justin greis

CASE STUDY: BUSINESS CONTINUITY MANAGEMENT

COCOA-SASSAFRAS CORPORATION

ASSIGNMENT OVERVIEW

Summary:	As a team, present the proposed solution to the case. The presentation should lay out clear recommendations for how management should address the problem.
Presentation Deliverable:	Case study presentation (in Microsoft PowerPoint format)**.**
Executive Briefing Deliverable:	Single page case study executive briefing (in Microsoft PowerPoint format).

BACKGROUND

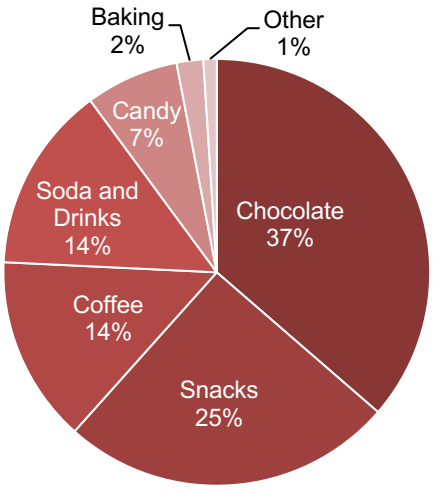
Hurricane Sandy caused significant damage to major businesses across the United States. Cocoa-Sassafras Corporation (CSC), a large company operating in the food and beverage industry was affected by the incident. Some of the major products of Cocoa-Sassafras include chocolate, candies, snacks and coffee. Headquartered in Oak Brook (an industrial campus on the outskirts of Chicago), Illinois, Cocoa-Sassafras has manufacturing plants, distribution centers and data centers through-out the US, Canada and Mexico. But the real damage was cause to CSC's major distribution center and a data center in the northeast region where the hurricane hit. While the impact to the New Jersey distribution center was contained, the Business Continuity (BC) and Disaster Recovery (DR) managers were requested to evaluate the company's business risks related to potential disasters in their various facilities and the level of preparedness to respond to and recover from these disasters. CSC would like your team to prepare a business case for the Chief Risk Office and BC DR executive steering committee to increase investment in Cocoa-Sassafras's Business Continuity and Disaster Recovery initiatives.

COCOA – SASSAFRAS CORPORATION

Cocoa-Sassafras Corporation (CSC) is a US-based food and beverage company. Their products include: chocolate, candy, snacks, baking products, coffee, fruit drinks and soda. Two years ago, CSC acquired Snack World Inc., a medium-sized food company, whose main products are: potato chips, tortilla chips, dried vegetable chips and seeds. This resulted in a new division within the CSC organization named "Snacks".

In last year's filing, CSC reported $3 billion in revenue. The biggest share of the product revenue came from chocolate and snacks. Please see the chart below for distribution of revenue amongst different divisions. Exhibit one also contains CSC's financial statements for the past three years.

Current Year Revenue (by product line)



Since the acquisition, the company has operated two main data centers; one is located in Illinois, within the same industrial campus as corporate and the second one is located in Philadelphia, PA. The latter is Snack World's original data center, which now also serves as an alternate disaster recovery site for the Illinois data center for CSC. Since the acquisition, CSC maintains two ERP systems: legacy CSC runs on SAP and Snack World operates on JD Edwards. While most corporate modules have been migrated into SAP, JD Edwards still handles the manufacturing and supply chain modules for the Snacks division. The table below is a location chart for CSC's main manufacturing plants and distribution centers:

Manufacturing Plants	Distribution Centers	
Plano, TX Main Snack World plant **Amarillo, TX** Snack World plant	Large Sized	Compton, CA
		Terrell, TX
		Cranbury, NJ
		Ft Pierce, FL
		Vancouver, Canada
Oak Brook, IL CSC chocolate and coffee plant **Deerfield, IL** CSC chocolate and baking products plant	Medium Sized	Aurora, CO
		Eugene, OR
		Oak Brook, IL
		Toronto, Canada
Tulsa, OK CSC soda, drinks and candy plant **Bentonville, AR** CSC soda and drinks plant **Wichita, KS** CSC candy plant	Small Sized	Tucson, AZ
		Boise, ID
		Newbury, MA
		North Platte, NE
		Anderson, SC
		Bessemer, AL
		Saskatoon, Canada
		Mexico City, Mexico
		Monterrey, Mexico
		San Juan, Puerto Rico

