

# CFE SDMB Model Solutions

## Spring 2014

### 1. Learning Objectives:

3. The candidate will understand best practices for ERM processes and Capital Management and their use in setting a risk-return strategy.

### Learning Outcomes:

- (3a) Explain ERM principles and frameworks.
- Describe the best practices and frameworks for ERM processes under various industry forums and regulatory guidelines and standards.
  - Explain the principles driving the direction of new regulation and industry standards in risk governance.
  - Describe the components of a risk appetite statement. Design and develop a risk appetite statement and risk return strategy.

### Sources:

Strategic Management: Competitiveness and Globalization, Concepts, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 10th Edition

### Commentary on Question:

*Most candidates did well on this question, particularly on the recall type questions. Candidates who received full credit tailored their responses to the Frenz case study, the current board's specific weaknesses, and its current needs in terms of new board members.*

### Solution:

- (a)
- (i) Describe the characteristics of the three groups.
  - (ii) Classify each member of the current Frenz's Board of Directors into one of the three groups.

### Commentary on Question:

*Part (i) was a recall question. For part (ii), candidates had to correctly classify all of the current members of Frenz's Board of Directors. Candidates consistently did very well on this question. Most received full credit.*

## 1. Continued

- (i) Insiders – current top-level managers (eg. CEO, CFO) who are involved in the company’s day-to-day activities.

Related outsiders – individuals who are not involved in the day-to-day operations of the company, but they do have a relationship with the company that calls into question their independence.

Outsiders – individuals who are independent of the firm in terms of day-to-day operations and other relationships.

- (ii) Insiders - Julien Jacobs, David Gillet, and Vincent Jansen  
Related Outsiders - Gilroy Clyde and Oliver Collignon  
Outsiders - Felix Hermans, Fred Coppens, and Abram Lemaire

- (b) Describe four ways an organization can enhance the effectiveness of its board of directors.

**Commentary on Question:**

*Part b is a recall question, though other reasonable responses were accepted. Many candidates received full credit.*

- 1) Increase the diversity of its board members.
  - 2) Establish and consistently use formal processes to evaluate the board’s performance.
  - 3) Modify the compensation of the directors. Especially consider reducing or eliminating stock options as part of their package.
  - 4) Create a “lead director” role that has strong powers with regard to the board agenda and has oversight of non-management board member activities.
- (c) Explain three weaknesses in the composition of the current Frenz’s Board of Directors.

**Commentary on Question:**

*Many candidates were able to list several weaknesses in the board composition. Those candidates that provided well-thought out weaknesses that were specific to the Frenz board received full credit.*

- 1) Three of the eight members of the Frenz board are insiders who hold top-level manager positions within Frenz. Two of these are members of the audit committee. This can lead to relatively weak monitoring and control of managerial decisions.

## 1. Continued

With weak board monitoring, managers sometimes use their power to select and compensate directors and exploit their personal ties with them.

- 2) Fred Coppens is a potential conflict of interest. If Frenz's product offerings overlap the offerings of Vedegu, he could influence management decisions or the annual strategic plan to the detriment of Frenz or to the benefit of Vedegu. His actions may go against the interests of the shareholders.
- 3) There is a lack of diversity in board members. Few members are from outside of Europe, and there is only one woman on board. There is also no board member with risk management experience.

(d)

- (i) Critique each candidate on the Nominating Committee's short list.
- (ii) Recommend Fred Coppen's replacement. Justify your recommendation.

### **Commentary on Question:**

*To receive full credit, candidates needed to assess each potential board member, including the qualities of that board member and whether those qualities would be a good fit for the specific interests and needs of the Frenz board. Candidates also needed to provide a clear recommendation that was supported by their assessment.*

- (i) André Geisinger

Pros: He is an outsider, and they need more outsiders on the board.

Cons: He offers a similar background to the replaced board member (Fred Coppens). He does not increase diversity nor does he remove the conflict of interest regarding the chocolate company.

Rupert Edwards

Pros: He offers a diverse financial background, and he is non-European.

Cons: There are already too many insiders on the board.

Don Benito

Pros: He offers a legal and risk management background that is not present on the current board. He is a retired outsider and has a Latin-American background.

Cons: He is not a female and does not fill this void in the current board.

Olivia Kurtz

Pros: She has a diverse financial background, including experience with the hotel industry. Frenz is looking to build relationships with the hotel industry. She adds a female to the board.

## 1. Continued

Cons: There are already too many CEOs on the board.

