

## IE Final Reflection

My understanding of what it means to be a true innovator and entrepreneur was transformed by my experience in I&E 353. Initially, I thought innovation was a straightforward process, but through various case studies and detailed class discussions, I discovered that many factors can significantly influence a company's success or failure. One memorable example from the course was the McDonald's milkshake scenario. This introduced the concept of "jobs to be done," demonstrating how McDonald's targeted customers such as early risers and truck drivers seeking a simple, nutritious, and mess-free meal for their morning commute.

We applied the "jobs to be done" framework in every case study, focusing consistently on customer needs. This approach aligns well with the basics of marketing, which includes the 5 P's—product, price, promotion, place, and people—and the 5 C's—company, customers, competitors, collaborators, and context. By focusing on our target customers, we learned to craft strong go-to-market plans, considering the specific needs and behaviors of various customer groups.

Additionally, the course significantly enhanced my teamwork skills, which are essential given that I'm an engineering major used to group projects. Unlike my usual team settings where all members are engineers, I&E 353 introduced me to working with students from a variety of majors, providing unique perspectives that enriched our collaboration. Our main team consisted of four people who collaborated on a case study assignment weekly. This group remained consistent throughout the semester, but the course also offered numerous opportunities to work with different groups during our weekly lectures, allowing for a diverse range of experiences and insights.

During our initial 'core' group meeting, we established a comprehensive set of guidelines designed to foster a positive and productive team dynamic. We recorded the session to ensure equal participation and enhance communication among all members. This strong foundation enabled us to collaborate effectively on various tasks, including both qualitative and quantitative analyses. For instance, one of our early assignments involved marketing metrics and estimating enterprise values, which was particularly challenging given that my prior experience with Excel was limited to basic graphing.

In response to these challenges, my team and I decided to meet in person at the library, allowing us to address the issues collaboratively. This setting not only facilitated a hands-on approach to problem-solving and error correction but also created a safe space for open discussions and questions. The supportive and collaborative atmosphere we cultivated is something I value deeply and plan to carry forward into my future endeavors in engineering. This experience has significantly refined my approach to teamwork, emphasizing the importance of communication and mutual support in achieving collective goals.

However, the course also presented challenges. For example, one of our team members missed several in-person sessions designated for reviewing our case slide assignments. Initially, we were tempted to cover for their absence, understanding the heavy workload typical for Duke students. Yet, we soon realized that doing so would compromise the Duke standard, which emphasizes equal contribution from all team members, and would not adhere to the assignment's guidelines. Therefore, we decided to check on their well-being and sought guidance from our instructor, Kathy. With Kathy's approval, we proceeded with the assignment without the absent member, while she reached out to them. This intervention served as a necessary alert for the team member, emphasizing the importance of their contributions. Encouraged by this, they significantly increased their involvement for the rest of the semester.

To create a positive work environment, having an ethical culture is crucial, and this was clearly evident in this course. We ended each lecture with a group project or challenge, and the groups changed every class, allowing me to work with almost everyone. This unique aspect made me feel comfortable and encouraged to participate. My favorite in-class activity was the Harvard Entrepreneurship Simulation: The Startup Game. In this simulation, my team had to make decisions based on marketing data and population analytics to generate revenue for a proposed company. We all enjoyed figuring out the best strategies and seeing how a single mistake could lead to a significant financial loss.

One case that particularly resonated with me was the study of *Rent the Runway*. Their business model was uniquely inspiring as it aimed to make every customer feel like "Cinderella." To understand market demand, the team conducted extensive research at a few different colleges to gauge how women responded to the idea of renting used dresses. The feedback was overwhelmingly positive, marking a significant early success. However, a major setback occurred with their website development. Instead of contracting a single, well-established web development company, they opted to hire individuals who were recommended to them but whom they had never personally met. This was especially problematic because their goal was to offer customers a luxurious, seamless online experience, and the website was essential for maintaining this high-end image.

Our main recommendation for Rent the Runway was that the team should have prioritized conducting extensive trials with a fully functional website from the beginning. The success of their business model depended heavily on the ability of customers to easily purchase dresses through a well-designed and efficient website. This experience underscored the lesson that it is crucial to stay true to your business model. Rent the Runway faced challenges when they shifted their focus away from the core experience they intended to offer their customers. This case highlighted the importance of aligning every aspect of the operation with the brand's mission to ensure consistent delivery of the intended customer experience.

Additionally, I found the quantitative part of the class incredibly interesting. In my everyday life, I often use formulas and perform systematic calculations in physics and math. This is similar to what innovators do when assessing their company's current performance or future prospects. By applying metrics like discount, tax, and growth rates, we can perform calculations to evaluate a venture's longevity. This is crucial for making informed decisions about your company. For instance, if the data suggests that your company won't grow rapidly for long, you might consider selling your business or seeking a strong partner. Another advantage of these calculations is the ability to identify ways to increase profits or revenue. Excel proves invaluable here, as it allows you to experiment with different scenarios by adjusting figures in various sections of your income statement, such as cost of goods sold and advertising expenses, to see how these changes can impact your company's overall success.

I recall a conversation during a meeting with my mentor who also was an I&E certificate student when he was at Duke. He told me about all the times he actually has used references and old assignments from class to navigate the startup he created. The financial statements that we made for various ventures in class was what he used most in his own business. This reinforced my confidence in the lasting relevance of the skills I acquired, particularly in teamwork, which I anticipate will profoundly influence my future career in engineering. The inclusive team mindset fostered in I&E 353 will undoubtedly be invaluable as I continue to work collaboratively in my field.