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LETTER FROM THE EDITORS

Welcome to the *Journal of the International Academy for Case Studies*. The editorial content of this journal is under the control of the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The purpose of the *JACS* is to encourage the development and use of cases and the case method of teaching throughout higher education. Its editorial mission is to publish cases in a wide variety of disciplines which are of educational, pedagogic, and practical value to educators.

The cases contained in this volume have been double blind refereed, and each was required to have a complete teaching note before consideration. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies. The Instructor's Note for each case in this volume will be published in a separate issue of the *JACS*.

If any reader is interested in obtaining a case, an instructor's note, permission to publish, or any other information about a case, the reader must correspond directly with the author(s) of the case.

We intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge and in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

The Editorial Policy, background and history of the organization, and calls for conferences are published on our web site. In addition, we keep the web site updated with the latest activities of the organization. Please visit our site and know that we welcome hearing from you at any time.

Inge Nickerson, Barry University
Charles Rarick, Purdue University, Calumet

CASES

PAROUT'S "BONE MARROW DRIVE" PROJECT MANAGEMENT

Sunaina Chugani, University of Texas at Austin
Joo Y. Jung, University of Texas-Pan American

CASE DESCRIPTION

The primary subject matter of this case is project scheduling and resource loading. Secondary issues examined include strategy and human resource management. This case study is appropriate for upper level undergraduate students and MBA students taking operations management related courses. The case is designed to be used in conjunction with two to three hours of in-class discussion followed by approximately three to four hours of outside classroom analysis and report writing. In class discussion topics may include project scheduling based on critical path method, resource loading using spread sheet and leadership issues.

CASE SYNOPSIS

Parout Stores, a chain of super centers known as one of the largest retailers in the nation, was struggling with its public image after bad press on its now improved labor practices. The national office instructed local branches to begin conspicuous local community service initiatives to help the company in rebuilding its reputation at the community level. Robert McClelland, the manager of a Parout branch in a small Texas border town with a largely Hispanic population, stumbled across an opportunity to serve the Hispanic community nation-wide. The idea evolved from a brief conversation between McClelland and the founder of MatchJulia.org, a non-profit organization dedicated to registering more minorities on the National Marrow Donor Registry so that minority cancer patients have a better chance of finding a match for marrow transplants. Villanueva, the founder of MatchJulia.org, was willing to fly to the community and publicly thank any organization that recruits over 1,000 donors. One major problem was that Villanueva was scheduled to travel abroad within four weeks. Hence, McClelland only had a month to achieve this feat. He needed to strategically plan a community outreach program to register 1,000 donors in less than a month as well as convince his team that this opportunity was worth all the extra hours needed to plan and execute this project on such short notice.

BACKGROUND

It was a beautiful March evening in Austin, Texas. The air was pleasantly crisp and the wind rustled gently through the trees. Although Robert McClelland was from the hot, humid area of South Texas and normally would have treasured this change of scene, he was oblivious to the beautiful weather. A million things ran around in his mind as he excitedly marched out of a social networking gathering after having a few drinks with the retail world's movers and shakers from across the nation. Parout Stores, a chain of super centers known as one of the largest retailers in the nation, hired McClelland a year ago to expand its business into a small, growing city on the Texas-Mexico Border. McClelland moved to the border town and opened the store a year ago, shortly before the company began receiving bad press from local and national media on its purported labor practices. Since then, Parout Stores had changed several of its policies to assuage the complaints, successfully fixing the problems. However, Parout's image was still reeling from the months of bad press, the effects of which were painfully obvious in the company's bottom line. At a national meeting last month, the company decided that it needed to take action to counter the bad taste in its consumers' mouths. The leaders noted that trends toward Corporate Social Responsibility were taking the country by storm and that Parout Stores was lagging behind in that area. In order to gain back the community's trust as well as keep up with the Joneses, Parout decided to develop highly publicized local community service initiatives at each of its branches. Since the local companies would be more able to identify local needs, the order was handed down a few weeks ago for the local branches to identify community needs and to develop conspicuous community service programs right away. McClelland had been racking his brains for weeks for community service projects that would make a splash and win over the hearts of his local clients. He could not come up with anything grand enough to turn things around, until that evening in Austin.

While mingling with CEO's, managers of various organizations, members of the press, and government officials at the networking social, he ran into Stephen Wenkul, another manager of a retail store from a small border town in Arizona. When McClelland mentioned his concern of finding community service opportunities, Wenkul introduced him to Jorge Villanueva, the founder and president of MatchJulia.org, a nationally recognized non-profit organization based in New Jersey that is dedicated to recruiting minorities into the National Marrow Donor Registry. Wenkul told Villanueva that McClelland might be interested in what MatchJulia.org does. Over the hum of the party's chatter, Villanueva told McClelland what his organization was all about. He explained that cancer patients who need a bone marrow transplant refer to the National Marrow Donor Registry to find a match. A match has to be from the same ethnic background, and the chances of finding a match on the registry can be as low as 1/100,000. The situation is especially bad for minorities like Hispanics, for example, because only 10 percent of the potential donors listed on the registry are Hispanic. In other words, since minority donors are so underrepresented in the registry, the chances of minority patients finding a life-saving match are much slimmer than non-minority

patients. So, MatchJulia.org's mission is to address the need for more minorities on the registry by holding bone marrow drives to register more minorities as donors. Villanueva explained the painless process of getting on to the registry: filling out a form and a simple swab for inner cheek cells. And if someone is a match, gone are the days of painful spinal taps to donate marrow; instead, the new method of drawing marrow is a virtually painless process very similar to donating blood. Given that it is so simple to become the source of life for a dying cancer patient, Villanueva expressed his regret that so few minorities were on the registry and emphasized the urgency of his work. He explained that MatchJulia.org is looking for organizations located in minority-rich communities that are willing to hold bone marrow drives to help MatchJulia.org reach its goal of making marrow transplants for minority cancer patients more of a possibility. Villanueva even had the policy of flying down to the communities personally and publicly congratulating and thanking any organization that helped to register more than 1,000 people.

THE OPPORTUNITY

As McClelland left the networking social, his mind was spinning with this new opportunity. The population of his border town was about eighty percent Hispanic; if he could get such a prominent Hispanic figure to recognize his company's efforts of helping the Hispanic community, and get enough media coverage at the drives and at the actual public thank you ceremony (because he would surely make it a big event!), he thought he just might be able to give the company's public image the boost it needed. He could not afford to pass this up. However, there was a major caveat. While Villanueva was excited about McClelland's enthusiasm, he cautioned that this would have to be executed rather quickly because he was leaving to India on March 30 to develop some of his minority-recruitment organizational models there. So, the latest he could fly down to do the public thank you would be March 29. Yikes! That meant if McClelland started the project on the coming Monday, March the 5th, he had only 25 days to sign up 1,000 people and give Villanueva enough time to publicly thank Parout before leaving! *It seemed like a daunting task but it was not impossible.* It was Wednesday, February 28th and McClelland knew he had to act fast and get to work immediately. He set up a meeting for the next day with Villanueva and a few of Villanueva's associates to flesh out a plan before he returned to the office Friday morning.

THE MEETING WITH MATCHJULIA.ORG

The meeting was held the next day in McClelland's tiny hotel room since it was too short of a notice to secure a conference room, as the annoyed hotel representative repeatedly explained to McClelland the night before. In chairs arranged in a circle around the bed, Villanueva and his associates wholeheartedly expressed their support for and appreciation of Parout's efforts, exclaiming that efforts such as these are what save the lives of suffering cancer patients throughout

the world. Although McClelland was looking at the drives strategically, he could not help but feel that all the effort required to pull this off would be well worth it in the end – whether or not Parout managed to recruit enough donors to get Villanueva to fly down and publicly thank Parout. It felt good that he could use his position and the power and reach of Parout Stores to contribute to the greater good. Nevertheless, McClelland put those thoughts aside and decided to focus on the task at hand: he had only a few hours with Villanueva and his associates to learn how to run a series of drives to register 1,000 people – there was no time to waste!

After several rather intense hours of discussion, McClelland developed a much better understanding of what would be required to conduct these drives. The first thing Parout needed to do was to contact local cancer societies to find a face of a local cancer patient in need of a life-saving donor. Villanueva and the other representatives from MatchJulia.org explained that having a local face to put on the public announcements, newspaper articles, fliers, and so on would help the local community identify more with the cause by bringing it close to home. McClelland estimated that it would take five days to find out which cancer societies and patients will be willing to participate and to write up and send press releases to local media.

Once a willing cancer patient in need of a donor is found, Parout can start directly marketing the bone marrow drive at whatever locations are secured for the drives. Together, they decided that Parout should target five locations in border town: the Highland Mall, the local university, the public library, the downtown business district, and the medical center. These locations were chosen because they are all high-traffic areas where people are not in too much of a rush and can spare a few minutes to get a cheek swab and fill out a form to get on the registry. Five locations, with an estimated 200 registrations per location, would result in the needed 1,000 registrations.

McClelland felt that direct marketing (posting fliers, speaking with the employers and employees of the area, and tabling) would be the most effective way of recruiting people to attend the drives since the cause was complex and would more than likely draw many questions. Since the business district and medical center were both places that have many offices and buildings, McClelland set aside five days to reach as many of those offices and buildings as possible through direct marketing. The Highland Mall would also have a considerable number of stores to visit, and the university would have a considerable number of professors to speak to, so three days were set aside for direct marketing at each of those locations. Since the library would not require as much work as the others, one day was set aside for it. In each of the locations, the drive could be held no more than three days after the marketing period. If the marketing and the drives were more than three days apart, too much time would have elapsed between when those Parout marketed to hear about the drives and when they have the opportunity to act.

Before the drive could be held, Parout had to hold training sessions for volunteers. In addition to core people working on this project, Parout would also have to recruit many volunteers from the areas they target to help with the actual drive, like librarians from the library, students from the university, and mall employees. Securing these volunteers would also be a way of strengthening

the community's acceptance of (and participation in) this project, because McClelland reasoned that those volunteers would promote the event extensively. Each location would have a separate volunteer training. For each location, securing the equipment, supplies, and refreshments for the training session would take one day. The actual training session would also take one day at each location. The company could start the training processes right away if they chose to because no preparation would be needed before the commencement of the training sessions.

Once both advertising and training have been completed in a location, Parout could hold the drive (which it decided would last for three days) at that location. Once all the location complete their drives and send the results to Parout, it would take two days to sort through the roughly 1,000 forms to make sure everything is complete and ready to be shipped to the lab. It would take five days for the samples to reach the lab. In the mean time, McClelland would need to alert the media, make all the preparations for Villanueva's public appearance on behalf of Parout, and give Villanueva time to fly down. This process would take 5 days as well.

After the forms officially reached the lab and Parout made all the preparations for the thank you event, it would be show time. McClelland envisioned that the event welcoming Villanueva and receiving his thanks would take place in pomp and splendor with all the media coverage Parout could mobilize.

The labor requirements for each activity, in worker-days, are presented in Table 1.

Table 1: Labor Requirements (Worker-Days)					
Activity		Medical Tech.	Employees	Public Relations	Materials and Direct
A	Work with Cancer Societies to find local face for advertising	10	5	1	\$0
B-H	Advertise (Direct Marketing)	3	3	3	\$200
C-H	Set up for Training: Equipment, Supplies, Refreshments	0	2	0	\$50
D-H	Train the people who will hold the drive.	1	2	0	\$0
E-H	Hold the drive and send the forms and cheek swabs to central location	6	9	3	\$20
B-L	Advertise (Direct Marketing)	1	1	1	\$50
C-L	Set up for Training: Equipment, Supplies, Refreshments	0	2	0	\$50
D-L	Train the people who will hold the drive.	1	2	0	\$0
E-L	Hold the drive and send the forms and cheek swabs to central location	6	9	3	\$20
B-M	Advertise (Direct Marketing)	5	5	5	\$250
C-M	Set up for Training: Equipment, Supplies, Refreshments	0	2	0	\$50
D-M	Train the people who will hold the drive.	1	2	0	\$0
E-M	Hold the drive and sends the forms and cheek swabs to central location	6	9	3	\$20
B-U	Advertise (Direct Marketing)	2	2	2	\$80
C-U	Set up for Training: Equipment, Supplies, Refreshments	0	2	0	\$50

Activity		Medical Tech.	Employees	Public Relations	Materials and Direct
D-U	Train the people who will hold the drive.	1	2	0	\$0
E-U	Hold the drive and send the forms and cheek swabs to central location	6	9	3	\$20
B-B	Advertise (Direct Marketing)	5	5	5	\$250
C-B	Set up for Training: Equipment, Supplies, Refreshments	0	2	0	\$50
D-B	Train the people who will hold the drive.	1	2	0	\$0
E-B	Hold the drive and send the forms and cheek swabs to central location	6	9	3	\$20
F	Central Location sorts and ships forms and cheek swabs to lab	0	8	0	\$70
G	Takes 5 days to reach lab	0	0	0	\$0
H	Alert the papers, Make arrangements for public appearances, Give Villanueva Time to Come down	10	10	10	\$0
I	Public Thank You Event	2	2	2	\$0

McClelland decided the company would require the services of medical technicians, internal employees, and internal PR personnel. The medical technicians would be taken out of a pool of medical technicians who would be able to take time off of their jobs to help with the cause. To encourage the employers of these medical technicians to allow them to take time off, McClelland would offer to include these employers' names as supporters of the drives. It was decided that a fair labor rate would be \$120 a day for each medical technician, employee and PR personnel.

A little more confident about the whole process of running drives, McClelland took the MatchJulia.org representatives to a late lunch to express his thanks for the last-minute meeting. After lunch, McClelland headed to the airport for his flight home.

PLANNING

On his way to the airport, McClelland thought of how he would tackle the planning of the drives. He had to find a way to hold all the five drives and get 1,000 registrations in 25 days. He only had a few days to work out a schedule so that he can start on Monday, March 5th as planned. What did he need to do? He decided he would first come up with a precedence diagram. Then, he would create a matrix of activity durations and precedence, a matrix of labor requirements per activity according to the duration of each activity, and a third matrix of labor requirements per day that would be based on the first two. Then, he could play around with the scheduling of each drive and the activities within each drive without violating the precedence requirements in order to develop a schedule that would require level resources.

Since he would need three different types of workers he thought he would look at the labor requirements for each type of worker separately. Out of the three types of labor, McClelland decided

that it would be most important to get the medical technician labor requirements as even as possible. Since the medical technicians would be taking time off from their jobs, it would be necessary to create as level of a schedule for them as possible so that not all of them would have to take off from work at the same time but could instead take turns during the 25 day period.

As internal employees with flexible schedules anyway, the PR personnel would be the least important to level off. So, McClelland knew that while leveling the resource requirements, he could make trade offs in favor of leveling the medical technicians' schedule at the expense of hurting the PR personnel schedule.

CONVINCING THE TEAM

McClelland took a deep breath as he pulled up to the airport. He felt good – he understood the process well and was beginning to think that they may be able to reach their goal after all. That sentiment quickly evaporated, however, when he remembered how much he was going to have to spring on his team back at the office. Planning a drive to recruit 1,000 donors in 25 days? In order to make that happen, they would have to spend all Friday recruiting medical technicians and volunteers – no small task to undertake in such short notice. In addition, they would have to spend the weekend working out the details of the schedule, creating advertising material, and gearing up for the 25-day project. When the week started again, his team would have to run the project as well as keep on top of their regular work. How was he going to get them on board without hurting morale? He needed them to be personally invested in the project, not just going along with it; he had read enough management journal articles to know that personal buy-in is important to ensure successful completion of projects. While waiting to board his flight back home, he sent a mass email to his team, requesting an emergency meeting for 7am the next morning. He crossed his fingers and took a deep breath as he pressed the send button.

The intercom announced the final boarding call for his flight home while McClelland put away his laptop. It was time to go home, get a good night's rest, and wake up bright and early to seize this opportunity and face the challenges that would inevitably arise. If he could figure this out and pull off the execution, it would be just the thing his company needed to revive its image.

CASE PROBLEMS

1. How can McClelland effectively create buy-in from his team? In what ways can he get his team on board and invested in the project at Friday's meeting, and keep the team invested throughout the entire 25-day project?
2. Create a precedence diagram for the project.

3. Create a matrix of activities, following duration and precedence requirements.
4. Create a matrix of labor requirements per day of each activity using the labor requirements table and the duration of each activity, both provided in the case.
5. Create an activity schedule that will result in the best leveling of labor requirements without exceeding the time limit of 25 days. Keep in mind McClelland's preference for the leveling of the individual resource requirements for the three types of workers. You may use "delay and splitting" techniques where appropriate. Activities that cannot be split include training set up, training execution, time it takes to reach the lab, and the public thank-you event. Include a chart for total labor requirements per day as well as cumulative total labor requirements to visually present the resource allocation. Create the same two charts for each of the three types of workers individually.
6. Create a cash flow schedule and corresponding chart to turn in to the company.
7. What could go wrong during this project that would hinder its successful completion? What can McClelland do to prevent these situations from occurring?
8. Will this drive completely solve Parout's image problems? If so, support your reasoning. If not, what steps could be taken by Parout to make a more permanent change in its image issues?

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RENAULT YAHOO! ARGENTINA

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CASE DESCRIPTION

This case challenges students to develop a strategy to grow Renault's business in Argentina, now that the economy is recovering from the severe economic disruptions caused by the fact that in 2002 Argentina defaulted on its debt and was declared bankrupt. The case is based on data collected by one of the authors in Argentina. The case is appropriate for senior-and level undergraduates as well as students in MBA and Executive Development programs. It is designed to be taught in a one hour and a half? class session, and is likely to require at least a couple hours of preparation by students.

CASE SYNOPSIS

Mr. Pedro Gouzou is Vice President of Marketing for Renault Argentina S.A., the Argentine subsidiary of the French automobile assembler and marketer, Renault S.A. Due to Argentina's default on its sovereign debt and the subsequent deterioration in the economic environment in Argentina, Renault's sales of new cars in Argentina fell dramatically. In 2003, for the entire country of nearly 40 million people, demand in Argentina for new Renault vehicles averaged slightly more than 40 vehicles per day. At the end of 2004, however, with the Argentine economy now recovering quite strongly, Renault is eager to rebuild sales. Additional data and information in the case include:

- 1. For Argentina: Historical overview, a sample of recent statistics from the World Bank, and (for benchmarking purposes), comparable statistics for the United States.*
- 2. For the company (at both local and global levels): Historical overview, current performance, and numerous factors impacting that performance.*
- 3. Characteristics of the local company's current strategy, including descriptive information on the product line, characteristics of the distribution system, information on the promotion and pricing strategies the company is currently using, etc.*
- 4. Characteristics of the current competitive situation.*
- 5. Detailed data on the attitudes and behaviors of buyers of cars in Argentina.*

THE SITUATION

Sensing that his meeting with his CEO was ending, Mr. Pedro Gouzou, Vice President of Marketing for Renault Argentina S.A. gathered up his background materials and the notes he had taken during the meeting. Although he might, later on, need specific information from those notes, Gouzou knew he would have no trouble remembering the basic charge his CEO had given him: to increase (within the next twelve months) sales of new Renault cars in Argentina by 15%. “Thank goodness, “ Gouzou said to himself as he headed back to his office, “that here in Buenos Aires I have a very excellent and innovative marketing team, to work with me to meet the challenge given us by our CEO. And thank goodness too that the economy here in Argentina is now recovering vigorously from the bankruptcy Argentina experienced in 2002.”

THE COUNTRY

At 2.78 million square kilometers (larger than India, approximately 1/3 as large as Brazil), Argentina is South America’s second largest country. The country is 3,500 kilometers long (2,170 miles), and 1,400 kilometers (868 miles) wide at its widest point. While the climate ranges from tropical in the north to sub-antarctic in the far south, most of Argentina lies in the temperate zone. Similarly, while the landscapes range from jungles to glaciers, a significant portion Argentina consists of fertile alluvial plains covered in grasses and known as “pampas.” In the west (that is, in the rain-shadow created by the Andes mountains), these grasslands are quite dry. In eastern Argentina, however, the pampa receives adequate rainfall, is one of the best agricultural areas in the world, and is intensively farmed (soybeans, plus wheat, corn, sunflower and other grains) and ranches. Other parts of the country support a wide variety of additional agricultural activities, including the growing of fruits (including grapes for wine), tobacco, sugar cane, and vegetables. Patagonia (the southern quarter of the country) has a cool, wet climate, and supports some agriculture plus a large sheep-raising industry. Given all the above, it is no surprise that the production and processing of agricultural commodities accounts for a substantial portion of total economic activity in Argentina.

Institutionally, Argentina is composed of 23 provinces and the Buenos Aires Federal District. Since 1995, the president and vice-president are elected for 4-year terms and can be re-elected once. The bicameral national congress has 72 senators (three from each of the above areas) serving 6 year terms. The lower house has 257 deputies, proportionately elected and serving 4 year terms. Because greater Buenos Aires makes up more than 40% of Argentina’s total population, the city’s influence on the lower house is very large. There is a federal judiciary system, and a nine-person supreme court.

In addition to the federal institutions, there are provincial institutions. In Argentina, each province has a governor, a legislature, and a judicial system. Across the country, the major political

parties are the Justicialist Party (Peronists), the Radical Civic Union (UCR), the ARI Party (Alternative for a Republic of Equals); and the Federal Recreate Movement (RECREAR).

THE PEOPLE

Prior to the arrival of the first Europeans, the area which has become Argentina was lightly populated. Starting in 1506 and continuing for the next 300 years, most of the immigrants coming to Argentina were Spanish. While African slaves were brought to Argentina in the 17th and 18th centuries, they were very susceptible to a variety of problems which disproportionately impacted the poor (wars, yellow fever and other epidemics, terrible living conditions for the poorest members of society, etc.), and relatively few of them survived. Beginning in the late 19th century and continuing on through the first third of the 20th, 3.5 million new immigrants arrived in Argentina, mostly from Spain and Italy. However, many other nationalities are represented in Argentina's millennium population of just over 37 million people, including the Welsh (primarily in Patagonia), the British, the French, the German, the Swiss, various Eastern Europeans, and Chileans. Indian peoples make up about 15% of the population. 93% of the population is Catholic, 2% is Jewish, and 2% Protestant; yet, at 1%, Argentina has one of South America's lowest population growth rates. A few additional statistical characteristics of Argentine and its people, together with (for benchmarking purposes) comparable figures for the United States) can be mentioned:

	ARGENTINA	U.S.
Fertility rate (births per woman):	3.0	2.1
Illiteracy rates (adult males and females):	3%	--
Life expectancy at birth (years):	74	77
Infant mortality rate (per 000 live births):	7	7
Primary school enrollment:	100%+	--
Secondary School enrollment:	74%	--
% of population living in urban areas:	89%	77%
% of population who are internet users:	7%	34%
% of population, access to improved water	79%	100%
% of roads paved:	29%	59%
% of urban population, access to sanitation:	89%	100%
Energy consumption per capita(kwh)	1938	11904

THE ECONOMY

With a Gross Domestic Product (GDP) of 483 billion dollars and its population of only 37 million, Argentina has a GDP per capita of approximately US\$ 12,500. Historically, a very substantial portion of this economic activity has been based on agriculture and/or ranching plus related (for example, food and/or meat processing) activities. By the year 2004, however, 53% of Argentina's GNP was services-related, 36% was industry-related (food processing [including meatpacking, flour milling, and canning] is the largest industry), and only 11% was directly accounted for by agriculture. International trade in goods accounts for 18% of GDP; this figure is approximately evenly split between imports and exports. Major exports include soybeans, wheat, corn, flax, oats, beef, mutton, hides, and wool. Principal imports include machinery, metals, and other manufactured goods. The chief trading partners are the United States, Brazil, Italy, and other European countries.

One might think that a country so richly endowed in natural and human resources should be extremely prosperous. However, in 2002, Argentina was unable to meet its debt obligations. The debt and debt service levels for Argentina in 2000 suggest the magnitude of the problem Argentina faced; those figures were as indicated below:

Present value of total dept:	U.S. \$154.9 billion
Short term dept:	U.S. \$28.3 billion
Debt service as a % of exports:	142%

THE LOCAL COMPANY

The company known today as Renault Argentina S.A. was started in 1956 as Industrias Kaiser Argentina S.A.I.C.F. (hence, IKA). The company was a joint venture between Kaiser-Frazer Automobile Co. and a ministry of the Argentine government. The purpose of the company was to assemble motor vehicles in its assembly plant outside of Cordoba.

In its 10th year, (that is, in 1965), IKA assembled 55,269 vehicles. At the time, this represented approximately 28% of Argentina's total annual production. In 1965, the range of vehicles produced by the plant included Kaiser-Frazer automobiles and jeeps, Nash Ramblers, and Renault automobiles. At this time, its 8500 employees made IKA the largest automobile assembler in Argentina.

