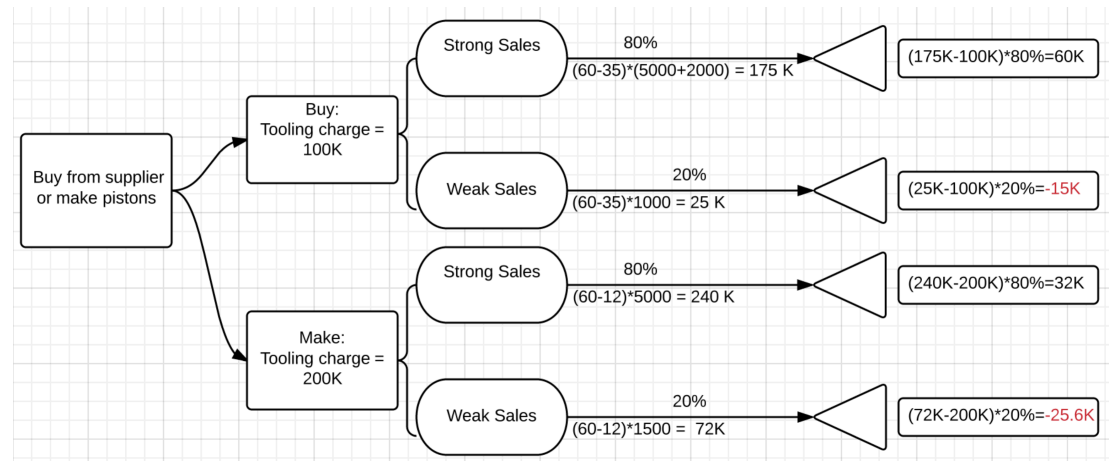


## ENGSCI 9510 Assignment #4 – Xinyu Yun

### Question 1:

A. Please see the Expected monetary value(EMV ) bellowed:



The final evaluated income will be:

Buy: 60k-15k = 45K

Make: 32K – 25.6K = 6.4K

So buying from supplier would be the better option.

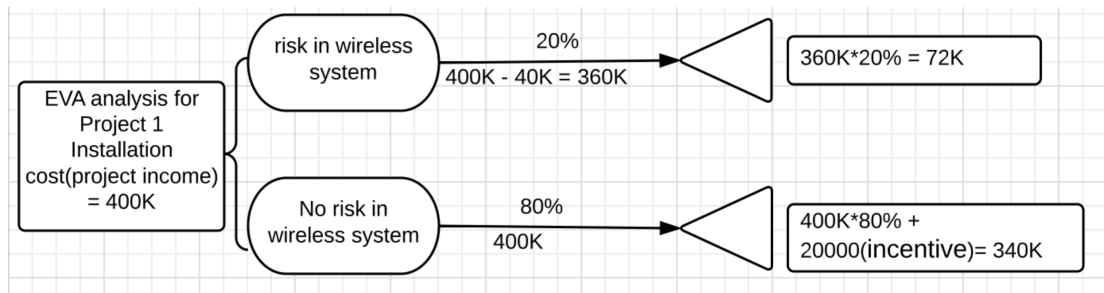
### B. Risk:

Risk	Contingency Strategy
Financial – Assuming you applied financing from bank to support your purchase of tooling and pistons, if the sales are not strong as you planned, you may face the risk of payment delay which will affect your reputation and credit	Contingency reserve: try not to devote all money into the production but rely on the orders, always save some budget for emergency
Human resource – the expert who know the engine production resigns or have a long sick leave, so the product's quality may be out of the control	Minimize: try to build a key resource backup plan and keep training colleagues from lower level
Commercial – another competitor emerges with the lower price in the market which will affect your sales	Share: negotiate with your suppliers to provide lower price if they offer lower to other competitors
Legal – If any accident happens due to the engine's problem, your company will be required to recall the products	Accept: try to control the quality in high standard, and use mature techniques
Execution – the duation of production takes longer than planned then exceed the deadline	Share: if the delay is caused by the supplier, you should put the compasation item in the contract in advance

### Question 2:

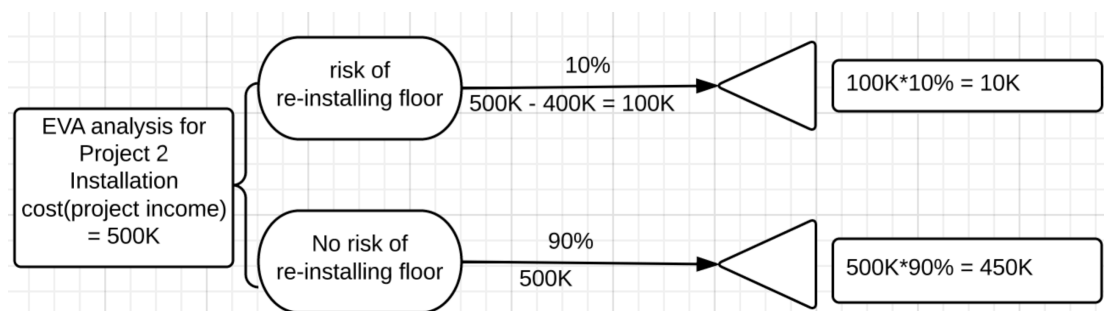
Here are the EMV analyses:

#### Opportunity 1



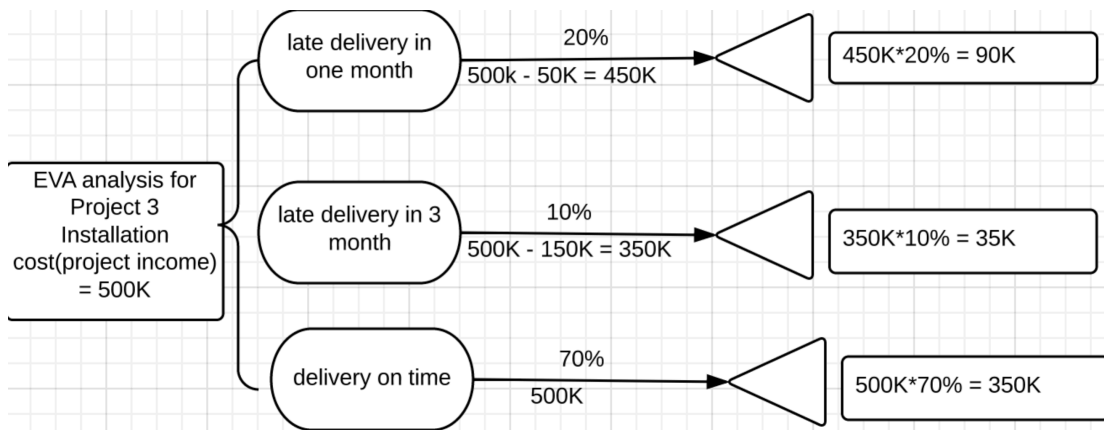
The evaluated income will be  $72K + 340K = 412K$

## Opportunity 2



The evaluated income will be  $10k + 450K = 460K$ .

## Opportunity 3



The evaluated income will be  $90k + 35K + 350K = 475k$

So opportunity 3 would be the best choice.