(i) Recommendation:

I recommend Don Benito to replace Fred Coppen. He offers a legal and risk management background that is currently not present on the board and is much needed. He has experience in Latin America where there is significant growth potential for Frenz. He is retired, and there is currently no other retired member on the board. He adds another outsider to the board, which Frenz also needs. These qualities make him an ideal fit for Frenz's current strategy.

## 2. Learning Objectives:

4. The candidate will understand organizational behavioral concepts and apply strategic management frameworks to corporate financial and ERM business problems.
5. The candidate will understand the decision making process and the lessons learned from the risk taking activities and experiences of other organizations. In particular, the candidate will be able to apply the learning objectives of all the prior sections of the syllabus to the risk management principles embodied within the case studies explored in this section.

### Learning Outcomes:

- (4b) Evaluate and apply the concepts of strategic management, recognizing the factors that affect the development and implementation of strategies.
- Demonstrate the importance of analyzing the firm's external environment and the internal organization.
  - Define types of business-level strategies and recommend an appropriate business-level strategy for a given situation.
  - Explain the impact of competitive dynamics on strategic management.
- (5c) Assess the risk of the status quo alongside any other risky and or risk management decision.

### Sources:

SDM-138-14: When and When Not to Vertically Integrate

### Commentary on Question:

*The goal of this question is to have the candidate demonstrate that they understand what vertical integration is, the pros and cons of vertical integration (when and when not to use it), and some alternatives to vertical integration that may be superior in certain situations. Part (a) assesses the candidate's knowledge of vertical integration and its alternatives. Part (b) asks the candidate to apply this knowledge to the hypothetical Frenz corporation's strategic growth plans. Part (c) asks the candidate to recommend a strategy for the Frenz corporation based on their analysis. The solution provided below is one alternative, as supporting vertical integration could also receive full credit as long as the analysis supported this recommendation.*

### Solution:

- (a) Describe each of the six considerations.

### Commentary on Question:

*Most Candidates did well on part (a) as it asked them to recall and describe items directly from the study notes.*

## 2. Continued

### Vertical Market Failure

- Vertical Market Failure can exist when there are few buyers and sellers, high asset specificity, durability and intensity, and frequent transactions.

### Companies in Adjacent Markets

- Occurs when one stage of the industry chain is experiencing abnormally high returns, so it appears attractive to enter that stage.
- Should consider that entrants outside of the industry chain would also be attracted and ensure that entering this stage the acquisition price is lower than the economic surplus would create.

### Raising Barriers to Entry / Price Discrimination

- Vertical integration may cause potential new entrants to enter all stages of the industry chain to compete, thus raising barriers to entry.

### Growth or Declining Market

- In a young or growing market, a company may need to forward integrate to create sales for its products.
- In a declining market, a company may need to back-fill gaps left by other companies exiting the market.

### Spurious Reasons

- Spurious (invalid) reasons for vertical integration are:
  - Reducing earnings volatility – shareholders can diversify their own portfolios.
  - Assuring supply and eliminating unfair prices – in efficient markets, prices are fair.
  - Capturing more value by being in stages of the industry chain closer to consumers – need to look at economic value of the stage; being closer to customers does not automatically create value.

### Quasi-Integration Strategies

- Companies tend to over-integrate because Quasi-integration strategies aren't considered.
- Quasi-integration strategies include:
  - Joint Ventures / Strategic Alliances
  - Asset Ownership
  - Franchising
  - Licensing

- (b) Evaluate whether or not each of the six considerations supports Frenz's vertical integration plan to set up a production facility in Vietombia. Justify your evaluation.

## 2. Continued

### **Commentary on Question:**

*Candidates should ensure that they clearly state whether each consideration does or does not support vertical integration, which was not always done. Supporting vertical integration was also acceptable for Companies in Adjacent Markets and Raising Barriers to Entry as long as analysis supported these statements. For these, the candidate may assume that the coffee bean production would be overly profitable and entering the stage of the industry chain would create economic surplus. Entering this stage would raise barriers to entry by forcing your competitors to follow suit or pay substantially higher prices for other available premium coffee beans.*

### Vertical Market Failure

Yes, vertical market failure is a risk and supports the strategy of vertical integration. There are few suppliers of premium coffee beans, and there would be frequent transactions as supply would have to be replenished often.

### Companies in Adjacent Markets

No, this does not support the vertical integration plan. It is not indicated that the coffee bean production would be overly profitable, and even if it was, outsiders with experience in coffee bean production would be attracted to this business.

### Raising Barriers or Price Discrimination

No, this does not support the vertical integration plan. Set-up costs would be too high to build a new facility for production, and similar sources of coffee beans could be found in the future.

