



The South Korean Transition To A Knowledge Economy As A Case Study

Presented By Dr. Suh Joonghae, Fellow of Korea Development Institute (KDI)

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Summary Outlines:

- Overview
- Background
- Key Areas Of Discussion
 - Strategic Highlights of South Korea Economic Make-up & KDI
 - Korea's Transition To A Knowledge Economy
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- Recommendations In Form of Proposed Questions & Answers
- Conclusions In Form of Intake From Audience

Overview

- **Theme:** The Korean Case for KE (Knowledge Economy) & The Functioning of KDI, as a Leading Korean Think Tank.
- **Summary:** A presentation given by Dr. Suh Joonghae, for Al-Aghar Group, round table discussion in June 2011. With the purpose of finding the best ways of reflecting the Korean knowledge economic transformation experiences to the Saudi Arabian transformation into a knowledge society.
- **Key Speaker:** Dr. Suh Joonghae, is a fellow at the Korea Development Institute (KDI), an independent government-funded think-tank in Seoul. As an experienced macro economist, he emphasized strong relationships between economic development driven by technological change and innovation, within which the business enterprises play the central role and close partnering role with the Korean government and leadership. Of particular to the Korean economy, Dr. Suh pointed out the key role played by the Korean *Chaebol (Conglomerates)*. Among the various ongoing research themes of Dr Suh, includes the effectiveness of the government policies on the innovative performance of business enterprises. Dr Suh was the main author of Korean Knowledge Economy Case Study published by the World Bank and used as reference material in various World Bank programs to help other developing economies formulate their knowledge-base economy program.
- **Audience:** A diverse combination of senior executives, guests & youth representatives from Al-Aghar Group “*Youth Initiative Think Tank*”, attended this round table discussion.

Background

Al-Aghar Group for strategic thinking is an independent non-profit organization, with the objective of transforming Saudi Arabia to a knowledge society through providing decision makers strategic options in the areas of social, cultural and economic development. Al-Aghar, has published several studies concerning the economic development of Saudi Arabia benchmarking Korea, Finland and Ireland as examples of knowledge based societies. Please visit Al-Aghar Group Website (www.al-aghar.org) for our Knowledge Society Strategy & National Innovation Ecosystem.

As a Saudi think tank Al-Aghar Group, is seeking to build relationships with reputable institutions in the Knowledge field. Therefore, Al-Aghar Group, is exploring collaboration opportunities with Dr. Suh Joonghae & the Korea Development Institute (KDI) think tank.

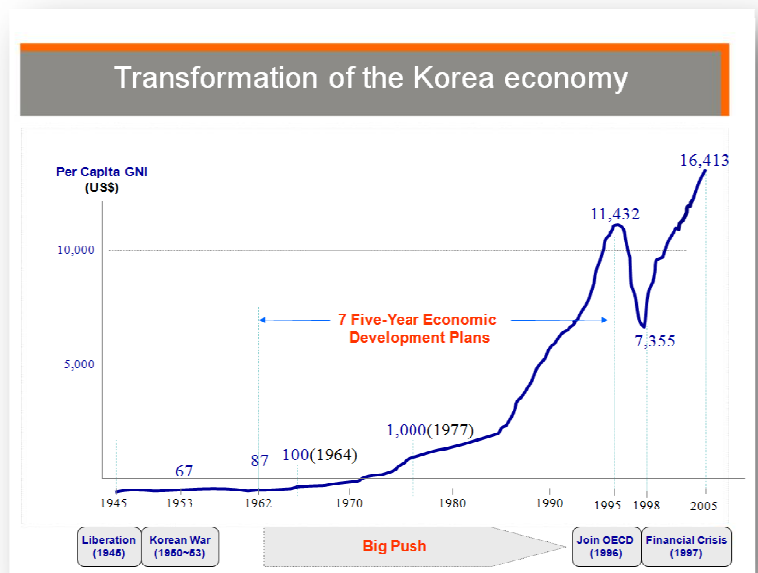
Key Areas of Discussion

A) Strategic Highlights of South Korea Economic Make-up & KDI:

1. Population of Korea reached around 48 million, as of 2011.
2. To date Korea has about 23 public funded think tanks, and more than 400 higher learning institutions. KDI assume the macroeconomic role, for which it works in partnership with specialized think tanks and higher learning institutions. KDI itself has about 50 fellow, 300 researcher and 200 faculty member for graduate studies center.
3. Korea adopts a rolling vision, which is the same working vision that Al-Aghar Group implements. Both believe in involving the local public & proper execution process are key factors of success. The key challenge is not the vision formulation, but more in : *“How To Coordinate”* & *“How to Mobilize & Create Fruitful Results”*.
4. Driven by the changing leadership focus, Korea formulated a vision 2030 but within only 5 years developed a 2040 strategic vision. Nonetheless, the basic elements within these 2 vision documents are fundamentally the same, but the change was the emphasis of the new leadership.
5. Dr. Suh, believes that vision formulation and implementation is a form of ART not a Science, as such the Korean experience is not replicable in its exact form. Each country will need to develop a vision within their own context.
6. Korea Development Institute (KDI) is a think tank, funded 100% by government, but operates as an independent entity and not a government department entity. Thus, they are legally independent covering issues that do with socioeconomics.
7. Currently for KDI; 30 countries have requested assistant from the Korean development experiences.
 - In context of the Knowledge-Base Economy, Dr Shu has shared the Korean experience with many countries already. Among them includes a program with the Government of Turkey.
 - An MOU was signed in 2010 between the Korean Government and Government of Saudi Arabia via the Ministry of Economy & Planning, in 3 major areas identified as follows:
 - ✚ Managing science & technology parks.
 - ✚ Assisting small & individual enterprises.
 - ✚ Educational broadcasting service in Korea, as an example of *“How to complement formal educational systems through different channels”*.

B) Korea's Transition to a Knowledge Economy:

- Korea, Japan and Finland set examples of transformation from poor to advance countries through economic development. As demonstrated in **(Figure#1)** since 1961, the Korean President pledged to the public through economic growth and introduced two development plans in 1962 & 1966, which were designed in collaboration with USA government mostly supporting in terms of: (money-ideas-personnel). After successfully achieving both goals of development plans, the Korean president decided that Korea needed to design its own plans upon its own people. Therefore, in 1971 Korea Development Institute (KDI), was created with a role of assisting government activities.



Source of Figure#1: Dr. Suh Joonghae Presentation – Korea KE transition

- In the 1960s, half of the Korean population suffered from poverty and due to the lack of resources, at that time Korea exported Wigs worldwide. Then in 1970 exported Textiles until in the year 2000 around 80% of Korean exports became Semiconductors & Technology Based products, reflecting a high economic growth throughout the decades.
- As a result of the financial crisis in 1997, a civil movement was held to save the country from bankruptcy. In result, majority of the Korean public united to donate their gold reserves to local banks for the purpose to build up the foreign reserve. Accordingly, a harsh and painful economic restructuring program was implemented. Four sectors of reform and restructuring included: (1) Financial sector restructuring (2) Corporate sector restructuring (3) Labor market restructuring (4) Public sector restructuring & fiscal support.
- One of the Economic reform tools was by creating the Economic Planning Board (EPB), which was headed by the vice prime minister and senior ministry representatives. Moreover, the EPB houses a government body bureau and the most important two arms of the EPB were: (1) Government Budget (2) Department for Foreign Investments & Loans. These two arms of the EPB enabled it to coordinate with other ministries in order to achieve any given goal from the president.
- One down side of strong government leadership during the early years of Korean economic transformation is the issue of over-investment in a specific sector.
- The Korean president conducted a monthly evaluation promotion meeting, which was mandatory for all ministers and business leaders to attend. Therefore, strong monitoring and evaluation of achievement was conducted through meetings.
- In 1998, the Korean President Kim Dae Jung (Nobel Prize Winner), announced that the future of Korea will be knowledge based economy as the engine for growth whilst having to absorb the painful effect of the economic reform program.
- Regarding the issue of industrialization process through manufacturing activities. Most Korean companies are based on industrial manufacturing competing aggressively in the world market. Although, the productivity level of the manufacturing sector is very high the service sector has not developed to comparable productivity level. Dr Suh, further noted that a major consideration in Korean economic development program is generation of employment and he observed that in some High-Tech sectors like the Information & Communication ICT sector, although it yields high return on investment it does generate significant employment opportunities.
- Korean government assigned a policy enforcing licensing contracts to contain exchange of personnel, in order to build internal capacity.

