

## ANSWERS TO CHAPTER 2 QUESTIONS

### ANSWER 2.1

This is where planning makes a lot of sense. Stacy Engineer should do the following:

A. Conceive of a set of mutually exclusive and collectively exhaustive objectives which on attainment will lead Joe Engineer to an exciting and happy life. Examples include: (a) money/wealth, (b) respect and recognition by peers, (c) professional/technical achievements, (d) social support, and (e) health.

B. Define tasks to be completed in the next 5 years which aim at accomplishing parts of the following:

(a) Learn to save and invest - setting up an internet trade account and using automatic deposit to start saving money and practicing prudent investment.

(b) Look for a job in a prestigious firm where learned skills can be best applied for both the company and for oneself. Demonstrate technical excellence and establish oneself as a worker who is capable, reliable and a fast-learner.

(c) Apply herself to learn, produce, innovate and excel.

(d) Get a mate who has earning power and start a family. Stay in contact with college friends and acquire new friends constantly. Exercise and eat healthy foods.

C. Specify tasks to be completed in the next 5 to 10 years which aim at accomplishing parts of the following:

(a) Continue to save and invest. Maximize savings in 401(k) and IRA accounts. Set up savings accounts for children's college education and invest more in stocks. Try options trading.

(b) Practice the principles of engineering management and get promoted into a mid management position with a large company. Become active in professional societies. Seek opportunities to publish technical papers and/or develop patents. Write a long term career plan so that the needed preparations are initiated in a timely manner.

(c) Practice leadership skills to excel at work. Get training to acquire new skills. Seek opportunities to broaden one's own experience base. Request a transfer to another department if doing so will broaden one's own exposure to other important managerial functions.

(d) Continue to network with old friends and make new friends, both professionally and socially.

(e) Exercise regularly and eat healthy foods.

(f) Spend quality time with family and manage relationships.

D. Identify tasks to be completed in the next 10 to 15 years which aim at accomplishing parts of these objectives:

(a) Actively manage one's own savings and investment programs.

(b) Seek promotion to Director's level. Continue to broaden one's own experience base to prepare for bigger and better jobs, either inside or outside the company.

(c) Present papers at professional conferences, get more patents, and become active in societies and industrial committees.

(d) Achieve recognition by peers in industry.

(e) Continue to manage one's network of friends and acquaintances.

(f) Cultivate an active network of business contacts and relations.

(g) Exercise and eat healthy foods.

(h) Manage family relationships.

E. Determine tasks to be completed in the next 15 to 20 years which aim at accomplishing parts of the following: -----

## **ANSWER 2.2**

Obviously, the company must find ways to protect its current market share in the high-price, high-quality niche. Without protection, this niche could become slowly eroded by the anticipated introduction of a new low-price, low quality product by the competition. Time is of essence and the company must act quickly. Thus, the strategic plan to protect company's position should include:

A. Explore the option of importing a low-price and low-quality product to the market and make inquiries about cost, performance, delivery and logistics.

B. Follow the competition closely to understand their new products and evaluate the market reaction to them.

C. If the market exhibits signs of accepting the competition's new products, then the company should introduce the imported products to compete directly at a discounted price. The purpose is to reach and understand customers in this new low-price, low-quality niche so that they may be served better in the future.

One obvious alternative is for the company to drive out the competition using the imports, based on a "second brand" strategy.

D. If the company registers a decline of sales in the high-price and high-quality market niche, then it should consider the development of new medium-price and medium-quality products in order to recover some of its lost customers.

### **ANSWER 2.3**

#### **1. INTEL CORPORATON**

A. Our mission - Do a great job for our customers, employees and stockholders by being the preeminent building block supplier to the computing industry.

B. Discipline - The complexity of our work and our tough business environment demands a high degree of discipline and cooperation. We strive to: (a) properly plan, fund and staff projects; (b) pay attention to detail; (c) clearly communicate intentions and expectations; (d) make and meet commitments; and (e) conduct business with uncompromising integrity and professionalism.

