

Positive effects of KOICA-KAIST education program on my career

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I. Background and Motivation

1.1 Background and Motivation

After I had come back to Uzbekistan after graduation of my Finance MBA degree at KAIST, I was welcomed with a good manner in the Ministry of Finance of Uzbekistan, where I had previously worked. Ministry's HR Department suggested me a post of Head of Division in Investment Department, instead of my previous position - chief economist. I thought deeply, and I consulted with former colleagues, my parents and university teachers. Finally, I made a decision to find an appropriate job in where I can use my knowledge and I can apply foreign experience and skills that I have obtained during my study and life in Korea. Therefore, one of my relative recommended me to apply for a job in a consulting company 'Eastechgroup', which is responsible for management of all projects financed by Orient Group, a big holding company in Uzbekistan. Since March of 2017, I have been working for Eastechgroup as a project manager.

1.2 Brief introduction about Eastechgroup

For 5 years, Eastechgroup has been a well-known leader in helping businesses to drive by new projects, performance and operational efficiency, bringing its applicants the expertise and tools needed to help create and sustain project success. Our formation and identity as a company are intricately linked to Orient Group, which is known as one of the largest holding companies in Central Asia and Uzbekistan having its stakes in the area of construction, manufacturing, real estate, entertainment, wholesale, trade, banking and other business industries.

Eastechgroup is pioneering project management team, initiating and developing new projects, carrying out procurement, sourcing activities, market researching and providing complete business planning for capital deployment with integrity and ingenuity to accelerate economic growth for the long-term benefit of the companies within Orient Group. Currently Eastechgroup is leading strategic project Management Company, which is active in 5 sectors and more than 15 launched projects with portfolio amount above 70 million US Dollars within the Group, creating lasting value for our shareholders and the Government of Uzbekistan.

II. Main Contents

2.1 The effectiveness of Corporate finance classes

2.1.1 Project valuation based on CAPM - 'Study'

While studying at KAIST Business School, I got an opportunity to take corporate finance classes like Financial management, Corporate finance from Professor Kwangwoo Park and Professor Inmoo Lee, respectively. They taught the most important corporate issues, such as financial statement analysis, discounted cashflow valuation, investment rules and capital investment, risk and return: CAPM, capital structure and financial policy, corporate governance, payout policy, IPOs and other subjects. During classes at school professors provided both theoretical and practical knowledge on capital structure, investment regulations, capital investment, assesment of projects based on real case studies of Business School of Harvard and other famous financial organizations. Hence, we got chances of seeing, getting, analyzing different kinds of financial data using school's facilities, including Bloomberg terminal. Since I had worked at Republican center for appraisal of investment projects and programs under the Ministry of Economy of Uzbekistan for the period 2008-2011, I was very interested in learning projects valuation related subjects.

In Fall 2015 I took Financial Management from Professor Kwangwoo Park. His syllabus covered important issues of corporate finance. He divided all students into small groups, consisting of 3-4 people from whom were required to solve three to five case analysis, one case presentation and one case writing as well. My group was supposed to prepare case analysis and presentation about HBS HiJinx, Inc. The case was about projects valuation since HiJinx was going to invest in un-levered and levered stores. We were required calculation of project cash flows, NPV of projects, and as well as making a decision according to each scenarios' outcomes.



To calculate NPV ($NPV = -Cost + PV$) we needed present value of future cash flow, hence we had a problem how to get appropriate discount rate (r) of the project. During the classes, we were explained financial terminologies and some other models like Capital Asset Pricing Model (CAPM) that we should think about the risk while project estimation. As Professor Park taught CAPM in the class that this model describes the relationship between systematic risk and expected return for assets. CAPM is widely used throughout finance for the pricing of risky securities, generating expected returns for assets given the risk of those assets and calculating costs of capital. Likewise, we learned that we could apply CAPM instead of discount rate to find project NPV in our HiJinx case. We prepared the case and presented it in the class where our presentation was marked with high grade by professor. Above photo was taken during presentation of HiJinx case. Furthermore, Professor Inmoo Lee taught CAPM in Corporate Finance and Financial Database classes in more details.

2.1.2 Project valuation based on CAPM - 'Knowledge sharing'

When I was working for Eastechgroup, I was responsible for development of a new project feasibility study on steel and galvanized pipes manufacturing for Orient Group that cost of project was about 4 millions of USD. Previously, our project management team used a simple model of project estimation; even my colleagues did not consider NPV of projects. They showed only cash flows from assets to consider revenues and expenses, and calculated IRR by employing Excel formula. Accordingly, all investors of Orient Group made a decision to accept or reject projects based on these assessments. I agree with IRR, but without estimation of project's NPV, I think we cannot say whether project is acceptable or not.

