Allied Academies International Conference

> Tunica, MS April 2-4, 2008

International Academy for Case Studies

PROCEEDINGS

Volume 15, Number 1

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OPTIMIZING THE ADVERTISING BUDGET FOR A REGIONAL BUSINESS: THE CASE OF CYCLE WORLD

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CASE DESCRIPTION

The primary goal of this case is for you to learn how a media planning consultant can optimize the effectiveness of a client's magazine marketing campaign budget. Other objectives include: (1) showing the usefulness of Excel and (2) recognizing that some solutions are better than others. This case has a difficulty level of 2-4. This case requires you to have some Excel experience and it can be taught in an Excel spreadsheet course to help better illustrate the usefulness of skills students are learning (difficulty level=2), or it can be taught in a marketing management course to illustrate the value of media planning consultants add to their clients (difficulty level=3-4). This case is also appropriate for M.B.A. students who are taking a pre-requisite course in statistics, spreadsheets, or marketing. This case is designed to be taught in two to three session of one-hour fifteen minutes at the undergraduate level. You are expected to spend 6-8 hours of out-of-class time working on the case.

OKLAHOMA ENVIROSERV SPECIALISTS LLC: A CASE FOR ENVIRONMENTALLY FRIENDLY ETHICAL GROWTH

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ABSTRACT

Oklahoma EnviroServ Specialists LLC was formed on June 18, 2004 in order to sell Citrisafe products and perform home fogging using LV14 Botanical Treatment Product (U.S. Patent Application #20050238587). Oklahoma EnviroServ LLC is established as a LLC with the state of Oklahoma and is doing business as Oklahoma Natural Environmental Specialists (ONES). ONES is a small business dedicated to finding a safe and natural solution for homes and businesses inflicted with mold. Many modern day problems with mold began when new construction started to seal up homes after the 1973 Arab Oil Embargo to conserve energy. By making structures energy efficient, it also sealed in mold and the mycotoxins it produces. Recent studies by major researchers have shown that mold can be a contributing factor to many health problems and people who are sensitive to mold can also be sensitive to the types of chemicals used by some remediation companies. ONES is able to successfully treat mold spores with the use of the natural, chemical-free LV14 Botanical Product. LV14 is non-toxic and can safely bio-balance the environment. The unofficial company motto is, "If you can't drink it, don't spray it."

This case study examines the operation of ONES and makes recommendations as to how the organization can increase both its revenues and its net income. The organizations gross sales are currently at approximately a quarter of a million dollars a year with a net income of \$64,000 and a gross profit of \$223,000. It is estimated that ONES should be able to grown at a rate of at least 35% a year for the next five years with a rate of over 50% possible for the next three years if so desired.

SOUTHWEST AIRLINES 2007

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CASE DESCRIPTION

The primary subject matter of this case concerns Southwest Airlines. A secondary issue concerns the appropriateness of modifying a Generic Strategy that has lead to thirty five years of uninterrupted growth and profitability. The case has a difficulty level of four (senior-level undergraduates). The case is designed to be taught in one fifty minute class period and is expected to require about two hours of outside preparation by students.

CASE SYNOPSIS

Southwest Airlines has long been cited in Business Strategy classes as an exemplar of Porter's Low Cost Leadership strategy. Through fiscal year 2006, they have enjoyed thirty five years of uninterrupted profitability. In 2007, they began considering several fundamental changes in their long-term business model to address the realities of increased competition, rapidly-escalating fuel costs and the threats of world-wide terrorism.

New competition – particularly JetBlue and ATA have modeled their operations on the original "Southwest model." Interestingly, David Neeleman –founder of JetBlue in 2001-- was a former southwest Airlines executive and Michael O'Leary – CEO of Ryanair (Dublin, Ireland) –spent several weeks in 1991 at Southwest Airlines headquarters in Dallas, Texas learning the Southwest model. Ryanair is the lowest cost major airline in Europe at this time.

Fuel prices – the second largest component of operating cost for airlines—has increased dramatically (about 50%) in the last three years. As a result, airline profits in 2008 will be lower than originally forecast in early 2007.

The most common complaint about Southwest Airlines has been its boarding policy. For many years, passengers were assigned to groups of thirty with those arriving early at the gate getting into the first group of thirty and, thus, the first choice of seats. In 2007, Southwest began two experiments in seating – the first in San Diego—with assigned seats and later a differential pricing scheme whereby those willing to pay \$50 more per ticket were allowed to board first.

Southwest is also considering the possibility of extending its route map to include large cities in Canada, Mexico and the Caribbean. An additional consideration is the possibility of buying smaller regional jets to serve smaller markets in the United States.

THE PLAZA

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CASE DESCRIPTION

The primary subject matter of this case concerns the acquisition (investment) decision of a Real Estate Investment Trust (REIT). The case has a difficulty level of four, appropriate for senior level, or five, appropriate for first year graduate level. The case is designed to be taught in a two eighty minute class sessions with approximately 2 hours of outside preparation by students.

CASE SYNOPSIS

You are a member of the investment committee and serve as an outside director on the board of City View Office, a publicly traded Real Estate Investment Trust (REIT) with a focus on commercial office properties. Management's acquisition team has just submitted a package for your approval that will solidify their offer on The Plaza, a beautiful six story Class A property in the Energy Corridor of Houston, Texas.

REAL ESTATE INVESTMENT TRUSTS (REITs)

The purpose of Real Estate Investment Trusts is to provide small investors with the ability to invest in a capital intensive sector of the economy – real estate. To that end, REITs pay no corporate income taxes as long as they distribute 90% of their otherwise taxable earnings to its shareholders on an annual basis. This tax advantage is offset by the fact that REITs have very little in the way of retained earnings to fund growth internally. REITs must frequently access external capital to make up this shortfall.

REITs own a variety of property types – apartments, industrial, retail, timber, office properties and others. As of December 31, 2006, there were approximately 170 publicly traded REITs on U.S. stock exchanges with assets valued at more than \$350 billion. Office properties comprise approximately 17% of the total value of assets owned by REITs. Along with apartments, office is the largest property type in which REITs are invested (National Association of Real Estate Investment Trusts, 2007).

CITY VIEW OFFICE PROPERTIES

City View Office has been taking it on the chin since 2002. Falling occupancy and rental rates nationwide, along with rising insurance and electricity costs, have resulted in an ability to cover the dividend for the past three years. Hot money has also entered every major real estate market in the country – making the acquisition of assets more difficult with the high cost of capital of a public corporation. Fortunately City View Office has just closed on a joint venture with a large

public employee pension fund that will allow them to pursue investment opportunities with lower yields. Additional yield for City View will come from management and leasing fees associated with their realty service subsidiary. Table 1 summarizes City View's current purchasing criteria.

	Table 1 City View Office Properties' Published A	cquisition Criteria	
Size:	100,000 to 1,500,000 square feet, multi-story (250,000 for new markets)		
Quality:	Class A, A- or B+		
Leasing:	70% to 100% Leased to Quality Credit Tena	nts	
Yield:	7.0% Capitalization Rate – Unleveraged IRF	R of 8.0%	
Ownership:	100% fee simple		
Parking:	Parking must adequately accommodate market and building code requirements as well as service the building at 100% occupancy.		
Replacement Cost:	Current replacement cost cannot exceed the purchase price. Replacement cost is the total development cost to recreate the property – and its economics – in today's dollars.		
Tenants:	Preference for buildings with a major tenant (30% or more of the total rentable square feet) with at least 5 years remaining on lease.		
Debt:	Purchases are conducted in all cash.		
Markets:	New York	Chicago	
	Boston	San Francisco	
	Houston	Los Angeles	
	Atlanta	Phoenix	
Disclaimer:	At its sole discretion, City View has deviated	d and may deviate from its published criteria.	

HOUSTON OFFICE MARKET

Houston has been a bright spot in an otherwise dismal climate of economic expectations. Both occupancy and rental rates are on the rebound – as evidenced by the pace of construction in a majority of the submarkets. And, despite the recessionary overtones heard nationwide as a result of the housing market, the heavy energy presence in Houston has somewhat insulated the commercial office market from the current economic downturn. Oil prices continue to climb, and that is good news for Houston. City would love to own more property in a market where expansion is actually occurring. Table 2 summarizes the current state of both the Houston Energy Corridor submarket and the overall Houston market.

Table 2: Class "A" Office Market				
Market Metric	Energy Corridor	Total Houston Market		
Size	5,917,994 square feet	58,145,642 square feet		
Vacancy	0.057	0.155		
Average Rental Rate	22.68	20.67		

Proceedings of the International Academy for Case Studies, Volume 15, Number 1

The Energy Corridor has long been known as home of many of the top players in the energy industry. In close proximity to The Plaza, British Petroleum, Exxon Mobil, Conoco Phillips, Shell Oil, Citgo, Halliburton, Schlumberger and Aker Maritime all lease substantial amounts of office space. Since oil and gas are the revenue generators for these firms, rental rates for the Energy Corridor are closely tied to oil and gas prices. When oil prices are high, these firms expand their operations and need additional office space. Historical rental rates for the Energy Corridor are provided in table 3.