In 1967, Renault purchased a large percentage of IKA's shares and changed the name of the company to IKA Renault S.A.I.C. F. In 1975 the name was changed again, this time to Renault

Argentina S.A. (hence, RA). While political instability in the 1970s had a very negative effect on operating conditions, the 32,861 vehicles sold by RA in 1978 still represented 22% of all vehicles sold in Argentina that year.

In the early 1980s, RA continued its role as industry leader. In 1980 (led by the Renault 12 car) RA accounted for approximately 24% of all new cars sold (224,000) in Argentina; by 1984, however, (led by the Renault 18), RA accounted for nearly 1/3 of all new cars. At this time, 13 auto dealers in five of Argentina's 23 provinces were selling Renault cars. In addition to its manufacturing and sales operations, RA included (at this time) insurance affiliates and an affiliated service company as well.

Although the company continued (in the late 1980s) to serve as leader of the Argentine car industry, the fact that the Argentine economy was being badly mismanaged began to seriously (and negatively) impact RA's operating results. As early as 1985, RA began to lose money, and during the period 1988-1991, RA lost approximately \$300,000,000 more. During this period, RA's problems were compounded by the fact that the new president of Argentina (Carlos Menem) eliminated several provisions (including a law requiring that 90% of the components in new cars manufactured in Argentina be produced in Argentina) which had protected the Argentine vehicle industry from overseas competition.

As a result of the above changes in the local environment, RA sold off many of its subsidiary operations, reduced its number of models from eight to three, and reduced its workforce from 10,000 to 6,000 workers. These cost-saving measures proved quite effective, and in 1992, RA earned a substantial profit. However, the parent company in France had already decided to sell off its Argentine operations, so that same year, Renault S.A. sold the company to an Argentine named Manuel Fernando Antelo. When he purchased RA, Antelo changed the company's name to *Compania Interamericana de Automoviles S.A. (Ciadea)*. To facilitate the sale, the French parent company contributed \$100,000,000 and provided additional financial support by purchasing \$75,000,000 of Ciadea bonds as well.

As he took control, Antelo initiated additional cost-cutting measures. He reduced the number of managers from 85 to 40, closed one plant, and reduced the number of levels of management from nine to five. Due to these actions, Ciadea earned more than \$100,000,000 in both 1993 and 1994, making it the most profitable car assembler in Argentina. In 1994, Ciadea sold 106,000 units, which was 26% of the total new vehicles sold that year in Argentina and second only (in terms of market share) to Sevel Argentina S.A., the assembler (at that time) of Fiat and Peugeot cars. That same year, Ciadea retired the Renault 12 and the Renault 18; at this time, the company's product line included the Renault 9, the Renault 19, and the Trafic, a light truck which became the leader in that category.

While 1994 and 1995 had been good years for Ciadea and the auto industry, 1995 brought a nationwide recession in Argentina. Total new vehicles sold fell to approximately 250,000 units. While Ciadea continued to account for approximately 1/4 of all new vehicles sold and while

Antelo laid off 1500 workers (from a total of approximately 7300), the combination of the recession plus Ciadea's across-the-board price reductions of approximately 20% dramatically reduced the company's profitability. In 1997, the second year of the recession, even though Ciadea had introduced two new vehicles (the mid-sized Megane and the subcompact Clio), the company's market share in Argentina slipped to 4th and total profits fell to \$6,000,000.

At this point, Antelo sold most of his shares back to Renault and moved to the largely ceremonial position of Chairman of the Board of what now became (once again) Renault Argentina (hence, RA). In 1998, 1999, and 2000, RA recovered its position as the second-largest seller of vehicles in Argentina. In 2001, however, as Argentina slipped toward bankruptcy, RA took a series of steps (reductions in production, reductions in staff, etc.) which focused on survival rather than market share. In fact, without massive injections of cash from the parent company in France (a total of nearly \$500,000,000 over the period 2001-2003), RA would have failed. By late 2003, RA was operating only three days a week, with only 950 employees, and (at 15% of capacity, about average for the industry at the time), was producing about 100 cars per day. The number of new cars sold by RA in 2003 totaled 15,540 units, which was 11% of total industry production that year.

During the first half of 2004, as the economy in Argentina began to recover, RA made a small profit. At this time, the RA product line included two compact cars (the Clio, which accounted for approximately 60% of total RA sales, and the Kangoo), several medium-sized cars (the Megane, the Laguna, and the Scenic), and a couple of trucks (Master, a light truck, and the Express pickup). Since 2001, when Renault had purchased a 37% interest in Nissan, RA had also been selling Nissan vehicles in Argentina; at this time, the Nissan product line in Argentina included three sports utility vehicles (Pathfinder, X-Terra, and X-Trail) and two pickups (Frontier 2X4 and Frontier 4X4).

THE GLOBAL COMPANY

The French company known today as Renault S.A. was founded in 1899 as Societe Renault Freres. The brothers (Louis, Marcel, and Ferdinand) sold their first car (the Renault Voiturette ICV) in 1898. Early on, Renault made a name for itself through with its racing cars. Prior to the 1st World War, the company was involved in the manufacture of cars, taxis, buses, and trucks. During the war years, the company expanded into a number of additional areas, including ammunition, military airplanes, and the Renault FT-17 tank. By 1918, Renault was the largest privately-held manufacturer in France.

After the 1st World War, Louis Renault (the only brother still actively involved in the business) expanded into additional areas such as agricultural and industrial machinery. At this time, the line of cars offered by the company was quite large, ranging not only from small to large but also including a number of different body styles.

During the 2nd World War, the company produced (for Germany) trucks only. After the war, the company's factories were seized by France, and became a public industry called Regie Nationale des Usines Renault. In 1946 Renault S.A. launched a small rear-engine car called the 4CV; by the time production ended in 1961, more than half a million of these cars had been sold. During the period 1951-1960, Renault S.A. also sold a larger car called Fregate.

The car designed to replace the 4CV was called the Renault Dauphine. This car did not sell well in North America. In 1961 and 1962, however, Renault S.A. introduced two new cars which sold very well: the Renault 4 and the Renault 8, respectively. These were followed, in 1966, by the Renault 16, which was a larger, more up-market hatchback which the company continued to produce until 1992. During these years (that is, during most of the decade of the 60s), Renault S.A. also assembled (in Europe, from Completely Knocked-Down Kits known as CKDs) the large Rambler Classic sedan manufactured in the U.S. by American Motors Corporation (AMC). Later on, Renault sold a modified version of this car (called the Renault Torino) in Argentina.

In 1972, the company launched the Renault 5, a very compact and economical model which was well-suited to the energy crisis taking place at the time. This model continued to be sold until 1984, when it was replaced by the Renault Super5.

In 1979, Renault S.A. expanded its involvement in AMC by purchasing a small percentage of the company. When AMC encountered financial difficulties in 1980, to protect its original investment, Renault S.A. bought a controlling interest in AMC. While Renault S.A. sold some jeeps in Europe, and the Renault 9 was assembled (and then sold in North America) by AMC in Kenosha, Wisconsin, the AMC/Renault partnership did not do well. As a result of these and additional financial problems (in 1984, Renault S.A. was losing a billion French francs per month), Renault S.A. agreed to sell its interest in AMC to Chrysler; this sale was finally consummated in 1987.

By the early 1990s, due to intensive cost-cutting and the sale of many non-core assets and activities, Renault S.A. had returned to profitability. At this time, the product line included the compact Clio plus the Espace, the Twingo, the Laguna, and the Renault 19. In a return to its early roots, Renault S.A. returned to road racing; Renault-powered cars won the Formula One World Championship every year (except 1994) from 1992-1997. In 1995 Renault S.A. introduced a replacement for the Renault 19 (the Megane).

In 1996, the French government privatized Renault S.A., retaining only 15.7% of the company. Since then, Renault S.A. has invested substantial amounts of money to expand its presence in numerous markets around the world. As indicated earlier, Renault S.A. has made very large investments in Argentina. In addition, Renault S.A. purchased 99% of the Romanian company Dacia, 44% of the Japanese company Nissan, 20% of the Volvo Group, and also made a substantial investment in Samsung Motors (now known as Renault Samsung Motors). As for the positioning of its vehicles, over the last several years, Renault S.A. has promoted itself as a leader in car safety. At the moment, Renault S.A. has more models achieving the maximum 5 Star EuroNCAP crash rating than any other car manufacturer.

THE AUTO INDUSTRY IN ARGENTINA

The auto industry in Argentina is overshadowed (and heavily impacted by) the auto industry in Brazil. While the four major players in the Brazilian auto industry are Fiat, Ford, General Motors, and Volkswagen, most other major auto manufactures (including Audi, Honda, Mercedes, Mitsubishi, PSA, Renault, and Toyota) have also made investments in Brazil. Experts estimate that if all automobile assembly plants were fully-utilized, Brazil would be able to produce 3.5 million cars per year. In 2004, actual production in Brazil totaled only 2.21 million units; one implication is, of course, that automobile assembly plants in Brazil are massively under-utilized. Nonetheless, assembly plants in Brazil tend to be larger and more efficient than those in Argentina; for this reason, Brazil now exports large numbers of vehicles to Argentina and fewer new cars are actually assembled in Argentina. In 2004, the number of imported vehicles sold in Argentina (many of which were assembled in Brazil) was 197,795.

Having said this, it is important to note that Argentina not only imports but also exports vehicles. In 2004, vehicle assemblers in Argentina exported 146,236 vehicles. In other words, of the 260,402 vehicles assembled in Argentina in 2004, 56% of them were exported and 114,166 (that is, 44%) were sold domestically.

In 2004, the average plant utilization rate in Argentina for automobile assemblers was less than 30%. The total number of new vehicles sold in Argentina in 2004 was 311,961. As indicated above, however, imports account for a substantial percentage of new car sales in Argentina. In any case, sales figures for the top three automobile brands in Argentina (and for “all others” as well) in 2004 are as indicated below:

BRAND	NUMBER OF UNITS SOLD	MARKET SHARE
Ford:	51,888	17%
GM(Chevrolet):	46,599	15%
Volkswagen:	69,175	22%
All others:	144,299	46%
TOTAL	311,961	100%

Readers may wonder what sorts of vehicles sell well in Argentina. As indicated below, the answer is that in both 2002 and 2003, passenger cars accounted for approximately two thirds of the total market.

	2003	2002
Passenger cars	67%	71%
Pickups	21%	15%
Vans	7%	10%
SUV	5%	4%
TOTAL	100%	100%

Because passenger cars make up such a large percentage of the total market, readers may also wonder what sorts of cars sell well in Argentina. There are a number of different dimensions to consider in answering this question, including the following:

1. Over the last several years, the percentage of new vehicles sold with diesel engines has decreased. While it used to be the case that approximately 50% of new vehicles sold in Argentina were diesel, this percentage has now fallen to about one third. Cars which run on natural gas are popular; there are approximately 1.5 million of these cars on the road in Argentina. Cars which can run either on gasoline or alcohol are also very popular; the number of these “flex fuel” cars sold each year now exceeds the number of “gasoline-only” cars sold annually in Argentina.
2. As indicated below, most of the passenger cars sold in Argentina fall into the “small car” category.

	2003	2002
Small cars	96.7%	93.4%
Medium cars	3.1%	6.3%
Luxury cars	0.2%	0.3%
TOTAL	100.0%	100.0%

3. Specific models of cars which have sold very well in Argentina are as indicated below:

TOP TWENTY REGISTRATION BY MODEL				
Accumulated Jan - Dec 2003				
Pos	Brand	Model	Vol	%
1	VW	Gol	12.137	83
2	Ford	Ranger	8.792	60
3	TOYOTA	HILUX	8.574	59
4	Peugeot	206	8.114	56
5	GM	Corsa	7.709	53
6	Ford	Fiesta	7.302	50
7	Renault	Clio	6.829	47
8	GM	S10	6.203	43
9	Fiat	Palio	6.135	4,2
10	VW	Polo	4.206	29
11	Fiat	Siena	4.183	29
12	Ford	Focus	3.628	25
13	Ford	Ecosport	3.527	24
14	Ford	Ka	2.717	19
15	Renault	Megane	2.565	18
16	TOYOTA	COROLLA	2.346	16
17	Peugeot	Partner	2.315	16
18	Fiat	Uno	2.03	14
19	VW	Gol SW	1.946	13
20	Renault	Kangoo	1.924	13

CONSUMERS IN ARGENTINA AND THEIR AUTOMOBILE-RELATED BEHAVIORS

As indicated earlier, the level of education in Argentina is high; the percentages of the population attending primary and secondary school are 100% and 74%, respectively. As also indicated earlier, more than 40% population lives in Buenos Aires and its suburbs; one of the implications is that quite a large percentage of the population has access to modern telecommunications products and services including computers, cell phones, and internet access. Research conducted in Argentina indicates that approximately 9 million citizens of Argentina use the internet when making purchases, and at least 5 million have actually purchased something

online. Finally, while 2002 was a very bad year for Argentina's economy (the country defaulted on its sovereign debt and was declared bankrupt), and levels of unemployment that year were very high, by the end of 2004 a variety of factors including very strong prices for agricultural commodities had contributed to a huge and remarkable improvement in the economic environment in Argentina.

Regarding the automobile purchasing and/or use-related behaviors of consumers in Argentina, data available suggest the following:

1. As indicated earlier, "small cars" account for more than 90% of the new cars sold in Argentina each of the last couple of years. Additional information about two of the primary car types available in Argentina is as indicated below:

HATCHBACKS: these are small cars with three to five doors. They tend to be used for personal transportation. They appeal to teenagers, single persons, young couples, and people who are entering the new car market for the first time. They have a modern style and a modern image, and easy handling is likely to be especially important to buyers.

SEDANS: these are medium-size, fast and comfortable, and tend to have four doors plus a trunk. The size of the trunk can be important to buyers. These cars tend to be of special interest to users in search of status; for this reason elegance and comfort (particularly back seat comfort) are likely to be especially important. These vehicles are of interest to users both in urban settings and to those who use interstate highways.

2. Data from Brazil suggests that a high percentage of new car purchases are financed, rather than paid for in cash. As indicated below, this is especially true in the case of "small cars." Industry experts believe that the new car financing patterns in Argentina are quite similar to those found in Brazil.

	%FINANCED	%PURCHASED FOR CASH
Small cars	87%	13%
Midsized cars	58%	42%
All other categories	57%	43%

3. As in the United States, in Argentina new cars have traditionally been advertised using a variety of media including billboards, print media (including newspapers and magazines), radio, television, and so on. As in the United States, the increased power and market penetration (especially with younger consumers) of the Internet is leading manufacturers of

consumer products in Argentina (including the car companies) to re-examine and reevaluate their expenditures on traditional media.

4. As in the United States, in Argentina new cars have traditionally been sold through dealerships. In Argentina, this has led to a situation where urban buyers (especially those located in Buenos Aires) are well served and are offered a wide variety of different makes and models of new cars; however, consumers interested in buying a new vehicle but living in rural areas may not have very many makes and models of new cars from which to choose.

THE COMPETITION

In Argentina, the principal competitors include: Ford Argentina S.A., General Motors de Argentina S.A., Peugeot Citroen Argentina S.A.(PSA), and Volkswagen Argentina S.A. In addition to these principal competitors, there are a number of additional automobile manufacturers engaged in various activities in Argentina. Information about the activities of various auto industry competitors in Argentina includes the following:

DAIMLER/CHRYSLER ARGENTINA S.A. (DCA): In 2002, DCA closed its assembly plant in Cordoba. In its Juan Manuel Fangio assembly plant outside of Buenos Aires, DCA manufactures a commercial van called Sprinter and a chassis which is used to build urban buses. While DCA assembles trucks and/or vans in Argentina and Brazil, as of 2004, the company no longer assembles cars in either Argentina or Brazil.

FIAT: The company closed its vehicle assembly operations in Argentina in 2001. Fiat continues to manufacture engines in Argentina; all of these engines are exported to Brazil, to be fitted in cars assembled there. Fiat indicates that it is going to re-open its transmission-building plant in Argentina; those transmissions will also be exported to Brazil. As of 2004, Fiat indicates that it does not intend to re-start its vehicle assembly plant in Argentina.

FORD ARGENTINA S.A. (FA): As indicated earlier, in 2004, Ford was the second largest seller of vehicles (51,888 units) in Argentina.

GENERAL MOTORS DE ARGENTINA(GMA): In its assembly plant in Rosario, GMA produces the Chevrolet Corsa and the Suzuki Grand Votara SUV. As indicated earlier, in 2004, Chevrolet was the third largest seller of vehicles (46,599 units) in Argentina.

MITSUBISHI ARGENTINA S.A. (MA): In 2004, Mitsubishi started exporting cars to Argentina from its assembly plant in Catalao City, Brazil. Vehicles manufactured at this plant include the Pajero TR4 sports utility vehicle.

PEUGEOT CITROEN ARGENTINA S.A. (PSA): In its assembly plant in Buenos Aires, PSA assembles the Peugeot 206, the Peugeot 307, the Peugeot Partner, and the Citroen Berlingo. The number of vehicles assembled by PSA in Argentina in 2004 was 45,000.

RENAULT ARGENTINA S.A. (RA): In 2004, plant utilization at RA's plant in Cordoba was less than 35%. As indicated earlier, prior to 2004 RA lost money in Argentina. Furthermore, while the company used to account for approximately 25% of annual new car sales in Argentina, Renault's share of new vehicles sold in Argentina in 2004 was less than 5%.

TOYOTA ARGENTINA S.A. (TA): TA's assembly plant is located in Zarate, approximately 50 miles north of Buenos Aires. The plant assembles two versions of the Hilux pickup truck and the Hilux-based SW4 sports utility vehicle. In 2004, TA assembled less than 40,000 units; of these, few were sold in Argentina i.e. most were exported to other markets including Brazil.

VOLKSWAGEN ARGENTINA S.A. (VA): In 1995, VA opened its General Pacheco Industrial Centre vehicle assembly plant in Argentina. As indicated earlier, in 2004, Volkswagen was the largest seller of vehicles (69,175 units) in Argentina.

THE CHALLENGE

Assume you are Mr. Pedro Gouzou. How do you propose to grow RA's vehicles business at least 15% this coming year, so as to meet the objective set for you by your CEO?

MISSOURI SOLVENTS: MANAGING CASH FLOW

David A. Kunz, Southeast Missouri State University
Rebecca Summary, Southeast Missouri State University

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 from 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:

-
- ◆ 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.
 - ◆ 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.
 - ◆ 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.
 - ◆ 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.
 - ◆ 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

Income Statements and Balance Sheets for Missouri Solvents (historic and projected) are provided in Appendix 1. Selected industry average ratios are provided in Appendix 2.

1. 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.

2. 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.

Appendix 1					
Missouri Solvents					
Income Statement (\$000)					
For the Year Ended December 31, 2007					
	2005	2006	2007	Projected 2008	Industry 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					
Assets	2005	2006	2007	Projected 2008	Industry Average 2007
	\$	\$	\$	\$	\$
Current assets					
Cash	220,000	215,000	265,000	190,000	400,000
Accounts receivable	7,555,000	8,575,000	9,615,000	10,275,000	12,000,000
Inventories	8,825,000	9,982,000	11,082,000	10,992,000	12,000,000
Total current assets	16,600,000	18,772,000	20,962,000	21,457,000	24,400,000
Gross fixed assets	32,650,000	34,800,000	40,100,000	47,800,000	35,000,000
Less: Accumulated depreciation	18,375,000	19,925,000	21,675,000	23,725,000	18,000,000
Net fixed assets	14,275,000	14,875,000	18,425,000	24,075,000	17,000,000
Total assets	30,875,000	33,647,000	39,387,000	45,532,000	41,400,000
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
Total 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

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%
* Sales/360 ** 360/inventory turnover ***360/(sales/accounts receivables) ****Accounts payables/(cost of goods sold/360)	

HRM CASE STUDY: DIVERSITY MANAGEMENT: FACILITATING DIVERSITY THROUGH THE RECRUITMENT, SELECTION AND INTEGRATION OF DIVERSE EMPLOYEES IN A QUEBEC BANK

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CASE DESCRIPTION

This case focuses on the illustration and application of HRM workplace diversity management concepts. First, students will have to discuss the advantages of a diverse workforce and the steps involved in diversity management. Next, they must critique the HRM director's diversity plan. They will then be required to design and implement HRM practices in order to facilitate the recruitment, selection, integration and development of diverse employees. Finally, students will propose measures that evaluate the effectiveness of these HRM diversity practices.

The case has a difficulty level of 4 to 6: it is appropriate for HRM courses from senior level to second year graduate level (M.Sc. and MBA courses in HRM, staffing). Students are expected to prepare the case before coming to class. The case is designed to be discussed in one class of 3 hours. This fictitious pedagogical case was inspired in part by the real-life experiences of HR and employment equity managers in various Canadian organizations. The authors interviewed or met these individuals during the second author's seminars on diversity.

CASE SYNOPSIS

In this case, participants will examine the situation of Françoise Roy, HRM manager of a bank in Quebec, Canada. Françoise had only been director of human resources at the People's Bank of Quebec (PBQ) for a little over a year when she undertook a huge project. This effort entailed encouraging diversity in the bank by increasing ethnic and cultural minority representation and by eliminating discrimination among the workforce. The Human Rights Committee had approved her action plan regarding employment equal opportunity. In order to achieve her goals, Françoise must now design and implement a workforce diversity action plan.

In this case study, students will first discuss the advantages of a diverse workforce and the steps in diversity management. Next, they must critique the HRM director's diversity action plan. They will then have to design and implement HRM practices in order to facilitate the recruitment,

selection, integration and development of a diverse workforce. Finally, students will be required to propose measures used to evaluate the effectiveness of these HRM diversity practices.

CASE INTRODUCTION

On February 27, 2003, Françoise Roy had a good reason to celebrate: finally, the Canadian Human Rights Commission had approved her employment equity plan. She had only been HR Director at People's Bank of Quebec (PBQ) for a little over a year, but she wanted to change things. She knew that in order to improve workforce representativeness and make discrimination a thing of the past, a lot would have to change in the minds of the people and in the organizational culture of that homogeneous Franco-Quebecer organization. Nevertheless, workplace diversity was one of her priorities, and she was determined to make it happen. But she wondered where to begin.

LEGAL AND SOCIO-DEMOGRAPHIC CONTEXT

In 2001 there were over 700,000 immigrants in Québec, 500,000 of whom were members of visible minority groups. While at the turn of the 20th Century, most immigrants were from the United States or European countries, the percentage of immigrants from these countries gradually decreased, as immigration from Asia and other parts of the world increased. Slow at first, this change became more visible in the eighties. Today, the vast majority of immigrants are Asian (including South Asians) or Black.

Legislation has been adapted in order to deal with this new reality. **The Canadian Charter of Rights and Freedoms**, which is included in the 1982 Canadian Constitution Act, guarantees equality to every individual regardless of race, religion, national or ethnic origin, color, sex, age or disability. The law allows, however, programs which benefit members of certain groups (such as women, aboriginals, people with disabilities and visible minorities) which have historically been subject to discrimination. The **Employment Equity Act** is designed to improve job opportunities for these four specific groups; according to this Act, private and public sector employers operating in federally regulated industries that employ 100 or more employees must design, implement and monitor the results of equity plans in order to ensure representation of designated groups in their workforce. Since the 1996 amendments to the Employment Equity Act, the Canadian Human Rights Commission is responsible for ensuring that employers comply with its requirements. In 1998, the Commission began conducting audits.

WORKPLACE DIVERSITY IN THE BANKING SECTOR

In pursuance of the Canadian Constitution Act, banking is under the exclusive legislative jurisdiction of the federal government. Seven chartered banks, including the People's Bank of

Quebec (PBQ), operate in Quebec. Each must comply with the Employment Equity Act's requirements. In addition, banks are required to deal with an increasingly diverse clientele. As a result, they have to manage diversity at two levels: in their own workforce, as they are legally bound to do, and in the market, by fulfilling their clients' needs. Globally, as a result of the efforts made during the past 15 years or so, visible minority representation in banks has reached a more-than-adequate level. In 2002, members of visible minority groups represented 18.6% of the workforce, while their rate of availability was only 12.6% in the general population of Canada. The state of affairs at the People's Bank of Quebec, however, was quite different.

PEOPLE'S BANK OF QUEBEC

PBQ is a medium-sized bank which focuses on retail and small-business banking. In 2002, its workforce comprised about 7,000 employees, of which more than half were unionized. In 2001, its net financial revenues had increased about 10%, as had been the case for other small and medium banks. In 2002, PBQ's revenues had fallen by half - but that year had been a difficult one for most Canadian banks.

However, on the diversity front, Françoise knew that the PBQ was trailing behind. Indeed, in 2002, members of visible minority groups represented less than 6% of the workforce; the Bank's employees were almost entirely French-speaking Quebecois. Women constituted a significant proportion of the workforce, but were under-represented in management jobs. Indeed, while over 80% of administrative and office employees were women, they represented only 18% of senior managers. Since the introduction of the first Employment Equity Act, in 1986, several employment equity plans had been devised, but none had led to any concrete changes. Actually, no less than 9 people had held the position of Human Resource Director between 1986 and 2002, and it seemed that dealing with this sensitive issue had never been a top priority. Françoise, the tenth HR Director since 1986, was fully aware of the magnitude of the challenge.