C. Quality - Our business requires continuous improvement of our performance to our mission and values. Examples include: (a) setting challenging and competitive goals, (b) doing the right things right, (c) continuously learning, developing, and improving, and (d) taking pride in our work.

D. Result Orientation - We are results-oriented. We strive to: (a) set challenging goals, (b) execute flawlessly, (c) focus on outputs, (d) assume responsibility, and (e) confront and solve problems.

E. Customer Orientation - Partnerships with our customers and suppliers are essential to our mutual success. We strive to: (a) listen to our customers, (b) communicate mutual intentions and expectations, (c) deliver innovative and competitive products/services, (d) make it easy to work with us, and (e) serve our customers through partnerships with our suppliers.

F. Risk Taking - to maintain an innovative environment, we strive to: (a) embrace change, (b) challenge the status quo, (c)

listen to all ideas and viewpoints, (d) encourage and reward informed risk taking, and (e) learn from our successes and mistakes.

G. Great Pace to Work - A productive and challenging work environment is the key to our success. We strive to: (a) respect and trust each other, (b) be open and direct, (c) work as a team, (d) recognize and reward accomplishments, (e) be an asset to our community, and (f) have fun.

## **2. SATURN CORPORATION**

### **A. The Mission of Saturn**

- To market vehicles developed and manufactured in the United States that lead in quality, cost, and customer satisfaction through the integration of people, technology, and business systems.
- To transfer knowledge, technology and experience throughout General Motors.

### **B. The Philosophy of Saturn**

We the Saturn Team, in concert with the UAW and General Motors, believe that meeting the needs of Saturn customers, members, suppliers, dealers, and neighbors is fundamental to fulfilling our mission.

- To meet our customers' needs, our products and services will lead in value and satisfaction.
- To meet our members' needs, we will create a sense of belonging in an environment of mutual trust, respect and dignity. We believe that all people want to be involved in decisions that affect them. We will develop the tools, training, and education that each member needs. Creative, motivated, and responsible team members who understand that change is critical to success are Saturn's most important asset.
- To meet our suppliers' and dealers' needs, we will create real partnerships with these suppliers and dealers. We will strive for openness, fairness, trust, and respect and we will work with them to help them feel ownership of Saturn's mission and philosophy.
- To meet our community neighbors' needs, we will be good citizens and protect the environment as well as seek to cooperate with government at all levels.

By continuously operating according to this philosophy, we will fulfill our mission.

#### C. The Core Value of Saturn

As a final complement of Saturn's mission and philosophy statements, the founding team has enunciated five core values: commitments to customer enthusiasm, excellence, teamwork, trust and respect for the individual and continuous improvement.

#### **ANSWER 2.4**

A typical set of operational guidelines may emphasize the following:

- A. Employees are the most important asset to our organization (respect and listen to them).
- B. Quality of our product/service must never be compromised (this is based on the total quality concept as measured by customers).
- C. The system must continuously advance all aspects of its operation (seeking a stream of incremental emendation while not neglecting innovation for major step-change in performance).
- D. Each action that is taken should add value to the final product or service (eliminating wasteful and unnecessary steps).
- E. Timely response of the system to changing external conditions is paramount to success (time to market is a key competitive factor in today's marketplace).
- F. Integrity in all actions by all employees is paramount (all shareholders must have confidence in the enterprise).

#### **ANSWER 2.5**

All new ventures have inherent uncertainties. In deciding to take the risks of going forward with the venture, several questions need to be answered first:

- A. Should it luckily turn out to be successful, what is the maximum pay-out (e.g., value) of the venture?
- B. Why is the venture deemed to be risky? How likely are all risk factors expected to play out in reality? What contingency steps are available to minimize the impact of these risky factors? Answers to these questions will lead to an assessment of the probability of success for the venture.

C. Should the venture fail (e.g., time delay, reputation, company bankruptcy, loss of market share, etc.), what is the adverse impact on company?

A typical set of guidelines for avoiding taking unwarranted risks may include the following:

A. The cost of going forward with the venture must be much smaller than the expected value of the risky venture (the probability of success multiplied by the maximum pay-out of venture).