Table 3 Historical Rental Rates in the Energy Corridor				
Year	Class "A" Rental Rate			
1998	\$25.00			
1999	\$22.90			
2000	\$20.50			
2001	\$24.23			
2002	\$21.81			
2003	\$21.79			
2004	\$21.84			
2005	\$22.68			

THE PLAZA

The Plaza is a 150,000 square foot, six story, Class A office building located within the Energy Corridor of Houston, Texas. It is 100% leased to four quality credit tenants, the largest of which (AAA Oil) occupies almost 75% of the building. The existing tenant base has a weighted average gross rental rate of \$20.29 and a remaining lease term of 44 months. Baring an unforeseen catastrophe, the initial yield of the investment seems solid. The property is located on a 5.3 acres site, and a 596 space parking garage services the building (approximately a 4 spaces to every 1000 square feet). The building and garage were completed in 1999, so no substantial capital expenditures are projected in the near future. The current quoted gross rental rate is \$23.00 per foot, and the seller is offering the property on a 100% fee simple basis.

The typical floor plan of the property is approximately 25,000 square feet, and each floor is serviced by three Dover geared passenger elevators. An additional service elevator is located at a loading dock, and two hydraulic elevators service the 4 level garage structure. Construction consists of a cast-in-place reinforced concrete slab at grade. The superstructure is comprised of reinforced cast-in-place concrete framing which includes columns, shear walls, elevated concrete floor slabs and roof slabs. Exterior walls are precast panels with fixed aluminum framed insulated glass windows. The roof is constructed of multi-ply bituminous built-up roofing membrane over the concrete deck and is toped with aggregate. Two 269 ton Trane rotary liquid chilled water units

provide air conditioning to the building, and all systems are controlled by a Johnson Controls energy management system. The building uses pneumatic thermostats. The property is well lit on the exterior, and a superior life safety system is in place for fire and other contingencies.

FINANCIAL PROJECTIONS AND MARKET ASSUMPTIONS

The income statement of table 4 summarizes the pro-forma financials that have been presented to the investment committee.

Table 4 Pro Forma Income Statement (in Thousands)						
	2006	2007	2008	2009	2010	
Revenue	\$4,303,513	\$4,332,476	\$4,422,712	\$4,055,226	\$5,325,320	
Operating Expenses	\$1,710,431	\$1,806,537	\$1,859,941	\$1,905,734	\$1,985,875	
Net Operating Income	\$2,593,082	\$2,525,939	\$2,562,771	\$2,149,492	\$3,339,445	
Tenant Improvements	\$0	\$140,510	\$108,818	\$952,007	\$0	
Leasing Commissions	\$0	\$134,002	\$104,954	\$1,046,917	\$0	
Capital Reserves	\$14,965	\$15,414	\$15,877	\$16,353	\$16,844	
Net Cash Flow	\$2,578,117	\$2,236,013	\$2,333,122	\$134,215	\$3,322,601	

REFERENCES

National Association of Real Estate Investment Trusts. (2007). Frequently Asked Questions About REITs: Answers to fundamental questions about REITs. Washington, D.C.

CULE CAMP ON-LINE: ETHICALLY EDUCATING STUDENTS TO BE ENTREPRENEURS AND LEADERS

Sylvia Burgess, Cameron University Cynthia A. Johnson, Cameron University Shawn M. Carraher, Cameron University John Courington, Cameron University

ABSTRACT

The first "C.U.L.E. Camp" was held at Lawton Christian School in January 2004. Since then over 500 students have participated in the Cameron University Leader's and Entrepreneurs camps. They focus on how Primary and Secondary students learn about Entrepreneurship. Burgess developed the concept of a one day camp to teach elementary and secondary students the concepts of entrepreneurship and ethical leadership. The camps were organized to provide competitive opportunities for youth to elect and develop leadership within a small group, brainstorm to "discover" new product ideas, develop business plans and marketing plans for the new products, create marketing "brands" for the products, write and tape record short TV commercials, and present formal summaries of their products.

This case study follows the development of the idea of entrepreneurship and leadership training from face-to-face interactions to Internet based education. It is found that while students can formally learn as much through the Internet-based program that it is more demanding for the professors involved. This case is designed for use when teaching faculty how to teach on-line and takes readers through the process of designing experiential exercises that can be used in an on-line environment. Experiences are also drawn from more than 40 on-line courses.

WHEN DOES COMMUNICATION BECOME MISCOMMUNICATION?

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CASE DESCRIPTION

The subject of this case is managerial communication. The case has a difficulty level of three or four. The case can be taught in a one-hour class period and requires only that the students have read it prior to class or during the first few minutes of the class.

CASE SYNOPSIS

The strength of this case is its simplicity. It should be popular with students because it poses communication problems that really did happen. It should be useful for instructors because it can easily be tied to the essential elements most usually covered in chapters on communication in Principles of Management textbooks.

INTRODUCTION

This case will attempt to have the student answer the following questions:

1. Does one mean one at a time or does it mean number one?

2. Which is cheaper, a long distance phone call, or Easter pay and private transportation?

3. Was the product too tall or the back dock roof too short?

4. Will a large volume fit in a small one?

Students should become aware of at least two examples of miscommunication among management and workers. They should be able to offer suggestions as to how these problems should have been avoided.

BACKGROUND

TD Company is a small refrigeration manufacturing business located in West Tennessee. It has approximately 125 hourly employees and does about \$4.3 million in sales yearly. It was started 40 years ago by an individual and continues to be privately owned. Manufacturing units are located in West Tennessee, Canada, England, and Australia. The home office is located in Hudson, New York. Salespeople in the field or the home office do most of the bidding on contracts. This case pertains to the plant facility located in West Tennessee.

The plant in West Tennessee manufactures both reach-in and walk-in refrigerators. These are made from both aluminum and stainless steel. The insulation is mostly from two chemicals that when mixed together forms a rigid material that provides stability and cooling for the product. These chemicals should only be mixed together when they are being used in the manufacturing process. Improper use could result in scrap material and possible breathing hazards if the mixture were to catch on fire. These two chemicals are an isocynate (A Foam) and resin (B Foam). A Foam has a reddish-brown color that resembles molasses. B Foam is more of a dark brown color. These chemicals are shipped every 5 to 6 weeks by a company located in Michigan that uses an independent carrier. The drivers of these containers are different with each shipment and they do not have knowledge of the chemicals they are hauling. A truck pulling a cylinder with three separate compartments labeled 1, 2, and 3 delivers shipments. The chemicals are stored in a separate building that is attached to the main manufacturing facility. On foam day the maintenance and quality managers are responsible for working with the truck driver to unload the two chemicals. The quality manager's primary responsibility is to take samples from each container on the truck and conduct sample tests to check for viscosity, tack time, and density. The maintenance manager along with the truck driver begins the unloading process by hooking up hoses to two of the cylinders on the truck. These hoses are then run through a window in the foam building and attached to the two storage tanks within. An air hose is attached to the top of the truck though a device called a "Christmas tree". This tree is a small cross-like device used to insure that the cylinders do not become over pressurized. Once a container has sufficient pressure, the chemical is literally blown off the truck, through the hoses, into the storage tanks within the building. Shipping is done almost entirely through commercial transportation companies. On rare occasions, local individuals are used for expediting late deliveries.

SCENARIO ONE

One late day in November, the foam truck arrived at the plant to be unloaded. John, the maintenance manager began helping Tom the truck driver get the hoses off the truck. While they were doing this, Bill, the quality manager began taking samples from each compartment on the truck. While Bill was conducting the tests, John carried the bill of lading to the front office so they could begin processing payment. When John returned, Bill had finished his analysis and said that the shipment was good to accept quality wise. John then told Tom that if he had two "Christmas trees", they could pressurize two compartments at the same time and blow off both chemicals at once. Tom said that he had only brought one "Christmas tree". Therefore, John said, "We'll just do one at a time." He then began to hook the hose on the inside of the building to the "A Foam" storage tank, which happened to be the first tank. While he was doing this, Tom was hooking his hose up to compartment one, which contained "B Foam". With compartment one of the cylinder fully pressurized, John turned the lever that allowed the chemical from the truck to flow into compartment one. Suddenly John's and Bill's faces turned ghost white. Something had gone wrong.

Does one mean "one at a time or does it mean number one"?

SCENARIO TWO

As always, production of the refrigerator for a special project in Texas was behind schedule. In fact it was so far behind, that the plant manager was trying to decide if working on Easter Sunday would be worth the effort to get the product completed at least close to the scheduled date. A local independent contractor was willing to deliver the refrigerator by private truck to the construction site in Texas. The production control manager had called the salesperson in Texas and was urged to do everything possible to ship the refrigerator as close to the due date as possible. The production of the refrigerator was completed on Saturday afternoon. At which time quality control tests were started. These tests required several hours to complete, therefore testing personnel were asked to work on Easter Sunday. This would allow the refrigerator to be crated first thing Monday morning and transported to Texas, an approximately 12-hour drive. Everything went as planned and the independent contractor left Monday morning on his way to Texas.