### Growth or Declining Market

No, this does not support the vertical integration plan. There is already an established, non-declining market for premium coffee.

### Spurious Reasons

No, spurious reasons never support vertical integration. Some spurious reasons could include ensuring the supply of premium coffee beans, but efficient markets will always provide a source at a fair market price.

### Quasi-Integration Strategies

No, this does not support vertical integration. However, quasi-integration through a joint venture or strategic alliance would be a good option in this case. Frenz does not have the skills required to set up a production facility in Vietomba – they have never been part of this stage of the industry chain. A joint venture would reduce trade conflict with Vietomba, and allow Frenz access to the premium coffee beans at a lower cost than full vertical integration.

## 2. Continued

- (c) Recommend whether Frenz should pursue a full integration, quasi-integration or no integration strategy. Justify your recommendation based on your evaluation in part (b).

**Commentary on Question:**

*A clear recommendation must be presented and supported by analysis in part (b) for full points. If a candidate provided multiple recommendations (i.e. you could do this, or you could do this other action) no credit would be given.*

I recommend Frenz pursue a quasi-integration strategy through a joint venture or strategic alliance with Vietomba. Although there is a risk of vertical market failure due to the small number of suppliers, there are not enough valid reasons to vertically integrate. This quasi-integration would give similar benefits to Frenz, at a lower cost and risk, and allows Frenz access to the premium coffee beans without needing to enter an unfamiliar stage of the industry chain.



### **3. Learning Objectives:**

3. The candidate will understand best practices for ERM processes and Capital Management and their use in setting a risk-return strategy.
5. The candidate will understand the decision making process and the lessons learned from the risk taking activities and experiences of other organizations. In particular, the candidate will be able to apply the learning objectives of all the prior sections of the syllabus to the risk management principles embodied within the case studies explored in this section.

### **Learning Outcomes:**

- (3b) Explain ERM and capital management concepts to evaluate and recommend corporate financial and ERM decisions.
  - Apply capital allocation models to a multi-line organization.
  - Compare and contrast various ERM and Capital Management frameworks as to their ability to assess value and articulate the risk-return strategy of an organization.
  - Evaluate the value-added for an organization by jointly evaluating risk measurement and capital allocation.
  - Assess how an ERM process can improve capital efficiency and articulate the risk-return strategy.
- (5b) Evaluate the robustness and flexibility of the risk management framework and recommend approaches for continual improvement in the framework and processes.

### **Sources:**

SDM-111-13 Quantitative Risk Management - Chapter 6

SDM-127:13: Nephila: Innovation in Catastrophe Risk Insurance

### **Commentary on Question:**

*This question tests the candidates' ability to apply risk and capital management concepts to their understanding of the case studies and described scenarios.*

### **Solution:**

- (a)
  - (i) Determine whether Darwin is able to support a 30% increase in variable annuity sales from the baseline. Justify your answer.
  - (ii) Assess whether the current business plan for the variable annuity line of business is suitable for Darwin. Justify your answer.

### 3. Continued

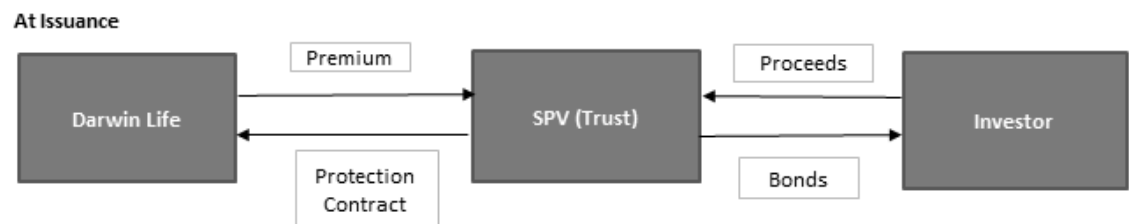
#### Commentary on Question:

Most candidates did not do well in part (a). They did not understand how to assess whether Darwin is able to support the described scenarios based on Darwin's risk appetite and the sensitivity tests given in the case study.

- (i) Darwin Life is not able to support a 30% increase in variable annuity sales over 5 years starting from the base year 2013. The variable annuity sensitivities show that statutory capital changes by -2.90%, -9.15%, +0.62%, and -0.11% comparing one year to the next year (for example, 2013 to 2014), respectively. The change from 2014 to 2015 has the largest loss in statutory capital. With a 30% increase in variable annuity sales, Darwin Life's statutory capital loss is approximately 18.30%, which doesn't satisfy Darwin Life's risk appetite of less than 0.5% probability of having a 15% loss of statutory capital in one year.
  - (ii) The variable annuity line of business is not within Darwin Life's risk appetite. The variable annuity sensitivities show that with a 15% decrease in market, Darwin Life's statutory capital changes by -6.79%, -17.72%, -0.23%, and -1.17% over the next 4 years starting from the base year 2013. Darwin Life's risk appetite is only 15% loss in statutory capital with the probability of less than 0.5%.
- (b) Sketch a diagram that shows a possible structure and expected cash flows between Darwin, investors and the SPV at issuance.