FRANÇOISE ROY, RH DIRECTOR

Françoise joined PBQ at the beginning of 2002, shortly after the Human Rights Commission had begun to verify the bank's compliance with the Employment Equity Act. Young, open minded and energetic, she fully intended to move this initiative forward. For her, it wasn't only about complying with legal standards. She knew that among minority groups, there were competent and talented people which the Bank would benefit from having in its ranks. She was also convinced that, with a more diversified workforce, the Bank would be better able to respond to the needs of its increasingly diverse clientele. According to Françoise, it was a matter of performing better, rather than simply complying with legal requirements. She had thus carefully devised her first equity plan, which she was eager to implement. However, in the course of the on-going verification process, the

Human Rights Commission demanded to verify the content of the plan. Patiently, Françoise waited for the Commission to approve of her plan. She didn't want to risk starting to implement it, only to have changes required after a couple of months. Finally, after several months, Françoise obtained the Commission's approval and was able to go ahead with the implementation.

FRANÇOISE'S DIVERSITY ACTION PLAN

	Activities	Timeline
1.	SET RULES AND PRACTICES WHICH PROMOTE DIVERSITY	
	1.1 Design and implement a global equity policy	Mar-03
	1.2 Design and implement an anti-harassment policy which protects members of diversity groups	Mar-03
	1.3 Design and implement a staffing policy	June-Oct. 2003
	1.4 Train managers on the requirements of the Employment Equity Act	June-03
	1.5 Implement a rewards program to recognize the efforts of managers and employees who adopt practices that promote diversity	Aug-03
2.	ELIMINATE OBSTACLES TO DIVERSITY IN RECRUITMENT AND SELECTION PRACTICES	
	2.1 Set up a process to facilitate recruitment and selection of employees from minority groups	Aug-03
	2.2 Improve the visibility and image of the Bank in minority groups	Aug-03
	2.3 Train managers on the staffing and recruitment policies as well as the selection tools which promote diversity	Aug-03
3.	ELIMINATE OBSTACLES TO DIVERSITY IN TRAINING PRACTICES	
	3.1 Develop a training program on equity and diversity in the workplace and train managers (step 1) and employees (step 2)	Sep-03
4.	ELIMINATE OBSTACLES TO DIVERSITY IN INTEGRATION AND CAREER MANAGEMENT PRACTICES	
	4.1 Set up a mentoring system for employees from minority groups	Oct-03
	4.2 Develop a succession plan which provide promotion opportunities for certain categories of employees from minority groups	
5.	CIRCULATE INFORMATION INTERNALLY REGARDING THE PROGRAM	
	5.1 Devise and implement an internal communication strategy for diversity-related matters	Aug-03
	5.2 Publish articles on diversity in the Bank's internal house organ	Continuously, from March 2003 on

IMPLEMENTATION CHALLENGES

Françoise truly believed in her equity plan. However, she knew that it would take time to implement and fix the situation. Even if she managed to attract record numbers of applicants from minority groups, would PBQ managers hire them? And if they were hired, how would they fit in the Bank's tightly knit, French Quebecois environment? The real challenge, for Françoise, was to change employees' thinking. Remembering some of the managers' previous comments, she felt a little bit concerned. More than once, when preparing to conduct an interview with a candidate from a different cultural or ethnic background, a manager had chuckled "Quite the name!" How many times had she been answered, having asked a manager why a highly qualified candidate from a minority group had not been hired, "She wouldn't have fit in the team" or "Our clients wouldn't have been comfortable dealing with him"? She suspected that some of the managers were hiding behind their team or their clientele, but that they were in fact the ones who were prejudiced.

The bank's CEO, Pierre Belanger, had ensured Françoise that he supported her in her efforts to hire a representative workforce. He had even written her a letter to that effect, and all managers had received a copy of it. Nevertheless, the young HR Director felt that other managers did not see diversity as a priority. Some of them may have even seen it as a hindrance, thinking "My team works fine as it is. Why would I want to change things and hire employees from minority groups who may not fit in with the others? I just don't see the point." This kind of thinking was very common among the Bank's employees and managers. Françoise had noticed members of minority groups were even reluctant to identify themselves as such, for fear of being accused of "wanting to take advantage of their minority status" to get ahead.

What HRM practices can facilitate the recruitment, selection and integration of diverse employees? How can I implement my diversity action plan in this context? She wondered.

APPENDIX 1

The *Canadian Charter of Rights and Freedoms* is part of the *Canadian Constitution Act, 1982*, which is the supreme law in Canada. It guarantees certain rights, among which is the right of equality:

Subsection 15(1) : Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, color, religion, sex, age or mental or physical disability.

The Charter's Section 15(1) thus prohibits discrimination. Subsection 15(2), however, allows (without making them mandatory) for certain laws or programs that favor disadvantaged individuals

or groups. Indeed, if it weren't for this subsection, programs which specifically benefit members of these groups would constitute a violation of subsection 15(1).

Subsection 15(2): Subsection (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, color, religion, sex, age or mental or physical disability.

It is the *Employment Equity Act* (1995), at the federal level, which actively protects members of minority groups by imposing certain obligations on targeted employers. This Act applies to federal public sector agencies, state-owned enterprises and private employers operating in federally regulated industries which employ more than 100 people. Four groups are protected by this Act: women, members of visible minority groups, aboriginals and people with disabilities:

Section 5: Every employer shall implement employment equity by

- (a) identifying and eliminating employment barriers against persons in designated groups that result from the employer's employment systems, policies and practices that are not authorized by law; and
- (b) instituting such positive policies and practices and making such reasonable accommodations as will ensure that persons in designated groups achieve a degree of representation in each occupational group in the employer's workforce that reflects their representation in (i) the Canadian workforce, or (ii) those segments of the Canadian workforce that are identifiable by qualification, eligibility or geography and from which the employer may reasonably be expected to draw employees.

WAL-MART: GETTING BACK TO GROWTH OLD GUARD VS. CHANGE AGENT CONFLICT AND THE IMPACT ON GROWTH

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CASE DESCRIPTION

The primary subject of the case is the development of a marketing strategy for Wal-Mart to improve "same store" U.S. sales growth during 2006-07. Wal-Mart must identify new growth opportunities and develop strategies to attract those consumer groups to Wal-Mart. Complications arise when Wal-Mart goes outside the retail industry for its marketing talent, resulting in a clash of values. There are conflicting managerial views of strategy implementation. The proposed strategy of upgraded merchandise and value pricing is resisted by the "old guard" strategy of selling large quantities of average merchandise at low everyday pricing. In addition, continual negative press presents additional marketing challenges to overcome.

The case has a difficulty level of undergraduate seniors in marketing strategy, retailing, market research, and master's level course in managerial marketing or business strategy. The case is designed to be taught in one class and can be taught in one of two ways. Students can be divided into teams of four students to prepare a case analysis defining the problem, developing alternative solutions, and providing a recommended solution and course of action. A second method is to use the end questions as a springboard for the case class discussion. For either alternative, the case can be taught in one and a half hours. Student preparation time should be expected to be eight hours in total for the group, about two hours per student. On an individual basis, a student should be able to read the case and complete the case questions in three hours.

CASE SYNOPSIS

Wal-Mart has been successful in opening retail discount mass merchandising stores across the United States, mainly in smaller, rural cities, where limited competition exists from small mom and pop retailers. As part of growth plans, Wal-Mart began opening stores in larger, suburban and urban areas and now faced competition from Target and other specialty retailers. Soon, some stores sales growth slowed and growth from new stores was limited by many communities objecting to Wal-Mart locating stores in their town.

Management was concerned whether the low price strategy could sustain growth. Several managers were hired to craft a new strategy moving away from price into more stylish fashion and

"value propositions." The fashion initiative failed and management brought in outside marketing people to select a new advertising agency to attract upper income shoppers to Wal-Mart, a difficult strategy given the current Wal-Mart customer was lower income. Conflicts soon arose within Wal-Mart on strategy changes with merchandising and marketing departments having different views on products and pricing. Complicating the problem was the fact new marketing people were culturally different than the old time Wal-Mart staff. Wal-Mart's negative image in the community presented additional marketing challenges. After conducting market research on current and potential customers, management faced product, pricing, and customer target decisions in a new competitive environment.

This case was prepared solely to provide material for class discussion. The authors did not intend to illustrate either effective or ineffective handling of a managerial situation.

INTRODUCTION

Carter Cast looked out of the window at the bleak February Arkansas sky. He reflected on his new assignment as head of business strategy and strategic planning for the 3,500 US Wal-Mart supercenters, discount stores, and neighborhood markets. He built Wal-Mart.com into a large, successful business in excess of \$1 billion, but now was faced with a huge challenge of turning the US retail business back to growth (Hudson, 2007). He thought about the upcoming meeting with his new boss, Eduardo Castro-Wright, chief executive of US stores who was spearheading an effort to boost sales by tailoring merchandise to the taste of each store's clientele (Hudson, 2007).

Sales growth in existing stores open at least one year was a low 2% going out of 2006, the slowest pace in a decade, so Wal-Mart was increasingly reliant on opening new stores to gain growth (McWilliams, 2007). Key competitor Target was growing same store sales at double the Wal-Mart rate (Vranica & McWilliams, 2007). Wal-Mart opened a staggering 350 stores a year in the US alone, the equivalent of a national chain each year (Fishman, 2007). But new store openings were getting more and more difficult as communities, anti-Wal-Mart organizations, and local governments sought to block the company's entry into major markets, making a strategy for growth for existing stores a priority.

Core Strategy

Cast thought about what made Wal-Mart succeed in the past and why the original strategy was not working today. The company was built on a low-price strategy. In the early years of the company, stores were opened in rural locations with little competition (Hudson, 2006). This enabled Wal-Mart to establish a business without investing to fight other retailers. Smaller, local competitors, often mom and pop retailers, simply went out of business because they could not match Wal-Mart's selection and low pricing. Wal-Mart also placed extreme pressure on suppliers for low

pricing, developed an efficient distribution system to move goods from warehouses to stores, and paid low wages, lower than competition (Bianco, 2006). These factors allowed Wal-Mart to offer lower prices and still make a profit.

As the company grew, sourcing of clothing and other goods sold directly by Wal-Mart and through its suppliers came under cost pressures. Wal-Mart was one of the early companies to recognize the low wages in China were an opportunity to shift production from the United States. By itself, in 2005 Wal-Mart was China's fifth largest trading partner, the largest single corporate trading partner, and accounted for about 11% of the US trade deficit with China in 2004 (Bianco, 2006). The low costs achieved in China put pricing pressure on its US suppliers and helped Wal-Mart maintain its low price strategy.

As Wal-Mart grew, it made a key strategic change and started to locate its stores in major metropolitan areas, urban markets often with higher incomes, dissimilar tastes, and different, stronger competition. Wal-Mart continued to focus on low-prices using the Smiley face icon from 1995 to 2006 in a variety of situations rolling back prices and extolling "always low prices" (Hudson & Zimmerman, 2006). But by late 2005, same store sales were slowing down and management began to wonder whether the low price strategy could sustain growth or an alternative strategy should be developed.

Cast left his office and walked down the hall to meet with John Fleming, the former head of marketing and now the new head of merchandising, to get an insider's view of the last year's changes. Fleming came to Wal-Mart after 19 years at Target as a senior merchandising executive (Birchall, 2007)

Shifts in Strategic Direction

Fleming got up and closed the door behind Cast and they both settled in at a long conference table. Fleming began the conversation by taking Cast back almost a year, to early 2005. He explained that before he got into the strategic issues, the company's public image needed explanation because he thought it might have an impact on a slow down in sales, but he wasn't quite sure.

Critics of Wal-Mart slammed the company for everything from alleged sex discrimination to poverty level wages with the AFL-CIO not trying to unionize. Exploitation of Wal-Mart's negative image served to drive business away (Bernstein, 2005). Four television documentaries aired in the last two years describing many of Wal-Mart's misdeeds. There were, battles with community activists, outsourcing to China, low wages, lack of healthcare programs, and pressure on suppliers (Featherstone, 2006). In November of 2005, a 400 plus coalition of national and local groups including the Service Employees International Union, the Sierra Club, the United Church of Christ, and Sprawl-Busters mounted a variety of actions to protest Wal-Mart's labor and environmental policies (Bernstein & Beucke, 2005).

Published research, some leaked from Wal-Mart, indicated the negative publicity could affect sales. Research from Wal-Mart found about 14% of U.S. consumers are "conscientious objectors" with little loyalty to Wal-Mart while an earlier study by a consulting firm reported Wal-Mart lost between 2% and 8% of its shoppers because of bad publicity (Kabel, 2007).

The company tried to counter with an economic conference extolling the contribution of Wal-Mart to the economy (Bernstein & Beucke, 2005). CEO Lee Scott tried to soften the Wal-Mart image of bullying local towns into allowing Wal-Mart stores to open (Bianco, 2006) through a public relations campaign. The image of Wal-Mart as a bully, insensitive to community needs, paying low wages, causing jobs to move off-shore, and pressuring suppliers on price may have had a negative impact on sales.

As 2006 began to unfold, Wal-Mart decided to increase its marketing department staff from 200 to 260 people, in an effort to jump-start its lagging sales (Zimmerman, 2006). Fleming, who headed the marketing department, recruited two high profile marketers, Julie Roehm, who previously managed marketing at Chrysler, and Stephen Quinn, a senior marketing executive from Frito-Lay (Hudson & Zimmerman, 2006). At Chrysler, Roehm developed a reputation for pushing the edge of advertising, particularly adding a strong dose of sex to Dodge truck commercials (Fishman, 2007). At Chrysler, Roehm introduced return-on-investment techniques to Chrysler's advertising campaigns, requiring the ad agencies to develop hard measures of a campaigns success such as increases in awareness (McWilliams, Vranica, & Boudette, 2006). As the marketing department was beefed up, new departments were formed including brand management, a category marketing group, and an insight and customer strategy group (Zimmerman, 2006). Meanwhile, alternative advertising to the Smiley face low-price were campaign were being developed and executed.

First, the Smiley ads were demoted in favor of ads that showed well-priced products but with small Smileys in the background and then, in a radical departure to promote its new fashion line, Metro 7, the company ran a series ads in the high fashion magazine, Vogue, seemingly incompatible with Wal-Mart's cost conscious demographic (Hudson & Zimmerman, 2006). Wal-Mart also added more stylish merchandise, expensive television sets, and revamped stores in an effort to reach higher income customers. These sophisticated urban shoppers stay in the store longer and often buy more than just household staples and food (Elliott & Barbaro, 2006). Back-to-school advertising shied away from price and moved towards a value proposition. The company felt it owned the low price image and needed to move to value in products, services, and customer experience (Hudson & Zimmerman, 2006).

Critics of the new advertising say the move to fashion and away from price may unrealistically raise shoppers' expectations. The changes could be too much, too soon, and the remodeling of stores and roll-outs of the fashion lines are still work in progress (Hudson & Zimmerman, 2006). By the close of 2006, problems continued with Wal-Mart's home and clothing

categories. Its core customers had not responded well to the Metro 7 clothing line introduction (Birchall, 2006) and store remodeling disrupted sales (Hudson, 2006).

Second, the Wal-Mart advertising account was put up for review. For the first time in 30 years Wal-Mart asked its incumbent advertising agencies Bernstein-Rein and GSD&M to pitch for the Wal-Mart \$580 million account (Elliott & Barbaro, 2006). Fleming then set several broad goals for the agency review. He wanted the agencies to find ways to attract upper income shoppers to Wal-Mart, get a greater understanding of the customer, and finally, make sure all messages are consistent across the media Wal-Mart uses (Elliott & Barbaro, 2006).

The assignment in part was to develop test campaigns for the back to school season and consumer electronics (Helm, 2006). Julie Roehm, the recently hired senior vice-president for marketing communications was assigned to lead the agency review and recommendation process (Elliott & Barbaro, 2006).

This change in strategic direction was fraught with difficulties and uncertainties. Lee H. Scott, the CEO, called the efforts to appeal to higher-income customers without losing price sensitive loyalists "the most complex thing we've attempted. We don't want to lose our customer base but we want to create and have products that let people more fully shop our stores" (Vrancia & McWilliams, 2006). Industry consultants voiced a similar concern. The strategy of going after a "selective consumer" who shops at Wal-Mart 26 times a year versus a loyalist who shops 52 times, could make the lower and middle income Wal-Mart shoppers feel they are not at home anymore (Elliott & Barbaro, 2006).

Later, Fleming admitted the "selective shopper," as he labeled these customers, was limited and based on research that was not deep enough and Wal-Mart did not know exactly what motivated their clothing purchases (Barbaro, 2007b).

Competition

Fleming then turned the discussion to the competition. As Wal-Mart opened stores in urban areas, they encountered stiffer competition for prime store locations and shoppers who aren't always attracted by low prices (Hudson, 2006). This was quite different than their ability to dominate rural markets with little competition. Target's "cheap chic" was a prime competitor both for customers and as a Wall Street comparative.

Target offered low prices, but a better shopping experience, including in-house merchandise that rivals more expensive products in quality, but at a lower price (Cramer, 2006). Target was already established in urban areas with 83% of its stores in urban/suburban locations (Wal-Mart 55%) and 88% of its stores opened since October 2002 in more densely populated counties (Wal-Mart 76%) (Hudson, 2006). So Target was better established in areas Wal-Mart sought to enter.

Other retailers developed strategies to compete against Wal-Mart, moving the battleground from price to other dimensions including product assortment, quality, convenience, service, and perceived value. Retailers such as Publix, HEB, PetsMart, Best Buy, and Walgreens manage to coexist, if not thrive in the face of Wal-Mart (Rigby & Haas, 2004). In response to such competition, Fleming explained he sought to move Wal-Mart away from the "stack 'em high, sell 'em cheap" message and one size fits all to a more segmented approach. Consumer research would be needed to move customers to a place where price and image are not the only differentiators, but will be linked to assortments and customer experience (Birchall, 2007).

Julie Roehm and Advertising Agency Selection

Fleming looked uncomfortable as the conversation moved to the advertising campaign run during Christmas 2005 and the advertising agency selection led by Roehm. Under Roehm's direction, Wal-Mart began to test a variety of new advertising approaches, one with the title "Sexy" (Fishman, 2007). This was a television commercial run over Christmas showing a couple opening a Christmas gift box containing sexy lingerie in front of family members. Several complaints were received from consumers so Wal-Mart quickly pulled the ad (Berner, 2007). Roehm had some successes with a commercial for a flat screen television. The ad parodied a Best Buy salesperson spouting technical talk and ending on a Wal-Mart message of simply low price that resulted in strong sales (McWilliams et al ., 2006).

Roehm's style never really fit in with the Wal-Mart culture. She did not like the drab color of her office so she brought her own paint and stepladder and one evening painted her office chartreuse with chocolate brown trim. While on the road for over 100 days in the agency selection process, she missed critical staff meetings with the CEO, a Wal-Mart no-no (Berner, 2007). She never established a working relationship with Steve Quinn, who was charged with building consumer and marketing strategy departments, thus limiting her ability to refine her marketing messages (Berner, 2007).

Roehm was teamed with Sean Womack, from the advertising agency Saatchi and Saatchi, who was hired at the same time she was, to work together on the agency selection process (Fishman, 2007). They visited 30 or so advertising agencies over the summer of 2006 (Berner, 2007) and then the rumors started at headquarters that Roehm and Womack were more than colleagues (Fishman, 2007).

Roehm and Womack narrowed the agency search down to several agencies and then decided to recommend DraftFCB in Chicago. DraftFCB was headed by Howard Draft, an expert in direct marketing. The agency understood return on investment justification and had expertise in market and customer segmentation (Fishman, 2007). Roehm recommended DraftFCB because of the agency's focus on understanding who the customers are and how to target them directly. Their proposal was to reorient merchandise and ads, market by market, and perhaps store by store, and

introduce the theme line, "A Life Well Spent" which might appeal to the selective Target shopper (Fishman, 2007). It also may have been Draft's view on performance accountability was similar to Roehm's.

It was clear the ability to gain consistency between merchandise, store layout, product and Wal-Mart positioning would be very difficult. Wal-Mart merchandising department was charged with the selection of merchandise and seemed to operate independently of Quinn and Roehm's strategies and customer insights and disregarded recommendations for back-to-school fashions (Fishman, 2007). This lack of coordination led to stores featuring prices while advertising featured style. Apparently the new approaches in the past were not fully embraced within Wal-Mart and the company would always seem to slip back to the old strategy that emphasized low prices (Vranica & McWilliams, 2006b).

In early November 2006, Wal-Mart announced DraftFCB would be its advertising agency. DraftFCB may have had the edge because of its direct marketing experience and data mining ability. Wal-Mart needed to identify and efficiently reach more affluent customers who would be willing to buy expensive televisions and clothing along with the basics of food, detergents, and underwear (Vranica & McWilliams, 2006). DraftFCB started hiring 200 new staffers to service the Wal-Mart account (Barbaro & Elliott, 2006).

On November 30, Roehm and Womack were in a meeting with Draft in Chicago when they received a call from the Wal-Mart president Lee Scott. He requested they return immediately to the corporate headquarters in Bentonville to discuss the agency assignments; a corporate jet would pick them up (Fishman, 2007). When they arrived, Wal-Mart lawyers and security people questioned them about their personal relationship (Fishman, 2007). They were also accused of taking gifts in the form of drinks and meals in New York City with Howard Draft in direct violations of Wal-Mart policy (Barbaro & Elliott, 2006). Fleming stared at the ceiling and told Cast three days later Wal-Mart fired Roehm, Womack and the DraftFCB agency. While Wal-Mart would not provide specific reasons for the terminations, they suggested that the acceptance of gratuities was at the core of the dismissals (McWilliams, Vranica, & Boudette, 2006).

Observers of the termination fell into two different camps. Some speculated it was based on the continuing conflict in Wal-Mart with the old-time procure products at a low cost and sell at a low price against young marketers preaching brand building, strong advertising, and market segmentation (McWilliams et al., 2006). Others put the blame more squarely on Roehm's inability to understand the Wal-Mart culture, particularly the fiefdoms and resistance to outsiders at the company (Berner, 2007).

Moving Forward after Roehm

Fleming explained the two major changes that took place following the departure of Roehm and the firing of DraftFCB. First, Fleming was promoted from Chief Marketing Officer to Chief

Merchandising Officer with increased responsibilities for four core business divisions, grocery, apparel, entertainment, and home. Additionally, Fleming would also be responsible for two newly created organizations, one focused on the customer experience and the other focused on planning, pricing, and replenishment. Pharmacy and optical divisions would report to another executive (Wal-Mart announces, 2007). Stephen Quinn was named to succeed Fleming as Chief Marketing Officer as part of the reorganization that was intended to align merchants with key product areas, each with clearly defined customer segments (Wal-Mart announces, 2007). Two new advertising agencies were named to handle the Wal-Mart account, the Martin Agency, part of Interpublic Group Co.'s and Publicis Groupe SA's MediaVest to handle media buying (Vranica & McWilliams, 2007).

Fleming pulled a small flip chart presentation from his desk and told Cast he wanted to brief him on the final segmentation study and the new direction Wal-Mart would take starting in 2007. Fleming explained after a year of intense market research, Wal-Mart is seeing its current customers in three groups, "brand aspirational" (people with low incomes who are obsessed with names like KitchenAid) "price sensitive affluent" (wealthier shoppers who love deals) and "value price shoppers" (who like low prices and cannot afford much more) with one thing in common, they want deals but do not want cheap products (Barbaro, 2007). Fleming detailed a new organizational structure within Wal-Mart. Product decision teams would be formed, each with a marketing executive and a merchandising executive to integrate the five product divisions of food, apparel, entertainment, home goods, and pharmacy with the three Wal-Mart customer segments in mind (Barbaro, 2007).

On paper the new strategy looked persuasive. But the upscale strategy had been tried and it did not work. There were people at Wal-Mart who were deeply invested in the low price strategy. The reality was the Metro 7 fashion line was now in only 1,000 stores versus 1,500 a year ago and remodeling the aging stores and fixing the merchandise mix was the biggest priority for 2007 (Barbaro, 2007).

Fleming said he was calling in Steve Quinn to ask him to assign the new agencies and begin the integrated marketing communications project using the three new customer target groups. He wanted to see how the new strategy would be executed. He considered two campaigns, one for back to school for August/September 2007 and an annual home entertainment campaign seeking to build the higher priced electronics business, but was open for suggestions.

QUESTIONS FOR DISCUSSION

1. What were the critical factors that led to the early success and growth of Wal-Mart?
2. Why did Wal-Mart see the need to change strategy?