Two days later when the owner of the private truck returned, he had this story to tell. He had gotten to the construction site, a shopping mall, late that night. He had to stay over until the next day to get help in unloading the refrigerator. Early the next morning, the construction supervisor, said he did not really need the refrigerator, but that it could be stored until needed. You see as most mall construction projects go, this one was no exception. It was behind schedule.

Which is cheaper, a long-distance phone call, or Easter pay and private transportation?

SCENARIO THREE

Frank, a member of the engineering department had just finished the design specs for a new Walk-In refrigerator. Walk-Ins were much larger than the standard commercial refrigerator and some could actually accommodate a large truck. This particular walk-in had been designed for an oil drilling rig off the coast of Louisiana. It was small compared to most walk-ins, but it had to be mounted on a special wooden frame, rather than packaged in corrugated cartons. The walk-in and its frame were to be transported by truck to the coast where it would be taken out to the oil rig by boat. The walk-in was completed on time and taken to the back dock as the truck was arriving to pick it up along with other refrigerators. However, a problem was observed as the walk-in reached the back dock. The roof sloped down too far and at an angle that made it impossible for a forklift to load it on the truck. In fact without the forklift, it was still too high to be loaded on the truck. This predicament reminded the shipping supervisor of the old story about the boat being built in a basement with no way of getting it outside. However, in this particular case, the solution was a simple one; notch a hole in the roof.

Was the product too tall or the back dock roof too short?

SCENARIO FOUR

The refrigerator order had been in the home office for two weeks. It was a large shipment of 95 refrigerators that would be going overseas and require special overseas shipping containers.

These containers measure 8' x 8' x 20' for a total volume of 1248 cubic feet. The bid had included costs for using the overseas containers as well as the cost of the refrigerators.

Arnold, the home office individual responsible for the bid calculated that a total of seven containers would be needed for this shipment. He arrived at this number by taking the size of the refrigerators, $3.5' \times 3.5' \times 7'$, to get an individual volume of 85.75 cubic feet. This number was divided into the container volume of 1248 cubic feet to come to the conclusion that 14.5 or 14 refrigerators could be shipped per container. Since the order was for 95 refrigerators, he calculated that 6.8 or 7 containers would be sufficient for the shipment.

As the refrigerators were being built and put in the containers, the number of refrigerators stayed at 95, but the number of containers increased to 22. Since they were going overseas, the refrigerators required special bracing for the trip by rail to the docks and additional bracing for the trip by ship to their final destination. They could not be stacked on top of each other. Also, the extra bracing took up much needed space that could have been used for additional refrigerators.

Will a large volume fit in a small one?

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CASE DESCRIPTION

The primary subject matter of this case concerns human resource management, workplace violence, and organizational politics. The case can be used to explore the intricacies of developing a HR workplace violence policy and getting that policy adopted by upper administration. Students are asked to develop a written workplace violence prevention policy. Developing such a policy requires them to research the elements which should be included in such a policy, to develop a plan of action to implement the workplace violence policy, to identify the critical issues of risk/liability to the company's officials, management's responsibility and legal liability for maintaining a safe work environment, and how to get senior management to "buy off" on the plan. The case has a difficulty level of three. The case can be presented and discussed in two to four class periods depending on the number of issues considered. Students can be expected to spend about 10 hours of outside preparation to be fully prepared to complete the case.

CASE SYNOPSIS

Digital Logistics Systems (DLS), as is true of many companies, never considered the possibility of workplace violence. However, a near fist fight in the Advertising/ Promotions department brought the issue firmly to the attention of Tom Ross, the department manager. By chance, the incident was overheard by Sarah Davis, the HR manager. Ross and Davis meet over the issue, where it is agreed that Ross will handle the disciplinary action for the employees while Davis will develop a workplace violence prevention plan. Davis recognizes that not only will she need to develop the plan, and develop a program to implement it, perhaps her biggest task will be in convincing upper management of the necessity of adopting the plan.

THE UNTHINKABLE OCCURS IN PLEASANTVILLE: WORKPLACE VIOLENCE HITS HOME

"That was unbelievable" Tom Ross muttered to himself as he collapsed into his office chair. Ross is the Advertising/Promotions Department manager of a regional branch of Digital Logistics Systems (DLS), an information technology company. It is 5:45 p.m. and Tom had just returned to his office following a volatile department meeting in which had he not intervened, a fist fight would have occurred. Tom was astonished by the events which had just occurred. He knew that Pleasantville, a town of 25,000 was always perceived as a safe place. The possibility of workplace violence was never considered as something which might occur here. As Tom reflected, he remembered that he would shake his head at news reports of workers who had gone "postal" in the actions by workers. However, he also remembered feeling that such acts would occur someplace else. He NEVER imagined that such actions could take place in Pleasantville.

Given the new reality of the possibility of workplace violence at Digital Logistics Systems, Tom turned to his computer to get some information. He was stunned when a Google search for the term "workplace violence" returned 2,670,000 entries. Clicking on one of the early links, he was taken to a 2004 *USA Today* article (Armour, 2004, July, 19) which reported "In an average week in U.S. workplaces, one employee is killed and at least 25 are seriously injured in violent assaults by current or former co-workers." This first line of the article astounded Tom. While he remembered hearing reports of shootings at various worksites, he had no idea that such incidents were so common. Yet another click took him to a website which contained a bibliography on the prevention of workplace violence which listed well over 100 articles on the topic (Evans & Zarda, 2008). Tom was stunned at the amount of information about the topic and at the list of resources dedicated to the prevention of workplace violence.

After looking at a number of other websites, Tom turned from his computer in order to sit and contemplate. After a few moments of quiet reflection, it became clear to Tom that if a near fist fight could occur here, then certainly there was the potential for even graver events occurring. Tom knew that he needed to act but was uncertain as to what to do. Just then he noticed that his voice mail light was blinking. The message was from Sarah Davis, head of the HR department, who wanted to see Tom the first thing in the morning to discuss the incident. It seems that Sarah had been leaving the building when she just happened to walk by the open door of the conference room as the commotion was taking place. The message left Tom feeling apprehensive about the meeting.

What Tom didn't realize was that Sarah was just as apprehensive about the meeting. Sarah knew that some action had to be taken regarding the employee's behavior. But she also realized that she had to walk a thin line between preempting Tom's authority over his department while at the same time fulfilling her duties as the HR manager.

The meeting the next morning began by Sarah describing to Tom the situation as she saw it. Sarah said that there were two issues on the table: 1) what to do about the employee's and their inappropriate workplace behavior, and 2, on a broader level, the need to develop a workplace behavior / violence prevention policy. Sarah continued, in her view, the issue of the specific behavior of the employees was Tom's responsibility, while developing and securing the approval of a policy was her responsibility. Tom, feeling relieved that the department was still seen as his responsibility, was still unclear as to what should be done about the employees, but voiced his agreement with Sarah. He also expressed his appreciation for her professional attitude. Sarah, in responding, sensing Tom's uncertainty about what action to take regarding the employees, suggested that while she felt that Tom should deal with the issue, that at a minimum, there should be a formal disciplinary letter added to both employee's files stating that such behavior was not acceptable and that any future occurrences of such behavior would result in more serious disciplinary action. Tom agreed and again thanked Sarah for her suggestion. Sarah said that she might need to call on Tom in her efforts to get the policy adopted.

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Sarah knew that her principle tasks would be in determining:

- 1. How to develop a work place violence prevention plan? What would such a plan look like and could it actually prevent violence from occurring?
- 2. How do I convince upper administration to adopt a workplace violence prevention policy?
- 3. How do I develop a plan of action for implementation of a workplace violence prevention policy?

Sarah knew that her superiors held the same naïve view that she, until a few hours ago shared, workplace violence is something which occurs elsewhere, not in Pleasantville and CERTAINLY not at DLS. Sarah knew that it would take considerable persuasion to convince her bosses that a plan needed to be developed. In considering the prospects of building her argument, Sarah went to the Bureau of Labor Statistics website for information. There she found information about the types of workplaces which experienced workplace violence and the effects of such violence on issues which could affect the company's bottom line.

Industry	Total establishments with an	Type of Effect					
	incident of workplace violence	Absenteeism	Health insurance premiums	Turnover	Fear levels	Productivity	Morale
Service Providing	305,020	7.8	3.3	5.7	22.2	8.2	19.8
Transportation & Warehousing	8,800	13.6	Na	12.2	31.8	2.8	15.7
Utilities	1,870	9.6	Na	Na	60.4	17.1	16.6
Information	8,230	1.2	Na	.4	5.1	28.1	30.0
Finance & Insurance	19,260	1.2	Na	.2	20.9	1.5	4.8
Real estate	8,460	6.0	Na	8.5	7.1	6.4	7.6
Leisure & hospitality	54,840	1.7	Na	4.8	15.0	8.3	24.1
Accommodation & food services	50,530	1.8	Na	5.0	15.0	8.9	25.1

Sarah also felt that she could bolster her argument by looking into the company's legal responsibility with respect to workplace violence. She would need to determine whether any legal liability falls upon the company officials i.e., senior management.