C) Future Vision of the Korean Economy:

- Entering 1995s, the growth rate of Korean economy was below 5% which created a social dilemma not only an economic challenge. This is because a mismatch happened between high people's expectations and lower employment rates.
- Regarding food security most importantly "Rice", which has high sentimental value in Korea, the Korean government gives special support to farmers to maintain rice cultivation.

The 6 Global Mega Trend Changes That Most Countries Worry About & Prioritize

1. Demographic Change	Natural tendency is for people to immigrate from poor to rich countries.
2. Technology Change	The global population is expected to rise from 6.9 billion in 2010 to 838 billion by 2040, while (The elderly population goes from 7.6% to 14.2%).
3. Environment, Resource Issues	Global economy is moving towards developing markets that are growing fast based on young labor forces. Thus, the demand for migrant workers
4. Global Economy	from developing markets is growing.
5. Political Environment	
6. Leisure and Culture	

Change in global economic geography & Labor Force Mobility follows:

- ✚ China is likely to face population aging and a shortage of young workers, (468 thousand immigrating people in 1980, compared to 1 million 900 thousand immigrants in 2005). While UN statistics predict that in 2030 or 2050, China will no longer be able to export its human workforce due to low growth population rates. In result, China will be importing human labor instead of exporting them.
- ✚ Korea will follow the trend and will have to import immigrants from around the world due to low fertility rates, hence (Korea's population aging is the fastest in the world). The immigrant population in Korea is expected to reach 3.50 million in 2040, accounting 8% of the total population. In conclusion, Korea is moving towards a multi-cultural society due to rising inflows of immigrants. Moreover, currently in 1 out of 3 marriages, Korean men marry foreign women from: (China – Vietnam – Philippines). This will create a change in Korea's demographical and cultural structure.
- ✚ To be able to cope with these changes Korea, should be more open, tolerant and harmonious with other people.

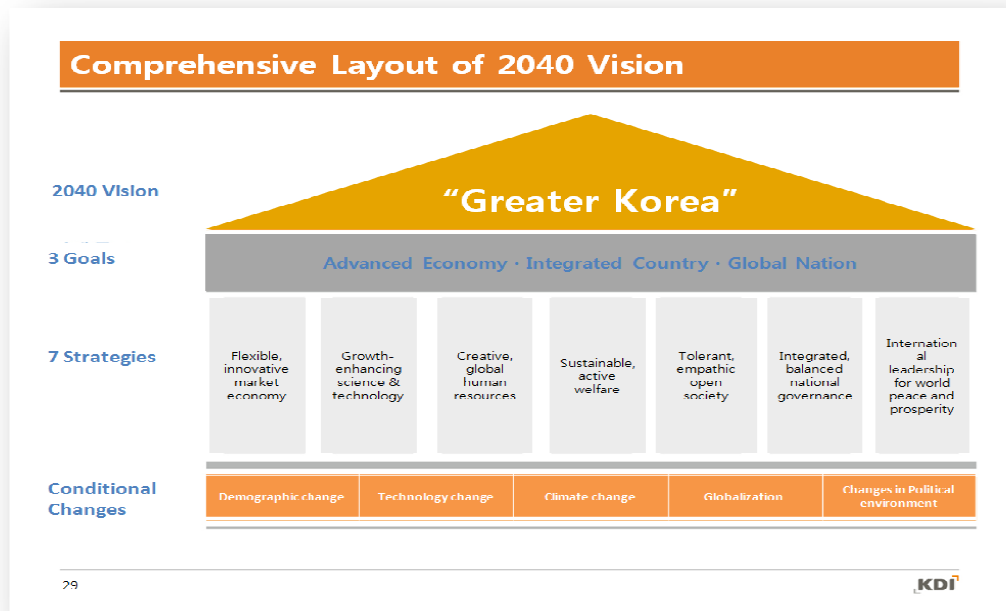
Expected changes in future trends and Korean response measures are displayed in **(Figure # 2)** below:

