

BUSINESS DECISION METHODS Professor Jeh-Nan Pan, Ph.D**Name: Holly / Nghiem Nguyet Huu****Student ID: RA6057117****✉: huunghiem8828@gmail.com****☎: +886909955528***Date: 1/13/2017**Institute of International Management**National Cheng Kung University**Tainan, Taiwan.****“Stay Hungry Stay Foolish 求知若渴 虚心若愚”****Steve Job (1955 – 2011)*

In 105 Year Spring semester, I had a precious chance to work with professor Pan in Business Decision Methods class. Professor Pan is an enthusiastic, diligent, clever and friendly person. Working with him not only helped me learn Business Decision Methods but also gave me a chance to discover myself deeply and comprehensively.

At the beginning of the class, I took Business Decision Methods (BDM) because it is a methodology course. However, after taking this class from professor Pan, I have learned a lot from this class and I truly satisfied with what I have achieved.

William Arthur Ward has a famous quote: *“The mediocre teacher tells. The good teacher explains. The superior teacher demonstrates. The great teacher inspires.”* Professor Pan has inspired me a lot through his teaching style. I was not good at calculating and statistics before, therefore, I tried to avoid it as much as possible. I was afraid that I would not do well in this class because BDM required fundamental statistics knowledge and calculation skills. When you are not good at something, you will find an excuse to avoid it. Taking this class give me an opportunity to work on math and calculation. And for the first time, I realize that my math skills are not that terrible. I believe that you do not know what you like and what you are good at until you actually try it. Jessica Alba says that *“I’m doing the thing that scares me the most every single day.”* Through the weekly homework and the group project you assigned us, I have overcome what scares me. Thanks to it, I learn a big lesson in my life, that is *“Get out of your comfort zone and try something new, you will discover a lot of about yourself. Don’t be afraid, go for it, you don’t know what it may bring you.”*

What I admire most about professor Pan is his broad knowledge in this field. Professor has a deep knowledge of this subject, and every time we raise a question, you always answer it

clearly and logically. The way you get everyone involve in the class is interesting and relaxing. We do not feel nervous while answering your questions. Professor Pan has a friendly and cordial manner with students. You are willing to answer our questions and problems.

BDM itself is a very challenging, problematic, demanding and difficult subject. In the first week, the room was full. However, in the second week, the number of students were decreased dramatically. I intended to drop out too. A lot of students choose easy subjects, easy classes and easy ways to get high scores. At that time, I do not like math, calculation, and statistics. Even worse, I was not good at it. While there were so many reasons for me to drop this class, I still chose to stay. One of the reasons why I stayed was I wanted to challenge myself. Why don't I try something new? Why do I always stand on a safe side? And it is the right decision. I learned a lot, earned a lot, and rewarded a lot. It is not about the scores, the grades, it's about what I learned that matters. It is not the destination but the journey that matters. I started to connect what I have learned in the past to what I learn in BDM class. The normal distribution, the regression model, the BEP etc. *"You can't connect the dots looking forward; you can only connect them looking backward."* If you never try, you will never know how your dots are connected.

There are three topics which I love the most in BDM class. The first one is Linear Programming. This is one of the most frequently and successfully employed operations research techniques to managerial and business decisions. Today it is a standard tool that has saved many thousands or millions of dollars for most companies or businesses of even moderate size in the various industrialized countries of the world, and its use in other sectors of society has been spreading rapidly. A major proportion of all scientific computation on computers is devoted to the use of linear programming. As a business student, solving business problems using scientific knowledge is an important thing. I can apply it to solve the transportation problem, marketing problem, assignment problem etc. The second topic is Decision Trees. The decision tree technique for making decisions in the presence of uncertainty is simple and can be applied to many different circumstances. The final one is Forecasting Methods. Every day, managers make decisions without knowing what will happen in the future. Inventory is ordered though no one knows what sales will be, new equipment is purchased though no one knows the demand for products, and investments are made though no one knows what profits will be. Managers are always trying to reduce this uncertainty and to make better estimates of what will happen in the future.

Accomplishing this is the main purpose of forecasting. The forecasting methods help us to predict and forecast the demand in the future.

Therefore, I chose “Forecasting the influenza demand and transportation analysis” as my final group project. My team applied the time-series forecasting models and linear programming to solve the problems. Influenza is a major infectious disease in the winter in Taiwan. Every year, Center of Disease Center (C.D.C.) needs to forecast the upcoming disease. They also want to forecast the trend and the seasonal trend of influenza in the next year. The influenza morbidity rate becomes higher. Influenza vaccination is the most effective way to prevent infection. However, the supply of influenza is limited. Accord to C.D.C, they are facing the transportation problem: how to minimize the cost of transporting the vaccines from several laboratories to 5 regions which have the highest rate of infection but still provide enough vaccines for these cities. The vaccine is fragile biologics. The vaccines need to be refrigerated, which makes transportation even more expensive. We used the time-series forecasting models to forecast the demand of influenza vaccines in the next year and linear programming to solve the transportation problem.

In this technological era, the importance of using computer software could not be underestimated. Because of the complexity of the data and calculations process, using computer software will help us processing the data efficiently. I learned how to use Excel QM and QM for Windows software in BDM class. These are user-friendly and simple software.

In a normal life, we face a number of choices and decisions every day. Most of the times we make decisions based on our intuitions. Sometimes, we need to use mathematical tools to help solve imperative problems. *“What makes the difference between good and bad decisions? A good decision is one that is based on logic, considers all available data and possible alternatives, and applies the quantitative approach. Occasionally, a good decision results in an unexpected or unfavorable outcome. But if it is made properly, it is still a good decision. A bad decision is one that is not based on logic, does not use all available information, does not consider all alternatives, and does not employ appropriate quantitative techniques. If you make a bad decision but are lucky and a favorable outcome occurs, you have still made a bad decision. Although occasionally good decisions yield bad results, in the long run, using decision theory will result in successful outcomes.”* (Render).

One thing I am not satisfied with the class is it only lasts for 18 weeks. I wish it could last longer, therefore I could learn more from you, and from the classmates. I feel nostalgic when this fall semester passes so fast. Thank you, professor! For your time, your effort, your knowledge you have us. I wish you always be YOU, happy, enthusiastic, positive and “statistics”. I do believe a lot of students were inspired by you. And it is a meaningful life to live if you inspire someone and stimulate them to explore more.

BDM is a beautiful memory on my journey here in NCKU. It is beautiful not because it is beautiful or unsightly itself, but because of it happens once in your lifetime. My BDM class ends here, but the journey of learning will never end. I wish you all the best in your future, and I hope you will continue your journey as an inspirer.

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