

## RISKY BUSINESS — UNDERSTANDING THE UTILITY OF RISK IN PLANNING AND DECISION MAKING

### Goals

- Converting risk into a tangible vehicle (costs), enable participants to explore and understand risk as it relates to planning and decision making.
- To demonstrate the duality of risk; to enable risk-averse participants to explore their negative bias to risk.
- To demonstrate how a long-term view of risk can create short-term risk tolerance.
- To demonstrate that investments and loans can be used to express and manage risk and, through discussion, generalize this idea for personal and organizational non-financially based risk taking. (Requires use of advanced rules and questions presented in the "Variations" section)

### Group Size

Four to Six participants.

NOTE: Larger groups can be divided into groups of four to six. Having several groups is preferred due to the competition that develops.

#### Time Required

Forty-five minutes.

NOTE: This is based on fifteen minutes for exercise introduction and participant planning followed by five rounds at four minutes each and 10 minutes for closure or processing questions. Although five rounds are ideal, the exercise can be conducted in as few as three rounds.

#### Materials

-One score sheet per team. (Please see handout 1)

-One stop watch

-Markers

-Optional:

- -A visual display of the score sheet where scores for each round can be recorded for group referral, either an overhead slide or drawn upon an easel or blackboard.
- -A visual display of the game parameters for group referral (Please see handout 2). This is listed as an

option because the facilitator may want to explore how complex verbal rules can affect decisions, e.g. how complex rules can cause erroneous assumptions and misconceptions.

### Physical Setting

A room large enough to allow dispersion of teams so strategy can be discussed without one team being overheard by another.

### Process

1. Explain to the group that they will be formed into companies and that the formed companies will have a simple goal: "Minimize cost, Maximize profit".
2. Form the participants into groups of four-six.
3. Say the group, " In the next ten minutes, your task is to develop a strategy that - after five rounds of play - will best meet the goal of minimizing cost and maximizing profit while operating under these constraints:
  - Starting capital: \$1,000
  - Each round you will purchase As or Bs. Yes, you can choose a mix of As and Bs and you can choose more than

one A or more than one B per round. Sometime during the round, after you have made your letter selection, Fate will choose an X or Y by flipping this coin. Heads will result in an X, tails in an Y. You will be paid according to the combinations that result from the choices made by you and fate as explained below.

- Each B costs \$100.00; each A costs \$50.00
- Each AX combination results in \$100.00 profit to your company.
- Each BX combination results in \$300.00 profit to your company.
- Each AY combination results in a loss of \$200.00 to your company.
- Each BY combination results in a loss of \$500.00 to your company.
- Insurance is available at \$25 per letter per round.  
Insurance guarantees \$50.00 in profit if fate deals an Y.
- We will determine the cost and profit for each round like this: Prior to fate casting its decision, you will report your costs incurred for that round. Costs are incurred by letter and insurance purchases. Once fate has cast its lot, you will then determine the profit or loss incurred for that round.

- Once all five rounds are completed, we will compare the costs and profits generated by each group over the five rounds. The group with the most profit at minimum cost will be the winner.
  - Once I answer any questions, you will have ten minutes to develop a plan for the next five rounds. Record your intended choices for each round on the score sheet in front of you. At the beginning of each round you will have the opportunity to change your choices. For each round that you execute your plan without making any changes, you will earn \$100.00 bonus. For each round that you change your plan, you will be penalized \$200.00.
  - Are there any questions?"
4. Once the questions have been answered, begin the game by allowing the groups ten minutes to develop a plan. Have them record their plan on the score sheet at figure 1. You may optionally want to have the groups post their plans on a public score sheet so changes can be verified.
  5. Once the plans have been completed and posted, conduct each round as follows:
    - Ask if any group wants to amend its plan. If one does, allow two minutes for that. Then have the groups assess and record earnings or losses related to their decision to maintain or amend their plan.