#### Commentary on Question:

Candidates generally drew the diagram correctly, but only a few people got the cash flows correct.



$$\text{Protection Contract} = 5\% \times (100\% - 3\%) \times \$1 \text{ billion} = \$48,500,000$$

$$\text{Premium} = \$48,500,000 \times 1\% = 485,000$$

$$\text{Proceeds} = \$48,500,000$$

$$\text{Bond} = \$48,500,000$$

### 3. Continued

(c) Sketch diagrams that show the expected cash flows between Darwin, investors and the SPV at the end of the first year for the following scenarios:

(i) Withdrawals are 5% during the first year

(ii) Withdrawals are 10% during the first year

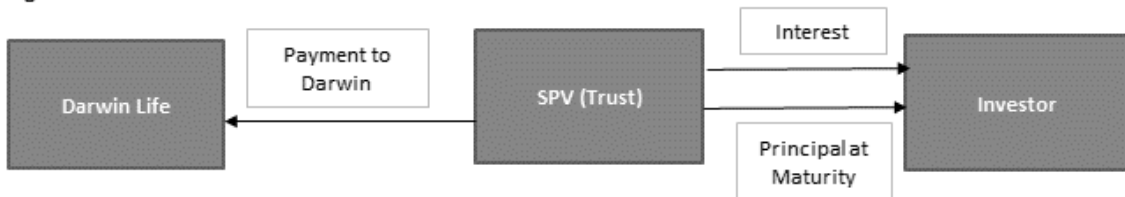
(i)

**Lower than Withdrawal Rate**



(ii)

**Higher than Withdrawal Rate**



Principal at Maturity = \$48,500,000 - Payment to Darwin

Interest = \$485,000

Payment to Darwin =  $5\% \times (10\% - 6\%) \times \$1 \text{ billion} = \$2,000,000$

#### 4. Learning Objectives:

3. The candidate will understand best practices for ERM processes and Capital Management and their use in setting a risk-return strategy.

#### Learning Outcomes:

- (3b) Explain ERM and capital management concepts to evaluate and recommend corporate financial and ERM decisions.
  - Apply capital allocation models to a multi-line organization.
  - Compare and contrast various ERM and Capital Management frameworks as to their ability to assess value and articulate the risk-return strategy of an organization.
  - Evaluate the value-added for an organization by jointly evaluating risk measurement and capital allocation.
  - Assess how an ERM process can improve capital efficiency and articulate the risk-return strategy.

#### Sources:

SDM-111-13: Quantitative Risk Management

#### Commentary on Question:

*Commentary listed underneath question component.*

#### Solution:

- (a) Describe advantages and disadvantages of each of the following approaches to risk measures.
  - (i) Notional-Amount approach
  - (ii) Risk measures based on loss distributions
  - (iii) Risk measures based on scenarios

#### Commentary on Question:

*Most candidates did well on this question. Three points for each risk measure were needed for full marks.*

- (i) Notional-Amount approach:
  - Advantage: simple.
  - Disadvantage: does not differentiate between long and short positions.
  - Disadvantage: does not recognize netting.
  - Disadvantage: does not recognize diversification.

## 4. Continued

- (ii) Risk measure based on loss distributions:
  - Advantage: natural to measure risk based on a loss distribution, makes sense on all levels of aggregation.
  - Advantage: reflects netting and diversification so it is comparable across portfolios.
  - Disadvantage: difficult to calculate.
  - Disadvantage: based on past data.
- (iii) Risk measures based on scenarios:
  - Advantage: useful for portfolios exposed to relatively few risk factors.
  - Advantage: provides useful complementary information to measures based on distributions.
  - Disadvantage: difficult to pick scenarios and to assign scenario weights.
  - Disadvantage: aggregating portfolios exposed to different risk factors is difficult.

- (b) Explain three reasons why a coherent risk measure is desirable.

**Commentary on Question:**

*Most candidates did well on this question. Three reasons were required for full marks.*

**Translational Invariance** - adding or subtracting a known quantity to the position changes the capital requirements by just that amount.