Therefore, during project development I used another approach. I decided to apply a new method of project valuation that I learned at KAIST, such as calculation of present value of future cash flow, NPV, discounted payback and IRR as well. However, I had big issue to find an appropriate discount rate. I used the same application of CAPM for my case.

$$\bar{r}_a = r_f + \beta_a (\bar{r}_m - r_f)$$

I used refinancing rate of Central Bank of Uzbekistan as a risk free rate, I obtained market return for the past five years from Tashkent Stock Exchange; hence I computed r_m . I was stuck in finding Beta of the company. Since we were establishing new pipes manufacturing company, as well as this company was not listed in stock exchange, and I thought how I could get company's Beta. Then, I remembered a class of Financial Database from Professor Inmoo Lee that according to given homework by professor, we found Beta of unlisted company by using another listed company's data in the same industry. Therefore, I downloaded past five years return (r_i) of Joint Stock Company "Uzbek Metallurgical Plant" (JSC "Uzmetkombinat"), one of biggest company in steel industry, and I reached to compute β_a by using Beta formula and discount rate accordingly. I calculated PV of future cash flow, NPV, discounted payback and IRR of the project as the same way as I did in HiJinx case.

In initial investment of project, I also included the total cost of tube mill line of Korean company, *Roll Forming Co., Ltd.* that is recommended by another our Korean partner (*DaiSan Industrial Co., Ltd.*) since I had had an interview with a leadership of Roll Forming Co., Ltd to buy equipment of steel and galvanized pipes manufacturing for Orient Group. After I had developed the project feasibility study, I presented it to investors of Orient Group. Then, they asked for me different types of questions that how I did the project in details. After long-time argument, finally investors approved the project for realization. They emphasized that the model I applied, was an original case they had ever seen, and it had never been used before.

Thereafter, we signed the contract with Roll Forming Co., Ltd to purchase $\text{Ø}219 \times 6.0\text{t}$ Tube Mill Line for the new plant which the cost of equipment was 4,284,500.00 US\$. Someone may argue that it can not be the applicable model for my case. However, I did it, and I applied my knowledge that I obtained in KAIST Business School. Thanks to KAIST professors, I reached to change my company's policy on making a decision to accept or reject projects, and uzbek investors supported new methodology of project valuation.

2.2 The impact of master's dissertation

2.2.1 The importance of master's thesis

Initially, I thought why KAIST Business School usually requires writing a master's dissertation to KOICA students since master's research paper is not considered compulsory and essential in any MBA degree. We know that KOICA-KAIST Finance MBA program is for government officials of emerging economies. As government officials of our country, we can recognize that what kinds of problems our countries are suffering from. Therefore, while study in MBA program, every government official knows what to read, what to learn, and mostly what to apply from world's experience for his or her country's system. Likewise, I think conducting a research helps to investigate the topic in details that we may conclude specifically that what is happening in foreign country's policy. Based on findings of research and investigation we can develop some policy measures and recommendations to apply for our home country.

With the help of Professor Jaywon Lee, I chose a master's thesis topic as the impact of foreign direct investments (FDI) on clean energy use, carbon emissions and economic growth in Central Asian countries. Since the fall of the former Soviet Union, most Central Asian republics have attracted significant amount of FDI to promote economic growth. As FDI inflows increase, unavoidably economic growth, energy use and carbon emissions grow as well. Therefore, I tried to use generally accepted statistical mechanisms to measure the impact of FDI on the Central Asia, and as well as I investigated the contribution of FDI to usage of clean energy, carbon emissions and economic growth. During writing my thesis, I also paid attention to learn foreign countries' experience regarding the role of FDI in green finance, such as Korean case was examined by me.

By using error correction models with employing fixed effect mechanism I tested the relationship between FDI, energy and clean energy use, carbon emissions and economic growth in Central Asian countries. In this essay, I do not want to show all the results of my investigation, but I would like to focus on main issue that furthermore it makes our investors thinking of investment in new industry, such as green economy and green finance. Briefly, I found that there was no relationship between FDI net inflows and clean energy consumption, and the test result was not statistically significant. It implies that FDI net inflows have not influence on clean energy in Central Asia. However, after I had investigated Korean case on the same issue, I found a positive impact of FDI on clean energy use. This result tells us Korean FDI are energy efficient, meaning that as FDI increases, clean energy use grows as well. It is worth saying that in both Central Asian and Korean cases I had the same result that clean energy has a negative correlation with carbon emissions.

