QBUS3350 – Topic 2 (Weeks 2-3)

Discussion Questions

**3.1 Describe the six important issues that managers should consider when evaluating screening models.**

* 1. **What are the benefits and drawbacks of checklists as a method for screening project alternatives?**

**Adv:** It is simple and easy to use as no weight and criteria needed to be assigned; it is user friendly so that everyone can use the method.

**Disadv:** it might be unrealistic that all criteria are equally important in the reality; the weighting system is very important in establishing trade-off between different criteria

* 1. **How does use of the Analytical Hierarchy Process (AHP) aid in project selection? In particular, what aspects of the screening process does the AHP seem to address and improve directly?**

AHP allows weighting by main and sub criteria, this eliminates the double accounting of the grading model. Finally, AHP creates results that are easily comparable between projects as well as within cost and benefit analysis.

* 1. **Discounted Payback**

You have been tasked with advising the senior management on whether to invest in a project that will involve the company purchasing a new piece of high-spec software to enable an increased efficiency in supply and demand control. Their main concern is how long it will take for the project to return the initial investment. The software will cost $100,000 and should yield cost savings of $25,000 per year. Calculate the payback period of the investment if the discount rate is 10%.

* 1. NPV with Unequal Durations

Assume that your firm wants to choose between two project options:

• Project A: $410,000 invested today will yield an expected income stream of $160,000 per year for 4 years, starting in Year 1.

• Project B: an initial investment of $340,000 is expected to produce this revenue stream: Year 1 = $240,000 and Year 2 = $210,000.

Assume that a required rate of return for your company is 10% and that inflation is expected to remain steady at 3% for the life of the project. Which is the better investment? Why?

* 1. **IRR**

Compute the IRR for the data in Q3.5. (No such question in exam because IRR is difficult to compute by hand but your EXCEL HW may involve such question.)

* 1. **Why do we prefer IRR to NPV? Use the data of Question 3.5 to 3.6.**

We prefer IRR to NPV when projects have different duration, we don’t need to change the duration of two projects to be the same.