BUSINESS CONTINUITY AND DISASTER RECOVERY

In the past, the Business Continuity (BC) and Disaster Recovery (DR) planning had been ad hoc activities performed in silos by the different divisions. Through an audit performed six months ago, the Business Continuity and Disaster Recovery Program was re-initiated and formalized within CSC. The Chief Risk Officer (CRO) was given the accountability for the BC and DR Program. Since his appointment, he has formed a BC DR executive steering committee, with representation from the different business divisions, corporate and IT. This committee provides governance and overall direction to the BC and DR program. In the first committee meeting, the members defined the objectives of the BC and DR program as:

1. Keep employees safe.
2. Keeping CSC products available and on the shelf.
3. Keep critical supplier, employee and client data secure.

As one of their first work orders, the steering committee created a Business Continuity Management (BCM) framework (please see Exhibit One). The framework proposes the lifecycle of a BCM program and has been developed to guide the structure of the overall program.

The CRO hired a BC Director and DR Manager to manage the day-to-day activities of the program. The BCM framework will be leveraged (as applicable) by the BC Director and DR Manager to implement the objectives of the program. Below are three initiatives that the BC Director and DR Manager have completed or started in the past quarter:

1. BUSINESS CONTINUITY PREPAREDNESS

Site risk assessments have been conducted in the larger manufacturing plants and delivery centers. Threats of natural disasters (e.g. tornadoes, snowstorms, etc.) and man-made threats (e.g. proximity to the airport/chemical plant, etc.) in the respective geographic regions have been analyzed.

A Business Impact Analysis (BIA) was conducted three years ago on select business divisions (Chocolate, Coffee and Baking Products). However, a BIA has not been conducted since the acquisition of Snack World. The outdated BIA results identified that highest financial impacts are caused by disruptions to the following areas of the business:

- The delivery of products from the manufacturing plants to the distribution centers, from the distribution centers to the delivery branches, and from the delivery branches to the clients.
- The next highest financial impacts come from disruption to the procurement (of supplies to make the products) and manufacturing of the products themselves.

The BIA also identified which products would have the most negative impact to CSC's brand image if they were not available to the clients and their customers. In addition, the BIA identified their peak season between the months of October and April (starting with the Halloween season through Easter). Through the BIA, the key dependencies in people, process and technology were identified and a recovery prioritization was defined.

From the manufacturing side, the plant managers have defined a BC plan for a number of manufacturing plants to have a split-production recovery strategy should one facility have a disaster. Typically, manufacturing plants have available capacity that enables a plant to ramp up production levels for specific products and absorb another facility's load. For example: the Tulsa plant can absorb the Wichita candy plant's load. There are also plants that manufacture different products but have similar equipment and

ingredients. In this case, one plant's processes can be transported to another plant, with or without some modifications, to enable continuous product manufacturing. For example, the Oakbrook plant, with some modifications to its chocolate production lines, can absorb the Deerfield baking product plant's load.

As a requirement for each facility, facility managers have defined and built pandemic plans. The pandemic plan defines the action plan to address a significant loss of people (due to illness, injury or unforeseen circumstances) for an extended period of time.

2. IT PREPAREDNESS

Currently, the two data centers are not integrated. However, the IT resources working at the two data centers have been cross-trained to support applications and infrastructure in both data centers.

The Philadelphia data center is the primary recovery site for the Illinois data center and the maximum acceptable recovery time for the SAP system is 14 days in the event of a disaster. However, there has not been any testing performed to validate the ability to fully recover the SAP system in 14 days.

Based on the BIA, five days without SAP would result in significant adverse impacts to CSC's revenue. A system downtime of SAP for five days could potentially result in a 10% loss in revenue for CSC. Moreover, this would result in several legal ramifications. Similar sized companies who have not effectively recovered from disasters have been known to be targets of large lawsuits – in some cases class action lawsuits. Apart from all the above, ineffective disaster recovery would tarnish their brand image.

CSC is looking not just to improve recoverability but also to build more resilience into its systems. The BC-DR steering committee is looking into cloud as a means to strengthen Business Continuity and IT Preparedness. Cloud-based solutions will also offer CSC options to integrate the data centers or allow for real-time fail-over capabilities. Currently, the committee has identified the following concerns and considerations with the cloud strategy:

1. Costs vs. value for moving to cloud
2. Hybrid (on premise and cloud) vs. complete cloud approach
3. Required design changes (for example, automation of certain applications) to ensure that cloud solutions can be implemented

3. SUPPLY CHAIN CONSIDERATIONS

CSC is looking to hedge the risks associated with its suppliers and plans to account for potential supply chain failures or disruptions in its business continuity plans. The steering committee would like the new BC Director and DR Manager to be involved in the procurement process.

