

Assignment # 4
Decision Analysis

ADM2302 students are reminded that submitted assignments must be neat, readable, and well-organized. Assignment marks will be adjusted for sloppiness, poor grammar, spelling, for technical errors as well as if you submit a PDF file. This assignment can be done in a group of one, two, or three students. Plagiarism on assignments will not be accepted, *each student must sign the statement of integrity*. **Solutions to the Case Study are to be prepared using the Report to Management format provided in the ADM2302 Course Outline.**

This assignment can NOT be hand written.

The assignment is to be submitted electronically as a **single Word Document file** via Brightspace by Sunday December 1st prior to 23:59. Front page of the Word document has to include title of the assignment, course code and section, student name and student number. Second page is *the individual/group statement of integrity that must be signed*.

E-mail questions related to the assignment should be sent to the Teaching Assistant or posted on the Brightspace course website “Discussion page” (viewed by all).

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CASE STUDY: Hatton Realty Company

Mr. James Hatton was the proprietor of a real estate firm specializing in investment properties in the Vancouver area. Mr. Hatton’s business had done well during the real estate boom in the Vancouver area. Just recently a prospective client who held land for speculation offered Mr. Hatton exclusive listing of three properties subject to some special restrictions which the client felt would ensure that Mr. Hatton would market the properties with due diligence. The location of these properties and the prices he wished to receive were as follows:

Location	Price
Dunbar	\$200,000
Kitsilano	\$400,000
Point Grey	\$800,000

Mr. Hatton would receive a commission of 5% on any of the properties which he sold.

The client was not yet willing to offer an exclusive listing on all three properties *at once*. He wished first to test Mr. Hatton’s ability to sell his type of land holding. Mr. Hatton could recall almost his exact words: “But you must sell the Dunbar property first and sell it within a month. If you cannot do that I see no reason to transfer any further listings to your agency. If you do sell the property within the one month time limit, you may choose

whether or not to list exclusively the Kitsilano holding for a one month period. If you are able to sell this second property within one month you will be offered the exclusive listing of the third property.” Also, for any property Mr. Hatton agrees to market, his failure to sell within a month will cancel his right to sell *that* property, as well as losing any options to sell other properties.

Ever since this conversation, Mr. Hatton had sought to analyze this proposition. He assessed the selling costs from his previous experience in advertising and selling similar properties in the past. These costs would be incurred even if no sales were made. Of course, these costs would not be incurred if Mr. Hatton refused a listing. Mr. Hatton also assessed his chances of sale within a month based upon his historical experience with similar parcels at the same general price level. He wrote this information in a simple table for further study.

Property	Promotional Expense	Prob. of Sale within One Month
Dunbar	\$8000	.6
Kitsilano	\$2000	.7
Point Grey	\$4000	.5

Part (A)

Mr. Hatton was sure that the costs, expenses and probabilities associated with the sale of each of these properties were in no way dependent upon the sale or availability of the other properties. Mr. Hatton hired a recent B.Com. Graduate to perform a full analysis of his decision problem.

- Do the full decision tree analysis.

Part (B)

Before Mr. Hatton had a chance to respond to the above proposal regarding the three properties, the client sold both the Dunbar and the Kitsilano properties. However, Mr. Hatton still had the option of trying to sell the Point Grey property, and the information about the Point Grey property remains the same as given in the above table. Mr. Hatton also decided to consider the possibility of doing a very quick market survey to get a better idea of the chances of a sale. The cost of such a survey would be \$3000. Based upon past experience, Mr. Hatton is able to estimate that in the cases of successfully selling (within in a month) a property like the Point Grey property, there were 80% of these cases that the market survey indicated a strong real estate market, whereas in the cases of failing to sell (within in a month) a property like the Point Grey property, there were 60% of these cases that the market survey indicated a weak real estate market. Impressed with the analysis of the previous problem, Mr. Hatton asked the same B.Com. Graduate to analyze fully the new problem.

- Do the full decision tree analysis.
- What is the Expected Value of Sample Information (EVSI)?
- What is the Expected Value of Perfect Information (EVPI)?