3. How has Wal-Mart's negative image affected the business? Should this be a concern for the marketing department or public relations department?
4. Wal-Mart attempted to attract higher income customers with its Metro 7 line, upgraded televisions, and adding more stylish merchandise. Do you agree with this change? What are the risks to current customers?
5. Describe Wal-Mart's relationship with its current suppliers. If Wal-Mart wants to upgrade its image by sourcing product from major name brands in fashion, what might Wal-Mart face in trying to do business with these suppliers?
6. How well did Roehm and Womack fit into the Wal-Mart culture? How did Wal-Mart culture and organizational structure influence marketing and merchandising decisions?
7. Describe how you might go about selecting a new ad agency. How would you have conducted the selection process? What was the rationale for selecting DraftFCB? Why might the "old guard" at Wal-Mart be resistant to Draft?
8. Going forward, what can Wal-Mart do to improve same store sales?

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WAL-MART IS COMING TO INDIA -THE CASE

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CASE DESCRIPTION

Wal-Mart, which employs more than a million people, is under intense scrutiny for its policies and practices in the U.S. In spite of all its might and contributions, it is regularly under attack for treatment of its employees-for their low wages, lack of medical and dental plans, and lack of pension benefits-and for the decimation of small entrepreneurs in the community wherever it establishes its mega stores. So it is no surprise that Wal-Mart's coming to India, through a partnership with Bharti Group, is being opposed by many.

The primary purpose of this study is to analyze the ethical aspects of the largest international retailer, Walmart, coming to India where millions of people depend upon small businesses for their livelihood. The other important topics to be researched include: (a) The reasons why Wal-Mart wants to enter the Indian market; (b) Why its entry is opposed by some people; and (c) Why some others want the retailing giant to come to India.

This is a practice oriented case study (versus academic) appropriate for both undergraduate (junior and senior levels) and graduate level students. A teacher would require about an hour to explain the case contents and its significance to students. Similarly, a student would need about 2-3 hours to prepare the case and about half an hour to present it to the class, if so required. Time would vary depending on whether the case is analyzed and presented using a team approach or otherwise. However, because of the multidimensional nature of the case, a team approach may be more meaningful in its analysis.

CASE SYNOPSIS

This case would be very helpful to students, teachers, advisors, and policy makers who are interested in subject areas such as, international retailing, retailing in India, infrastructural development in India, and the effects of a giant multinational retailer's coming to India on its millions of kirana stores (small businesses) and the millions of people who depend upon these kirana stores for their livelihood.

INTRODUCTION

An Humble Beginning

On May 9, 1950, Sam Walton purchased a store from Luther E. Harrison in Bentonville, Arkansas, and opened Walton's 5 & 10 (Trimble 1990). As Walton's continued to grow, Sam opened his first Wal-Mart discount store in 1962 in Rogers, Arkansas (Trimble 1990). And the rest is history. By 1987, the company grew to 1,029 stores (including Sam's Wholesale Clubs) across the country with sales of \$11.9 billion (Walmart 1987 Annual Report).

Sam Walton, one of the richest persons in the country, who started working for a J. C. Penny store in Marshalltown, Iowa, in 1940, for \$2 a month, passed away on April 5, 1992, shortly after the U.S. President George H. W. Bush presented him with the Presidential Medal of Freedom (Walton and Huey 1993). His eldest son, S. Robson Walton, succeeded him as Chairman of the corporate board of directors, on April 7, 1992. The Fortune magazine ranked Wal-Mart as the most admired global firm in 2003 and 2004 (Wikipedia, the free encyclopedia).

The mega-retailer contributed U.S. \$18 million in cash donations to the hurricane relief efforts. On September 12, 2007 Wal-Mart introduced new advertising with the slogan, "Save Money Live Better," replacing the slogan, "Always Low Prices, Always," which it has been using for the past about 17 years. On June 30, 2008 the company changed its logo from Wal*Mart to Walmart-without the star in the middle (Wikipedia, the free encyclopedia).

Over the years, Wal-Mart has faced thousands of law-suits; many of them class action, for a host of reasons, such as discrimination, low wages, unpaid wages, etc. Finally, after years of unsuccessful fighting, Walmart recently agreed to settle 63 cases pending in state and federal courts in 42 states. The workers and their attorneys will receive at least \$352 million under this settlement. The amount could increase to \$640 million, depending upon the number of claims submitted by the workers involved (Greenhouse and Rosenbloom 2008).

The Weight of Wal-Mart

For hundreds of years, it was the manufacturer which sat at the top of the manufacturer-distributor chain. Now it is Wal-Mart, a single retailer, which sits above the manufacturer because of its unparalleled buying power. It is a new phenomenon in the world trade, a new chapter in the history of business. Losing a Wal-Mart account could be devastating for a manufacturer/supplier. The latter must follow all the product quality and other specifications provided for by Wal-Mart before filling its orders. With Wal-Mart's relentless emphasis on reducing costs, its suppliers have to reduce their costs, prices and profits as well. Or else! As a consequence, many of the Wal-Mart's suppliers, major international firms in their own right, are outsourcing their

production and procurement network to low cost developing countries such as China, Mexico, India, and Philippines. Some of them had to completely close their operations in the U.S.

Levi's is a case in point. It had to close its two remaining plants in San Antonio, Texas, to bring an end to its 150 years of glorious history of manufacturing jeans and other products in the U.S. Levi's paid its American workers up to \$12 an hour for factory-floor jobs, which was about 10 times more than what their counterparts earned in many developing countries. There is no reason for Wal-Mart and other retailers, discounters or not, to buy so expensive merchandise made in America by Levi's, when they can easily import similar items much cheaper from these developing countries. Levi's products are now made abroad and sold worldwide, including to its major customer, Wal-Mart (BBC News 2005).

For the record, years ago, when Wal-Mart was trying to establish roots, it prided itself on buying and selling products made in America. "Buy American" was its favorite promotional slogan. The dawn of the global business and availability of much cheaper products abroad brought an end to that era. American consumers loved the cheaper products, as the American workers looked for other jobs, or tried to make ends meet with their unemployment checks.

GLOBAL STRATEGIES

The Wal-Mart International Division was formed in 1993, with Bobby Martin as its president. In its early years, Wal-Mart followed two important guidelines, among others, while going global. First, that the foreign country-where it would like to establish its stores-should be closer to the U.S. Secondly, this country should have a large consumer base. With those strategic guidelines, Wal-Mart first went to Mexico in 1991 (in a 50-50 partnership with Cifra, a local mega-retailer); to Brazil in 1994 (in collaboration with Lojas Americana, a local retailing firm); and to Argentina in 1995 (http://en.wikipedia.org/wiki/History_of_Wal-Mart).

Wal-Mart, in those early years, decided not to enter Europe in order to avoid direct competition from some other global mega-retailers already established there, such as Metro A.G. in Germany and Carrefour in France. Similarly, it excluded China and India from its initial list of global targets because of their distance from the U.S.; and their mutual cultural differences-although the population of both of these Asian countries was many times more than that of Mexico, Brazil, Argentina, and Canada (http://en.wikipedia.org/wiki/History_of_Wal-Mart).

The year 1994 witnessed Wal-Mart's entry into Hong Kong in collaboration with the C.P. Pokphand Company, a diversified powerhouse based in Thailand. In the same year, Wal-Mart established its foothold in Canada with the purchase of 91 PACE Membership Warehouse Clubs owned by Kmart and 122 stores owned by Woolco. It went into China in 1996 with a local collaboration. The year 1997 saw Wal-Mart going to Germany by purchasing 21 Wertkauf stores there (http://en.wikipedia.org/wiki/History_of_Wal-Mart).

Retreats from Germany and South Korea

Unfortunately, in spite of all its enormous resources and discounted price levels, Wal-Mart failed to understand the German retail customer fully. Dealing with powerful labor unions and competing with well-entrenched competitors in Germany only made it more challenging for Wal-Mart to establish itself in that country. So, after about ten years of trying, Wal-Mart pulled out of Germany in 2006. Likewise, it also bade good-bye to South Korea in the same year for similar reasons (White 2008).

Wal-Mart is also facing comparable challenges to its Asda Grocery chain in Britain which it purchased in 1999. It is having problems converting these grocery stores into super-centers, like it has been doing quite successfully in the U.S. Asda continues to trail behind the British retail giants, Tesco and J. Sainsbury (White 2008).

WAL-MART FINANCES

The Total Picture

Wal-Mart Stores, Inc. posted record sales and earnings for fiscal year 2008. Total net sales for the Company were \$374.5 billion, an 8.6 percent increase over the previous fiscal year and a record for any retailer. Operating income was \$22.0 billion, up 7.3 percent from the previous year. Diluted earnings per share from continuing operations for the fiscal year were \$3.16, an increase of 8.2 percent over the previous year. The Company generated \$5.4 billion in free cash flow in fiscal year 2008, compared to \$4.3 billion in fiscal year 2007.

Wal-Mart remains focused on improving its comparable store sales, inventory management, expense leverage, return on investment, and shareholder value (Wal-Mart 2008).

Wal-Mart International

Wal-Mart International's 2008 net sales from continuing operations were \$90.6 billion, up 17.5 percent from the previous fiscal year. Several other important events took place in this year. These included, opening its 3,000th international unit; forming joint venture with Bharti Enterprises in India; opening first Walmex bank in Mexico; and strengthening leadership teams throughout Wal-Mart International (Wal-Mart 2008).

WALMART COMING TO INDIA

For several years, the Government of India did not allow international retailing giants to make foreign direct investment (FDI) in its retailing industry-for the fear that they would hurt small

Indian retailers. These firms, however, were allowed to do business in India using licensing and franchising arrangements. These include Adidas, Dominos, Kodak, Lee, Levis, McDonald's, Medicine Shoppe, Nike, Pizza Hut, Sharp, Sony, and TGIF. The government of India also permitted FDI in the construction projects.

Wal-Mart lobbied with various leaders and groups in and outside India in connection with its goal of entering the largest democracy in the world. John Menzer, the CEO of Wal-Mart's international operations, had several meetings with the leading Indian government officials, including its prime minister, Manmohan Singh. On a political level, David Mulford, the United States Ambassador to India, had meetings with the Indian Prime Minister, the Finance Minister, and the Commerce Minister to promote the cause of the US retailer (Rai, Rajshekhar 2005).

Internationally, Wal-Mart, along with the U.S. government, persuaded various bodies, including the World Trade Organization (WTO), to make regulations to bring down barriers to international trade and investment, including in the retailing, banking, and telecommunication industries.

Joint Venture Agreement and its Goals and Management

With the Government relaxing its restrictions on the FDI in retailing industry in India, Wal-Mart has entered into a joint venture agreement with Bharti Enterprises of India. Toward that end, they signed a Memorandum of Understanding on November 27, 2006. Some of its main provisions are as stated below (Press Trust of India/Chandigarh 2008):

1. Both parties will have equal stakes in the joint venture.
2. Bharti would own the retail shops under a franchise agreement with Wal-Mart and the former would pay a royalty of 2-3% of sales to the latter for this arrangement.
3. The joint venture will operate in retail areas such as, cash-and-carry and logistics, which are approved by the government for foreign direct investment. A typical cash-and-carry store will occupy 50,000-100,000 sq feet and sell a wide range of fruits and vegetables, groceries, footwear, clothing, and other general merchandise.
4. Initially, they plan to open 15 retail stores in the next seven years. The first store is planned to be opened in 2009 in Punjab.
5. When the 15 stores are opened, they will employ 5,000 people. They also plan to source about 90 per cent of their requirements for these stores from the Indian sources. Wal-Mart also plans to increase its outsourcing from India to for its global needs. (The Economic Times, 24 Sept, 2008 2057 hours IST, PTI)
6. For managing this joint venture, Wal-Mart has appointed Raj Jain, its Emerging Markets President & CEO, as its Managing Director.

India's Inefficient Infrastructure

All the same, however, as Walmart begins operations in India, it should recognize that this largest democracy in the world with a population of more than a billion people is handicapped by insufficient and crumbling systems of transportation and distribution. Its roads, highways, waterways, seaports, and airways are limited in their spread and reaches. They are heavily traveled and are poorly maintained. They slowdown travel-speed, increase pollution, reduce equipment life, increase costs, and delay the delivery of goods and services across the country which is divided into 28 states and dozens of languages.

The equipment used in transporting goods and services are quantitatively insufficient and qualitatively deficient. Shortage of refrigerated equipment for transportation is particularly noteworthy.

OBJECTIVES OF THE STUDY

The purpose of this case research is to make an in-depth study of the various social and economic aspects of Wal-Mart coming to India. In particular, this research would answer the following questions:

1. Why Wal-Mart wants to enter the Indian market?
2. Why some people are against Walmart coming to India?
3. Why India wants to invite Walmart to India?
4. It is argued that Wal-Mart's coming to India would be unethical since it would cause unemployment and displacement of millions of people and their families. What is your opinion?

ENDNOTE

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FINANCIAL ANALYSIS OF WRONGFUL TERMINATION: JOSEPH KIDWELL

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CASE DESCRIPTION

The primary subject matter of this case concerns the valuation of economic damages incurred by Mr. Joseph Kidwell upon his wrongful termination from Gilad Lexus of Billings, Montana. A secondary issue examined involves brand specific knowledge which is not transferable to the selling of other automobiles. The course has a difficulty level appropriate for the advanced undergraduate or first year masters students, practicing HR managers or those seeking to become forensic economists. The case is designed to be taught in one and a half class hours and is expected to require two hours of outside preparation by students.

CASE SYNOPSIS

Joseph Kidwell, a talented sales manager for a Lexus dealership, was terminated for refusing to call the police and report a car as being stolen. It was later found that an employee had borrowed the car without permission, but Joseph had already been terminated. Joseph brought a lawsuit against the dealership for wrongful termination, the details of which are presented in this case. The reader is tasked with analyzing the economic loss suffered by Joseph due to the termination.

INTRODUCTION

Joseph Kidwell grew up in Billings, Montana. He graduated from the local high school in 1998 and went to work for Gilad Lexus in October of the same year. Joseph enjoyed his job selling cars. He had a real fascination with the Lexus brand of automobiles and spent hours each day improving his stock of knowledge about the cars.

Two years after starting his job with Gilad Lexus, Joseph married his high school sweetheart, Jennifer Paulson. A year later they had their first child, Ryan. It was time to move out of the apartments and into a home of their own. They built a new home in a subdivision close to the dealership. Jennifer joined a number of civic organizations in an effort to integrate the family into the social fabric of the community.

In July of 2003, Joseph and Jennifer had their second child, Lisa. Luckily, Joseph's career at Gilad had been progressing. The existing Sales Manager of the dealership retired in August, and the General Manager, Mike Neddlemeyer, thought Joseph was the perfect choice to fill the opening. The duties of a Sales Manager include supervising the sales staff, directing the advertising, and running the sales department in such a way as to maintain the customers' perception of the Lexus way of doing things.

MANAGEMENT STRUCTURE AND COMPENSATION

The management structure of each Lexus dealership consists of a general manager with a sales manager and a service manager reporting to the general manager. Depending on the size of the dealership, there may be assistant sales and service managers. The general manager of the Gilad dealership, Mike Neddlemeyer, liked Joseph and trained him in the Lexus way of doing things. Lexus dealerships attempt to differentiate themselves from competing car brands by offering a distinctive style of service and attention to detail. It takes time and effort to learn this way of doing things. Joseph excelled in his job.

His compensation as Sales Manager consisted of a \$25,000 base salary plus 2 percent of gross sales. In 2003 his total compensation consisted of \$130,411. Through the dealership, Joseph was able to purchase health insurance for his family at a group rate of \$400 per month. Gilad Lexus offers a defined contribution retirement plan for its employees. The dealership matches 50% of an employee's contributions to a 401k account up to a maximum of 3% of the employee's total compensation. Joseph made sure that he contributed 6% of his income to his 401k so that he was able to get the maximum 3% match.

EVENTS LEADING UP TO THE TERMINATION

In January of 2006, Mr. Neddlemeyer retired. The owners of the dealership appointed Jack Maguire as the new General Manager. From the outset, Mr. Maguire gave the impression of a person unsure of himself. He had a need to exert his authority and establish his right to call the shots. For the managers who reported to Mr. Maguire, this was annoying. Prior to Mr. Maguire's arrival, the sales and service managers knew what Mr. Neddlemeyer expected of them and they did their jobs without checking first with Mr. Neddlemeyer. Mr. Maguire on the other hand, expected to be consulted on many decisions that Joseph and the service manager considered to be routine.

On June 3, 2006 Larry Robbins, a salesman who had been with the dealership for a year and a half, had car trouble on his way to work (he wasn't driving a Lexus). After having his car towed to a local service station, the tow truck driver dropped him off at the Gilad dealership. That evening, not having a ride home, Larry took the keys to one of the demonstrator cars and drove it home. He did not ask whether this was acceptable, he just did it. Later that evening, Mr. Maguire returned to

the dealership after the dealership had closed and noticed that one of the demonstrator cars was missing. He called Joseph to find out who had the car. Joseph didn't know offhand where the car was but didn't think the car had been stolen. Mr. Maguire insisted that Joseph call the police and report the car stolen. Joseph refused to do this on the grounds that it was unnecessarily hasty. Upon his refusal, Mr. Maguire became very angry and fired Joseph immediately.

The next day, Larry returned to work with the car he had borrowed. Learning that Joseph had been fired, Larry went to Mr. Maguire and explained what he had done. Not wanting anyone to question his authority, Mr. Maguire refused to reverse his decision to dismiss Joseph even though he now knew that there had been no theft.

Needless to say, Joseph was in shock. At the time of his dismissal he was earning over \$200,000 per year plus benefits. Suddenly he was earning nothing. Trying to find another position in Billings that paid him the same amount of money was going to be difficult. He did not have a college degree, which was often required in management positions. His knowledge of the automobile business was limited to Lexus and the Lexus way of doing things. There was only one Lexus dealer in Billings, Montana and that was Gilad Lexus.

THE LAWSUIT

After several weeks of trying to get Mr. Maguire to change his mind, Joseph concluded that he had no other recourse than to sue Gilad Lexus for wrongful termination. He contacted Peter Copton, an attorney recommended by a friend. Peter explained that the case will revolve around the economic damages suffered by Joseph as a result of the termination. These economic damages will consist of the difference between the expected money and benefits Joseph would have earned if he had not been terminated and the money and benefits he is expected to earn after termination. Any expenses incurred in the process of finding new employment could also be claimed as damages. Peter arranged for a trial date of August 1, 2007.

Of course Mr. Maguire and the attorney for Gilad Lexus had a different view. Mr. Maguire firmly believes that he was within his rights to fire Joseph for refusing to follow a direct order. Joseph was an "at will" employee, which means that he worked at the will of the employer and could be dismissed at any time.

2003	2004	2005	2006
\$130,411	\$210,056	\$225,312	\$110,934

PREPARATIONS FOR THE TRIAL

Joseph's attorney, Peter Copton, has sought your assistance in analyzing the economic damages that form the basis for the lawsuit. He has asked you, in addition, to be sure to assess the effects of inflation in estimating future damages, to justify your choice of discount rate, and to ascertain the appropriate time frame during which Joseph could attain his previous level of earnings.

Since the time of his dismissal, Joseph has been looking for employment. Unfortunately, Joseph is being forced to consider moving away from Billings. He is currently paying \$900 per month for his family's health insurance. Unemployment insurance is paying him \$1,500 per week, but that will end after a total of 18 weeks.

Traditionally, damages should be categorized as Past Damages and Future Damages. Past Damages consist of economic losses which occur since the time of dismissal up to the time of the trial. No future value adjustment should be made to these values. Future damages are the losses which occur after the date of the trial and extend into the future for some specified length of time. How long into the future is unclear. Ideally, it would be until the point in time when Joseph is again earning the same money that he was earning at Gilad Lexus. The present value of all future damages should be computed using an appropriate discount rate.

RESMED: WAKING UP TO SLEEP

Kamala Gollakota, University of Redlands

CASE DESCRIPTION

This is a case for a class on Strategic Management. The case focuses on ResMed, the second largest manufacturer and marketer of sleep equipment. The case describes a successful company in a very high growth, and dynamic industry with constant threats from substitute products outside the industry. The case allows for a comprehensive strategic management analysis at the industry and firm level. The case is appropriate for senior level undergraduate and graduate students. The case is designed to be taught in two class hours and is expected to require approximately 4-5 hours of outside preparation time by students.

CASE SYNOPSIS

The case begins with the change in leadership (from the founder and CEO, Dr. Farrell to Keirnan Gallagher). The new CEO has to take stock of the company and decide whether to continue in the same direction or craft a new path. Of special consideration is whether to continue in their narrow but successful niche or to diversify. The industry is growing rapidly, but there are constant threats of substitutes. The firm recently had a product recall and its major competitor has just been taken over by a large European firm. Since the takeover of its rival, and change in leadership, the stock price has been dropped.

A key component of the company's competitive success and strategy is its innovation. The case provides information on various aspects of the firm's operations – from design, manufacturing to marketing and sales. The firm faces a challenge, not so much of competition within the industry, but of a need to influence overall industry demand. This is accomplished by providing information about the health problems of sleep apnea to various groups.

INTRODUCTION

It was March 1st 2008, and just two months since Kieran Gallahue had taken over as President and CEO from the company's charismatic founder, Dr. Peter Farrell. Gallahue, who was 44, and a graduate of Harvard Business School, had joined ResMed in 2003. It had been a long day, and as Gallahue was getting into bed, he reflected on the company that he was now leading. The sleep equipment market was growing at 15-20% per annum, with only a 10% market penetration. ResMed and its major competitor, Respiroics, controlled 75% of the market. ResMed had its 40th consecutive quarter of increased revenue growth, and most financial indicators looked good.

However, there were clouds on the horizon. Net income had declined last quarter, primarily due to a voluntary product recall in April. Prices were dropping due to competitive bidding practices by Medicare. In December 2007, Philips Electronics NV, a Dutch company and the world's biggest manufacturer of patient-monitoring systems, announced its purchase of ResMed's major competitor, Respironics, in its largest ever acquisition. Kiernan wondered how this new development would affect his company.

At a more fundamental level, he thought about the fact that while the product offered by their industry (the airflow generator) was the best solution to a significant sleep disorder – sleep apnea, they were not curing the disorder. Further the product was cumbersome to use. Everyday new cures or solutions were touted, but as yet none were as good as the airflow generator. Was ResMed vulnerable with its focus on just one product? Although Farrell would continue to be involved with ResMed as Chairman of the Board, he would move out of center stage and there was now an opportunity for change. Should he continue the direction set by Farrell or chart a new course? As Gallahue mulled over these issues, he glanced at the clock. Will Gallahue sleep well? Should he?

SLEEP AND HEALTH

Good sleep is essential for good health. Sleep apnea, a common sleep disorder, occurs when breathing stops for 10 seconds or longer. Sleep apnea is caused either because a person's windpipe squeezes shut (obstructive apnea) or because the brain's timer for breathing has a problem (central apnea). Obstructive sleep apnea (OSA) can be caused by factors such as lack of muscle tone during sleep, excess tissue in the upper airway and anatomical abnormalities in the upper airway and jaw. Central sleep apnea occurs when the brain fails to regulate the breathing during sleep and causes a brief cessation of breathing. Both these forms of apnea result in cutting off the supply of oxygen to the brain and wake a person numerous times a night without their knowledge. Untreated sleep apnea can cause various health problems that include heart disease, stroke, impotence, irregular heartbeat, high blood pressure, reflux, depression and daytime sleepiness that can have wide ranging consequences at work and in personal life (National Institute of Neurological Disorders and Stroke n.d).

Symptoms include excessive sleepiness, snoring, irregular breathing during sleep, impaired concentration, impaired memory, morning headaches, or sexual dysfunction. The first reports of what is now called obstructive sleep apnea in the medical literature dated only from 1965. Treatment involved invasive surgery such as tracheotomy. The first non-invasive treatment of sleep apnea began with the development of nasal Continuous Positive Airway Pressure (CPAP) by Dr. Colin Sullivan of Australia in 1981 (Sleep Apnea – Wikipedia). This machine gently pushed air down a person's airways, keeping them open. Dr. Sullivan's nasal CPAP device was reported in *The Lancet*, a respected medical journal in 1981. He also patented his product. For the next few years, he continued to make these machines for his patients. The machines were noisy, bulky and

uncomfortable, but people with severe apnea problems put up with all the discomfort because of the benefits associated with the machine. By 1985, Dr. Sullivan was treating more than 100 patients with his prototype CPAP machine (Bartlett, McLean & Glinska, 2004).

