 1.5 million citizens (Meier 2000, p.10). Furthermore, Estonia’s government has consistently put in place massive investments in IT and telecommunications infrastructure. Finland, on the other hand, has emphasized the importance of e-learning in its universities because ‘there is the perception that e-learning is worth investing in because, to some degree, it represents the future (UNCTAD 2004, p.131). These forward-looking policies should be emulated by the Philippines in order to better position itself in the global digital economy and increase its chances of benefiting from the redrawing of the new core-periphery lines.

**Critiques on Informationalization as a Development Strategy**

There are two obvious criticisms to the thesis arguments which need to be addressed….beggars can’t be choosers and technological determinism. First of all, it can be argued that developing countries like the Philippines have constrained choices. Even if it recognizes that the digital economy can bring more prosperity, there is still the very real obstacle of limited financial and technological resources. And so, the country can only aspire for policies that it can afford (i.e., the dry piece of bread). This is a sound criticism. But, it makes the assumption that the required investment in the digital economy is higher than in traditional industry. Currently, there is no definite consensus from studies to support this. Also, a developing nation like the Philippines might not presently be in a position to incubate high technology companies like Oracle, Ebay, Microsoft, or Google. But redesigning a whole country’s production system does not happen overnight. This
makes it even more compelling to make the necessary investments so the foundation and environment for startup companies that have this potential can be cultivated. The sooner this initial seed is planted, the more likely that the right companies will emerge. In short, the beggar might not have a choice today, but it should still take actions to make sure that it can choose tomorrow.

The second criticism is technological determinism. Is ICT economic salvation? And, should informationalization be regarded as the silver bullet for all the complex issues of poverty and lack of development in the Philippines? Although this paper focused on political economy considerations and the digital revolution, it does not dismiss the importance of proper implementation. In addition to the policy changes preferring informationalization to industrialization, institutional changes should also be put in place in order to increase the likelihood of success from the chosen policy. In the digital economy, transparency, efficiency, and good governance are even more important to achieve. These are prerequisites for preventing corruption and bureaucracy from stifling a growing sector. As has been demonstrated by the history of the Philippines and other nations who have sought to attain developed country status, how you do it is just as important as what you do. Therefore, the flawless execution of a development strategy based on the digital economy should also be a paramount concern.

Conclusion

The costs of industrializing at a very late stage and the increasing tangible benefits brought by the digital economy all combine to illustrate informationalization as a more sound instrument of development policy. Placed in the context of the Philippines, real opportunities exist to improve national economic conditions if the current shift in global production system is acknowledged and measures are taken to tap into its potential as a
valuable economic engine. Disconnects between the directional choices of the market and the state have to be resolved. And, the government needs to become more attuned to the growing importance of the digital economy and the institutional mechanisms that can foster it. As Susan Strange wrote in *States and Markets*, we must “be concerned with future possibilities. Although it cannot be predicted, the future also cannot be ignored” (1988, p.19). For the Philippines and its population, which has been striving to improve its standard of living, this truth is even more important to grasp.
BIBLIOGRAPHY