Sarah knew that she faced a significant amount of work to not only craft a workplace violence prevention policy, but also to convince senior management of its importance to the company. As she reflected on the week's events, she could not help but feel somewhat sad that things would never be the same in the company or in the small town of Pleasantville.

REFERENCES

- Armour, S. (2004, July 19). Managers not prepared for workplace violence. USA TODAY. Retrieved February 6, 2008 from http://www.usatoday.com/money/workplace/2004-07-15workplace-violence2_x.htm.
- Bureau of Labor Statistics, U. S. Department of Labor, (2005) Retrieved October 21, 2007 from http://www.bls.gov.
- Evans, K., & Zarda. M. (Eds.). (2008). Prevention and Early Resolution of Workplace Conflict: Bibliography. Mediation Training Institute International. Retrieved February 6, 2008 from http://www.mediationworks.com/mti/certconf/bib-violence.htm.

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CASE DESCRIPTION

The primary subject matter of this case concerns the difference between cash and accounting profits and the problems a company can encounter if profits and cash are assumed to be the same. Secondary issues examined include the preparation and interpretation of the statement of cash flows, fundamentals of working capital management, and financial statement analysis. The case requires students to have an introductory knowledge of accounting, finance and general business issues thus the case has a difficulty level of three (junior level) or higher. The case is designed to be taught in one class session of approximately 1.25 hours and is expected to require 3-4 hours of preparation time from the students.

CASE SYNOPSIS

The case tells the story of Ann Stewart, President and primary owner of Cape Chemical. By almost all measure, the performance of Cape Chemical has been very good over the last three years. Double-digit sales growth has been achieved, new product lines have been added and profits have more than tripled. But despite this apparent success, cash flow has been a problem. It has been a struggle for Stewart to maintain sufficient cash to pay obligations in a timely manner. The company reached its bank-borrowing limit at the end of last year, but Williams successfully negotiated an additional \$3,000,000 in long-term borrowings using fixed assets as security. The additional \$3,000,000 was used during the year just ended as well as an extra \$1,000,000 provided by a working capital loan extended by the bank. The bank has refused to grant additional loans until the debt ratio can be lowered to below 50% and the times interest earned ratio increased to above four.

BACKGROUND

Cape Chemical is a relatively new regional distributor of liquid and dry chemicals, headquartered in Cape Girardeau, Missouri. The company, founded by Ann Stewart, has been serving southeast Missouri, southern Illinois, northeast Arkansas, western Kentucky and northwest Tennessee for five years and has developed a reputation as a reliable supplier of industrial chemicals. Stewart's previous business experience provided her with a solid understanding of the chemical industry and the distribution process. As a general manager for a chemical manufacturer, Stewart had profit and loss (P&L) responsibility, but until beginning Cape Chemical, she had limited exposure to company accounting and finance decisions.

The company reported small losses during its early years of operation, but performance in recent years has been very good. Sales have grown at double-digit rates, new product lines have

been added and profits have more than tripled. The growth has required the acquisition of additional land, equipment, expansion of storage capacity and more than tripling the size of the work force. Stewart has proven to be an expert marketer, and Cape Chemical has developed a reputation with its customers of providing quality products and superior service at competitive prices.

At the insistence of Stewart, the company has promoted "next day delivery" since its inception. This requires Cape Chemical to carry a large number of products and large quantities of each item. As Cape Chemical has added new product lines, more and more dollars have been invested in inventory. Other chemical distributors can seldom provide "next day delivery" service because they don't stock the number of products and the quantity of each carried by Cape Chemical. Not surprisingly, "next day delivery" has proven very popular with its customers and has allowed Cape Chemical to capture a large market share. The sales force is also a strong supporter of the service, but because inventory shortages occasionally cause sales to be missed, they are constantly arguing for even greater amounts of inventory to be maintained by the company. Stewart has tended to agree with the sales force and has over the years instructed the purchasing department to err on the side of carrying too much rather than too little inventory.

Stewart has also used a liberal credit policy to stimulate sales, and that also has been a contributing factor to the double-digit sales growth. Credit terms offered by its main competitors are net 30 days, which conforms to general industry practices. Cape Chemical also sells using net 30 day terms, but Stewart has encouraged the firm's credit manager to take a "soft approach" when collecting past due accounts. As a result, the credit department has been slow to press past due accounts for payment. The relaxed collection effort has proven to be popular with both customers and the sales force but has resulted in a increasing number of customers paying late. To further increase sales, Stewart suggested credit standards be lowered so that more customers can qualify for credit. The credit standards were lowered two years ago and again at the beginning of the year just ended. The bad debt losses experienced by the firm have not changed significantly with the less restrictive credit standards.

CHEMICAL DISTRIBUTION

A chemical distributor is a wholesaler. Operations may vary but a typical distributor purchases chemicals in large quantities (bulk - barge, rail or truckloads) from a number of manufacturers. They store bulk chemicals in "tank farms", a number of tanks located in an area surrounded by dikes. The tanks can receive and ship materials from all modes of transportation. Packaged chemicals are stored in a warehouse. Other distributor activities include blending, repackaging, and shipping in smaller quantities (less than truckload, tote tanks, 55-gallon drums, and other smaller package sizes) to meet the needs of a variety of industrial users. In addition to the tank farm and warehouse, a distributor needs access to specialized delivery equipment (specialized truck transports, and tank rail cars) to meet the handling requirements of different chemicals. A distributor adds value by supplying its customers with the chemicals they need, in the quantities they desire, when they need them. This requires maintaining a sizable inventory and operating Distributors usually operate on very thin profit margins. RMA Annual Statement efficiently. Studies, indicates "profit before taxes as a percentage of sales" for Wholesalers - Chemicals and Allied Products, (Standard Industrial Code number 5169) is usually in the 3.0% range. In addition

to operating efficiently, a successful distributor will possess 1) a solid customer base and 2) supplier contacts and contracts that ensure a complete product line at competitive prices.

THE SITUATION

While profits have increased over the last three years, cash flow has been a problem. Stewart has struggled to maintain sufficient cash to pay obligations in a timely manner. The company reached its bank-borrowing limit at the end of last year but Stewart used fixed assets as collateral to successfully negotiate an additional \$3,000,000 in long-term borrowings. The additional capacity was used during the year just ended as well as an extra \$1,000,000 provided by a working capital loan extended by the bank. The bank has refused to grant additional loans until the debt ratio can be lowered to below 50% and the times interest earned ratio increased to above four.

Stewart has been attempting to acquire an attractive specialty chemical product line since starting the company. Adding this product line will require an investment of \$200,000 to acquire the necessary special handling and packing equipment. Inventory investment will require another \$800,000.

Stewart has hired James Scott, a financial advisor, to provide assistance developing financing options and solving the firm's cash problems. To finance the expected sales growth for 2008, Stewart has estimated the firm will need at least \$2,000,000 for additional current assets and another \$1,200,000 for capital expenditures. In total, the company needs approximately \$4,200,000 in new financing to add the specialty chemical line and provide the necessary resources to achieve the planned sales growth for 2008. Issuing more common stock is not an option since Stewart does not want to further dilute her ownership position. The stock is not publicly traded.

At their first meeting, Stewart provided Scott with income statements and year-ending balance sheets for the most recent three years. A complete analysis at the meeting was not possible, but Scott noted the increase in accounts payable and inventory. Stewart explained that a large inventory investment was necessary to support the company's "next day delivery" service and how the use of a liberal credit policy has caused accounts receivables to increase. She also stressed the importance of each to the company's continued sales growth. When asked about the firm's daily sales outstanding (DSO) and days invested in inventory, Stewart stated that ratios are not calculated. Stewart said she really doesn't understand all those ratios and besides she doesn't need them to run the business. Since the company's inception, an outside accounting firm has prepared the financial reports based on data supplied by the firm's bookkeepers. To keep overhead expenses low Stewart has been reluctant to hire a full-time accountant. The company's accounting firm prepares a quarterly financial statements consisting of an income statement and balance sheet. No cash flow statements are prepared.