HISTORY OF RESMED

In 1986, Dr. Peter Farrell, an Australian, working as the Vice President of R&D at Baxter Healthcare in the Asia Pacific region paid a visit to Dr. Sullivan, the inventor of nasal CPAP in Sydney, Australia. At first Dr. Farrell was amazed that anyone would use such a device. He said, *“I thought it was goofy, I must say. The patient had to wear this Darth Vader mask which looked like a house brick on the guy's face and was connected to a pump that you could have run your swimming pool on, and it sounded like a freight train, and then Colin told me that the guy had to use this every night, and I was just in disbelief.”* (Saccotelli, 2005). But Farrell eventually saw the potential of the device and further meetings resulted in Baxter purchasing Dr. Sullivan's patents and technology from the University of Sydney. Over the next year and a half, Baxter invested more than \$1.5 million in improving the mask interface and the CPAP device (Bartlett et al., 2004).

However, in 1988, Baxter announced the sale of its respiratory products division. Dr. Farrell and six employees from Baxter arranged for a management buyout of this division for \$750,000 and a five-year royalty commitment. They started their operations in Sydney, Australia. Soon after, to expand into the US market, ResMed teamed up with pacemaker company Medtronic to market its products. ResMed opened its first office in the US in Minneapolis to assist Medtronic with marketing. However, this partnership did not work out, and in 1992 ResMed decided to take charge of its own US operations. An office was set up in San Diego and within a year the company turned its first profit (Bartlett et al., 2004). In 1995 ResMed went public.

In 1999, ResMed formed a strategic alliance with Flaga, a sleep diagnostic company in Iceland by acquiring 10% equity. Flaga made polysomnographic devices (used in the diagnosis of sleep disorders). ResMed took over the distribution of Flaga's diagnostic equipment in the United States and in a few countries in Europe and Asia under the brand name Embla (Datamonitor – ResMed; Park, 2002). In 2003, ResMed formed a strategic alliance with MedCath of North Carolina. MedCath was a national provider of cardiovascular services. This alliance resulted in MedCath offering screening, diagnosis and treatment of sleep disorders in conjunction with cardiovascular treatment at its centers (Sleep Review, 2003-05).

In 2001, ResMed acquired a competitor MAP Medizin-Technologie GmbH of Germany for \$69 million. This acquisition gave ResMed greater access to the German market (where MAP had a strong position) and to other surrounding markets in Europe. In 2005, ResMed completed the acquisition of Saime, a French ventilation company. This acquisition extended ResMed's ventilation product line and provided further access to European markets. European markets were also enhanced by the acquisition of Einar Egnell (in 2000), a Swedish distributor, Labhardt (in 2001) a Swiss

distributor with operations in many European countries, and Resprecare (in 2004), its exclusive distributor in the Netherlands (Datamonitor – ResMed).

In the US, ResMed acquired its motor supplier, Servo Magnetics (SMI) in 2002. SMI designed, manufactured and sold brushless DC motors to original equipment manufacturers (OEM). SMI was located in Chatsworth, California. Since 1996, ResMed has acquired over 15 companies, a large number of them in Europe.

PRODUCTS

ResMed's products were primarily in the area of breathing and sleep disorders. The primary focus was on treating sleep disorders such as apnea. Related products were those used in both hospitals and the home such as ventilators.

ResMed's had a range of products that aimed at keeping the airways open. Essential components of such devices were flow generators, masks, and tubes. Related add-on components included humidifiers to prevent dryness, and devices that gathered information and provided communication services (e.g., getting the information direct to doctors).

There were broadly two categories of flow generators. Devices that provided a constant flow of air (CPAP - Continuous Positive Airway Pressure) and devices that could change the level of flow to match inhalation and exhalation (VPAP – Variable Positive Air Pressure). While CPAP was the more popular machine, for some people, the continuous air pressure sometimes made exhalation more difficult and some patients felt claustrophobic. The VPAP addressed this by dropping pressure in synch with a person's exhalation. VPAP machines were more expensive and not all patients needed them.

Masks and tubes connect the device to the person. Mask interfaces are very important, as they determined patient comfort. Patients who were not comfortable using the system sometimes discontinued use of the product. There was considerable variety in these products (C-pap.com).

Beyond these essential components ResMed offered products that enhanced the experience of using the flow generator. For example, humidifiers that were used with flow generators provided moisture that prevented dryness often experienced by patients. Ancillary products included filters, options to operate using batteries, the capacity to work with different power levels (useful for international travel), and software. Software provided patients with feedback on their sleep patterns, and some allowed data transfer to physicians for remote monitoring. Much of the software was proprietary and worked only with the products of the company providing the software.

The first product brought out by ResMed was the SULLIVAN nasal CPAP system (named after inventor Colin Sullivan) in Australia. In 1991 ResMed introduced the Bubble Mask and the APD2 portable CPAP device. Three years later ResMed began marketing its first VPAP, which applied different air pressures for inhalation and exhalation, in the US. In 1998 the firm received

FDA approval to market its VPAP device as a critical-care treatment for certain lung diseases. As of 2007 August, ResMed had products that covered a range of needs and price categories.

Beyond products for sleep apnea, ResMed had masks that were used in hospitals to connect to ventilators and other products that dealt with respiratory insufficiency. Details of these products may be obtained from the company website: www.resmed.com. Sample images of products are attached in Appendix A. A comparison of prices and features of ResMed's flow generator machine with that of its competitors is provided in Appendix B. ResMed had the highest average prices worldwide. In a personal interview (December 7, 2006) Dr. Farrell said, "*We go for features. We are not the cheapest, never will be*". He believed that ResMed sold more than the product – it sold a service that required ResMed being involved in optimizing treatment.

Flow generator products accounted for approximately 50% of ResMed's revenues (ResMed Annual Report, 2006). In 2006, ResMed sold an average of 300,000 masks, and 75,000 devices per month (personal interview, December 7, 2006). Masks needed replacement every six months and profit margins were higher for masks than for flow generators. In 2001, masks accounted for 40% of ResMed's sales (as a comparison, they accounted for 33 % of Respironics sales) (Selz, 2001).

In 2006, ResMed introduced a portable sleep diagnostic product called ApneaLink. The product enabled screening for sleep apnea at home with the use of a computer instead of spending a night in a sleep laboratory. The product was marketed to businesses not users. This product was sold for \$695 or more, which was cheaper than a night at a sleep lab (personal interview, December, 7, 2006).

When asked what he considered were the reasons customers preferred ResMed's products to competitors, Dr. Farrell said, "*First we have a reputation for reliability. We are also seen as the innovator. We have the most innovative creative products and are seen as having the products with the best features. Just a couple of years ago we were thought of as the mask company...*". He reported that their product defect rate was 0.2%, which he considered much below industry standards (personal interview, December, 7, 2006).

MARKETING

By 2007, ResMed sold its products in almost 70 countries, with 18 direct offices and a network of distributors (www.resmed.com). Marketing in each national market was tailored to the needs of the region. Markets differed considerably in terms of awareness of sleep apnea as a health problem, physician referral patterns, consumer preferences and local reimbursement policies.

The typical pattern of diagnosis and treatment of sleep disordered breathing started when a patient with daytime sleepiness or other symptoms visited a primary care doctor or a specialist, such as a cardiologist. The doctor referred the patient to a sleep specialist for evaluation in a sleep lab where the patient stayed overnight for a sleep study. During the night, the patient's body functions were monitored and the sleep specialist determined if the person had a sleep disorder that could be

treated with machines like nasal CPAP. The lab determined the best air-pressure settings for each patient. Although the patient was the user of the product, as in other areas of healthcare, there were many parties involved in the purchase decision and payment. Don White, CEO of Associated Healthcare Systems, summarized this *"It is a referral business - not a retail business - and it's based on clinician-to-clinician referrals."* (McClinton, 2006).

In the US and Latin America, flow generators and accessories were typically purchased by a home healthcare dealer who then sold them to the patient. The decision as to which company's products to purchase was made or influenced by: the prescribing physician, sleep technicians, the home healthcare dealer, the health insurance company and the patient. Sleep clinics were important as they were the diagnostic centers and influenced patients on which device to purchase. The patient's health insurance provider covered most of the cost of the machine, and accessories including new masks every three to four months. In 95% of the cases in the US, payment was made by HMO's, private medical insurance or Medicare (personal interview, December, 7, 2006). In other countries, in addition to private insurance, the government or the patient paid for the product.

Outside of the US, the systems of reimbursement spanned a whole gamut of options. In some European countries, the government or private health insurance companies paid the bulk of the costs, in other countries such as Spain, France and Germany, there were price controls on reimbursements. In other countries, such as Australia and India, there is mostly no reimbursement, and the patient bears the cost of the flow generator and replacement parts.

A patient could rent or buy a flow generator from specialized dealers (including internet dealers) or home health equipment suppliers, durable medical equipment suppliers (DME's), pharmacies (especially in countries like Australia) or via dealers operating through the Internet. In the US market, payment was rarely made by the patient. Dealers directly billed the patient's HMO or private medical insurance provider or Medicare or Medicaid. The reimbursement atmosphere was complex – different insurance carriers had different rules and fees. Most of them did not keep up with advances in new technology (McClinton, 2006). Further, these agencies could deny payment if they considered that the machine was not cost-effective, or if it was unnecessary or experimental.

The number of sleep clinics had grown rapidly. It was estimated that in 1985 there were just 100 sleep clinics in the US, but by 2006, there were 3,000 clinics. There were also an increasing number of sleep clinics that were interested in selling sleep equipment. A 2006 survey by Wachovia Securities reported that around 15 percent of sleep centers sold masks and flow generators with the remainder referring patients to a home medical equipment dealer. Around 15 percent of the clinics surveyed indicated an interest in selling equipment directly within the next 12 months (*"Market Forecast Good"*, 2006).

In the US, a flow generator could only be obtained with a prescription and often only after a patient underwent an overnight sleep study in a sleep clinic. According to Dr. Farrell, this was an unnecessary complication for a product that he believes is *"safer than an aspirin"*. He pointed out that the cost of the sleep study was \$ 1,000-1,400, which was about the same as the cost of the flow

generator machine. ResMed was planning to work to change the system. To further this goal, they introduced a reusable diagnostic product, ApneaLink that was simple enough to be used at home costing \$695 with disposables costing less than \$10.

ResMed's marketing and sales activities in the US were conducted through a field sales organization made up of regional territory representatives, regional sales directors and independent manufacturer's representatives. This sales force sold primarily to home healthcare dealers. The direct sales force received a base salary plus a commission, while the independent manufacturer's representatives received only a commission and no base salary. In Canada and Latin America, sales were conducted through independent distributors. In addition to selling to home healthcare dealers, ResMed promoted their products direct to sleep clinics and physicians. All sales employees and manufacturers representatives in the US are managed by the Chief Operating Officer for the Americas and Vice President of Marketing.

Sales and marketing in Europe were conducted either through ResMed's wholly owned subsidiaries or through independent distributors. Austria, Finland, France, Germany, Spain, Sweden, Norway, Netherlands, Switzerland and the UK had wholly owned subsidiaries. In many of these countries, like in the US, ResMed's sales staff sold products to home healthcare dealers, who sold them to patients. In Germany, ResMed operated a home healthcare company through which they provided products direct to patients and received reimbursement direct from third-party payers. Sales and marketing operations were the responsibility of ResMed's European Chief Operating Officer.

In Asia Pacific and the rest of the world, ResMed used a combination of direct sales force and independent distributors. Australia, Hong Kong, Japan, Malaysia, New Zealand and Singapore were wholly owned subsidiaries and used a direct sales force. In other countries, ResMed used independent distributors. Percentage of sales revenues from different parts of the world are provided in Table 1.

Table 1: Percentage of sales revenues from different parts of the world.				
	2007	2006	2005	2004
Americas	53%	52%	51%	49%
Europe	39%	39%	41%	43%
Asia Pacific	8%	9%	8%	8%

Source: ResMed Annual reports, 2006, 2007.

ResMed sold directly to some large groups like Kaiser. In addition to direct sales efforts, ResMed considered lack of public awareness of sleep problems as an important driver of demand and was actively involved in increasing awareness as part of its marketing effort. Dr. Farrell summed this up as "*Our biggest competitor is ignorance.*" (Reeves, 2006).

ResMed used various ways to increase awareness. Ron Richard, ResMed's Vice President of Marketing for the Americas, stated that their Sleep foundation, a nonprofit organization with a separate board of directors, funded applications for research projects. ResMed sponsored chat rooms on the Internet, where they had an hour to hour and a half "ask the expert type forum" where 200-300 patients signed up. The company also funded and actively participated in industry-wide organizations such as the American Sleep Apnea Association's AWAKE support groups. There were several hundred of these groups across the United States (Raflo, 2003).

Another strategy to increase awareness was to work with organizations associated with diseases affected by sleep disorders. Examples of such organizations included the American College of Cardiology, American Heart Association, Heart Failure Society of America, and their regional affiliates. For these organizations, ResMed sponsored educational symposia, had product exhibitions and worked to get sleep apnea on the agenda in scientific conferences. In 2006, ResMed reported that it educated nearly 50,000 clinicians on problems associated with sleep apnea (ResMed Annual Report, 2006).

Many of these awareness-increasing activities were conducted in partnership with other organizations, including competitors. ResMed partnered with Respironics and jointly funded and established an educational awareness site, www.sleepapneainfo.com.

Not all collaborations to increase awareness have worked out well. ResMed had teamed up with MedCath, which operated hospitals and cardiac care centers and with Guidant, a maker of implantable cardiac defibrillators. Both these partnerships had potential because ResMed's research indicated that fifty percent of cardiac patients also had sleep disordered breathing. From this partnership, ResMed hoped to use MedCath's and Guidant's huge marketing network and contacts with cardiologists to educate people that apnea was not just a correlate but a cause of heart failure. However MedCath had problems with the physician's union and lost its partnership with doctors. Guidant got mired in product defects and was acquired by Boston Scientific. The partnership with Guidant was said to be ongoing, but the benefits expected had not yet panned out (Reeves, 2006). ResMed estimated that joint efforts with Respironics resulted in over 1,000 stories being printed in local and national media on this topic (ResMed, 2006 annual report.).

MANUFACTURING

ResMed's primary manufacturing facilities were located in Australia. The reasons for manufacturing in Australia were largely historical. Direct costs were only 10% of total cost, so there has been no pressure to move to lower wage countries (personal interview, December 7, 2006). In 2005, ResMed moved its manufacturing into a state-of-the-art 200,000 square foot facility near Sydney in a 30 acre site. This facility was triple the size of the earlier plant with the 30 acres of land providing opportunity for expansion (ResMed annual report 2006).

Manufacturing consisted primarily of assembly and testing of flow generators and masks. Although a few components were manufactured in-house, a majority of inputs were off the shelf items that had multiple vendors world-wide. The plant was primarily an assembly shop, and a single directional production flow model. At the end of the line, most products ended up in a shipping container. Over 90% of the products produced were sold outside Australia. Rob Douglas, Chief Operating Officer of Australian operations reported that the design of the plant was based on lean manufacturing principles that the company had been using since 1999-2000.

Regarding its globally sourced components, Douglas said, *“Half of our suppliers are local, one quarter in the US, and one quarter in Asia. The type of material supplied and the frequency of deliveries is quite important. For our local suppliers we’re on daily deliveries. For remote suppliers it is to schedule. We run an Oracle ERP system and use the core planning tools of that. In our factories we hold very little finished goods inventory. We hold decent amounts in the warehouses, which are located globally. We run those warehouses on the MRP systems, so we plan right through to them. We have a service delivery proposition and hold as much as our policies demand.”* (Monore, 2006).

Decisions relating to components to be produced in-house versus outsourced were based on considerations of the core competencies of the firm. For example, the company perceived that it had an important competency in liquid silicone rubber molding and decided to triple the machines in this area over a three-year period – from 10 to 30. In contrast, the company decided to outsource a process it was earlier doing in-house – the process of integrating surface mount technology (SMT) and printed circuit board lines as part of its final assembly. “We changed our mind on that,” Douglas said. “The environmental controls needed in SMT were different from what we wanted for the line. That equipment is pretty noisy and hot, and we had to put it into a separate area. It got to the point where we could get a better deal with a global contract manufacturer because of its parts purchasing power.” He further stated, “It was no crisis to do it. We were able to shut down the line without any layoffs. We were able to redeploy that workforce into our current operations. It’s much easier to make those decisions while you’re growing than it is when you’re not growing.”

Douglas felt that the new facility enhanced many processes that were already in place. He said, “The building has given us some room to optimize things while maintaining quality. There’s been a lot of redesign of the lines, improvement in materials handling, and batch size reduction. We’ve improved our visual inspection system. Our six sigma/lean team is working with the line team doing process mapping to take a fair bit of time out of each line. It’s an ongoing effort. With continuous improvement, whenever you see something you can improve, you will.” In 2006, the company had four black belts and 90 green belts on their six sigma initiative. Black belts and green belts are awarded to employees when they reach certain standards of knowledge and skills.

The factory used teams that were composed of senior management, engineering, quality assurance, and planning functions that were needed to run the line. The factory was designed to be open, and this permitted the people on each team to have offices right next to the manufacturing

lines. The factory had a gym, an internet café and a basketball court. “We wanted to create a place where people would want to come to work”, said Douglas (Monroe, 2006).

Gross margin did not seem very strongly influenced by manufacturing scale. The largest CPAP maker, Respironics, had a gross margin in the low 50%, while the much smaller Fisher and Paykel had a gross margin of 71% in 2004 (Huber & Warren, 2004).

DESIGN, R&D AND INNOVATION

R&D was an important driver of growth and a basis for competitive advantage for firms in the industry. There were many problems with the early designs of CPAP machines. The devices were very noisy, and the masks too cumbersome to wear comfortably. Some users complained of dryness in nasal and throat passages and some found the mask claustrophobic. Fundamental product improvements were aimed at increasing patient comfort while using the machine. In addition to improving patient comfort, CPAP devices also aimed at becoming more portable, and to allow patients to have information on their treatment and control over various features allowing interaction with doctors and other providers remotely.

There were two broad areas of R&D that ResMed actively pursued. First was to enhance existing products to increase patient comfort. The second was to find new applications for the existing technology. ResMed’s focus in R&D had been in applied research, not fundamental research. However, it has provided funding to universities and hospitals to conduct research in its areas of interest. For example in 2006, ResMed Foundation provided \$225,000 to Mayo Clinic to study sleep disordered breathing in cardiac patients.

The process of identifying technological trends was multi-pronged. This ranged from sending a task force of selected employees to visit sleep clinics and physicians all over the world to identify trends to having physicians serve on the company’s Medical Advisory Board. New product ideas also came from the marketing staff, direct sales force, networks of distributors, manufacturer’s representatives, customers and patients. Typically, the company’s internal development staff chose the ideas which had considerable commercial viability and developed them into products.

The firm had R&D activities in the US, Australia, Germany, France and the UK. ResMed reported that as of June 30, 2007, it had more than 1,600 patents and 876 design registrations granted and pending (Investor presentation - ResMed, 2008). R&D expenses ranged between 6 and 7% of revenues and approximately 12% of employees were devoted to R&D activities. In the years 2004, 2005, 2006 and 2007, \$ 26.2million, \$30.0 million, \$37.2 million and \$50.1 million were invested in R&D (ResMed Annual reports, 2004-2007). Between 2001 and 2006, 75% of the firm’s revenues came from new products (personal interview with Farrell, December, 7, 2006).

ResMed’s R&D paid off most in the area of comfortable masks, where the firm was considered a leader. Some analysts observed that ResMed trailed Respironics in getting flow

generators to the market. However, when the S8 product was finally released it was considered to be of excellent quality. ResMed, received the Australian Design award for the S8 series flow generator and Humidaire 3i. The judges praised the system as a high quality product with “so much technology squeezed into such a small space.”

ResMed has been aggressive in defending its patents. In 1992, ResMed sued Respironics’ distributor in Australia for infringement of the original CPAP concept designed by Dr. Sullivan. In 1994, Respironics prevailed on appeal. In 1995, ResMed filed another suit against Respironics in US courts alleging that Respironics had infringed four patents. This case was granted summary judgment rejecting ResMed’s claim of patent infringement (“Respironics will defend”, 2002). In 2002, ResMed filed a lawsuit against Fischer and Paykel (F&P) for invading its intellectual property laws for its masks (Read, 2002; “F&P Healthcare will defend”, 2002). This lawsuit was settled in 2003. F&P agreed to introduce a new design for its mask and sell the disputed masks under a license till a new one was introduced (“Legal Issues: ResMed”, 2003).

HUMAN RESOURCES

Dr. Peter Farrell, the founder and CEO of Resmed, received a graduate degree from MIT and a doctorate in biomedical engineering from University of Washington. Initially, he was a professor of biomedical engineering at the University of New South Wales in Australia (“ResMed’s Peter Farrell”, 2005). Dr. Farrell has published over 150 peer-reviewed articles. He left academe and joined Baxter International, a US based medical devices company at their Japanese subsidiary. He has been described by associates as having an intense drive, attention to detail, a phenomenal memory, intelligence and a capacity for hard work (Bartlett et al, 2004). In 2005, Dr. Farrell was selected as the Ernst & Young National Entrepreneur of the Year for Health Sciences for the US. He was also selected for the Alumni achievement award for 2006 at the University of New South Wales. The case writer’s impression was of a dynamic, unconventional man, passionate about his company and its products. There was almost a missionary zeal about him to increase awareness of health consequences of sleep apnea. Some of Dr. Farrell’s comments and philosophy in an interview with this case writer are provided in Appendix C.

Kieran Gallahue, an MBA from Harvard University, held various positions with Proctor and Gamble, and GE. In 1995, he joined Nanogen, a DNA research and medical diagnostics company where he worked at various capacities before becoming president of the company. He began his career at ResMed in 2003 as President and Chief Operating Officer of the Americas.

By 2007, ResMed had approximately 2,700 employees across 68 countries (2007 Annual Report). Of these, approximately 35% were employed in manufacturing and warehousing, 12% in R&D, and the rest in sales, marketing and administration. In terms of a geographical distribution, 44% were located in Australia, 20% in the US, 32% in Europe and the rest in Asia (ResMed Annual Report, 2006).

Employee training was provided through ResMed's internal development organization, the Learning Center. In 2006, the Learning Center received a commendation from the American Society of Training and Development for its sales training program (ResMed Annual Report, 2006).

FINANCIAL PERFORMANCE

In 2007, ResMed had net revenues of \$716.3 million, an increase from the previous year's revenue of \$607 million. Of this, net revenue in the Americas increased to \$376.7 million from \$321 million. Revenues for markets outside the Americas increased to \$339.6 million from \$286 million. In terms of product groups, sales of flow generators contributed \$370 million (up from \$316 million in 2006) and the balance was contributed by sales of mask systems, motors and other accessories. Gross profits increased from \$376.9 (in 2006) million to \$384.5 million (in 2007). However, as a percent of net revenue this was a decrease from 62% of revenue to 54% of revenue. This was attributed to the voluntary recall of products in April 2007. Excluding the recall, the percentage was the same as in 2006. Between 2006, and 2005, there was a small decrease in gross profit as a percentage of net revenue, to 62% from 65%. This reduction was explained by a change in the product and geographical mix. In 2006, there was a higher proportion of sales from flow generators, which had lower margins when compared to masks and accessories. Further, sales were higher in the Americas, which typically generated lower margins. Appendix D has ResMed's Income Statements, Cashflow statements and Balance Sheets. Appendix E has ResMed's stock performance as well as a comparison with the stock performance of Respirationics.

ResMed has been recognized 10 times as one of the Best Small Companies in the US by Forbes (based on return on equity, growth in net revenues and net profit after taxes). Business 2.0 named ResMed one of the fastest growing technology companies. In addition Dr. Farrell, was named Ernst & Young Entrepreneur Of The Year® in 2005 in the Health Sciences Category.

INDUSTRY SIZE, GROWTH AND TRENDS

It has been estimated that over 40 million Americans suffered from sleep-disordered breathing problems. As of 2005, it was estimated that less than 10% of these people have been diagnosed or treated (Haynes, 2005). The US, which was the largest market for sleep equipment, was greater than \$1 billion in 2006 and was growing at 15-20% per annum (Kamp, 2006). The European market was \$50 million in 2004, and growing at 12% p.a ("Strategic Analysis of the European", 2005). Table 2 shows the global sleep apnea market.

"Growth potential in the sleep apnea market is huge. We are less than 10 percent penetrated into a market of more than 20 million Americans with obstructive sleep apnea. When you include the millions of patients who suffer from complex

sleep apnea and other types of central sleep apnea as well as other sleep-disordered breathing [diseases] such as nocturnal hypoventilation, flow limitation and snoring, the opportunities are vast, and the number of Americans suffering quickly approaches 40 million."

Michael Farrell, Vice President of Marketing for ResMed (McClinton, 2006).