**Subadditivity** - reflects the concept that risk can be reduced by diversification.

**Positive Homogeneity** - scaling the economic capital measure by a fixed multiple scales the risk proportionally.

**Monotonicity** - positions that lead to higher losses in every state of the world require more risk capital.

- (c)
  - (i) Explain and support Houben's position.
  - (ii) Recommend another allocation principle. Support your recommendation.

**Commentary on Question:**

*Some candidates had problems with this question. The goal was not just to list advantages and disadvantages of different allocation principles, but to apply it to the situation described.*

## 4. Continued

1. With the RPPC formula, the hedge fund will have to switch to VAR because measures have to be consistent across the enterprise. VAR is not as good as CTE even as an internal measure of risk.

2. When VAR is used, the hedge fund may not benefit from diversification at all. VAR is not coherent, so the ratio of the capital for the group over the sum of the capitals of business units operating individually may be higher than 1. The hedge fund may need more capital as a result.

3. The formula suggested by RPPC does not reward business units for providing relatively more or less diversification. This is a disadvantage for the hedge fund which has a very low correlation with the company.

4. Covariance principle says that the proportion of capital allocated =  $\frac{\text{cov}(U,C)}{\text{var}(C)^{0.5}}$  where U is a business unit and C is the entire company. That means that low correlation with the company is actually rewarded. This would benefit the hedge fund.

Alternate methodology: Expected Shortfall. It is a coherent risk measure, and it still based on the loss distribution. Other methodologies were accepted here as long as they were supported by well-reasoned arguments.

## 5. Learning Objectives:

3. The candidate will understand best practices for ERM processes and Capital Management and their use in setting a risk-return strategy.

### Learning Outcomes:

- (3b) Explain ERM and capital management concepts to evaluate and recommend corporate financial and ERM decisions.
- Apply capital allocation models to a multi-line organization.
  - Compare and contrast various ERM and Capital Management frameworks as to their ability to assess value and articulate the risk-return strategy of an organization.
  - Evaluate the value-added for an organization by jointly evaluating risk measurement and capital allocation.
  - Assess how an ERM process can improve capital efficiency and articulate the risk-return strategy.

### Sources:

SDM-109-13: Managing the Invisible: Measuring Risk, Managing Capital, Maximizing Value, Panning

### Commentary on Question:

*Candidates performed better on part (a) than they did on part (b). Most candidates only described the shape of the graph in part (b) when they were expected to also demonstrate their understanding by interpreting the important implications of varying yields on value added.*

### Solution:

- (a)
- (i) Describe short-comings of the cross-sectional approach to measuring the value of a company.
  - (ii) Identify an alternative to the cross-sectional approach and describe the features of this alternative approach.

### Commentary on Question:

*Many candidates missed the important features of the longitudinal approach for answering part (ii).*

- (i) Short-comings:  
The market value of a firm's equity may exceed the value of its assets in the actual stock market.  
Firms directly market insurance to their clients because they think about the business longitudinally – as a going concern due to the future business.

## 5. Continued

- (ii) Alternative approach:  
An alternative is the longitudinal or going-concern approach or longitudinal model, which values the firm as the default-risk-adjusted present value of its future earnings or cash flows.

Important features of the longitudinal approach:

- Focus of the model is on earnings rather than cash flows because the firm is assumed to pay dividends to shareholders equal to annual after-tax net income.
- Future dividend payments are discounted at the risk-free rate to obtain the present value.
- Each future dividend payment is multiplied by the probability that the firm might go through reorganization or bankruptcy.
- If a firm ceases to exist as a going concern, assets are liquidated to pay policyholders and reorganization costs. Cash remained after this is distributed to shareholders.

- (b) Interpret the relationship between surplus and Value Added.

### **Commentary on Question:**

*Most candidates described the shape of the graph and didn't explain why the graph has such a shape. The graph shows that the immunization is working only at one level of surplus, not always. Varying yields have a large impact on the company's value added.*

Implications for Darwin's surplus management based on the graph of the question:

- When the firm's surplus is 65, the firm's value added is virtually constant regardless of potential changes in interest rates. At that point, the firm's value added is essentially immunized if the other variables in the model remain at their assumed values.
- The point with surplus 65 is suboptimal for all of the interest rates.
- All of the yields have the optimal surplus 120 because each can get the maximum value added at that point.
- Immunizing a firm's value from potential changes in interest rates may be a suboptimal strategy when considered within the framework of value-focused enterprise risk management.
- Higher yields increase investment income but reduce value added because they reduce the present value of future income.
- The value added optimal point is between surplus position of 80 to 150 because 120 tested to be the highest value added.