THE TASK

Assume you are an assistant to Scott. Evaluate the firm's current situation. In your analysis answer the following:

- 1) Explain why it is possible for a firm to be profitable and at the same time experience cash flow problems.
- 2) Prepare a cash flow statement for 2006 and 2007.
- 3) Interpret the information provided by the cash flow statements. How has Cape Chemical been using its cash and why is additional cash needed?
- 4) Calculate the return on equity for the 2005, 2006 and 2007 using the extended DuPont equation. Interpret the results. What does the equation reveal regarding the company's profitability, use of assets and sources of financing?
- 5) Evaluate the company's performance for 2005, 2006 and 2007 using ratio analysis. Calculate the following ratios and evaluate performance.
 - a) Current ratio
 - b) Accounts receivable turnover
 - c) Days sales outstanding (DSO)
 - d) Inventory turnover using cost of goods sold in the numerator
 - e) Days invested in inventory using cost of goods sold
 - f) Accounts payable deferral period
 - g) Cash conversion cycle
 - h) Fixed asset turnover
 - i) Total asset turnover
 - j) Times interest earned ratio (TIE)
 - k) Debt ratio
 - l) Basic earning power
 - m) Profit margin
 - n) Return on assets
 - o) Return on equity
- 6) How can the cash conversion cycle be used to evaluate a firm's working capital policy? Evaluate the firm's working capital management.
- 7) Based on answers to questions 1-4, summarize why the firm is experiencing cash problems? Provide your recommendations to improve the cash situation.
- 8) What alternatives are available to the firm to acquire the \$4,200,000 financing required to add the specialty chemical product line and finance the projected sales growth for 2008?

SUGGESTED REFERENCES

Brigham, Eugene F. and Joel F. Houston (2007), *Fundamentals of Financial Management, Concise* 5th ed., Thomson South-Western.

RMA Annual Statement Studies, Robert Morris Associates.

MISSOURI SOLVENTS: MANAGING CASH FLOW

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CASE DESCRIPTION

The primary subject matter of this case concerns managing a firm's cash flow. Case asks students to evaluate a number of proposed alternatives to address a projected cash shortfall as well as develop additional courses of action. A secondary task is an examination of ethical issues associated with managing accounts payable. The case requires students to have an introductory knowledge of general business issues thus the case has a difficulty level of three (junior level) or higher. The case is designed to be taught in one class session of approximately 1.25 hours and is expected to require 1-2 hours of preparation time from the students.

CASE SYNOPSIS

Missouri Solvents is a regional distributor of liquid and dry chemicals. Revenues and profits have grown steadily. The sales growth has required the acquisition of additional fixed assets and current assets. Financing the additional assets has placed a strain on the firm's ability to raise capital. While the company ended last year with a healthy cash balance, there were many occasions during the year that it was necessary to obtain short-term bank loans in order to keep the company operating. As part of the firm's annual planning process, the finance and accounting staff prepare a projected income statement and balance sheet for the coming year. This year, Allen David, the company's chief financial officer, directed Fletcher Scott, the firm's budget analyst, to also develop a monthly cash budget in an effort to identify potential cash flow problems. The cash budget indicated that the company would need additional cash during the second quarter of approximately \$2,000,000. Scott reviewed the cash budget with David and since the company's board of directors had expressed concern with the company's increasing use of debt financing, David was reluctant to increase the firm's bank borrowing even for a short period of time. Other alternatives for covering the projected cash shortfall must be evaluated.

MISSOURI SOLVENTS BACKGROUND

Missouri Solvents is a regional distributor of liquid and dry chemicals, headquartered in St. Louis. The company has been serving the St. Louis marketplace for five years and has a reputation as a reliable supplier of industrial chemicals. Sales and profits have grown steadily. The sales growth has required the acquisition of additional fixed assets (warehouse expansion, material handling machinery and equipment) and current assets (accounts receivables and inventory).

Financing the additional assets has been a challenge and placed a strain on the firm's ability to raise capital. Over the last three years, the firm's debt ratio has increased form 51% to 57%.

CHEMICAL DISTRIBUTION

A chemical distributor is a wholesaler. Operations may vary but a typical distributor purchases chemicals in large quantities (bulk - barge, rail or truckloads) from a number of manufacturers. Bulk chemicals are stored in "tank farms", a number of tanks located in an area surrounded by dikes. Tanks can receive and ship materials from all modes of transportation. Packaged chemicals are stored in a warehouse. Other distributor activities include blending, repackaging, and shipping in smaller quantities (less than truckload, tote tanks, 55-gallon drums, and other smaller package sizes) to meet the needs of a variety of industrial users. In addition to the tank farm and warehouse, a distributor needs access to specialized delivery equipment (specialized truck transports, and tank rail cars) to meet the handling requirements of different chemicals. A distributor adds value by supplying its customers with the chemicals they need, in the quantities they desire, when they need them. This requires maintaining a sizable inventory and operating efficiently. Distributors usually operate on very thin profit margins.

THE SITUATION

While the company ended last year with a healthy cash balance, there were many occasions during the year that it was necessary to obtain short-term bank loans in order to keep the company operating. As part of the firm's annual planning process, the finance and accounting staff prepare a projected income statement and balance sheet for the coming year. Once the forecasted statements are approved, the annual information is broken into quarterly and monthly financial budgets. This year, Allen David, the company's chief financial officer, directed Fletcher Scott, the firm's budget analyst, to also develop a monthly cash budget in an effort to identify potential cash flow problems.

David and Scott agreed on a number of budget assumptions necessary to complete the cash budget. Assumptions focused on the timing of cash inflow (collection of receivables) and timing of cash outflows (payment of vendors, operating expenses, capital expenditures, financing charges, tax payments, etc.). The cash budget indicated that the company would need additional cash (additional financing) during the second quarter (April, May and June) of approximately \$2,000,000.

Scott reviewed the cash budget with David. The company's board of directors had expressed concern with the company's increasing use of debt financing, thus David was reluctant to increase the firm's bank borrowing even for a short period of time. Other alternatives considered were:

1) Reduce inventory levels. David and Scott both thought this might be possible but noted the firm had an ongoing program to systematically review inventory levels of all items and levels were slowly being reduced.

2) Attempt to collect accounts receivables faster. Missouri Solvent's selling terms are net 30. David thought it might be possible to increase credit standards and collection effort, but it could not be accomplished without a major confrontation with the sales staff. The sales force already feels

that they are losing sales because of a conservative approach to granting credit and an overly aggressive collection effort.

3) Delay capital expenditures scheduled for the first half of the year to the second half. David felt this was possible but would require reworking the entire financial plan because the projected benefits of the capital expenditures for the first half of the year were included in the sales forecast for the last six months of the year.

4) Delay paying finance charges or tax payments. David thought delaying payments to the bank could be arranged, but he was reluctant to approach the bank about rescheduling payments. Approaching the bank could cause the bank to be concerned about the firm's ability to manage its cash. Both David and Scott agreed that delaying tax payments was not an option that should be pursued at this time.

5) Slow payments to vendors (accounts payable). During the first two years of operation the company was not always able to pay its vendors according to terms. The paying of invoice after the due date resulted in some vendors threatening to stop extending credit to Missouri Solvents. This never happened but the lack of vendor credit would have caused substantial problems. Since that period, a concerted effort has been made to avoid late payments to vendors. David thought slowing vendor payment for a few months was possible. He thought it was likely vendors wouldn't notice a change in Missouri Solvents payment pattern.

THE TASK

Assume you are Fletcher Scott. Prepare the report evaluating the alternatives and a recommended course of action. Use ratio analysis to support your evaluations and recommendation.
 Would your recommendation change if the projected cash shortfall was for six or nine months rather than three months?

3) Is it ethical to delay payments to vendors beyond the agreed upon terms?

SUGGESTED REFERENCES

Brigham, Eugene F., and Michael C. Ehrhardt, *Financial Management: Theory and Practice*, 12th Edition (2008), Thompson South-Western.

Industry

Appendix 1

M issouri Solvents

Income Statement (\$000)

For the Year Ended December 31, 2007	2005	2006	2007	Projected 2008	Average 2007
	\$	\$	\$	\$	\$
Sales revenue	67,700,000	79,200,000	89,200,000	99,200,000	100,000,000
Less: Cost of goods sold	59,400,000	70,100,000	79,100,000	87,700,000	87,000,000
Gross profits	8,300,000	9,100,000	10,100,000	11,500,000	13,000,000
Less: Operating expenses					
Selling expense	3,100,000	3,280,000	3,480,000	3,880,000	3,500,000
General and administrative expenses	1,700,000	1,825,000	2,025,000	2,325,000	2,400,000
Depreciation expense	1,150,000	1,550,000	1,750,000	2,050,000	2,000,000
Total operating expense	5,950,000	6,655,000	7,255,000	8,255,000	7,900,000
Operating profits	2,350,000	2,445,000	2,845,000	3,245,000	5,100,000
Less: Interest expense	855,000	895,000	925,000	1,025,000	700,000
Net profits before taxes	1,495,000	1,550,000	1,920,000	2,220,000	4,400,000
Less: Taxes (rate = 40%)	598,000	620,000	768,000	888,000	1,760,000
Net profits after taxes	897,000	930,000	1,152,000	1,332,000	2,640,000
Dividends	100,000	100,000	100,000	100,000	400,000
Balance Sheet (\$000) As of December 31					Industry