	2004	2005	2006	2007
Respironics - Sales	443	530	615	737
ResMed - Sales	376	473	613	689
Fisher and Paykel - Sales	61	83	102	123
Industry total – Sales	1,015	1,241	1,518	1,767

Source: Wachovia Capital Market estimates

Despite the high growth rate, there were many challenges in the industry. Awareness was low since the study of sleep disorders was relatively new and it was not part of the education of many physicians. To combat this, large competitors like ResMed and Respironics teamed up to increase awareness among the medical community and mainstream public. Awareness of the health implications of untreated sleep apnea has been growing. In 2006, there were almost 4,000 peer reviewed clinical studies that were published, many of which document the advantages of flow generator therapy (ResMed Annual Report, 2006). Increase in awareness was an important driver of growth for the products in the industry. The aging of the population, with its concomitant illnesses like heart disease, diabetes etc; increased obesity of the population, suggested that demand for products to treat apnea would continue to grow.

An important challenge facing the industry was patient compliance with the equipment. Dryness, and discomfort with masks resulted in patients giving up on using the equipment. When a patient gave up using the machine, everyone lost. The patient lost as this could have serious health repercussions. For the DME's and HME's, and firms like ResMed they lost the potential to provide replacement of masks, tubes and other accessories. Masks and tubes were replaced every 3-4 months. Insurers lost because despite the money paid for the flow generator, the patient did not use it, and could develop other illnesses that would increase healthcare expenses. Equipment producers tried to address this challenge by innovating to provide better masks and increased comfort in use of the product by providing various features like humidification, more control etc. Dealers and sleep clinics also played an important role in patient education and training in how to use the equipment. According to Dr. Farrell, the key to succeeding in this business was by offering a high quality product and exceptional service. When asked to discuss what exceptional service meant, he said,

“Making sure that the patient has a very good experience when they go on the treatment. This is not a cure. Everybody loses when the patient does not comply with the treatment. Everybody.” (personal interview with Farrell, Dec 7th, 2006).

Price was an important issue in the industry, because although people were willing to pay more for products they liked and would pay for health and comfort, payment is often via insurance companies that were price sensitive (personal interview with Farrell, Dec 7th, 2006). In recent years, prices of CPAP machines and masks have been dropping 5-15% in part because of competitive bidding practice used by Medicare (Matson & Ricci, 2007).

Legal and regulatory guidelines governed many aspects of a firm’s business in this industry. Firms needed to get FDA approval for their equipment. They had to prove that their equipment was safe and useful. Further, firms needed to be able to defend themselves from any liability suits that might be filed against them by users. An area of contention for some firms like ResMed has been the protection of their patents.

There was an increasing trend of sales via the internet. But Dr. Farrell saw this as very negative trend. He said, *“I’ll tell you why we are anti the internet. It is not because of pricing, you have to get compliance (patient). You cannot just throw a machine at a patient and say here it is, good luck, go read the instructions. You have to work with them. If you do not have a good introduction to the device, you will not use the device. It is bad medicine. That is why we are against internet sales with no service component.”* (personal interview with Farrell, December 7th, 2006).

COMPETITION

There were numerous competitors in the sleep and respiratory equipment industry. A partial list of competitors is provided in Annexure 4. Many different types of firms operated in this industry. ResMed was the most focused firm in the industry, obtaining almost all its revenue from sleep equipment. Respironics had 45% of its revenue from CPAP and masks, and the rest from other respiratory products. Other firms such as DeVilbiss and Nellcor Puritan Bennett, were divisions of large firms like Sunrise Medical Inc., and Tyco (Tyco spun out Nellcor Puritan Bennett as Covidien). Despite the large number of competitors, the industry was concentrated. ResMed’s closest competitor was Respironics, and together they controlled 75-80% of the global market. Respironics was the company with the largest market share in the industry, with around 40% market share. ResMed had more than 35 percent of the U.S. market for sleep-disordered breathing devices and dominated sales in the rest of the world (Fikes, 2006). Fisher and Paykel had 6-7% (Read, 2002). The balance of the market was divided among numerous firms, such as DeVilbiss and Covidien (formerly Tyco/Nellcor Puritan). In Europe, ResMed faced additional regional competitors. Further, new competitors such as Viasys which were in the sleep diagnostics market were entering the sleep equipment market. Table 3 below has financial information relating to major competitors.

Table 3: Financial Performance of Major Competitors

\$ millions	Respironics	Covidien	Fisher and Paykel
Revenues 2006	1,046.10	9,647.00	264.7
Revenues 2007	1,195.00	10,170.00	290.9
COGS 2007	555.8	5,333.00	121.6
SGA 2007	398.5	2,537.00	79.6
R&D 2007	65.9	312	16.4

Source: Morningstar.com; Fisher and Paykel annual report 2007.

As a comment on competition, Peter Farrell said, *“The market we are in is a non-zero sum game. We are in a market that is growing at least 20%. Us taking business from them is not an issue at all. I think competition is good, it keeps you trim, it keeps you fit, it keeps you interested. It would be boring if we were the only ones producing the stuff. We have an incentive to innovate, and innovate big time.”* He felt that the major challenge faced by his firm was not competition but lack of awareness (personal interview with Farrell, December 7th, 2006).

Building a basic CPAP machine was a relatively simple task at a technological level. However, building a high-end machine required much more technological know-how. Besides there were many patents protecting the technology with clear evidence that patent holders aggressively defended their patents (e.g., ResMed’s suit against Fisher and Paykel). Further, beyond making the product, it was difficult to build relationships with the various layers of distributors and decision makers: doctors, sleep clinics, home medical equipment retailers, HMO’s and Medicare.

SUBSTITUTES AND NEW TECHNOLOGY

More than 300 devices were registered in the U.S. Patent and Trademark Office as cures for snoring (“Snoring” 2007). Flow generators offered relief to many people, but these devices were not a cure for apnea or snoring. Surgery was the option that corrected underlying anatomical problems. Surgeries included uvulopalatopharyngoplasty (tightened the flabby tissues in the throat), Somnoplasty (used radio frequency energy to shrink excess tissue), hyoid advancement (surgery to pull the tongue forward), tonsillectomy (removal of tonsils and adenoids), and turbinate surgery (surgery to reduce the resistance to the flow of air through the nose). While surgery was a supposed cure, it was invasive and had inherent risks.

New technologies have always been a possibility in the industry. In the interview with Dr. Farrell, he reported that there was no drug that could cure sleep disorders on the horizon. However, there were a plethora of other solutions for snoring and sleep disorders. As of 2006, none of them were proven to be as effective as nasal CPAP.

One alternative to flow generators were dental devices. These devices were custom designed and varied in cost from \$20 to \$2,000. The devices were used to either advance the lower jaw forward or prevent the tongue from falling back. For some people, the problem was of allergies and excess mucus. Allergies resulted in swelling of nasal passages. For such people, anti-histamines and nasal sprays have provided relief. In addition to allopathic nasal sprays, there are homeopathic nasal sprays and nasal strips that claim to help – but do not have an established record of success.

The Pillar Palatal Implant, marketed by Restore Medical claimed that 80% of people treated reported reduction in sleep apnea. The procedure involves injection of small metal inserts into the soft palate to prevent it from blocking airways and vibrating. This treatment was accomplished in a single visit to a doctor's office and was performed under local anesthesia. Early studies indicated that 80% of patients had reductions in sleep apnea, and patients could not feel the implants nor did it affect them in any way. The FDA approved the Pillar Implants in January 2003 for snoring, and in September 2004, for apnea. As of 2007, many insurance companies did not cover this product. Its price, that has been in the upwards of \$2,000 limited its use (Sine, 2006).

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APPENDIX A

Sample of ResMed Products

Flow generators



S8 Elite



VPAP 3 Series

Masks



Mirage Swift Ultra Mirage II Nasal Ultra Mirage Full Face

HUMIDIFIERS



Appendix B: Sample of features and prices of popular models sold at cpap.com

	BreatheX 	420G Traveler 	M Series Pro 	Aura 	S8 Elite 
Price	\$499.00	\$254.00	\$514.00	\$339.00	\$695.00
Manufacturer	Hoffman Laboratories	Puritan Bennett	Respironics	AEIOmed	Resmed
Can Be Worn	Yes	No	No	No	No
4-20 Cm	5-12 cm	Yes	Yes	Yes	Yes
Pressure Relief on Exhale	No	No	Yes (C-Flex)	No	Yes (EPR)
Domestic Voltage-110	Yes (recharge only)	Yes	Yes	Yes	Yes
International Voltage-220	Yes (recharge only)	Yes	Yes	Yes	Yes
Optional DC Cable	No	Yes	Yes	Yes	Resmed DC Cable Only
Direct Battery Operation	Yes (Integrated)	Yes	Yes	Yes (Integrated)	No
Integrated Battery	Yes	No	No	Optional	No
Auto Altitude Adjustment	Manual Adjustment	Yes	Yes	Yes	Yes
Hour/Session	Yes	Yes	Yes	Yes	Yes
Optional Software	No	No	Encore Pro	No	AutoScan 5.7 Only
Leak Compensation	No	Yes	Yes	Yes	Yes
Heated Humidifier	H2/HC150	GKH20/H2/HC150	M Series Heated	Everest Heated	H3i
Passover Humidifier	Remstar Passover	GoodKnight Passover	M Series Passover	Remstar Passover	Sullivan Passover
Weight	4.7 lbs w/battery	1.75 lbs	2.2 lbs	2.2 lbs	2.9
Data Card	No	No	Yes	No	Yes
Auto ON/OFF	No	No	Yes	Yes	Yes
Warranty	2 Years	2 Years	2 Years	2 Years	2 Years
Mask Off Alert	No	No	Yes	No	Yes
Size	N/a	View Sizes	N/a	View Sizes	N/a

Source: Cpap.com (<http://www.cpap.com/cpap-compare-chart/CPAP> accessed on 2/20/07)

APPENDIX C: COMMENTS FROM DR. FARRELL ON MANAGEMENT

“I give out a copy of Bertrand Russell’s 10 Commandments to all new employees. As part of our corporate ethics I tell them, you don’t lie, you don’t cheat, you don’t fudge, you tell people the way it is.”

“The first thing I am looking for in an employee is ethics. The second thing is smarts. You can’t give people smarts. The level of intelligence has to be of a level that it is not going to compromise the job. I am not looking for Einstein’s, but I am looking for people who are smart enough to understand what they need to do, and do it when it ought to be done whether they like it or not. The next thing is execution. I want people who can execute, and have a sense of urgency. This is hugely important.”

“I hate politics. I hate politics in an organization. It is a cancer in an organization.”

“I can’t cure all evil, but I try to keep my ears peeled, walking about, talking to people. What I do is reinforce the good.”

“We have a problem identification philosophy. If something is going wrong, let’s find it. We don’t shoot the messenger.”

“The whole thing is a balancing act. Delivering to the market what they expect and not sacrificing your future on that order. You will not have a business if you cannot do it.”

APPENDIX D: FINANCIAL STATEMENTS

ResMed Inc. Annual Income Statements					
Period Ended	6/30/2007	6/30/2006	6/30/2005	6/30/2004	6/30/2003
Net Sales	716.33	607	425.51	339.34	273.57
Cost of Goods Sold	331.84	230.1	150.65	122.6	100.48
Gross Profit	384.49	376.9	274.86	216.74	173.09
R & D Expenditure	50.11	37.98	30.51	26.17	20.53
Selling, General & Admin Expenses	244.22	207.62	146.99	105.21	85.31
Depreciation & Amort.	n/a	n/a	n/a	n/a	n/a
Non-Operating Income	7.81	2.09	-0.73	-0.69	-0.11
Interest Expense	n/a	n/a	n/a	n/a	n/a
Income Before Taxes	97.97	133.39	96.63	84.67	67.13
Prov. For Inc. Taxes	31.67	45.18	31.84	27.38	21.4
Minority Interest	n/a	n/a	n/a	n/a	n/a
Realized Investment (Gain/Loss)	n/a	n/a	n/a	n/a	n/a
Other Income	n/a	n/a	n/a	n/a	n/a
Net Income Before Extra Items	66.3	88.21	64.79	57.28	45.73
Extra Items & Discontinued Operations.	n/a	n/a	n/a	n/a	n/a
Net Income	66.3	88.21	64.79	57.28	45.73
in millions of USD					
Source: ResMed company website.					

ResMed Inc.: Annual Balance Sheet					
As of	6/30/2007	6/30/2006	6/30/2005	6/30/2004	6/30/2003
Assets					
Cash	257.79	219.54	142.19	128.91	114.49
Marketable Securities	19.95	n/a	n/a	12.02	6.53
Receivables	167.82	138.15	103.95	67.24	56.69
Total Inventories	157.2	116.19	89.11	55.8	49.39
Raw Materials	68.91	41.98	29.86	15.28	13.71
Work In Progress	1.97	3.52	1.82	2.25	2.29
Finished Goods	86.33	70.7	57.43	38.27	33.39
Notes Receivable	n/a	n/a	n/a	n/a	n/a
Other Current Assets	66.03	36.4	24.97	13.86	14.8
Total Current Assets	668.8	510.28	360.21	277.83	241.91
Property, Plant & Equipment, Net	310.58	245.38	174.17	147.27	104.69
Property, Plant & Equipment, Gross	465.14	360.85	263.14	207.6	150.07
Accumulated Depreciation	154.56	115.47	88.97	60.33	45.38
Interest and Advance to Subsidiaries	n/a	n/a	n/a	n/a	n/a
Other Non-Current Assets	n/a	n/a	n/a	n/a	n/a
Deferred Charges	32.37	26.34	29.13	1.2	1.56
Intangibles	230.19	218.17	201.34	110.89	105.91
Deposits & Other Assets	10.1	7.05	9.29	6.97	5.54
Total Assets	1,252.04	1,007.22	774.15	544.16	459.6
Liabilities					
Notes Payable	n/a	n/a	2.12	n/a	n/a
Accounts Payable	53.04	45.05	34.42	18.57	19.37
Curr. Long-Term Debt	28.27	4.8	113.25	n/a	n/a
Curr. Port. Cap Lease	0.08	0.07	0.07	n/a	n/a
Accrued Expense	98.32	40.9	34.41	24.79	19.14
Income Taxes	3.83	22.84	21.96	8.47	3.41
Other Current Liabilities	18.87	15.34	12.33	8.76	8.67

ResMed Inc.: Annual Balance Sheet					
As of	6/30/2007	6/30/2006	6/30/2005	6/30/2004	6/30/2003
Total Current Liabilities	202.4	129	218.55	60.59	50.58
Mortgages	n/a	n/a	n/a	n/a	n/a
Deferred Charges/Inc.	30.77	23.86	22.6	8.82	9.33
Convertible Debt	n/a	n/a	n/a	113.25	113.25
Long-Term Debt	87.16	115.64	58.33	n/a	n/a
Non-Curr. Capital Leases	0.49	0.57	0.61	n/a	n/a
Other Long-Term Liab.	n/a	n/a	n/a	n/a	n/a
Total Liabilities	320.82	269.07	300.08	182.66	173.16
Shareholder Equity					
Minority Interest	n/a	n/a	n/a	n/a	n/a
Preferred Stock	n/a	n/a	n/a	n/a	n/a
Common Stock	0.31	0.3	0.14	0.14	0.13
Capital Surplus	421.7	353.46	180.01	132.88	107.43
Retained Earnings	436.95	370.65	282.44	217.66	160.37
Treasury Stock	43.5	41.41	41.41	30.44	11.42
Other Liabilities	115.75	55.13	52.88	41.27	29.91
Total Shareholders Equity	931.22	738.15	474.07	361.5	286.43
Total Liabilities & Shareholders Equity	1,252.04	1,007.22	774.15	544.16	459.6
in millions of USD					

ResMed Inc.: Annual Cash Flow Statements					
Period Ended	6/30/2007	6/30/2006	6/30/2005	6/30/2004	6/30/2003
Net Income (Loss)	66.3	88.21	64.79	57.28	45.73
Depreciation/Amortization	47.95	40.97	28.29	17.87	12.58
Net Incr (Decr) in Assets/Liab.	-69.7	-41.03	-26.24	-4.53	-1.79
Cash Flow from Disc. Operations	n/a	n/a	n/a	n/a	n/a
Other Adjustments-Net	46.55	10.88	4.24	5.92	2.76
Net Cash Flow from Operating	91.11	99.03	71.08	76.54	59.28
Incr (Decr) in Prop. Plant & Equip	-77.56	-102.75	-39.69	-57.25	-25.64
(Acq.)Disp. of Subs. Business	-1.91	-10.53	-54.43	-0.18	-0.3
Incr (Decr) in Securities Invest.	-21.57	-2.38	10.16	-7.05	15.61
Other Cash Flow from Investing	-4.38	-4.22	-2.82	-2.36	-1.56
Net Cash Flow from Investing	-105.42	-119.87	-86.78	-66.84	-11.88
Issue (Purchase) of Equity	36.17	34.39	28.46	1.31	5.49
Issue (Repayment) of Debt	-10.47	53.63	-3.26	n/a	-9.22
Incr (Decr) in Borrowing	n/a	n/a	n/a	n/a	n/a
Dividends, Other Distribution	n/a	n/a	n/a	n/a	n/a
Other Cash Inflow (Outflow)	12.4	9.75	n/a	n/a	-12.61
Net Cash Flow from Financing	38.1	97.77	25.2	1.31	-16.34
Effect of Exchange Rate on Cash	14.46	0.44	3.78	3.4	10.57
Cash or Equivalents at Year Start	219.54	142.19	128.91	114.49	72.86
Cash or Equivalents at Year End	257.79	219.54	142.19	128.91	114.49
Net Change in Cash or Equiv	38.25	77.36	13.28	14.42	41.63
in millions of USD					

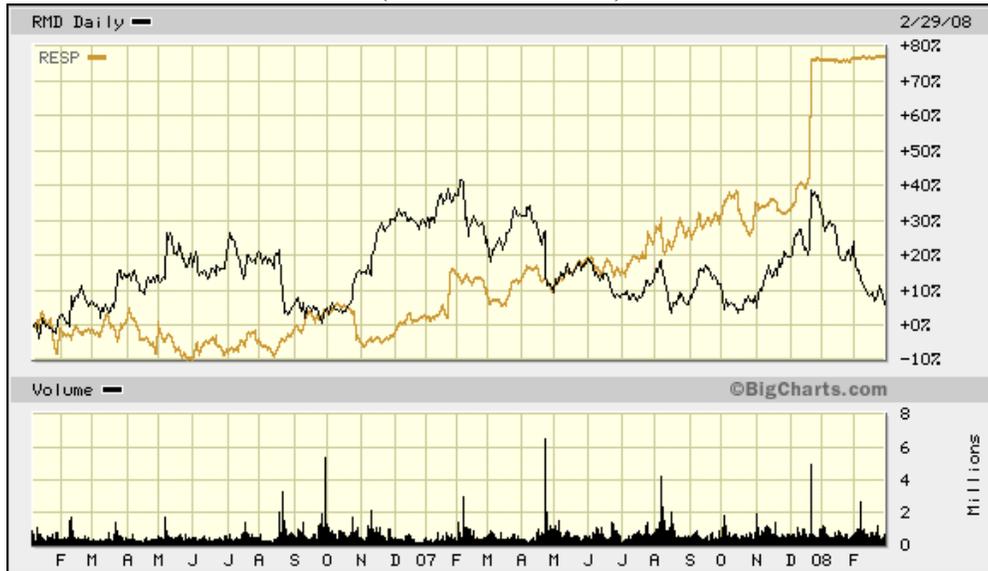
APPENDIX E: STOCK PRICE

**ResMed Stock price
(1/1/2007 – 2/29/2008)**



Source: BigCharts.com

**Stock Prices – ResMed and Respironics
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SIERRA PACIFIC RESOURCES IMPLEMENTS A MERGER

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CASE DESCRIPTION

The primary subject matter of this case concerns the development of a staffing plan for the merger of two companies. Secondary issues examined include;

How can the staffing plan be modified to save time and money and still meet legal guidelines?

How can the process be accelerated and still allow for a cascade approach to staffing?

What elements of the plan are crucial to ensure legal defensibility of the process?

Who is included in the phrase "protected class?"

What is a role profile?

How do you create role profiles for existing positions and for new positions?

Who is a job content expert?

What information do employees need to know in order to make an informed decision about their future with the company?

What role does a job fair serve?

What is the role of training in a staffing process?

Why is it so important to involve attorneys in the process?

Why can't existing performance appraisal data from the two companies be used to make selection decisions?

What are the benefits of designing a voluntary severance package? What are the disadvantages of such a package?

How do you prevent managers from preselecting their candidate of choice?

What role do senior officers play in the staffing process?

How do you estimate of the cost of a staffing process?

How do you estimate the time involved to design a staffing process?

How do you estimate the time involved to implement a staffing process?

The case has a difficulty level of level 5, appropriate for first year graduate level; six, appropriate for second year graduate level; seven, appropriate for doctoral level).

The case is designed to be taught in 2 classes where it is overviewed in one class and the questions are discussed in a second class. It requires 2 - 3 hours of outside preparation by students.

CASE SYNOPSIS

What happens when the real world and the academic world collide? In a perfect world a legally defensible staffing plan for the merger of two companies requires a detailed step by step process as well as sufficient time and money to execute the process. In the imperfect, real world, designing a legally defensible staffing plan when money is tight, time is of the essence, and managers don't have the patience to go through a detailed, labor intensive process before making their selection decisions is another matter altogether. This case describes a detailed, step by step and by-the-book staffing process to create a legally defensible staffing plan. It is designed by someone who is known for creating expensive, thorough and time consuming processes that have never lost a challenge in court. When client concerns and constraints challenge that perfect plan the perfect world clashes with the imperfect world and students are caught in the middle.

Their task is to modify the perfect staffing plan in a way that satisfies the attorneys who are looking out for the company's best interests and the management team who want to staff the new organization as quickly and as economically as possible so they can get on with the business of running the new business. Although not detailed in the case, instructors can incorporate the selection and design of behavioral competencies, role profiles and critical incident (behavioral) interview questionnaires and interviewing techniques into the case.

SIERRA PACIFIC RESOURCES IMPLEMENTS A MERGER

Nevada Power, Las Vegas and Sierra Pacific Resources, Reno, had agreed to a merger to create a new company which would be Sierra Pacific Resources (SPR). Jean Johnson, Senior HR Vice President for Nevada Power had been given the responsibility to develop a staffing plan as part of the post merger activities. Jean was well aware of the difficulties that lay ahead as she knew that she would be heading a process to identify who should stay with the new company and who should be let go. Given employee demographics she understood that this would be a complex proposition in which all employees must be treated fairly and in accordance with US laws. Jean also recognized that her success would be measured by being on time and on or under budget, and at the same time avoiding any legal challenges to the process. Jean was concerned when she realized that she had to do this in addition to her current responsibilities, which already constituted a full time job.

Senior management including Jean's boss Stephen R. Wood, Corporate Senior Vice President - Administration planned to have the new company follow a defined strategic path of consistent and controlled growth to meet market demand and maintain efficiency in operations. The merger would create a new utility company that serviced 95% of Nevada's power needs. The merger of the two

companies was necessitated by the explosive growth of the population in Nevada Power's market area, and the company's corresponding lack of the development funds needed to keep pace with this unprecedented growth rate. Senior managers believed that Sierra Pacific could provide the capital required for expansion and that the subsequent reorganization would reduce operating costs by eliminating job redundancies.

Senior management also thought that it would be necessary to counteract a likely tendency towards bureaucratic complacency sometimes found in monopolies. Efficiency in operations would require the two disparate organizational cultures and structures to be coalesced into a single cohesive unit. Given that the existing companies had quite distinct cultures, this would likely take a considerable number of months, a lot of effort, and a focus on consistently reinforcing the vision, mission and values of the new company, which were currently being developed by SPR officers.

As a part of the senior management team, albeit more junior, Jean was thrilled to be asked to develop and lead the staffing plan reorganization. Jean's career with Nevada Power, while successful, had reached a plateau, and so the high profile assignment for the new SPR would increase her perceived value and hopefully open up other assignment opportunities. Jean really wanted to move over to a PR position, and had been developing her external networks as part of her positioning moves. She and her husband were active in the community both socially and politically and their combined activities would put her in good stead for the senior PR position opening up at SPR. Her HR counterpart at Sierra Pacific stood a very good chance of getting the senior HR position in the new SPR, even though Jean was also very well qualified. Both could not get the position so Jean felt that by showing how good a job she could do would help make sure that a position would be offered to her anyway. Given the tremendous amount of additional work she was certain she would be well rewarded on completion of the project.

Jean knew that implementing the staffing plan would be a very difficult process, involving her traveling back and forth between Reno and Las Vegas, and setting up identical processes in each location. The results, in the form of the people who were selected for each position, had to support the culture of the new organization and communicate its mission and values by their words and actions. In addition, Jean strongly believed that those individuals charged with implementing the selection process needed to make objective choices rather than subjective ones, which might be based on personal preferences or other inappropriate biases.

As she pointed out, "Merging companies that have different cultures and histories is a challenge at any time, and in the power industry, which tends to be slow to change, it is particularly difficult. I do want to make sure that the selection process follows steps that are clearly laid out. I know some of our people might not want to relocate, but I am confident that we can work with most of them and make sure that employees from both companies have equal opportunity to be selected."