## 6. Learning Objectives:

4. The candidate will understand organizational behavioral concepts and apply strategic management frameworks to corporate financial and ERM business problems.

### Learning Outcomes:

- (4a) Apply organization behavior concepts.
  - Describe the communication process and explain the strategic importance of communication to organizations.
  - Describe the fundamentals of decision making and explain decision-making styles and influences.
  - Describe common types and causes of organizational conflict and apply the elements of a basic negotiation process.
  - Assess how the behavior of individuals and groups in organizations drives organizational decisions and performance.
- (4b) Evaluate and apply the concepts of strategic management, recognizing the factors that affect the development and implementation of strategies.
  - Demonstrate the importance of analyzing the firm's external environment and the internal organization.
  - Define types of business-level strategies and recommend an appropriate business-level strategy for a given situation.
  - Explain the impact of competitive dynamics on strategic management.

### Sources:

Organizational Behavior: A Strategic Approach, Hitt, Michael, Miller, C. Chet, and Colella, John Wiley & Sons, 3rd Edition – Chapter 9

Strategic Management: Competitiveness and Globalization, Concepts, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 10th Edition – Chapter 1

### Commentary on Question:

*This question tests the candidates' understanding of barriers to effective communication and how those barriers could be overcome. Many candidates did well in their descriptions but had difficulty coming up with actions. Many candidates seem to have difficulty with certain barriers like "Noise" and "Network breakdown." Candidates need to demonstrate some true understanding instead of just "explaining the words." More detailed commentary is given under each part.*

### Solution:

- (a) Define each of the following seven organizational barriers to effective communication:

## 6. Continued

- (i) Information overload
- (ii) Noise
- (iii) Time pressures
- (iv) Network breakdowns
- (v) Specialty area jargon
- (vi) Information distortion
- (vii) Cross-cultural barriers

### **Commentary on Question:**

*Candidates performed acceptable here. Some barriers are almost “self-explanatory” therefore candidates need to demonstrate true understanding in order to receive full mark. Many candidates have trouble in (iv) Network breakdowns by relating it to technology/ system break down and many candidates have trouble with (ii) Noise by explain the English word “Noise”.*

- (i) Information overload:  
Too much information is provided for members of an organization to process, which makes it difficult to identify what is important.
- (ii) Noise:  
Noise includes anything that disrupts the effectiveness of communication or distorts information.
- (iii) Time pressures:  
Time pressure, like deadlines, could result in ineffective communication because the message may not be well thought-out or allow reasonable time for feedback before sending.
- (iv) Network breakdowns:  
A partial or inaccurate message is communicated to the audience due to a large volume of information that needs to flow through the network. This happens more often in large organizations.
- (v) Specialty area jargon:  
When specialized terminology is used in communication between field specialists and outside group, it could result in misunderstanding or confusion.
- (vi) Information distortion:  
Information distortion, which can be intentional or unintentional, is when a message is not communicated in its intended form or lacks expected detail. This could happen as a result of different perception or competition between departments.

## 6. Continued

- (vii) Cross-cultural barriers:  
It refers to miscommunication due to lack of language and culture fluency.
- (b) Describe the three primary stakeholder groups, listed below, with which every company both establishes and maintains relationships:
  - (i) Capital market stakeholders
  - (ii) Product market stakeholders
  - (iii) Organizational stakeholders

### **Commentary on Question:**

*All candidates did well on this part. Since the question asks the candidates to “describe” each group, a simple answer like “Customers.” may not receive full marks.*

- (i) Capital market stakeholders:  
It refers to parties who provide firms with capital, including shareholders, bond holders, and banks.
  - (ii) Product market stakeholders:  
It refers to parties who are impacted by firms’ production activities, including buyers, supplies, unions, and host communities.
  - (iii) Organizational stakeholders:  
It refers to the employees of the company at various levels, including both managerial and non-managerial personnel.
- (c) Propose an action item for each of the barriers to effective communication in part (a) to formulate a successful communication strategy to the organizational stakeholders in part (b)(iii). Justify your proposals.