Changes in Future Trends and Response Measures			
	Progress Pattern		Responses
	Opportunity	Threat	
Population Structure	- Diversification of Human resources - Development of new Industries, such as leisure and silver industry	-Loss of economic vitality -Increase in welfare cost	-Transforming industrial structure -Redesigning the welfare system
Technology Changes	Creation of new markets -Solution to social and structural problems	Techno hegemony, barrier -Widening gap of knowledge and information	Formulating a technology industry ecosystem -Fostering new human resources
Environment, Resources	New market, opportunity -Growing value of environment	-Loss of foundation for sustainable growth -Increase in national conflicts	-Transforming energy structure -International cooperation, resource cooperation
Global Economy	-Market expansion Multi polarization of the international order	-Intensified competition, restructuring -Amplified uncertainty	-Participating in the global system -Reinforcing social integration
Politics, Culture	-Democratic progress, enhanced national dignity -Cultural openness, diversification	-Political excess, increase in international conflicts -Intergenerational and cultural conflicts	-Redefining the roles of government, reinforcing soft power -Laying the foundation for multicultural integration and coexistence

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Source of Figure#2: Dr. Suh Joonghae Presentation - *Korea Future Policy (June 2011)*

In order to create a 30 year time horizon vision for Korea's future, KDI created focus group interviews & surveys with high school students in around 16 high schools. The objective was to learn what they think/evaluate about the future of Korea. Finally, 3 high school students were invited to speak in the final conference amongst the president and ministers. In conclusion based on KDI's in-house research the following vision for Korea in 2040 was conducted in **(Figure #3)** below:



Source of Figure#3: Dr. Suh Joonghae Presentation - *Korea Future Policy* (June 2011)

Finally, Korea’s growth rate is expected to fall, but the increasing productivity will continue to expand the economy scale and raise the income level. As the Korean economy in 2040 is forecasted to reach a size of 2.8 trillion dollar, three times greater than today, (Per capita GDP is expected to reach a 60,000 dollar level).

Recommendations

Recommendations came out as questions proposed by the audience for Dr. Suh, to address as follows:

Question#1: *How to measure progress in knowledge based economy? Is it by exports or Income?*

Answer#1: Government policy should be in terms of quantity & numbers. So KDI, set up the goals to be achieved such as education, but some areas of quality is hard to set up quantitative goals. Dr. Suh, believes this tradition should not be continued because Korea reached a stage of economic development that no longer requires quantitative objectives, although they were needed during the financial crisis period.

Question#2: *Samsung is manufacturing and innovative, and yet Dr. Suh, believes the Korean education system is not innovative enough, Why so? Is Korea heading in the right direction?*

Answer#2: It’s a real challenge. Around 3,000 Ph.D, holders work in Samsung Electronics, in more than 30 technology centers. So the government policy is not to intervene, however there is a limited number of (10-15) capable companies such as LG. From the early 1960s the government supported these huge companies so they took all the opportunities already. However, these big companies are unable to generate sufficient employment opportunities for Korea. To address this challenge, the government has decided to strengthen the *Small & Medium-Sized Enterprises (SME)* sector by first strengthening collaboration with the big companies to achieve global competitiveness and increase domestic employment levels. Proper environment, innovation eco-system and modification of university curriculums are required, in order to change industry dynamics, encourage youth to work in small entities rather than big companies. However, these changes need time and effort.

Question#3: *As a representative of KDI think tank, how to you monitor & evaluate KDI efforts given its relationship with the government changing politics verses changing policies, so with new government cabinet how do you continue to evaluate your efforts? How is your implementation of Key Performance Indicators (KPIs)?*

Answer#3: It is important to set the right measurement, in particular between output indicator and impact indicator. For example, “Re-Training” is a very important policy tool for Korean labor ministry, and they set their goal to count the number of graduates. Unlike, the finance ministry which set their goal

to count the number of people who were employed after graduation to test the re-training efficiency level. Totally two different ways to count the outcomes, but as said before it's an art not a science to reach the best results possible.