2.2.2 Ideas on energy efficiency projects

After coming back to my country, I paid more attention to energy supply for rural areas of my country. Because, government cannot provide energy in all areas of the region, considering urbanization and increase in population, and other factors. I think it is beneficial to use alternative and nuclear energy that can provide spillover benefit to environmental sustainability through reduction of greenhouse gas emissions. In my opinion, implementation of smart/innovative financing mechanisms related to energy-efficient projects and development of alternative nuclear and clean energy sources, can provide better opportunity to attract more investments into the real sector of economy, to achieve productivity and economic growth in the country, as well as reduction of energy usage and carbon emissions.

To consider these issues, in the mid of August of 2017 I presented a topic to investors of Orient group initiated to development of alternative and nuclear energy in Uzbekistan. In presentation, I included my thesis's outcomes as well. I provided some facts what has been going in energy efficiency policy of Korea. Likewise,

I emphasized that Korea has implemented many new practices in various sectors to improve energy efficiency, as well as decrease energy consumption in buildings by the Rational Energy Utilization Act (REUA) adopted in 1979. Since Korea Energy Agency's foundation, it has been providing efficient allocation of funds to energy-efficient facilities. In 2014, KEA's fund was worth of KRW 600.0 billion. In addition, thanks to strong government support, in 2014 the capital distribution under Energy Service Companies program increased to KRW 254 billion. We can see in the results of these policy measures that energy-saving potential of the country accounted for reduction in GHG emissions of 9,691ktCO² and 4.9% of total energy consumption in 2014. Therefore, Korean government authorities have been playing a crucial role in providing to reduce energy consumption through implementation of three main energy-efficient management programs which include energy standards and labeling (1992), high-efficiency equipment certification (1996) and e-Standby (1999).

I gave some proposals to include some projects in Orient Group's portfolio regarding development of green finance in Uzbekistan based on advanced and emerging economies' experience. I raised a problem to allocate the funds for energy efficiency measures, such as installation of high energy saving equipment for industry and buildings; production of heat-isolating construction materials and high-energy efficiency equipment; installation of air conditioning facilities, ventilation & control facilities, solar photovoltaic cells, wind turbines, geothermal heat pumps and other alternative energy sources. According to some findings of my thesis, I argued that if we increase the amount of FDI in energy efficiency programs, we could rise clean energy consumption; hence, clean energy reduces carbon emissions in regions. Our investors supported my ideas and they gave me instructions to work on energy efficiency projects. Therefore, I conducted negotiations with several Korean companies to implement the projects in energy-efficient technologies. I got an offer from Korean Roll Forming Co., Ltd which is the same company that we signed contract to purchase Tube Mill Line for our new plant. Roll Forming Co., Ltd suggested solar panel installation. At present time, we have finished developing project feasibility study of photovoltaic solar panel installation. Moreover, we are working on signing a contract with the company that contract price is going to be around 5.5 million USD.

Since I have had a Korean MBA degree, I am benefiting in my career so far. In this regard, I think the use of foreign countries' experience in different aspects, will contribute to the achievement of host country's economy. In addition, it will play crucial role in solution to problems, such as lack of energy, environmental issues, maintenance of buildings, unemployment, macroeconomic instability and so on. Now, I have understood that why writing a research paper or thesis is essential for KOICA students.

2.3 What is leadership

During the first semester of study, I got some subjects from Professor Ji Soo Kim such as 'East Asian Economic Development' and 'Ethics and Social Responsibility of Finance'. Professor Kim showed us how a real leader should be, considering importance of education in leading a country and organizing business, good policymaking, good character, hardworking, creativity, delegating, how to lead effectively, how to negotiate with partners and colleagues and so on; therefore, he presented real cases from other emerging economies' experiences. Likewise, in East Asian Economic Development class he emphasized that every country's progress depends on its leaders that how they can manage the government. Especially, I have never forgotten his speech: "*You are the leaders of your society*". It is worth saying that there is a crucial role of Korean leaders to lead to country's achievements and make country as one of developed economies in the world.



III. Conclusion

Now, I am feeling myself as a leader of my country, I am thinking as a leader and doing all my best for contribution to the development of my country's advancement. In this regard, for strengthening of my country's economy and development of cooperation with foreign countries in all spheres, I always spend all my energy. Thanks for KOICA-KAIST for given such opportunity to study in one of top universities in Korea. I really appreciate assistances and supports of all professors of KAIST Business School, and I would like to express my deepest appreciation to them because without his guidance and assistance my current achievements would not have been possible.

P.S: Nine months have just passed after graduation, and advantage and efficiency of MBA degree could be seen here. Moreover, it is worth saying that obtained knowledge and skills will be beneficial subsequently ...

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