A majority of CSC's suppliers for its raw ingredients include cocoa and coffee farmers in South America and potato growers in the Midwest. Although hurricanes do not occur in South America, there has been some political unrest in the coffee and cocoa farms that supply to CSC. Worker strikes in Nicaragua, where CSC gets majority of its coffee beans, has led to a 15% decrease in the country's overall coffee production and many farmers abandoned their land and their crops. Meanwhile, CSC also has coffee and cocoa suppliers in Costa Rica, Guatemala and Colombia.

Back in the states, many of CSC's corn supply comes from the western and eastern Corn Belt region of the Midwest. Currently, Midwest farmers face an agricultural production challenge because of the tornadoes that hit the region during the late spring and early summer months. Strong thunderstorms produced large

hail and damaging winds to many crops. The heavy rainfall and localized flooding soaked soils that caused planting delays.

The industry in which CSC operates is highly competitive and every minute that its products are not on the shelves means that CSC is losing market share. In some cases, if CSC leaves the shelf space empty for too long (1-2 days), a store chain may decide to: temporary fill it with other products, permanently fill it with other products or drop the CSC brand altogether.

KEY STAKEHOLDERS

JOHN SMALLING, CHIEF RISK OFFICER

John Smalling is the Chief Risk Officer of Cocoa-Sassafras Corporation. John has overall responsibility for the Legal, Compliance, and Supervision departments of CSC. His responsibilities include design and implementation of processes to identify and mitigate legal, regulatory, and all other risks facing CSC. He has over 20 years of experience in the domain of organizational risk.

John played a significant role in the acquisition of Snack World. He lead a team conducting due diligence of Snack World's IT Controls. This was instrumental in providing support to a different team working with CSC's CFO conducting financial due diligence. Being close to retirement, John believes this will be a significant portion of his legacy at the company.

Prior to joining CSC, John was the Senior Vice President in Corporate Risk at Royal Automotive, a car parts manufacturer with offices nationwide. Before that, he was in Risk Advisory with a Big 4 firm in Detroit, MI. John holds a B.S. in Finance from Arizona State University and M.B.A. and J.D. degrees from the University of Denver.

KATIE PENA, BUSINESS CONTINUITY DIRECTOR

Katie has worked at CSC for a little less than a year. She has been a business continuity practitioner for 7 years. She started her career in consulting as a business continuity management advisor for Fortune 500 companies. During her time in consulting, she assisted clients in the review and enhancement of business continuity management programs, development of Crisis Management plans and facilitation of Business Impact Assessments (BIA). She has also received a Certified Business Continuity Professional (CBCP) certification from the Disaster Recovery Institute International.

Before joining consulting, Katie received an undergraduate degree from Florida State University. She majored in Business Process Management.

JAMES MILLER, DISASTER RECOVERY MANAGER

James has 2 years of experience in Disaster Recovery. Before joining CSC six months ago, he was an Enterprise Architect in another food and beverage company for 10 years. In his previous company, James had the responsibility of developing and testing the disaster recovery plan for the company's ERP system. It was for this kind of experience that John hired him into CSC.

James is a Certified Enterprise Architect (CEA) and Certified Information Security Manager (CISM). He graduated from University of North Carolina with a major in Informatics.

LEARNING THE LESSONS OF THE PAST

The Hurricane impacted operations for almost two days since a number of employees were unable to go to work due to the effects of the storm. This caused the distribution center to operate at 65% efficiency. The pandemic plan was activated and the distribution center was back to normal operations after 40 hours. Based on outdated BIA results, if the New Jersey distribution center had been affected and was out of commission for three days, it would have had a big impact on the CSC market in the Northeast region. Similarly, if the New Jersey distribution center were only 50% operational, the market impact would be evident in 7 days.

On the IT side, the hurricane did not affect the Philadelphia data center. However, it became apparent that, should the Philadelphia data center go down, no provisions would be made to recovery the JD Edwards suite at the Illinois data center. As far as the CIO is concerned, their manufacturing and supply chain logistics for Snack World will remain on JD Edwards for next 12 months, until a full assessment of a possible migration has been completed.

