**Statement of academic purpose**

The World Economic Forum claimed that MSMEs are the backbone of Indonesia’s economy, contributing to nearly 65% of the nation’s GDP. However, I always wonder why Indonesia is still stuck in the lower-middle trap for nearly 29 years despite our thriving economy. The main reason is that Indonesia lacks skilled workers. While being ASEAN’s largest workforce, the composition of skilled workers in Indonesia as per 2022 is only 40% of the total workforce - significantly lower compared to Singapore which is around 54% in 2017. Many efforts have been taken by the government to increase the number of skilled labor, mainly by improving education quality and through labor force training, to become a developed country as of 2045. Sadly, Indonesia needs an education reformation due to corrupt education system, so it may take ages to see the impact of education towards our economy. As a result, a plan to facilitate education reformation is urgently needed.

Industrialization is proven to be one of the suitable method to solve this issue. As seen in China, industrialization has raised Chinese citizen’s lives from extreme poverty in the early 2000s. Indonesia too can learn from China’s case due to its similar state of labor quality and size of workforce. In fact, Indonesia had an industrialization peak moment during the early 21st century, but forcefully shifted from manufacturing to service and other informal sectors, because we lost to China’s manufacturing cost. While countries who successfully leave industrialization and shifted to service sectors tend to perform better economically such as the US and UK, Indonesia's deindustrialization is viewed negatively; this is what we call as premature deindustrialization.

The issue occurring due to premature deindustrialization totally makes sense because our workforce is not ready to accommodate service and other informal industry which requires higher skills among the workforce. While it is sad that Indonesia experienced premature deindustrialization, we can still fix it. Industrialization allows unskilled laborers to work because many of the jobs are repetitive - as long as we can find balance between the allocation of skilled and unskilled ones, Indonesia is back on track.

This issue motivates me to pursue further studies in Operational Research (OR) because OR is a study that complements well with industrialization. I imagined being an entrepreneur in the supply chain & manufacturing industry who is capable of allocating skilled and unskilled ones in factories in different fields, trying to find the near-perfect ratio between unskilled and skilled workers so that we can entrust the skilled ones to lead and train the unskilled ones. For instance, industries that are chemical-related require a higher ratio of skilled to unskilled laborers while industries like textile and clothing require a lower ratio of skilled to unskilled laborers due to its high chances of danger, requiring its worker to have a higher expected education prerequisite. Not only that it can solve issues relevant to human resources in the industry, it can also build a robust end-to-end production process in factories that is efficient while ensuring proper waste disposal to fulfill the Paris Agreement. For instance, whether to consider adding one more type of machine that can neutralize industrial waste, or upgrading some of the current machines into an eco-friendly version - these things can be calculated using multi-objective optimization, one of OR branch of study, to maximize a factory’s profitability while ensuring that its waste is below the government’s requirement. These are just a tiny bit of issues in Indonesia, and more of them can still be solved using OR.

There are several motivations on why I want to pursue an advanced degree in Operations Research & Analytics. My first motivation is to become a unique applicant for management consulting in my area of interest. Prior to achieving my entrepreneurial dream, I want to gather several years of experience in supply chain & manufacturing to have a stronger presence in the industry. An industry famous for its rigorous selection rounds, being well-prepared is an understatement since failure to pass the round may result in a rejection ban which requires the candidate to wait for 2 years before reapplying. Although I have gone through several internship experiences as CEO office which involves working alongside management consultants from BCG and Strategy&, I believe gaining specialization prior to entering management consulting allows me to gain more exposure to industrialization during my management consulting experience in the future.

My second motivation is academic curiosity. My first encounter in operations research occurred when I was in Year 3, and I immediately enjoyed the class. I remembered my operations research professor and my supervisor for my final year project, Dr. Ruonan Zhang, told the whole class during the first meeting on the importance of the ability to not only solve the problem, but also to communicate the solution. Sadly, OR class is only offered for one semester because my undergraduate program is in Financial Mathematics which focuses on applied mathematics, with a bit of exposure to finance. Due to my short encounter with OR class, I decided to focus on OR for my final year project and utilize both Analytical Hierarchy Process & Multi-Objective Optimisation in the project. Nevertheless, my strong background in applied mathematics and programming taught throughout my undergraduate program increases my preparedness to successfully complete the advanced program in Operations Research & Analytics.

In the effort towards accomplishing my career goals, I have been preparing both academically and professionally. Professionally, I have gone through a variety of internship experience, with more CEO office experiences for the past one year. Throughout my internships as a CEO office, I gained some professional experiences by working alongside management consultants from BCG and Strategy&, such as improving my communication skills verbally through communicating with different stakeholders and writing through composing email and presentation decks, or even applying the knowledge that I learnt throughout my undergraduate studies into my work. Although most of the tasks delegated throughout my internship experience don't require specialization, I was given the opportunity to work on a case study for my final year project that is relevant to supply chain: optimization of product management flow. While the work is still in progress, I was able to apply my academic skills into my professional experience, and I am delighted to share my results once the project is completed.

I believe the LSE MSc Operations Research & Analytics program can enhance my expertise since the program in LSE aligns with my goal in many ways. Gaining specialization in supply chain and logistics has been my purpose of pursuing an advanced degree, and the education quality in LSE MSc Operations Research & Analytics is no doubt. Its variety of optimisation and algorithmic courses intrigues me the most because I want to specialize in the formulation of algorithms for supply chain optimisation. However, the consultancy role, part of its practical program, is the most intriguing one as it will be very helpful to ace my consulting application.

Aside from LSE’s academic quality, LSE’s promising reputation among people all over the world allows me to gain plenty of opportunities, such as strong networking and business opportunities. There are several LSE Societies that caught my interest, ranging from consulting ones like 180 Degrees Consulting and Castore Consulting, to entrepreneurship, that will be beneficial to hone my skills which allows me to be a well-prepared consulting applicant. It will be my personal honor if I can be a part of the LSE community.