Balance	Sheet (\$000)
As of D	ecember 31

			Projected	Average
2005	2006	2007	2008	2007
\$	\$	\$	\$	\$
220,000	215,000	265,000	190,000	400,000
7,555,000	8,575,000	9,615,000	10,275,000	12,000,000
8,825,000	9,982,000	11,082,000	10,992,000	12,000,000
16,600,000	18,772,000	20,962,000	21,457,000	24,400,000
32,650,000	34,800,000	40,100,000	47,800,000	35,000,000
18,375,000	19,925,000	21,675,000	23,725,000	18,000,000
14,275,000	14,875,000	18,425,000	24,075,000	17,000,000
30,875,000	33,647,000	39,387,000	45,532,000	41,400,000
	\$ 220,000 7,555,000 8,825,000 16,600,000 32,650,000 18,375,000 14,275,000	\$ \$ 220,000 215,000 7,555,000 8,575,000 8,825,000 9,982,000 16,600,000 18,772,000 32,650,000 34,800,000 18,375,000 19,925,000 14,275,000 14,875,000	\$ \$ \$ \$ 220,000 215,000 265,000 7,555,000 8,575,000 9,615,000 8,825,000 9,982,000 11,082,000 16,600,000 18,772,000 20,962,000 32,650,000 34,800,000 40,100,000 18,375,000 19,925,000 21,675,000 14,275,000 14,875,000 18,425,000	2005 2006 2007 2008 \$ <

Liabilities and Stockholders' Equity	2005	2006	2007	Projected 2008	Industry Average 2007
	\$	\$	\$	\$	\$
Current liabilities					
Accounts payable	5,130,000	6,100,000	6,500,000	6,500,000	8,500,000
Notes payable	2,210,000	2,270,000	2,870,000	2,070,000	2,700,000
Accruals	560,000	412,000	470,000	666,000	700,000
Total current liabilities	7,900,000	8,782,000	9,840,000	9,236,000	11,900,000
Long-term debts	7,875,000	8,935,000	12,565,000	18,082,000	9,000,000
T otal liabilities	15,775,000	17,717,000	22,405,000	27,318,000	20,900,000
Stockholders' equity					
Common stock (at par)	7,200,000	7,200,000	7,200,000	7,200,000	8,500,000
Retained earnings	7,900,000	8,730,000	9,782,000	11,014,000	12,000,000
Total stockholders' equity	15,100,000	15,930,000	16,982,000	18,214,000	20,500,000
Total liabilities and stockholders' equity	30,875,000	33,647,000	39,387,000	45,532,000	41,400,000

Tunica, 2008

Proceedings of the International Academy for Case Studies, Volume 15, Number 1

Appendix 2

	Industry Average
Ratio	2007
Current ratio	2.05
Quick ratio	1.04
Inventory turnover (times)*	8.33
Days Invested in Inventory (360)**	43.20
Average collection period (360 days)***	43.20
Fixed (net) asset turnover (times)	5.88
Total asset turnover (times)	2.42
AP deferral period (days)****	35.17
Debt ratio	50.48%
Times interest earned ratio	7.29
Gross profit margin	13.00%
Net profit margin	2.64%
Return on total assets (ROA)	6.38%
Return on equity (ROE)	12.88%

THE DEVELOPMENT OF A FLEET VEHICLE REPLACEMENT POLICY FOR A FEDERAL GOVERNMENT CONTRACTOR

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CASE DESCRIPTION

This case presents a scenario to develop an equipment replacement policy for a large federal government contractor. This contractor serves as a facility maintenance manager for a federal government research and development organization. The maintenance company has a medium size fleet of cars, vans, pickup trucks and specialty vehicles. Currently, there is no vehicle replacement policy in the company. However, the company keeps some maintenance records of the vehicles that can be used in the development of a vehicle replacement policy. The objective of this case is to illustrate the basics of equipment replacement decision making and the practical application of the probability and statistics. The case is appropriate for use in a production/operations management, engineering, economics, business statistics or managerial accounting courses. The case should take no more than one hour of class lecture and two hours of preparation and research time from students. Total student time should not be more than four hours including research time.

BACKGROUND

A large federal government research facility is located in Southeastern part of Virginia. This facility is located on 810 acres of land. It has over 250 office and laboratory buildings including very large hangers, turbines and tunnels. The annual budget of the research facility is approximate \$650 million of which 40 percent is operating budget. The research facility has about 2,000 direct employees and 2,500 contract/indirect personnel on the site. The maintenance budget is approximately 10 percent of the operating budget of the research facility. The facility management functions for this federal government research organization are contracted out to a private company. The private maintenance company is responsible for all repair and maintenance of facilities other than specific scientific equipment repair. The current maintenance contractor was awarded the maintenance contract in 2003. This contractor took over all office space, equipment, vehicles and repair part inventory from the previous facility management contractor. The company has an on-site office, workshop and other necessary facilities needed for building and equipment maintenance. It employs approximately 150 repairmen, supervisors and support staff. The repair job varies from simple light bulb replacement to complex turbine engine repair. The company maintains inventory of necessary tools and some repair parts on the site.

Typically, a repairman responds to a service call according to a pre-determined priority

scheme. A repairman completes a service call in one or more trips to the location of service call. Generally, the first trip involves assessment of the fault and determination of required parts for the repair, if it needs any parts. If repairman does not have the necessary parts with him, he would return to the shop. He will either to back to the repair site with necessary parts if parts are available in the part storage area. Otherwise, he will place an order of the part necessary to make repair in the future. Some repair jobs may require more than two trips. The service request completion time is one of the most important customer satisfaction measures in the organization.

To deliver the repair services, the company maintains a fleet of trucks, vans, cars, and specialty vehicles. Typically a repair van or truck is assigned to a specific repairman. The assigned vehicle serves as a small mobile workshop for the repairman. The cars are usually used by the supervisors for site visits. The specialty vehicles are called into service as the need arises. The mobility of repairmen and supervisor depends on the availability of the required type of vehicle at the right time. During the time when a vehicle is unavailable due to failure or other maintenance need, the assigned repairman's productivity is reduced and the repair work is delayed. Therefore, it is important that the vehicle down-time is as low as possible. The company desires a comprehensive vehicle usage policy, including a vehicle replacement policy so vehicle downtime and associated cost can be reduced. The objective of this case is to require consultant teams an opportunity to analyze and recommend a repair vehicle policy for the company.

DESCRIPTION OF FLEET TYPE

The company's repair vehicles are categorized in three areas. General vehicles- are driven by maintenance repairmen to perform the daily tasks. These vehicles include vans or pick-up trucks. Tasks that do not require specialty vehicle are performed with general vehicles. These vehicles also store repairman's tools and parts. Specialty vehicles-are used when the repair task is of a routine nature. Specialty vehicles include bucket trucks, cranes, flatbeds, etc.

Supervisory vehicles—include cars, fully enclosed golf carts, etc that are used by supervisors and management personnel for on-site inspections and general mobility. Supervisory vehicles provide a safe environment for transporting paper work, computers and other materials to the work sites.

DESCRIPTION OF FLEET MAINTENANCE

Regular Preventive Maintenance-- Normal annual preventive maintenance tasks for each vehicle include state inspection as required by the law; oil changes as stated by the manufacturer of the vehicle; tune-ups, as stated by the manufacturer of the vehicle; and minor maintenance and safety items performed as needed, such as wiper or headlight bulb replacement, etc.,.

Oil changes and minor repairs are carried out in a timely fashion at the specified vehicle maintenance facility. The federal facility contractor has selected a vehicle repair sub-contractor close to the research facility. Estimated time for most of these services is approximately one and a half hours including travel time.

Major maintenance--any vehicle failure not covered under regular preventive maintenance is defined as a major failure event. Currently there are no established assessment policies for major maintenance. Estimated repair time for major maintenance work is, on average, 8 hours. During this down time repairmen are constrained in carrying out the repair task. The company wishes to examine this policy to reduce this exposure.

Catastrophic failure—any vehicle placed out of commission with an estimated repair cost that could possibly exceed the future benefits from the usage of the vehicle in question. There is no formal system in place for estimating the future value of the vehicle. However, if in the opinion of the vehicle supervisor that the cost of repairs is "too high", it is considered catastrophic failure and such an event triggers an automatic vehicle replacement process.

FLEET DATA

The available vehicle data includes make, model and type of vehicle, age of vehicle, years in service at the company, type of use, and assignment of vehicle. The available fleet financial data includes purchase price, book value, and the depreciation schedule used. The maintenance data on each vehicle is available including type and cost of maintenance of each vehicle each year. A total of 84 vehicles' records are included in the following report. Table 1 indicates the number of vehicles and the distribution of the type of vehicles currently employed.

Table 1. Venicle Type Distribution							
Туре	Number	Percent					
Car	13	15%					
Pickup Truck	11	13%					
Van	48	57%					
Specialty Vehicle	12	15%					
Total	84	100%					

Table 1: Vehicle Type Distribution

The age of the three main categories of vehicles, cars, vans and pickup trucks is shown in the Table 2. Specialty vehicles are ignored since an analysis of each is unique. The average age of the current fleet of cars, vans, and pick-up trucks is 9.95 years with a range of 2-24 years.