CSC's supply chain for raw ingredients is critical to the firm meeting its targets. Due to political unrest, extreme weather and other regional issues, the suppliers have been facing challenges.

Katie and James have approached you to seek assistance in developing the business case for the CRO to fund BC and DR investments.

YOUR TASK FOR THIS CASE – PRESENTING TEAMS

BUSINESS CASE

You have been invited by Katie, the Business Continuity Director and James, the Disaster Recovery Manager to develop the business case to initiate and fund a series of Business Continuity and Disaster Recovery projects. After the incident surrounding Hurricane Sandy, both Katie and James want to ensure CSC is prepared and has the ability to respond and recover from disasters that may impact the company's operations. When preparing your business case for the CRO and the executive steering committee to approve and fund, please consider the following:

1. What risks did you identify?
2. How would you conduct the BIA (Business Impact Assessment)?
   - What is the approach and methodology you will use?
   - Please consider the CSC team members who will participate in the BIA.
   - Identify the criteria that will be used to analyze the impacts of a disruption to CSC's business.
3. What potential recovery options would you present to reduce the impacts of a disruption and ensure recoverability of manufacturing plants and delivery centers? Be sure to propose realistic RPOs and RTOs.
4. What resiliency options would you present for the data centers and the ERP systems?
5. What solutions would you recommend to mitigate supply chain risks associated with coffee and cocoa farmers in South America and potato farmers in the Midwest?
6. How would you use the results of the site risk assessment and BIA, along with the available recovery options, to mitigate the risks and improve resilience with limited funds available for Business Continuity and Disaster Recovery?
7. How would you ensure that the IT and resource capabilities can support the solutions provided above?

When preparing the case, please ensure that the solution(s) you propose tie in with the risks and impact assessment criteria identified. You will be presenting to John, Katie and James. Please ensure that you carefully consider their roles and account for their backgrounds while framing your presentation.

You have been asked for a lot of detailed information to solve this case. The trick will be to package this up into a digestible executive presentation your audience can understand. Detailed supporting information can be included in an exhibit in the appendix of your presentation.

Your case study solution should also include:

- Citation of key sources in the form of end notes cited in your appendix.
- Application of standards and leading practices that help to inform your solution.

A few tips and tricks for solving this case:

- Feel free to make assumptions that support your conclusions. Be sure to state your assumptions in an exhibit in your appendix. Your assumptions should not significantly alter the facts of the case; rather, they should support the recommendations by filling in the missing pieces of information in the case.
- You should NOT simply copy/paste from COBIT or any of the other standards. The key is to use the standards to help you solve the case. Remember: standards are NEVER the answer on their own; they must be applied to the business problem.

YOUR TASK FOR THIS CASE – ALL OTHER TEAMS

CASE STUDY EXECUTIVE BRIEFING

With the volatile environmental conditions surrounding CSC's data centers, Katie Pena (Business Continuity Director) and James Miller (Disaster Recovery Manager) is expected to present a one-slider to the members of the Executive Committee (i.e.: C-suite) to promote discussion / insights around the planned business continuity and disaster recovery approaches. Your task is to provide Katie and James with a single slide depicting the following:

- The key benefits of business continuity and disaster recovery approaches for protecting CSC's data centers.
- Some anticipated challenges that maybe faced when managing and sustaining business continuity and disaster recovery.