- Ask the group to report its costs, i.e. expenditures for letters and insurance purchased. Have the groups record that information on their score sheets and/or have them record it on the public score sheet.
  - Toss the coin and report the results. Have each group report its profits or losses. Again, this is posted to their score sheets and, optionally, on a public score sheet.
6. Once the final round is concluded, declare the winner and, optionally, present an award.
7. Bring closure with the following questions:
- ✓ Was the dual goal of minimizing cost and maximizing profit realistic? Help participants see that the most profit was not generated by the least cost. So, minimizing cost is will not necessarily yield maximum profit.
  - ✓ What is the relationship of cost to risk? Help participants understand that cost is monetarily expressed risk.
  - ✓ Which was the riskier choice, A or B? Why? Help them to see that B was the riskier choice, both in terms of potential gain and in terms of potential loss.

- ✓ Can you see the duality of risk as we look at B? Can you see that risk is both positive and negative in terms of potential consequence?
- ✓ Why is the natural propensity to view risk as something to be avoided, to be risk averse? Help participants to see that focus on negative consequences can lead to risk aversion.
- ✓ What was the relationship of insurance to risk? How did it affect attitudes towards risk? What kinds of "insurance"(cannot be purchased) are available to us in our daily lives and business?
- ✓ Was it realistic or appropriate for a change in plans to be penalized? Why or why not? Help participants to see that change incurs additional costs.
- ✓ How did the long term planning – defined as five rounds – affect risk taking? How can this apply to our own planning, personally or organizationally, in terms of taking risk tolerant or risk averse positions?
- ✓ Advanced discussion topic: What factor did trust play in this exercise? Trust in whom? In what?

#### Variations

- If time permits, have participants share their plans prior to the closure questions using this format:

- Plan (Strategy regarding cost minimization, maximizing profit, and risk)
- Execution of the plan. Why or why weren't changes made to the plan?
- Lessons learned (at least three)
  - The game can bring out the added dimensions of risk by adding two rules:
- You will earn interest 10% interest each round on any uncommitted money remaining after you have purchased your letters and insurance but before profits or losses have been determined.
- You can take out loans each round for up to 50% of you the cash that is available at the beginning of each round. You must pay back the accumulated principle by round four or pay a penalty of accumulated principle plus 20% at the end of round five.

If these rules are added, these are additional suggested closure questions:

- ✓ How did the use of loans affect risk taking?
- ✓ How can the idea of loans be transferred to taking risk in general? In other words, what are some emotional or operational "loans" that is possible to take? What can we say about propensity for risk among those who take such "loans"?

- ✓ Why was a change in the plan penalized? Help the participants understand that adjusting to change has associated costs.
  - ✓ What does the use of interest and loans tell us about long term views of risk? How can we relate this to strategic planning and development? Help participants see that a long-term view of risk may enable people to take riskier positions for the short term.
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Handout 1: Score Sheet for Risky Business Exercise

Companies	A		B		C		D	
Round	C	P	C	P	C	P	C	P
1								
2								
3								
4								
5								
Totals								

C = Cost

P = Profit

## Handout 2: Risky Business Game Parameters

- ✓ Goal: Minimize Costs and Maximize Profits in 5 Turns
- ✓ Starting Capital: \$1000.00
- ✓ Your Choices: A or B; Fate Choices: X or Y
- ✓ Each B Costs \$100; Each A costs \$50
- ✓ Each AX Earns \$100; Each BX Earns \$300
- ✓ Each AY Earns Causes \$200 loss; Each BY Causes \$500 loss
- ✓ Insurance Costs \$25; \$50 Guaranteed if Fate deals a Y

### Optional Rule

- ✓ Interest:
  - Uncommitted Capital is Compounded 10% Each Turn
  - Loans
    - Balloon of Outstanding Principle + 20% due at end of Round 5
    - Capped at 50% of cash on-hand at beginning of round being played.
    - No interest collected if principle is paid by the end of Round 4.