B. The adverse impact on company must be smaller than the maximum pay-out of the venture.

#### **ANSWER 2.6**

The steps she should take include the following:

A. Collect critical market information (e.g., market research, competitive information, customer feedback, technology development, business alliance, and forecasting) - in need of staff support.

B. Analyze available data (verification of data accuracy, interpretation, what-if analysis, financial projections, risk analysis, search on external databases, SWOT (strengths, weaknesses, opportunities and threats) analysis, etc.) - in need of staff support.

C. Apply judgment to data and formulate strategies, to be performed by the Director himself.

D. Get staff feedback, in order to benefit from the different viewpoints and broad experience they may have, - in need of staff participation.

E. Devise the plan (graphics, project plan preparation proof reading, printing, binding) - in need of staff support.

#### **ANSWER 2.7**

The company is facing a major threat and must consider several strategic options. These options include: stay the current course, expand software offering to run on computers of common platforms, and continue to market the software products but abandon the bundling with the hardware.

A. **Staying the course**

Marketing the original hardware-software bundle has several advantages. The system works well as a group partly because the company offers maintenance services using technicians who are knowledgeable about both hardware and software. Customers can count on the high system reliability of the integrated package. An additional possibility is for the company to constantly upgrade the system, both hardware processor and software features, so that its customers can always enjoy the latest technology.

The company can of course continue to innovate by adding new functions and features to serve the law firms better (e.g., Internet access, document search, data mining, and others). The company may also have to refocus its marketing on mid- to large-size law firms which prefer and can afford a centralized hardware-software system. Some erosion of the company's market share may be likely.

#### **B. Marketing two versions of the software**

Generally speaking, it is quite easy to develop a second software version. Doing so allows the company to expand its customer segment to include law firms which have existing computers running on common operating systems. This segment is potentially very large as the computers of common platform enjoy a very extensive installed base. Some law firms can thus avoid the initial investment of purchasing a hardware-software bundle, also making such software attractive to some new and small size firms.

The question of system reliability is unresolved at this time.

Customers who purchase hardware and software from different sources do not have a single point of contact to turn to for services. System reliability may be important to some, but not to others. For law firms involved in criminal court cases, it would be a disaster if their ERP systems broke down during a trial. On the other hand, if the law firms work primarily on patent and copyright assignments, then an occasional delay of a few days due to the system failure may still be manageable.

#### **C. Pursue the software products only**

This option of abandoning the hardware business is useful only if the company wants to refocus its energy on competing directly against the new competitors. The sense of urgency could spark the innovative talents of the company in adding new software features to make the company increasingly more competitive.

Some existing customers may feel betrayed by such a move. Accordingly, the company needs to extensively restructure its hardware and service divisions.

Which option should the company pursue? To answer this question, there is one more piece of information missing, namely the customer's perception and preference.

Thus, it is strongly advised that the company conduct a customer survey (e.g., focus group, web-based survey, and phone interviews) to determine the relative value of these options to them. Specifically, XYZ Company needs to know how important the issues are to customers regarding system reliability and services channeled through a single point of company contact. Based on the results of these surveys, the company should plan its counter strategy and implement action steps accordingly.

### **ANSWER 2.8**

Sandy Smith's plan should include the following elements:

1. Assure the clear objective of becoming an Operations manager in 10 years and understand the associated personal benefits and sacrifices.
2. Define the interim positions which lead to an Operations manager position. These include:
  - (1) Project team member/associate (1- 2 years)
  - (2) Project Team Leader (3- 4 years)
  - (3) Project Manager (5-6 years)
  - (4) Plant Manager (7-8 years)
  - (5) Operations manager (9 - 10 years)
3. Be aware of the qualifications and work experience required for reaching each of these job functions and set up action plans to ready herself in a timely manner. Implement the action steps so that she could reasonably expect to be promoted into these interim positions as scheduled.
4. Develop the necessary personal and professional networks in support of her career progression.
5. Learn constantly to acquire new technical knowledge, improve interpersonal skills in dealing with people, and enhance her leadership qualities.