Question#4: *In your vision do you mean "Greater Korea" or "The Greatest Korea"?*

Answer#4: It is an appropriate Korean word within the Korean context/culture, although not exactly the same, the best word is 'Greater'. Translation to English suggests "Greater Korea", but not greater in terms of size.

Question#5: *Are you going through some comprises in terms of values and traditions, given your heritage is to move into 2040?*

Answer#5: We always make some comprises. For example, in comparison between social welfare and growth. The previous government was pro welfare and advocated expenditure from the government budget, but the current government is more pro economic growth. Therefore, we needed to create some balance and try to use some value free language and we proposed some compromise on how to allocate government budget from one sector to another. One thing we always emphasize on regardless of the political ideology, which is "Fiscal Soundness" as a strong condition for any government policy.

Question#6: *Has Korea reached a knowledge economy yet? What is going on currently?*

Answer#6: We have set all the standards and goals, but we need more efforts to implement in order to realize the vision of knowledge economy. We are still short of some global standards (proposed by the World Bank) in many areas such as education. We value the importance of knowledge economy, but our government wants to use new language although the contents are the same. Lots of government policies remain fundamentally the same.

Question#7: *What are your strategies of implementing knowledge economy?*

Answer#7: There is no one magic tool. However, the first steps to begin transformation to a knowledge economy relies on the corporate sector, then education which will take a long time to see the economic impact. Business sector can create radical & effective changes in a short period. As for the rest of short & long term development tools, they differ in timeframe and implementation tools.

Question#8: *How to measure the economic contribution of technology verses labor/employment rates?*

Answer#8: Measuring labor capital contribution goes through growth accounting and we studied the experiences of the United States, Europe and advanced countries worldwide throughout the past decade. Also we learnt: (How labor composition is made & composition of industry? – How education level is achieved?). So it's based on concrete investigation about other countries experiences, then Korea could conduct its own projection until 2050s rather accurately, due to the revolution of Korea's industrial structure.

As for measuring the technology contribution, no accurate measurement is achieved. However, the technology progress rate is 1.2 of (US & EU over the past 50 yrs). Korea currently is at 1.2 rate and has put 1.2 as their goal for their future in terms of technological contribution in economic growth.

Question#9: *How to change the mindset of the people in a positive way?*

Answer#9: A success story of how Korea started changing the mindset of the public was through a civil society movement called: "New Village Movement", this movement aimed to achieve gradual and steady change. For example farmers lived in poor housing conditions, so the Korean president's 1st step of the movement was to change & repair farmer's roofs, then their roof colors. In result, gradually the view of the entire village changed in a tangible sense, in addition to national competitions that were conducted between villages to encourage positive change.

Question#10: *How to ensure the sustainability of civil society movements?*

Answer#10: Double or increase the income and set a good example for others to follow and believe in.

Conclusions

Conclusions of this round table discussion have been formulated from the intake/ lessons learnt about the Korean experience from the attending audience as follows:

1. When Korea envisioned the 2040 “Greater Korea” vision it engaged high school students. This is similar to what Al-Aghar Group, it trying to achieve by creating its “*Youth Initiative Think Tank*”.
2. To follow the Korean example by forcing Saudi companies if willing to create joint ventures with international companies to send Saudi labor to learn from these companies in exchange of knowledge, detecting the KNOW-HOWs and building the domestic labor & engineering capacity of Saudi labor.
3. Korea adopted well-informed decisions, based on data analysis and documentation of any process.
4. Manufacturing is easy, but innovation is the challenge.
5. Creating an entity responsible for transforming Saudi Arabia to a knowledge economy & society, such as the Korean Economic Planning Board (EPB).
6. Close monitoring /evaluation of implementation.
7. High discipline and planning ahead qualities of Korean people.
8. The leadership inviting & guiding the private sector CEOs as a mandatory process.
9. Success factor of big companies worldwide, is their relentless efforts to learn the KNOW-HOWs.

“End of Case Study”