11	rige of the fleet by the ver						
	Type	Age-Years					
	Car	8.77					
	Pick-up	6.91					
	Van	10.98					

Table 3 presents the distribution of the vehicles by the year of manufacture.

~	doite 5. i cui of marke of the fleet vehicle						
	Year of Make	Number of Vehicles					
	1983	1					
	1986	2					
	1989	23					
	1993	8					
	1995	1					

Table 3: Year of Make of the Fleet Vehicles

Year of Make	Number of Vehicles
2001	1
2003	1
2004	33
2005	2
Total	72

The total repair and maintenance cost due to major breakdowns for each vehicle over the last three years is presented the Table 4 which appears below. The table includes the number of major breakdown per vehicle. The year of make of the vehicle is included to determine age at 2007, the year of this study. As expected the oldest vehicles failed frequently and are more expensive to maintain.

VEHICLE REPLACEMENT POLICY

The major consideration in the construction of the vehicle replacement model for this company is that the policy (or model) should be user friendly and can be easily applied. For example: Advanced mathematical programming models such as dynamic programming though an appropriate tool should not be used as a driver in this case. The appropriate model should be n easily automated into a basic spreadsheet structure such as EXCEL. Furthermore, the company is interested in having one policy for all non-specialty vehicles. In other words, differences in maintenance pattern of the three vehicle types, car, pick-up trucks and vans, should be ignored. The vehicle replacement policy/model should consider the purchase, capital, major repair, opportunity and salvage costs.

Assumptions:

- 1. Cost of insurance, fuel, supervisory personnel are ignored.
- 2. Tax implications are not considered.
- 3. Vehicle is fully depreciated in three years
- 4. Vehicle acquired is kept at least for three years (until book value is zero.) Once book value is zero, the company's overhead cost is reduced to maintenance related cost only.
- 5. Total vehicle requirement is not decreasing.
- 6. Vehicle retirement age is normally distributed with mean of 16 years and standard deviation of 1.5 years. These numbers are adjusted upwards here as vehicles have much lower mileage compared to national average.
- 7. Regular maintenance cost is ignored as those will roughly be similar in all vehicles.
- 8. It was given that each major maintenance incident results in slow down of two workers (50% efficiency.) Overall average cost of worker is assumed to be \$40 per hour (including pay, benefits, and other associated costs.).
- 9. Due to lack of data available for each breakdown, it is assumed that the vehicle would be out of service for on an average for one day (8-hours).
- 10. Catastrophic failure results in average of \$1,000 opportunity loss including supervisory time,

loss to worker efficiency, time to remove tools, inventory from old vehicle restock, and refitting new vehicle.

- 11. Cost of capital and discount rate are 10%.
- 12. The year of assessment is 2007.

CASE QUESTION

Develop a replacement model for fleet vehicles where the total cost is minimized for each vehicle over a three-year period.

No.	Туре	Year	Total Major Maint. Cost 2004-06	Total Number of Major Maint Cost 2004-06	No.	Туре	Year	Total Major Maint. Cost 2004-06	Total Number of Major Maint Cost 2004-06
1	Van	1989	\$2,689.40	13	37	Van	2004	\$643.80	3
2	Van	1989	\$2,495.85	14	38	Pick-up	2004	\$359.03	2
3	Van	1989	\$3,687.24	9	39	Pick-up	1983	\$1,553.84	3
4	Van	1989	\$2,371.43	8	40	Pick-up	2004	\$375.00	1
5	Van	1989	\$4,356.82	11	41	Van	2004	\$263.55	1
6	Van	1989	\$2,620.97	9	42	Van	2004	\$240.74	1
7	Van	1989	\$1,860.95	7	43	Van	2004	\$232.85	1
8	Van	1989	\$1,698.37	9	44	Van	2004	\$202.24	1
9	Van	1989	\$1,986.08	7	45	Pick-up	2004	\$196.04	1
10	Van	1989	\$1,982.37	7	46	Van	2004	\$35.00	2
11	Van	1989	\$1,682.85	6	47	Van	2004	\$359.88	0
12	Van	1989	\$813.30	8	48	Car	1993	\$0.00	0
13	Car	1993	\$1,819.53	7	49	Car	1995	\$0.00	0
14	Van	1989	\$3,534.95	5	50	Van	2001	\$353.42	1
15	Van	1989	\$1,676.48	4	51	Car	2003	\$0.00	0
16	Van	1989	\$1,134.96	6	52	Van	2004	\$448.32	1
17	Van	1989	\$1,179.16	6	53	Pick-up	2004	\$262.25	1
18	Car	1993	\$1,299.30	7	54	Van	2004	\$180.15	1
19	Van	1989	\$1,207.88	6	55	Van	2004	\$103.31	1
20	Van	1989	\$1,255.35	3	56	Van	2004	\$0.00	0
21	Car	1993	\$2,115.64	6	57	Pick-up	2004	\$0.00	0
22	Pick-up	1993	\$1,042.85	6	58	Van	2004	\$0.00	0
23	Van	1989	\$920.76	5	59	Van	2004	\$0.00	0
24	Van	1989	\$2,303.21	4	60	Van	2004	\$0.00	0
25	Van	1989	\$437.33	4	61	Van	2004	\$0.00	0
26	Car	1993	\$1,553.55	7	62	Van	2004	\$0.00	0
27	Van	1989	\$892.17	4	63	Van	2004	\$0.00	0

Table 4: Maintenance data of the Vehicle Fleet

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No.	Туре	Year	Total Major Maint. Cost 2004-06	Total Number of Major Maint Cost 2004-06	No.	Туре	Year	Total Major Maint. Cost 2004-06	Total Number of Major Maint Cost 2004-06
28	Van	1986	\$1,359.55	5	64	Van	2004	\$0.00	0
29	Car	1993	\$2,416.77	5	65	Van	2004	\$0.00	0
30	Van	1986	\$1,159.41	4	66	Pick-up	2004	\$0.00	0
31	Pick-up	1993	\$459.93	4	67	Car	2004	\$0.00	0
32	Van	2004	\$835.05	2	68	Car	2004	\$0.00	0
33	Van	1989	\$573.47	2	69	Car	2004	\$0.00	0
34	Pick-up	2004	\$589.84	2	70	Car	2004	\$0.00	0
35	Pick-up	2004	\$791.17	3	71	Van	2005	\$0.00	0
36	Van	2004	\$431.58	2	72	Car	2005	\$0.00	0

THE DRESSING ROOM: ETHICAL LEADERSHIP IN DINING CHOICES

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ABSTRACT

The first "The Dressing Room" was opened in the 1st quarter of 2006. It is a lunchtime restaurant that was styled like a Subway restaurant in Los Angeles, CA. The Dressing Room, located in Lawton Oklahoma provides an exceptional variety of produce, fast service and the friendliest staff around for the lunch crowd and catering requests. The employees are committed to excellence of professional training and personal development of its employees and training employees to be franchise owners. They have a commitment to the environment with proactive measures to partner with the local farming community and provide the best and healthiest produce available in the restaurant.

This teaching case study examines the opening of The Dressing Room in Lawton, OK. Projections for the restaurant are that it should breakeven during the third year of operation. The gross profit is estimated to be 67% of sales. A potential payout on initial investments of 35% for the first three years and 50% for years 4 and 5 is expected by the franchisees.

CASE STUDY: ZIPPO MANUFACTURING COMPANY

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ABSTRACT

This case gives an overview of the privately owned Zippo Manufacturing Company, famous since 1932 for the manufacture of Zippo windproof lighters. Today the traditional lighters are manufactured in rural Bradford, Pennsylvania and the Zippo lighter continues to have recognition as a veritable American icon throughout the world. Many remember the Zippo lighters as products popular in the early part of the 20^{th} century but today, sales of the products depend on continued interest of collectors plus expanding sales overseas, particularly in Asia. Much has changed since that first lighter was designed and sold in the early 1930s. We saw Zippos taken into the foxholes of World War II when the Zippo lighter became a piece of history. We saw competitive pressures applied by cheap toss away lighters and more recently, we saw Americans turn their backs on the use of tobacco so that the lighter, as it was originally used, may no longer be needed – at least in the U.S. More threats by cheap Chinese knock offs pose new challenges for the company. Despite the challenges, Zippo has held on and has turned out more than 400 million lighters in over 75 plus years of operation. Today the company has somewhat diversified since purchasing the W.R. Case & Sons Cutlery Company and more recently it has acquired Zippo Fashion Italia S.r.l., based in Vicenza, Italy. Sales operations of Zippo products have expanded internationally through a wide network of sales representatives in more than 120 countries. One advantage that continues to set a Zippo product apart from its competitors is its famous lifetime guarantee, "It works or we fix it for free."