Company Cultures

Sierra Pacific Resources' employees currently enjoyed an informal hierarchy where levels within the organization had defined roles and responsibilities, but these did not dictate or define the formality of interactions between and among employees at different levels. Officers were addressed by their first names. Employees felt comfortable asking the tough questions and appropriately challenging their superiors in ways that made decision making processes more transparent. Sierra Pacific Resources had a young team of officers and an HR staff who were willing to explore non-traditional ways of operating that might improve performance and increase profitability. Given this environment the company had attracted more women and minorities than its counterpart utility, Nevada Power.

Nevada Power had a very formal hierarchy. Interactions across levels, especially involving officers of the company, were dictated by title regardless of leadership capabilities. Officers were addressed by last names and were rarely if ever questioned when addressing employees in a formal meeting or informal setting. Officers did not challenge the status quo as far as policies and procedures were concerned. Nevada Power had not changed its operating structure in more than three decades.

The hope for SPR was that it would closely resemble the current environment at Sierra Pacific Resources. Jean's challenge was to identify those Nevada Power employees who would not only support the new environment but actively enjoy working in the new company culture. Jean thought that Sierra Pacific Resources employees would probably have an easier time adjusting to the merger due to the continuance of the organizational culture to which they were accustomed.

Jean spent a lot of time thinking about the issues that could arise during the next few months and the potential hazards to the new company if the staffing plan did not go smoothly. Specifically she was worried about the plan being implemented objectively and fairly for everyone and especially for protected classes. She decided that she must be very confident about the competency of the consulting company that SPR was hiring to develop the selection process and the thoroughness of the process itself.

Company Structures

Sierra Pacific Resources and Nevada Power had parallel organizational structures for administrative functions, such as HR, finance, and operations, and had a similar number of employees in each area and a similar ethnic mix at all levels. There were, however, two significant differences in the employee demographics. First, the average employee age at Nevada Power was approximately 15 years older than the average age of the Sierra Pacific Resources employee population. Second, Sierra Pacific Resources had a higher percentage of women in senior management positions than did Nevada Power, although even at Sierra Pacific Resources this

percentage was barely 20%. Sierra Pacific Resources had approximately 300 administrative employees, while Nevada Power had close to 400 employees in administrative positions. When the final organization chart for Sierra Pacific Resources was approved, it was expected to have approximately 500 administrative employees in total, 350 of which would be in Las Vegas and 150 in Reno. Jean's challenge was to fill those 500 available positions by selecting the "right people" from the current combined administrative employee population.

The operational footprint of the two companies did not overlap in any geographic areas, leaving field positions out of the scope of the staffing assignment. The officer population (above the level of directors) was also out of the scope of the current assignment as all officers were contractual employees, with a change of control clause in their contracts. Within the scope of the program were all directors, managers, supervisors and administrative employees. All of these employees were at-will employees, meaning that with due cause the company could terminate their employment at will, and these individuals were employed either hourly or monthly.

Jean was faced with significant expectations from her fellow officers that the staffing plan would go smoothly and would not result in any lawsuits from disgruntled employees. Knowing that her experience with selection systems was not sufficient, she realized she would need experienced support from an outside HR consulting firm. Jean contracted with New Dawn Consulting, a management consulting firm with an excellent reputation for designing detailed, reliable, legally defensible and hands-on staffing processes, to work closely with her on all phases of the implementation of the staffing plan, which follows.

Staffing Plan Preparation

The scope of the current human resources assignment was to create and implement an effective, efficient and legally defensible staffing plan that would enable the selection of the "right people" to populate the new company. The "right people" were described as having the knowledge, skills and abilities (KSA's) to do the job, as well as the characteristics and traits that would support the vision, mission, and values of the new organization. KSAs are defined as the competency areas specific to a position, while characteristics and traits typically boost these competencies.

Jean's boss Steve Wood, clearly told her,

"Jean, I want you to lead the efforts on administrative employee selection for SPR, now that the two companies are agreed on the merger. I'll be busy working to combine operations and field staff. Make sure that all the "t's" are crossed and the "i's" are dotted. Most of all try and cover all the bases so that SPR does not start out involved in costly and prolonged lawsuits brought by disgruntled employees. And keep within the \$2.5M budget!"

Jean replied,

"I don't see how keeping the budget down is going to be possible if we are really careful about dotting all the "i's", but let me work with the consultant and see where we can streamline the process."

New Dawn Consulting assigned David Cole, a senior consultant in the firm, to work on the project. David had a reputation for designing extremely thorough staffing plans that were rarely if ever challenged in court and even if a case went to court, his clients had never lost. He often worked closely with renowned academics who, after reviewing his proposals, agreed to support the design and implementation of the plans if they were challenged in court. Clearly David brought a wealth of experience to bear but this would come at a high price for SPR, so Jean had to be very clear on budget items that could be contained.

Before the staffing plan could be implemented all officers had to be in place and the vision, mission and values for SPR decided upon. David and Jean agreed that they would conduct interviews with all officers in both legacy organizations in order to establish selection criteria. The results of these interviews would be summarized, signed off on by the officers and made available for all employees to read. Officers would assemble mixed groups of job content experts (people who actually performed or supervised the tasks) from both legacy organizations within each officer's area of responsibility in order to create the structure for the new organization. Once agreed upon, position descriptions, which were to include technical competencies and minimal requirements, would be written.

What follows is the outline of the staffing plan for the merger that David presented to Jean. The plan focused on processes, decisions and outcomes beginning with some initial work to prepare the officers (managers and supervisors) of both legacy organizations (as the original companies are called during a merger process) for the tasks at hand and ending with a fully staffed and merged organization.

Staffing Plan Outline

Based on position descriptions, job profiles would be created by groups of HR professionals, along with job incumbents and other job content experts (typically supervisors) from the legacy organizations in order to create a list of characteristics, traits and behavioral competencies that would become an integral part of a job-relevant selection and assessment process. To create job profiles the HR team assembled by David and Jean would do the following:

Interview current job incumbents and job content experts
Develop job description questionnaires (JDQ)

Conduct group interviews to verify behavioral competencies identified by JDQ results
Prioritize KSAs for each position and each organizational level
Verify output with a second group of job content experts in a discussion to verify the KSAs.

In this process the new group of job content experts is asked, "Does the incumbent in this position ever have to" (followed by the competency statement that was developed in prior steps)? If at least two job content experts respond, "Yes" to the question and follow their response with a specific example that they have observed, then the competency stands and is included in the job profile requirements. At the end of this process, the participants are asked to identify which competencies are critical to success on the job, which are important, and which would be nice to have. The resultant categorization is used to position the competencies in the selection process.

For new positions a subjective judgment had to be made to identify individuals who would provide the most meaningful ideas for the newly defined position.

Implementing the staffing plan would require a labor and time-intensive period for everyone involved. At various times during the process, hiring managers would be required to work seven days a week to keep pace with the schedule. David would be onsite for the entire implementation which was expected to take approximately three months. David's ten years of experience with New Dawn Consulting designing competency based selection and performance management processes, primarily for banks and hi-tech electronics companies, had not prepared him to be an integral part of the implementation process in the utility industry, which had very different business operations and organizational processes, not to mention that this would be a 24/7 operation. Regardless, David had a lot riding on this and believed he had come up with a budget that fully supported the implementation of the plan. His boss had told him,

"The success of this project will help me justify you making partner in the firm."

Staffing Plan Implementation

The plan included a voluntary severance package which would be offered to all employees. However, until the new organization was defined and the selection process was communicated to everyone, the details of this package were not to be communicated to employees. When all the role profiles, levels of responsibility, position locations and salaries were established, employees would have all the information they needed in order to make an informed decision about what would be best for them. Zero funds were allocated for anyone to make site visits even if relocation was required for their new position. Jean anticipated that only a small number of employees would need to relocate anyway

An internal job fair, to be held once in Reno and once in Las Vegas, was designed for employees to learn about positions for which they felt qualified. Officers and members of the six

person HR team would staff the job fair to answer any questions employees had about specific positions and the new organization in general. Monthly employees who made up about 30% of total employees would be required to attend the fair, while hourly employees would be strongly encouraged to attend. It was estimated the cost of the work associated with the job fair would be roughly \$300,000, when the salaries of the senior managers involved were factored in.

After participating in the job fair, employees would be provided with the details of their specific voluntary severance package. This information had been withheld so as not to bias employees' decisions before all information was available to them. With all relevant information in hand, employees would be able to make informed decisions about their future. Employees who did not opt for the severance package could apply for a job in the new organization and then participate in the selection process for that position. Each employee could apply for up to three positions. If an employee at a given level was not selected for a position at a comparable level in the new organization (comparable as defined by similarity of salary and commuting distance), he or she would not automatically receive a position at a lower level.

If an employee did not take the voluntary severance package and was subsequently not offered a position in the new organization, no special severance would be provided beyond the legacy organization's standard severance package. This was typically two weeks pay for hourly employees and one month pay for salaried employees. However, all these employees would be provided with outplacement counseling and job search support at no cost to themselves. Jean was hoping that once some hourly employees accepted the voluntary severance package the number of employees seeking a certain position would equal the number of hourly positions available. In such cases she thought such a detailed selection process would not be needed, thus saving additional funds.

The selection process, which is a part of the staffing process, was designed to cascade from the top down. Each level would participate in the process to select their direct reports. To support their participation in the process, officers (who were the first group of hiring managers) were to be trained in behavioral interviewing techniques in order to develop sufficient competence to conduct effective interviews and make objective selection decisions. Once their respective teams were in place, that level would go through training to hire their own direct reports. The hiring managers were responsible for assessing technical capabilities as well as the characteristics and traits that a person needed in order to be successful in the position. The behavioral interviewing training that they participated in enabled them to make the latter assessment.

The process, which averaged a cost of approximately \$5,000 per position, was to consist of interviews, exercises, simulations and tests, all containing job relevant questions and material as determined jointly by job content experts and David who was an industrial/organizational psychologist. Every selection decision would be carefully scrutinized by an overview committee consisting of the Senior VP of HR, Corporate Legal Counsel, an outside Labor Lawyer, and the consultant. The purpose of this review was to ensure that only job relevant information and data

would be obtained and used to make a hiring decision. Prior performance data could not be used because there would be no consistency between the two organizations regarding the competencies that were being appraised, nor the objectivity of the appraisals or the types of results that were being evaluated.

Once all positions were filled, a two day meeting would be held to review every selection decision. The purpose of this meeting was two-fold. First members reviewed the notes taken by interviewers to ensure that what was recorded were clear behavioral statements (as the interviewers were taught to take in their training) and second that those statements were interpreted and evaluated correctly. The purpose was not to assess skill requirements. This was done previously by the same hiring manager to screen out those who were not technically qualified.

This meeting would be conducted by the overview committee. Of particular interest at this meeting would be each individual who fell into a protected class (see Appendix A). In the case of Nevada Power and Sierra Pacific Resources these classes consisted primarily of blacks, women, Native Americans, individuals protected by the Americans with Disabilities Act (ADA), and white males over forty (the latter being a protected class in the United States). How these people were treated during the staffing process would be carefully scrutinized to ensure that selection decisions involving them were done correctly. In rare cases, the final decision maker could be called into the meeting to explain his or her decision if the committee had concerns about the selection decision. By taking these steps the new company hoped to avoid disgruntled employees taking legal action after the process was complete. Any legal action against the company would not only be costly but would also tarnish the company's image in the state, regardless of how the case was decided. Because David was concerned about the time it would take to complete the entire process, he strongly suggested, "we need to do this on a 24/7 basis in order to complete the process before Christmas, as not knowing their fate over the Christmas and New Year break will create undue anxiety for employees"

Jean concurred because she felt it was important for employees to know their "fate" as quickly as possible so they and their families could move ahead with the lives, and after all, she thought, "This is Nevada and in both Las Vegas and Reno being fast paced and staying open around the clock is the norm."

Afterwards Jean realized that David's suggested pace would consume approximately \$400,000 of her budget based on overtime and additional out-of-pocket costs for the required staff.

Staffing Plan Issues and Concerns

Jean had a working budget of \$2,500,000 for the outside consultant to design, develop and support the implementation of the staffing process as well as conduct a job fair (roughly \$300,000). David estimated that his company's fees for these expenses would be \$2,230,000 (see Table 1). After carefully reviewing David's plan Jean had three major concerns:

Time - It was important to Jean that the entire process be completed before the end of the year. While that was 7 months from now, Jean wasn't sure it was enough time to get everything done that is included in the plan.

Cost - Jean knew how important it was for the staffing process to run smoothly and be legally defensible, but at the same time she also knew that projects of this type almost always go over budget. From her experience and that of colleagues in other organizations, that override was often as much as 25%. If she agreed to the costs proposed by New Dawn Consulting she worried that the final cost to Sierra Pacific Resources would be in the neighborhood of \$3,100,000. This was not acceptable to her.

Process - Her gut reaction was that this plan was the way to go but when it came to the actual implementation, officers, managers and supervisors might feel that it was over engineered. Therefore they would not understand the need for such as a detailed process, nor would they be willing to agree to participate. This attitude had the potential to severely damage the integrity of the process.

Because of these three concerns Jean had the following three questions for David:

How can we simplify the process and still maintain the integrity of the implementation?
How can we reduce the price by \$500,000? (In Jean's mind, this would bring the final costs, with any overrides, to the limit of her original budget.)
What can we do to complete the entire process before the end of the year?

Appendix A

Legal Synopsis of Protected Groups (this is a brief summary and not conclusive)

Americans with Disabilities Act (ADA)

The ADA prohibits discrimination on the basis of disability in employment, State and local government, public accommodations, commercial facilities, transportation and telecommunications. It also applies to the United States Congress. To be protected by the ADA, one must have a disability or have a relationship or association with an individual with a disability. An individual with a disability is defined by the ADA as a person who has a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such impairment, or a person who is perceived by others as having such impairment. The ADA does not specifically name all of the impairments that are covered.

ADA Title I: Employment

Title I requires employers with 15 or more employees to provide qualified individuals with disabilities an equal opportunity to benefit from the full range of employment-related opportunities available to others. For example, it prohibits discrimination in recruitment, hiring, promotions, training, pay, social activities, and other privileges of employment. It restricts questions that can be asked about an applicant's disability before a job offer is made, and it requires that employers make reasonable accommodation to the known physical or mental limitations of otherwise qualified individuals with disabilities, unless it results in undue hardship.

Equal Opportunity Employment

Title VII of the Civil Rights Act of 1964 prohibits discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, Native Americans, color, religion, gender or national origin. The Age Discrimination in Employment Act of 1967 (ADEA) protects certain applicants and employees 40 years of age and older from discrimination on the basis of age in hiring, promotion, discharge, compensation, or terms, conditions or privileges of employment. These laws are enforced by the Equal Employment Opportunity Commission (EEOC).

Veterans

The affirmative action provisions of the Vietnam Era Veteran's Readjustment Assistance Act of 1974 (VEVRAA) prohibits job discrimination and requires federal contractors and sub-contractors to take affirmative action to employ and advance in employment qualified Vietnam era veterans, special disabled veterans, recently separated veterans, and veterans who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized. This law is enforced by the Veterans' Employment and Training Service (VETS). Military reservists and National Guard members called to active duty have rights and responsibilities under the Uniformed Services Employment and Reemployment Rights Act (USERRA).

Ombudsman Process

Individual states can create an Ombudsman's Office for specific purposes to assure citizens of fair due process. It is preferable for a company to set up an office to perform this function during a merger situation. In this case there were no incidents involving the use of the Ombudsman.

Table 1: SPR Staffing Plan Fee Schedule

The following fee schedule* was presented to Jean by David:			
Professional fees	US\$	Out-of-pocket expenses	
Senior consultant	616,000	Travel	30,000
Project manager	61,600	Hotel	125,000
Consultants on site	288,000	Meals	22,500
Consultants off site	192,000	Total	2,230,000
Specialists	400,000		
Legal fees	275,000		
Administrative fees			
Admin support	126,000		
Office supplies/materials	46,900		
Shipping/overnight	12,000		
Printing	35,000		

* David inflated the numbers on his proposal to incorporate unanticipated costs caused by client actions which could include additions to the project, and/or delays caused by slow client response times for necessary approvals throughout the project.

Professional Fees are based on the following assumptions:

1. Project duration - 7 months (22 days x 40 hours x 7 months = 1120 hrs)
2. Full time senior consultant @ \$550/hr
3. Two consultants on-site 12 days per month @ \$300/hr
4. Two consultants off-site at 80% of their time 10 days per month @ \$300/hr
5. Five specialists (writers, designers, trainers, IT, etc.) @ \$400/hr (200 hours each)
6. Legal fees are subcontracted by consultant and passed on to Sierra Pacific with no mark up

Administrative Fees are based on the following assumptions:

1. Full time administrative assistant @ \$75/hr
2. Half time administrative assistant @ \$75/hr
3. Office supplies rounded to approximately 2.7% of total

4. Shipping and Printing costs are best guess estimates

Out-of-pocket expenses are based on the following assumptions:

1. Three (3) full time consultants would travel to Reno or Las Vegas, NV four times per month for 5 days each time.
2. Specialists would travel to Las Vegas only on an as needed basis.
3. Round trip travel to Las Vegas or Reno - \$200/trip/consultant or specialist
4. Hotel expenses - \$100/night/consultant or specialist
5. Meals - \$60/day/consultant or specialist

AMOS HILL ASSOCIATES, INC.

Alan B. Czysewski, Indiana State University
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CASE DESCRIPTION

The primary subject matter of this case concerns a capital costing decision relating to a new equipment purchase. Secondary issues examined include production possibilities and the effect and timing of a major equipment purchase. The case has a difficulty level of three (appropriate for junior level) to five (appropriate for first year graduate level). The case is designed to be taught in two class hours and is expected to require two to six hours of outside preparation by students.

CASE SYNOPSIS

Amos-Hill Associates, Inc. is a veneer manufacturer in Indiana, specializing in the production of premium quality American hardwood veneers for international architectural and furniture markets. Veneer is a decorative wood product created by slicing logs into thin sheets (1/20 to 1/50 of an inch) to maximize the yield of natural wood grain material for applications in architectural and furniture products. Recently, Amos-Hill Associates acquired a new veneer slicing system which uses a new technology, a vacuum table, to hold the flitches (half-logs) from which veneer is sliced from the log. John Chiarotti, the vice-president and general manager of Amos-Hill has requested an analysis of the benefits of purchasing an additional vacuum table for the second production line. The improvement must be significant enough to justify the cost of the new vacuum table.

INTRODUCTION

Amos-Hill Associates, Inc. is a veneer manufacturer in Indiana, specializing in the production of premium quality American hardwood veneers for the domestic and international architectural and furniture markets. Veneer is a decorative wood product created by slicing logs in thin sheets (1/20 to 1/50 of an inch) showcasing the natural wood grain for applications in architectural and furniture products. Recently, Amos-Hill Associates acquired a new veneer slicing system which uses a new technology, a vacuum table, to hold the flitches (half-logs) from which veneer is sliced from the log. They have been so impressed with its performance, John Chiarotti, the vice-president and general manager has requested a financial analysis of the benefits of the new technology. John is interested in determining whether purchasing another vacuum table (at a cost

of \$180,000) for the plant's second processing line is a sound financial decision. The benefit must be significant enough to justify the cost of the new vacuum table. .

The Veneer Industry

Because of the high concentration of high quality walnut, cherry, maple and oak timber in the state, Indiana has been the principal home of the US hardwood veneer industry since the 1850s, when the scarcity of lumber with appealing wood grains first began to be noticed in eastern fine furniture markets. The soil and climate in Indiana create tree growth conditions that yield some of the finest quality wood grain attributes with few defects. Historically, the hardwood veneer industry has been localized to areas of suitable timber availability due to the substantial costs associated with transporting logs from timber stands to the mills. Mills are typically small plant operations since they cannot be sized beyond the ability of local timber stands to supply high quality logs suitable for veneer. The relatively small capacity and high costs of equipment, and the availability of specialized skilled labor are also major considerations.

American hardwoods have enjoyed tremendous popularity in Europe and Japan for many decades. Economic growth in the Middle East and Asia has further expanded the international markets for many wood species indigenous to the United States. The rich chocolate brown straight grain of walnut and the uniform figures and colors of cherry and maple grains are highly desirable as veneers and decorative plywoods for architectural applications (such as doors and paneling), cabinets, and furniture. The use of veneers enables the designer to panel an impressive forty by sixty foot conference room (such as the conference room at Amos-Hill Associates, Inc.) or a 300 foot long hall at a research facility of a Fortune 500 company with the natural warmth of wood with a naturally uniform character of wood grains obtained from a single tree. In furniture, veneers can be used to assure compatibility of wood character throughout a large cabinet or an entire suite of furniture. Figure 1 provides an example of a popular grain pattern.

Figure 1: Vertical Sliced Veneer (cathedral grain pattern)

Wiedenbeck et al, 2003.



Veneer is measured in "face area" (length by width) regardless of its thickness, and is priced accordingly. Although theoretically more veneer "face" per log can be obtained by thinner slicing, there are more pieces to handle and greater risk of damage. As a result, there is a substantial increase in manufacturing costs for thinner veneers that can neutralize the benefits of greater veneer yields.

The customer generally selects a veneer thickness that is appropriate for an application or production process rather than as a cost-management consideration. However, for the veneer manufacturer, improvements in the production process that enable reliably higher quality thinner slices create value by increasing overall veneer yields.

Amos-Hill Associates, Inc.

Located in Edinburgh, Indiana, approximately forty miles south of Indianapolis, Amos-Hill Associates, Inc. has a long history in the hardwood veneer industry, dating back to the very early 1900s, and through familial relationships to the Indiana lumber industry as far back as the 1880s. The current company is the product of judicious alliances made through various mergers and acquisitions in response to the many changes in the demand for decorative hardwoods, the US economy and the Midwest hardwood lumber industry since those early beginnings. Since the formal establishment of Amos-Hill Associates, Inc. in 1982, the company has grown from thirteen to over 140 employees. To meet expansion goals and develop stronger international markets, the company entered into an alliance with a German company in 1996 and in 2006 became fully owned by Koppensteiner Offenhauser Veneers. Amos-Hill sells approximately thirty five percent of its veneers in the US, with the bulk of its production being exported to Europe, the Middle East, South Africa, Asia, Canada and Mexico. Understanding the cultures, quality expectations and preferences of these markets is critical to successfully supplying the highest quality natural materials required to meet the artistic demands of their customers.

Manufacturing Veneers

To create decorative veneers from hardwoods, veneer manufacturers depend primarily on independent lumber and saw mill dealers. These suppliers identify veneer-suitable trees, cut the timber, and trim and size logs. The buyers from the veneer manufacturer examine, select and purchase cut logs that meet quality standards and species needs for current production demands. Because veneer must be cut from "fresh timber," upon arrival at the yard, the logs are kept from aging by a sprinkler system. The system maintains natural water content in the logs until they are processed, typically within a week of arrival. Each log is marked with a unique identifying number, quality grade, species, and source to track the log throughout processing, into the warehouse and to the customer.

A key attribute of decorative wood veneer manufacturing is the quality of the wood. Unfortunately, its appearance is not entirely predictable from the early "log" stage of production of this natural product. Only after the log has been "opened up" (sawed in half, lengthwise) can a reliable estimate of its potential value be made.

Veneer quality logs are typically not less than 15 inches in diameter and may exceed 30 inches before processing. On average, Amos-Hill Associates receives logs that are seventeen inches in diameter before finishing. The average debarked log going to a veneer slicer is sixteen inches in diameter. The average log length is just over ten feet to meet ten-foot-long product specifications.

Logs are prepared for slicing by removing bark and any taper, then cutting the logs in half (lengthwise) to create two flitches which are bound together to maintain the log identity through the process. Cutting the log into the two flitches is a key step since how the log is opened up will determine wood grain pattern, quality and yield for the premium veneer markets. After flitching and binding, the log is placed in a hot water bath (150-270°F, based on species and diameter) for approximately 24 hours to soften the wood for optimal slicing characteristics. From the bath, each flitch is manually "finished" by sawing or grinding off any discolored material or residual bark and planing the cut side to assure a secure fit against the slicing table.

Before slicing each flitch, the slicing technician assures that the veneer knife is sound to avoid scratching or marring the veneer surface in the process. The flitch is then attached to the flitch table, using either hydraulic "dogs" that work as clamps to hold the flitch tight against the mounting plate of the slicing table or a vacuum system that sucks the log tight against the mounting plate.

To fit the slicing table, logs do not exceed twelve feet in length. In addition to the size specifications, a variety of critical quality features are monitored throughout the process. In the slicing process the slicing technician is constantly checking the consistency of the thickness and the cut quality of the veneer slices, including unevenness and scratching from the blade. The entire flitch is moved against the stationary knife of the slicer to create the paper-thin slices of veneer. As the flitch is sliced, each slice falls onto a conveyor belt and moves away from the slicing machine. Two associates further inspect the output for a variety of quality concerns when the veneer reaches the end of the conveyor. The slices are then stacked, batched and bundled by flitch and log prior to loading the veneer into a massive dryer.