APPENDIX

EXHIBIT ONE: COCA-SASSAFRAS PROPOSED BC-DR PROGRAM LIFECYCLE

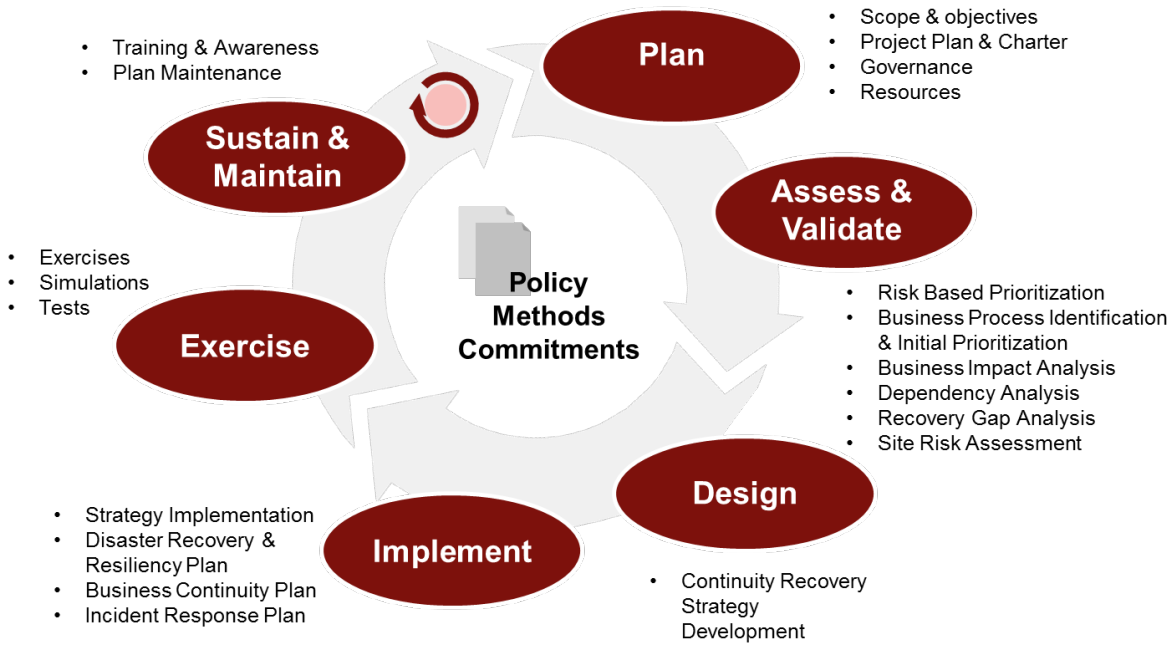


EXHIBIT TWO: COCOA-SASSAFRAS FINANCIAL STATEMENTS

THREE YEAR SUMMARY OF SELECTED FINANCIAL DATA (in thousands, except per share data and other information)	Current Year	Last Year	The Year Before
Statements of Operations Data:			
Net sales	$4,135,801	$2,853,238	$2,690,361
Gross profit	761,859	548,275	509,426
Restructuring and other charges, net	-924	-63,977	78
Gain (loss) on divestiture		242	-7,223
Income from operations	117,542	39,215	105,837
Interest expense, net	-38,306	-33,275	-33,940
Income before income taxes and cumulative effect of changes in accounting principles	87,094	9,848	74,824
(Provision) benefit for income taxes	-12,286	-1,857	-18,001
Income before cumulative effect of changes in accounting principles	74,808	7,991	56,823
Net income (loss)	74,808	-2,799	-68,782
Basic earnings (loss) per share (a)(c):			
Income before cumulative effect of changes in accounting principles	1.82	0.20	1.44
Net income (loss)	1.82	0.07	(1.75)
Diluted earnings (loss) per share: Income before cumulative effect of changes in accounting principles	1.79	0.20	1.43
Net income (loss)	$1.79	$(0.07)	$(1.73)
Weighted average common shares and common equivalents outstanding:			
Basic	37,663	27,779	27,546
Diluted	38,168	28,144	27,839
Cash dividends per share	$0.73	$0.42	$0.42
Capital expenditures	75,832	59,293	48,693
Depreciation and amortization of property, plant, and equipment	68,818	48,993	43,517
Amortization of deferred charges, intangibles, and goodwill	4,163	2,776	1,938
Balance Sheet Data:			
Working capital	368,460	247,923	292,315
Total assets	2,760,551	1,910,876	1,792,642
Long-term debt	500,195	407,419	432,757
Stockholders' equity	$805,917	$543,480	$477,970
Other information:			
Employees	21,274	15,610	15,960
Backlog (in thousands)	$1,072,171	$718,615	$649,949
Total debt as a percent of total capital	35%	31%	34%
Current ratio	1.22	0.95	1.03
Book value per share	$19.30	$13.31	$12.05

EXHIBIT THREE: COCOA-SASSAFRAS SEGMENT ANALYSIS

Segment analysis (in thousands)	Current Year	Last Year	Dollar Change
Net sales:			
USA	$2,813,644	$1,333,358	$1,480,286
Canada	1,558,404	$1,342,565	215,839
Central America	428,159	294,038	85,114
Intragroup sales	-164,406	-116,722	-28,230
Total	4,135,801	2,853,238	1,282,563
Income from operations:			
USA	$35,271	$32,913	$(3,128)
Canada	32,960	26,815	1,676
Central America	48,759	41,780	15
Total	116,990	101,508	(1,436)