### **Commentary on Question:**

*Similar to (a), since some barriers are almost “self-explanatory,” candidates needed to demonstrate an understanding of the context in order to receive full marks. Some candidates provided an answer “build higher cubical/ allow more space” for (ii) Noise. By interpreting the English word “Noise” literally, they showed a lack of understanding of the word in the context of “effective communication”.*

## 6. Continued

- **Information overload:**  
Organizations should pursue actions that help employees navigate through paramount information and identify the important message, such as setting up a face-to-face meeting, memos from senior management, and using technology (intranet, blogs, wiki-sites, and social media etc.).
- **Noise:**  
Organizations should pursue actions that help employees cut through the distractions and identify the key message, such as setting up a direct meeting with managers using various forms of communication, memos from senior management, and using technology (intranet, blogs, wiki-sites, and social media etc.).
- **Time pressures:**  
Organizations should leave enough time to allow thorough preparation and feedback. It also helps to give a timetable for key communication.
- **Network breakdowns:**  
Organizations should pursue actions that facilitate direct and accurate communication, such as presenting the message directly from managers with authority/responsibility and setting up an FAQ section about certain subjects on the intranet.
- **Specialty area jargon:**  
The best action here is to avoid using jargon, i.e. preparing clear message using layman terms.
- **Information distortion:**  
Organizations must ensure their communication is full and accurate. They could ask employees with direct knowledge of the subject to communicate or provide a dedicated FAQ section on their intranet about the subject.
- **Cross-cultural barriers:**  
Organizations need to take actions to overcome miscommunication due to the lack of language or cultural fluency through proper review and vetting processes. It also helps to include diverse ethnic groups and nationalities.

## 7. Learning Objectives:

4. The candidate will understand organizational behavioral concepts and apply strategic management frameworks to corporate financial and ERM business problems.

### Learning Outcomes:

- (4b) Evaluate and apply the concepts of strategic management, recognizing the factors that affect the development and implementation of strategies.
- Demonstrate the importance of analyzing the firm's external environment and the internal organization.
  - Define types of business-level strategies and recommend an appropriate business-level strategy for a given situation.
  - Explain the impact of competitive dynamics on strategic management.

### Sources:

Strategic Management: Competitiveness and Globalization, Concepts, Hitt, Michael, Ireland, Duane, and Hoskisson, Robert, 10th Edition – Chapter 2

### Commentary on Question:

*This question tests the candidates' understanding of the five forces of competition analysis. In particular, candidates need to apply that understanding to Darwin Life Insurance Company from the Case Study in order to receive high scores.*

### Solution:

- (a) Describe the impact of each of the five forces of competition on an industry's profit potential.

### Commentary on Question:

*This is the straight forward part of the question. Candidates did well here. Most of the candidates were able to describe a few forces.*

- Threat of New Entrants:  
New entrants compete with existing players for market share, which results in lower revenue and profitability.
- Bargaining Power of Supplier:  
Suppliers could exert power over firms competing for the same supplies by raising price or lowering quality. Firms that are unable to cover the high cost or pass it through will suffer lower profitability.
- Bargaining Power of Buyer:  
Buyers could lower their bid on the products they buy, reducing profitability for firms.
- Substitute Products:  
Customers could use products outside a given industry to fulfill their needs. Companies will suffer reduced profitability unless the switching cost is high or there is significant price/quality differentiation.

## 7. Continued

- High Intensity of Rivalry:  
When firms are competing in the same industry, their actions could be mutually dependent. One company's action, i.e. price reduction, could trigger another company to react.

(b) Assess the impact of forces (I), (IV) and (V) on the life insurance industry.

### **Commentary on Question:**

*Candidates did not do very well on this part. Most candidates scored in the more straightforward "Threat of New entrants," and very few candidates were able to assess "the Intensity of rivalry among competitors."*

The threat of new entrants is low for the life insurance industry.

- Capital requirement is significant in the life insurance industry, which prevents new players from entering.
- The life insurance industry is heavily regulated, which is another high barrier to entry.

The threat of substitute products is low to moderate for the life insurance industry.

- Life insurance companies differentiate themselves along service and cost, which are difficult to copy.
- The life insurance industry is facing competition from other financial service companies.

The intensity of rivalry in the life insurance industry is moderate to high.

- There are a number of equally balanced companies competing in the life insurance industry.
- The life insurance industry as a whole has very low growth.
- Products in general lack differentiation; however, firms that are successful in differentiating themselves are often able to enjoy higher profitability.

(c) Provide examples of Darwin's ability to earn above-average profits for each of the assessments in part (b).

### **Commentary on Question:**

*Candidates performed poorly on this part. Many candidates failed to pick up examples specific to Darwin from the case study. Different candidates picked up different examples. Candidates should strengthen their ability to draw the link between the question (i.e. above-average profit) and the case study (information on Darwin).*

## 7. Continued

Darwin is expected to earn above average return due to the high barrier to entry it has created.

- Darwin has developed its core competency of distribution relationships, which creates barriers to entry.
- Darwin focused on product innovation and differentiation by going directly to small businesses.

Darwin is expected to earn above average return due to product differentiation which should fend off threat of substitute products.