Tunica, 2008

UNDERSTANDING THE UNIFORMED SERVICES EMPLOYMENT AND REEMPLOYMENT RIGHTS ACT: SEVERAL DEMONSTRATIVE CASES

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CASE DESCRIPTION

The primary subject matter of this case concerns human resource management, specifically administration of the Uniformed Services Employment and Reemployment Rights Act (USERRA). This case has a difficulty level of three to four, and is appropriate for an upper division, undergraduate level. This case is designed to be taught in one class hour, and is expected to require two to three hours of outside preparation by students.

CASE SYNOPSIS

This case presents students with several work scenarios, in which an employee is called to government service, and may be eligible for protections under USERRA. Students are asked to evaluate each situation, to determine whether or not USERRA would apply, and what the company's appropriate response to the employee should be.

INTRODUCTION

The Uniformed Services Employment and Reemployment Rights Act (USERRA) was passed in 1994, and has been updated significantly in 1996 (USERRA overview, 2008). This act provides employment protection for members of the United States uniformed services. While this law is not given much attention in many HR textbooks, recent world events make this law worth taking a closer look at.

The terrorist attacks on the World Trade Center, on September 11th, 2001, began what is usually referred to as the "war on terror". Since that date, roughly 600,000 US Army reservists and National Guardsmen have been called to active duty (DoD, 2007). This represents the largest deployment of US troops since WWII, over half a century ago (Government Accounting Office, 2006). The size of these deployments means that businesses are having to deal with USERRA related issues at a much higher rate than was envisioned when the law was passed in 1994.

The following cases examine some specific scenarios, typical of the type that businesses now face. In each case, examine the specific situation, and determine what the business owner should do in that instance.

CASES

The reservist:

Carl* has been employed as a full-time transmission mechanic at a full-service auto repair facility for the last two years. He also was a member of the US Army reserves. His employer was supportive of his membership in the reserves, approving the leave needed to participate in reserve training and activities. However, Carl was recently called to active duty, and deployed overseas in the Middle East. The deployment was expected to last somewhere between 12 and 15 months. Carl gave written notice of this callup as soon as he was notified. Three days later, he was on a plane to Kuwait.

As Carl was the only transmission mechanic at his place of employment, and the company was fully booked on transmission repairs, his manager hired a replacement mechanic. The replacement mechanic performed very well, and equaled the performance that Carl had put in prior to deployment.

While on deployment, Carl missed his third year of employment, and the accompanying third year performance review. Three other mechanics received third year reviews during that time, and the two who had "good" or higher evaluations received promotions to senior mechanic, and 25% raises. Carl's reviews during his first and second years were "good" and "excellent" respectively.

After 14 months in the field, Carl's deployment ended and he was flown back to the US and debriefed. After a much-needed two week vacation, he appeared at the auto repair facility, and asked for his job back.

What obligations does his employer have? What, if anything, should be done for Carl?

The Coast Guard member:

Since graduating from college with a bachelor's degree in accounting, Alexis had been working as a tax accountant for a nationally recognized tax accounting firm. She worked for this firm for four years, receiving above average performance evaluations, and raises to match. Her career was proceeding well.

However, after a couple particularly rough events in her personal life, Alexis decided to enlist in the US Coast Guard, on a three year active duty enlistment. She provided written notice to her employer, letting the company know of her plans to enlist. She then proceeded to the USCG recruiter, and signed up. She served her three years with good ratings, received regular promotions, and at the end of her three year enlistment, she was honorably discharged.

At this point, Alexis returned to her prior employer looking for work.

What rights does Alexis have? Is the employer required to re-employ Alexis? If so, at what seniority, rank and pay?

The Marine

Doug's lifelong dream was to be a US Marine. However, after graduating high school, and obtaining a certificate in welding from the local community college, he found himself working for a company in the business of manufacturing boat trailers. The pay was very good, the hours and

working conditions were acceptable, and his co-workers were friendly. However, Doug still dreamed of service to his country. After nearly a year of work, he announced his intention to enlist, gave written notice, and headed down to the recruiting office. Shortly afterward, Doug found himself headed off to boot camp.

Life in the Marines was not as Doug envisioned it. He disliked following orders, found the discipline excessive, and the work tedious. After several instances of going AWOL, he finally got into more serious trouble, and was dishonorably discharged.

Doug returned to his prior employer, the trailer manufacturer, and asked to be reinstated. Unfortunately, his boss indicated that his position had long since been filled, and they needed no new welders at the moment.

What rights does Doug have in this case?

CASE TIPS

For each case above, make sure to consider the following:

Does USERRA cover the type of service this employee was participating in? Does USERRA convey rights to the employee in this case? Why or why not? Is the employee entitled to their job back? If so, at what rank, title and pay? Do any other factors affect the situation, like inability to do the job, time on deployment, or type of discharge?

REFERENCES

- Department of Defense (2007). National Guard and Reserves The cumulative number of National Guard and Reserves activated since September 11, 2001. Electronic message from LTC Matt Leonard, Asst. for Public Services. Office of the Assistant Secretary of Defense for Reserve Affairs. May 29, 2007.
- Government Accounting Office (2006). "Reserve Forces: Army National Guard and Army Reserve Readiness for 21st Century Challenges." GAO Report 06-1109T. Testimony Before the Commission on the National Guard and Reserves by Janet A. St. Laurent, Director. Defense Capabilities and Management. September 21, 2006.

USERRA Overview (2008) http://www.military.com/benefits/legal-matter

RENOVAR ENERGY CORPORATION

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ABSTRACT

Recognition of alternative energy sources and generation is a topic that is being discussed and studied more frequently as the price of a barrel of oil continues to rise over the \$100 per barrel mark. In addition, opportunity recognition and creativity are topics that are receiving increased emphasis in the entrepreneurship literature. This case, Renovar Energy Corporation, is designed to illustrate the formation of a company to produce landfill gas as a source of alternative energy. The major focus of the case is to apply the concepts of opportunity and creativity to the determination of the appropriate legal structure for the organization. Too often, the discussion of legal structure is relegated to the Business Law or Small Business Management course where traditional structures are introduced. This case treats selection of structure as a strategic choice which provides benefits to the organization in a variety of ways including, liability isolation, generation of a variety of financing options, and favorable distribution of returns to the equity owners. Students will learn through this case that there is the opportunity to create legal structures in entrepreneurial organizations which can provide maximum benefit in the areas mentioned above. They will also be able to see that as an organization grows, the modification of the structure to provide maximum benefit should be included as part of the strategic choices made for the organization.

HILLS PET NUTRITION COMPANY 2007: THE PERFECT STORM

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ABSTRACT

This case presents a view of what can happen when a trusted leader within the pet foods industry outsourcers even a small portion of their product such as the case with Hills Pet Nutrition, can sometimes result in a negative and long lasting effect upon consumer confidence levels when seeking to shave costs that can sometimes result in lowering product value.

In March 2007, a major pet food recall initiative had begun; where many of the name brand pet food companies began recalling their dog and cat food products. Hill's Pet Nutrition just so happens to be one of these companies that has outsourced a small portion of their manufacturing processes in order to cut cost.

As the perfect storm begins to develop through ongoing recalls, Hills Pet Nutrition begins to pull some of their products from the shelves in hopes of eliminating any possibility that their use of an outside vendor has contaminated their product. With more and more recalls developing in an effort to locate the source of contamination, consumer confidence levels begin to decline rapidly causing consumer confusion and anxiety.

RAISING CANE'S RESPONSE TO HURRICANE KATRINA

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CASE DESCRIPTION

The primary subject matter of this case concerns entrepreneurship and small business management. Secondary issues examined include crisis management, leadership, and operations management. The case has a difficulty level of four, appropriate for senior level courses. The case is designed to be taught in one class hour and is expected to require three hours of outside preparation by students.

CASE SYNOPSIS

Hurricane Katrina, the worst storm to hit the United States mainland in recorded history, has just devastated New Orleans and the Mississippi Gulf coast. The streets of New Orleans are flooded as the protective levees have been breached in over 50 locations and an enormous storm surge with 20-foot waves has deluged Biloxi and the Mississippi Gulf coast. On the afternoon of Monday, August 29, 2005, news reports of horrific loss of lives and property are pouring in through the television sets temporary rigged up at Raising Cane's Chicken Fingers #2 on Lee/College Drive in Baton Rouge, the only location with electricity available to CEO Todd Graves and his top management team. The leadership team members are all safe, headquartered 60 miles away from the worst devastation. They have quickly gathered to plan strategy for the crisis situation, but everyone including Todd Graves is shaken to the core. Todd exclaims as he sees the televised reports, "Oh no, the levees are breaking. This changes everything. This is no ordinary storm. Oh my god! This is our neighboring city! New Orleans is in our backyard and people are dying. This is just horror." With an effort, Todd reigns in his emotions and realizes that he is the leader and that hundreds of crew members will look to him for direction. Todd speaks to his leadership team, "We need to open our restaurants for our crew to come back to work, for the community and customers that need our services, and to get the economy going because that is what business should do." Shaken, Todd opens the meeting.