- Darwin has enhanced its UL products to address customers' insurance, estate, and business planning needs.
- Darwin developed a broad array of competitive products with customization for both agency and institutional distribution channels.

Darwin is expected to earn above average return due to employing the right differentiation and distribution strategy.

- Darwin has a strategic focus on the niche market of wealth management for the middle to upper income market and professional and small business owners.
- Darwin is adding a new distribution outlet, increasing penetration rate for existing outlets, as well as expanding the agency network.

## 8. Learning Objectives:

5. The candidate will understand the decision making process and the lessons learned from the risk taking activities and experiences of other organizations. In particular, the candidate will be able to apply the learning objectives of all the prior sections of the syllabus to the risk management principles embodied within the case studies explored in this section.

### Learning Outcomes:

- (5b) Evaluate the robustness and flexibility of the risk management framework and recommend approaches for continual improvement in the framework and processes.
- (5c) Assess the risk of the status quo alongside any other risky and or risk management decision.

### Sources:

SDM-124-13: Air Canada - Risk Management

### Commentary on Question:

*This question tests candidates' understanding of the frequency and severity of a particular risk and their ability to deal with it in real life. Most candidates understood the question well. Those who are able to successfully identify frequency, severity, and corresponding strategies in part a) and part b i) tend to do well applying them to part b ii). Partial marks are granted for correct reasoning and justification even if the conclusion is wrong; however, self-contradicting answers are not acceptable. More details will be provided for each section.*

### Solution:

- (a) Categorize each of the three risks into the appropriate quadrant of the Frequency Severity Analysis Matrix.

### Commentary on Question:

*This question requires candidates to apply risk frequency and severity concept to real life examples. Many candidates showed good understanding of low frequency high severity risk. One common mistake is to place Risk II – Material Cost Rise in Quadrant IV, underestimating its direct and significant impact on a company's bottom line. A few candidates did not understand the question and explained what the 4 Quadrants meant. They did not get any marks since the question targets a higher cognitive level – analysis rather than retrieval.*

I: Quadrant II

II: Quadrant I

III: Quadrant IV



## 8. Continued

(b)

- (i) Recommend one of the potential strategies that Blue Jay Air should use for each of the three identified risks based on the Frequency Severity Analysis Matrix. Justify your recommendation.
- (ii) Propose an action Blue Jay Air can take for each of the three identified risks, to execute the strategy recommended in part (i). Justify your proposed action.

### Commentary on Question:

*To successfully answer this question, candidates need to associate the right frequency and severity to each risk first, then correctly identify a strategy and recommend an action to deal with it. Therefore, taking Risk II is not an acceptable answer. Candidates who did well on part a) tended to do well on this part b i). Partial marks are given to candidates who justified their answer with the correct frequency and severity association. Many candidates identified “buying reinsurance” instead of “buying insurance” as a way to transfer risk. It seems a direct recall from study material rather than applying the idea in the case context. A few candidates confused hedge with risk transfer. In part b ii), many correctly identified insurance as a way to transfer Risk I. A few provided recommendation without any justification and did not get full marks. Some proposed monitoring material cost as an action to mitigate Risk II, which was not accepted as a correct answer since it may require judgment on when to buy the material and does not reduce the risk exposure. However, long term supplier contract was accepted as a correct answer since it works similarly with using derivatives.*

- (i) I: This is a low frequency and high severity event, as accidents seldom happen, but they are usually serious whenever they do happen. For a low frequency and high severity event (Catastrophic Risk), (d) Transfer should be the strategy to use because catastrophic risk is hard to control and mitigate.  
II: This is a high frequency and high severity event, as they happen continuously and Xolar/ Skylite are sensitive to it as an aircraft manufacturer. For a high frequency and high severity event, (b) Avoid and Control should be the strategy to use to minimize the severity as much as it can, given the frequency.  
III: This is a high frequency and low severity event, as this happens very often to deal with the high volume of flights every day, but the consequences are not serious. For a high frequency and low severity event (Operational Risk), (c) Prevent and Reduce should be the strategy to use, which focuses on lowering the frequency.
- (ii) I: Aviation insurance is the best way to transfer the risk to a third party in case of a high severity and low frequency.

## 8. Continued

II: Derivative financial instruments can be used to hedge material cost. For example, since cashflow hedges of the material needs in upcoming 1 to 3 years can keep expenses more stable, , hedges can be useful for high frequency and high severity events.

III: Contingency plans (or back-up plans) should be in place in case of such a situation. They should also set up policies to ensure additional capacity is available in events like this. Answers like “Set up regulation or best practice for such situation.” are also accepted.