Once the reconstructed flitches reach the drying station, an associate loads the slices into the dryer. The veneer is taken through a hot-to-cold drying process that assures even drying to prevent cracking, splitting and feathering of the wood surfaces. At the end of the drying process, the flitch and log are again reconstructed into consecutive slice stacks. At this stage, on special order, the veneer may be pressed or go directly to the warehouse.

Figure 2: Schematic of vertical veneer cutting, including stationary knife
(Wiedenbeck et al, 2003)



In the warehouse, the veneer sheets receive further manual processing. Veneers destined for the domestic market have the ends trimmed, are inspected again for defects that become apparent after drying and are restacked in consecutive slicing order and bundled by flitch. Veneers intended for foreign markets are assessed, marked for clipping of defects, clipped and graded, re-inspected for defects, and then are restacked in consecutive slicing order and bundled by both flitch and log. For both foreign and domestic destinations, sales samples are pulled from 25th, 50th, and 75th percentile of the flitch diameter.

Despite the development of sophisticated equipment to manufacture veneer, trained people are intimately involved throughout the hardwood veneer manufacturing process. The fragility of veneers, which are sliced as thin as one-fiftieth of an inch, also demands care at a level which cannot be reproduced by equipment that is currently available. The visual and tactile characteristics of the end-product determine veneer value; therefore people at every level of the process are focused on identifying controllable attributes that dictate the need for equipment adjustments and maintenance. The same people are also noting the attributes and quality of each individual log, to establish how to maximize its market potential.

The Amos-Hill Production Process

The Amos-Hill veneer mill currently runs three veneer cutting lines, two of which use vertical slicers and one which uses a rotary cutter. The rotary veneer cutter is used to create a rift cut, which is preferred for some wood species in international markets. Vertically sliced veneers predominate in the industry. Presently, Amos-Hill runs two vertical veneer cutting lines, one using an older slicing table with hydraulic dogs to hold the flitch in place and one using the new vacuum table to hold the flitch in place. As the log is cut, each slice falls onto a table where it is inspected and stacked by an associate to "reconstruct" the flitch.

Flitches are loaded onto the tables (slicers) manually to ensure proper placement. The hydraulic table depends on "dogs" (brackets) to hold the flitch securely to the table. The dogs limit the amount of veneer that can be cut from the log to the depth of the brackets resulting in a 0.5 inch "backer board" residue from each flitch. This backer board is essentially the innermost one-half inch of the flitch. The mill is unable to further process the backer board, so it is scrapped and burned to fire a boiler used for heat in several processes. At each flitch change, the flitch must be secured and released from the dogs manually. In practice, the knife is used to help stabilize the flitch when loading a hydraulic table, thereby risking damage to the knife and potential injury to the operators at each flitch change.

Unlike the dog table, the vacuum table creates a vacuum that sucks the flitch to the slicing table, making loading the table both easier and quicker. This action does not require assistance from the knife apparatus, thereby minimizing knife damage and risk of operator injury. The physics of the vacuum system (and the absence of "dog" brackets) permits the slicing of veneer to within 0.25 inch of the table (a 0.25 inch backer board), enabling the production of an additional quarter inch of veneer from the widest part of each flitch in comparison to the hydraulic dog table system. The resulting additional six to twelve slices of veneer (depending on the thickness of slices being cut) represent a significant production increase per flitch.

Figure 3: Hydraulic Dog Slicer with Backer Board Still in Place at the End of Slicing
(Wiedenbeck et al, 2003)



Figure 4: Vacuum Table and Backer Board
Merritt PMI (2006)



The Decision

Mr. Chiarotti feels that the performance of the recently acquired vacuum table may justify converting the second vertical cutting line (currently equipped with a hydraulic dog table). However, he would like an objective analysis of the effect of purchasing and utilizing the vacuum system on the plant's financial performance. Data from the vacuum table processing line indicates that veneer quality has been improved due to a reduction in "wobble" of flitches on the table during slicing because the flitches are more securely held to the table by the vacuum system, but the improvement is difficult to quantify. The vacuum table is also easier to maintain, but this improvement has not been quantified. Productivity has increased as measured by comparing the number of flitches processed per shift on the two lines and the quantity of veneer has also increased as measured by the reduced volume of backer board material.

Production Information

Currently, the plant runs three shifts on the vacuum table line and two shifts on each of the hydraulic table and rotary cutter lines. Therefore, three-sevenths of processing time can be attributed to the vacuum table line. However, the proportion of veneer yield from the vacuum table is much greater, since the vacuum table processes more logs per shift and produces an additional 0.25 inches of material per flitch sliced into veneer. The plant processes 300 logs (600 flitches) per day. It takes just under four minutes (three minutes and 51 seconds) to slice an eight-inch flitch, based on John's estimate of six hours of cutting time per shift on the vacuum table line. The remaining two hours of each vacuum table shift are spent loading the table with flitches, unloading the backer boards, and making knife repairs.

An assessment of loading flitches on the vertical slicing tables revealed that it takes twenty seconds to load the vacuum table and 45 seconds to load the hydraulic dog table. This translates into additional production volume on the vacuum table of two logs (four flitches) per shift. However, the knife blade must be checked between each flitch and, if necessary, it takes fifteen minutes to change a knife (at \$3,000.00 per knife) on both lines. There is no difference in wear on knives between the two tables. Fifty to 58 knives are changed a year.

With average flitch widths of 8 inches, the 0.25 inch gain in veneer material per flitch cut on the vacuum table equates to a one flitch-equivalent gain in production for every 30 flitches cut on the vacuum table line in comparison to the hydraulic dog table line. Reduced scrap from backer boards is not economically significant as a disposal cost since the company uses scrap to fire the boilers used for several heating processes at the plant. The gain in veneer by the reducing backer board thickness incurs no additional raw materials cost. Analysis indicates no additional labor costs associated with the vacuum slicer.

Production data for the most recent year is provided in Table 1, which includes all major products from all three slicing lines, by wood species, markets and veneer thicknesses. Doyle Yield is an industry measure of log feet calculated from the diameter of the live tree. Veneer per log foot is derived from the production metrics at Amos-Hill. Log count is the actual number of logs Amos-Hill processed. Log costs are the market price for veneer quality logs, which are paid to vendors on a per Doyle Yield log foot basis. Veneer pricing ranges from ninety dollars to as much as one hundred forty dollars per 1,000 square feet of veneer face area. The veneer yield from the rotary cutter is equivalent to the yield from the hydraulic table vertical slicing line. Although selecting logs for the rotary cutter tends to be species-specific and dependent on log attributes, the allocation of species of hardwoods is assumed to have been proportional to all three production lines for the purpose of this case.

AN IN-SOURCING DECISION IN THE HEALTH CARE INDUSTRY: SHOULD AN ORTHOPEDIC PRACTICE BUY AN MRI?: A CASE STUDY

Kevin Devine, Xavier University
Thomas Ealey, Alma College
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CASE DESCRIPTION

The primary subject matter of this case is a capital budgeting decision. Capital budgeting issues are appropriately discussed in accounting and/or finance disciplines, as well as healthcare management courses. The case and teaching note support the discussion and analysis of several secondary issues, in addition to the quantitative and qualitative factors incorporated in capital budgeting decisions. These issues include, but are not limited to, ethical issues, government policy practices, and sensitivity analysis. The quantitative analysis requires the student to demonstrate an understanding of the complexity that may be involved in determining relevant factors included in a capital budgeting decision, as contrasted with the simplicity of most textbook capital budgeting problems. The case is appropriate for use in junior level classes (level three) and above. There is a great deal of flexibility incorporated in the case, dependent on the instructor's desire to pursue, or not pursue, discussion of the secondary issues. This flexibility makes the case suitable for advanced analysis and discussions at higher course levels, up to and including first year graduate levels (level five). The number of class hours required to teach the case is dependent on the depth explored by the individual professor. However, class hours would be expected to range from one to two hours; preferably over two class meetings. Preparation hours required of the student are expected to average two to four hours.

CASE SYNOPSIS

This case considers the dilemma being confronted by an orthopedic physicians group. The practice is facing shrinking revenues driven by government plans to reduce Medicare reimbursements. In an effort to avoid salary cuts to physicians that appear imminent, members of the practice suggest raising rates to private payers. When this alternative is ruled out, it is decided that an expansion of ancillary services may provide a solution to the dilemma. The primary decision is whether to expand services by in-sourcing the Magnetic Resonance Imaging (MRI) diagnostic tool. Quantitative analysis of this decision requires the student to identify and determine the projected cash flows, associated with acquiring the MRI, over a twelve year period using net present

value analysis. The realism of this decision problem is enhanced due to the fact that the physician's group serves several different classes of customers as well as using the MRI as a diagnostic tool for a variety of ailments/injuries. Each patient group and procedure results in a different reimbursement amount. This analysis is then expanded with two potential alternatives; a ten percent increase in prescribed MRIs or elimination of service to Medicare/Medicaid patients. Students should identify the quantitative impact of acquiring the MRI versus the status quo, as well as the ethical considerations associated with eliminating services to Medicare/Medicaid patients. This addition invites the discussion of business ethics from a stakeholder perspective.

BODY OF THE CASE

The following exchange recently took place at Physicians Orthopedic Group, Inc. (POGI) in response to recently proposed Medicare reimbursements. Dr. Adams and Dr. Baker are the original founders of the practice group and are currently serving the group as president and treasurer. Carolyn Conway is the office manager.

Ms. Conway: Medicare just announced cuts in the reimbursements for all covered healthcare services by five percent. If we don't find a way to make up this loss in revenues we are going to have to find a way to cut costs, including, reducing physician and staff salaries.

Dr. Adams
(visibly concerned): Can't we just charge our private insurance patients more for their services to make-up for the Medicare cuts?

Ms. Conway: No. Insurance companies rarely pay us the amount that we bill them and their reimbursement rates are also fixed by contract. To make matters worse most of the insurance companies tie their reimbursements to the Medicare allowance. It is typically more than the Medicare allowance, however, if Medicare reimbursements are declining it is likely that insurance reimbursements will also decline or at best stay the same (e.g., private reimbursement equals 130% of Medicare rate).

Dr. Baker: Can we raise rates on the patients that don't have health insurance or don't have insurance linked to the Medicare rate?

Ms. Conway: I suppose we could but the problem with that approach is that many of those people can't afford to pay us the full amount for major services already.

Often times I have to negotiate reduced charges with them in order to entice them to pay us anything.

Dr. Adams: OK - then what would you suggest we do?

Ms. Conway: I believe we need to consider expanding our services.

Dr. Baker: Given the talents of all the doctors in the group, we pretty much cover all of the orthopedic surgeries and rehabilitative services that are needed in this community.

Ms. Conway: Well, if we can't provide additional physician and rehab treatments, maybe we should focus on diagnostic equipment. Perhaps instead of sending our patients to the hospital for MRIs we should offer the service in house

Dr. Baker: If we are seeing cutbacks in revenue, how in the world can we afford a million dollar MRI machine? (See Glossary at end of case)

Ms. Conway: We are currently sending about 800 patients a year to the local hospitals for MRIs. At that volume we might be able to justify the investment.

Dr. Adams: That might be a great idea. Why don't you get some information together and see what it looks like.

Dr. Baker: Yes, but it sounds like you will need to get the information by types of patients, since not all patients pay the same. You might also try to project what amount we will receive given these new Medicare cuts.

BACKGROUND

The current environment in the healthcare industry has resulted in physicians' groups facing revenue compression. Government reimbursement for Medicare/Medicaid services has been flat or declining with private pay reimbursement sometimes a percentage of government reimbursement. Meanwhile, the costs incurred in order to provide health care are continuing to increase. In the face of shrinking profits, physicians groups are frequently facing difficult decisions in order to grow or maintain profits. Alternatives may include adding another physician to the group, withdrawal from Federal/State Medicare/Medicaid programs (or refusing to accept new Medicare/Medicaid patients), or offer in-house services to patients that have previously been referred to a hospital.

Physicians Orthopedic Group, Inc., located in Mason, Ohio, consists of ten physicians, nine are generalist orthopedic physicians and one specializes in spine surgery. All of the physicians in the group serve the local hospital trauma unit on an "on call" basis. X-rays are routinely performed "in-house" and POGI has three x-ray rooms and five technicians employed; three full time and two part time. If more detailed information is needed for a proper diagnosis and treatment, an MRI scan may be ordered. POGI currently out sources all MRIs and approximately 800 scans are ordered per year. Patients are referred to the local community hospital or to an independent open MRI unit. In either case there is no revenue or cost impact to POGI.

MEETING ONE WEEK LATER:

- Ms. Conway: I have put together information regarding our patient mix and MRIs prescribed, on average, for each patient group (See Table 1, Panel A). I have also estimated the percent of MRIs ordered for each typical procedure (See Table 1, Panel B). I have further summarized the reimbursement fees that I think we can expect to receive from each patient group, by procedure, if we provide our own MRI service (See Table 1, Panel C). Preliminary information regarding the cost to acquire and operate an MRI machine has also been accumulated (See Table 2).
- Dr. Adams: I know that the hospital charges the patients a lot more for MRIs than what you are showing in this chart.
- Ms. Conway: They do, but insurance companies and Medicare provide greater reimbursements to hospitals than they do for clinics like ours.
- Dr. Adams: Well that doesn't seem fair! Why do they do it?
- Ms. Conway: They figure that hospitals are more complicated and have greater overhead to support and justify it from that perspective.
- Dr. Adams: This looks like an awful lot of information - how will we determine if it makes sense to invest.
- Ms. Conway: If you want to proceed, I can put together an analysis to determine the NPV of this project to help us make the decision.

-
- Dr. Adams: I don't care about your NP what ever you call it just let me know if it will save us from cutting physician salaries.
- Dr. Baker: Perhaps we can attract more patients in the future if we make it known to other doctors and insurance companies that we can provide the MRI service cheaper than the hospital.
- Dr. Adams: That's a good idea - and maybe we can attract some that pay more than Medicare patients. On the other hand, I think that because of the convenience of having our own magnet the number of times our Docs request MRIs will increase; simply as a precautionary diagnostic tool, of course, particularly since we can offer it for a lower fee than the hospital with more convenience to the patient.
- Dr. Baker: I think you might be right about attracting more regular pay customers. In fact, it would be nice if we could move toward not accepting Medicare patients in the future. All the Doctors tend to spend a lot more time trying to explain things to the older patients which hurts our productivity. That, combined with the low reimbursements that Ms. Conway explains the government is providing for Medicare patients, might make it more attractive to phase out taking care of Medicare patients in the future.
- Ms. Conway: I can look into that, but you know that Medicaid reimbursements are even less than Medicare.
- Dr. Baker: OK! Why don't you look into not providing services for either Medicare or Medicaid patients.
- Dr. Adams: Now wait a minute!! I'm not sure it's really ethical to stop seeing Medicare and Medicaid patients just because they can't pay us as much.
- Ms. Conway: A number of practices have discontinued seeing these patients. As they make up a larger percentage of the practice it is difficult to make enough money to pay competitive salaries to the Docs. I am not sure it becomes more ethical to ask Doctors to continue working here versus accepting a large salary increase at another practice that limits the types of patients serviced.

Dr. Baker: If we lose Doctors to the competition it certainly doesn't do our patients any good if we are forced to hire new or less qualified Doctors just because we can get them cheap!! I certainly don't think that is a good ethical practice.

Ms. Conway: You may want to talk to the staff about the wisdom of discontinuing service to the Medicare and Medicaid patients. In the mean time I can do several analyses related to the acquisition of the MRI machine. I can look at using the MRI for our existing patient mix and about 800 patients per year as kind of "worst case" scenario. I can look at increasing patients by about 10 percent assuming we will have more self referrals or referrals from other physicians' groups and, finally, I can look at dropping Medicare and Medicaid patients and assume that we can maintain 800 MRIs with private pay, insurance and workmen's comp patients. From a quantitative perspective we can see how these alternatives affect the potential profitability of the investment.

Dr. Adams: I suppose it doesn't hurt to run the numbers but while you are doing that I think we need to have a staff meeting and get everyone's input on the possibility of discontinuing Medicare and Medicaid patients. I know some of the Docs take serving others very seriously and aren't going to like not serving the elderly and poor just because they can't pay as much.

Ms. Conway: That's a good idea but be sure you tell them that it could affect their salary long-term.

Dr. Adams: I'll wait for that until you tell me what the impact is.

Ms Conway: Sounds good - I will get this analysis done by next week and we can talk again.

Dr. Adams: That would be great! In the meantime, I will talk to the staff and then we can make a decision on the best course of action with all things considered.

GLOSSARY

MRI Magnetic Resonance Imaging; a high-tech diagnostic tool allowing detailed views of the inside of the body.

Magnet	Short hand for the hardware used in MRI technology.
Medicare	Federal health insurance programs covering most elderly Americans and some disabled Americans.
Medicaid	Federal/state health insurance program covering indigent Americans.
Private pay	Private health insurers (Anthem, Aetna, Humana, etc.) providing private health insurance policies, usually purchased by employers.
Workers' compensation	Insurance limited to job-related injuries.
Film	Large sheets of heavy film on which MRI images are printed.

Table 1: Patient Mix, Procedure Mix, and Average Reimbursement		
Panel A: Current Patient Mix and Mri Percent by Patient Group^a		
Payer Group	Percent of Practice	Percent of Mris
Private Payer	35%	40%
Medicare	25%	25%
Medicaid	12%	10%
Workers' Compensation	18%	20%
Uninsured (typically due to trauma call at the local hospital)	10%	5%
^a On average, 800 MRIs are ordered annually.		
Panel B: Current Procedure Mix for Mris		
Procedure	Percent of Mris	
Spines	20%	
Knees	30%	
Hips	25%	
Shoulders	5%	
Wrist/arm	5%	
C-spine and head	10%	
Bi-lateral knee	5%	

Table 1: Patient Mix, Procedure Mix, and Average Reimbursement		
Panel C: Average Reimbursement for Mri by Procedure and Payer Group		
Procedure	Payer Group	Reimbursement ^a
Spines:	Medicare	\$ 850
	Private pay	\$ 1,084 (average)
	Workers' compensation	\$ 1,020
	Medicaid	\$ 550
Knees:	Medicare	\$ 400
	Private pay	\$ 538 (average)
	Workers' compensation	\$ 480
	Medicaid	\$ 285
Hips:	Medicare	\$ 750
	Private pay	\$ 918 (average)
	Workers' compensation	\$ 900
	Medicaid	\$ 475
Shoulders:	Medicare	\$ 440
	Private pay	\$ 640 (average)
	Workers' compensation	\$ 528
	Medicaid	\$ 350
Wrist/arm:	Medicare	\$ 325
	Private pay	\$ 452 (average)
	Workers' compensation	\$ 390
	Medicaid	\$ 225
C-spine and head:	Medicare	\$ 700
	Private pay	\$ 1,116 (average)
	Workers' compensation	\$ 840
	Medicaid	\$ 225
Bi-lateral knee:	Medicare	\$ 770
	Private pay	\$ 985 (average)
	Workers' compensation	\$ 924
	Medicaid	\$ 550

^a Annual procedure reimbursement is projected to increase at 1.5% per year.

Table 2: Projected out of Pocket Costs to Acquire and Operate Mri^a

Purchase of the “magnet,” at \$1.3 million dollars, plus \$75,000 remodeling and electrical work, 12 year life before major overhaul, 5 year financing at prime plus one percent (assume prime is 6%). POGI’s cost of capital is approximately 8%. ^b
One full-time tech, with backup coverage by techs already in x-ray [(\$18 per hour x 2080 hours) + 27% add on for taxes and benefits. Salaries are projected to increase at 4% per year.
Malpractice insurance costs will increase approximately \$25,000 with a 5% annual increase.
Annual property insurance will increase \$8,000 per year (2% annual increase).
Film, \$24,000 per year with annual 2% increases in cost.
Maintenance contract after first year, \$16,000 per year until year six when the contract cost will increase to \$20,000 and in year eleven it will increase to \$25,000.
Training and recertification for technicians average \$2,500 per year (4% annual increase).
^a The additional costs for electricity and billing for MRI procedures are expected to be negligible. Formal readings of the film will not be performed by POGI. These will continue to be outsourced to a radiology group; again, no revenue or cost impact. Prior to an office visit or surgery, POGI physicians will routinely re-read the film but this is not a billable service. POGI is a personal service corporation and pays tax at the rate of 35%.
^b For tax depreciation purposes, the MRI machine is a five year asset that will be depreciated using MACRS. It is expected that this machine will have no residual value other than scrap value (which is negligible) at the end of twelve years (Internal Revenue Service, 2008)

GETTING FROM A TO B: A CASE STUDY OF HE DELIVERS UNLIMITED, INC.

Jan L. Williams, University of Baltimore

CASE DESCRIPTION

The primary subject matter of this case is entrepreneurship. Secondary issues examined include female leadership, the impact of FICO credit scores on interest rates, and for-profit versus non-profit organizational status. The case has a difficulty level of four and is appropriate for senior level courses. The case is designed to be taught in one to two class hours and is expected to require two hours of outside preparation by students.

CASE SYNOPSIS

“I need that money today. No I needed that money yesterday,” stated Lisa Smith. Lisa Smith, founder, president, and CEO of HE Delivers Unlimited, Inc. is struggling to make ends meet. The company is beginning its third year of operations and is experiencing financial difficulties. Smith is faced with trying to turn around the company and eradicate its financial woes. Its largest customer is delinquent in submitting payments; and without the timely receipt of these payments, the company does not have enough cash to maintain operations. Smith is attempting to operate the company from owner financed funds and cash from operations. Due to personal financial circumstances in the past, Smith is trying to improve her credit score and does not want to incur additional debt. Accordingly, she has not obtained any external funding and has used cash to make major asset purchases. Furthermore, Smith began operating her company without a business plan. Without timely prepared financial statements, she does not know the financial position of the company and is unable to make sound financial business decisions. Smith has dreams of expanding the company. However, she knows that this will not be possible unless she can improve the company’s financial position.

INTRODUCTION

Traffic came to a sudden halt. “Oh, no, not an accident on the interstate today,” Lisa Smith shouted. “I can’t be late today. We have a new driver starting today, and it’s Thursday. I can’t be late getting to the office today.” Smith inhaled and exhaled slowly, and thought about what she could do while stuck in traffic. She picked up her cell phone and called the accounting manager at

Simmeons to find out about the status of their payment. "I hope they can pay us today. I need that money today. No, I needed that money yesterday," Smith exclaimed.

Smith managed to make it to the office before the new driver arrived. Before things got hectic, she got online to review the company's bank balance. As she sat at her desk and stared at her bank balance, she thanked God that Simmeons would be able to pay them today. That check gave her the funds she needed to pay her employees.

Smith was the founder, president and CEO of HE Delivers Unlimited, Inc. (hereafter referred to as HE Delivers), a transportation company that was beginning its third year of operations. Every other week Smith processed payroll for her employees. The company was having cash flow problems and meeting financial obligations had become difficult. The finances of the company had become a great concern to Smith. Smith had visions of expanding the company into additional markets. She knew, however, that before she could do so, she had to eradicate the company's financial problems.

BACKGROUND INFORMATION

HE Delivers was located in Maryland and serviced Anne Arundel county, Baltimore city, Baltimore county and Howard county. The company concentrated on four areas of transportation: (1) Home-to-Work, (2) Home-to-School, (3) Government Agencies, and (4) General Public. The company did not solicit street sales but offered transportation through pre-scheduled reservations. The mission of HE Delivers included providing the very best in transportation to all who needed an alternative way of travel while being a messenger and deliverer of God's word that "He Delivers." The objectives of the company included the following:

- ◆ *To provide a safe, licensed transportation service at reasonable prices;*
- ◆ *To become a trusted, viable transportation source to the people and businesses of the State of Maryland;*
- ◆ *To contract with area service agencies, corporations, daycares, disadvantaged and disabled persons, preschools, and recreational services that do not provide transportation; and*
- ◆ *To create jobs for people looking for part-time or full-time work.*

Smith got the vision to start the company while working for a not-for-profit organization that serviced blind persons. The blind volunteers would sometimes wait hours for mobility vehicles to pick them up from the center for the blind and take them home. Every Friday a blind volunteer at the center would use Smith's phone to call the transportation company to find out why the van was delayed. Smith thought that it was a shame that these persons did not have dependable transportation. These incidents caused Smith to clearly realize the need for reliable and safe

transportation throughout the metropolitan Baltimore area. Her goal was to bridge the gap between the need for transportation and the lack of reliable transportation.

Smith purchased her first van from the not-for-profit organization where she worked at the time. The organization was selling two 15-passenger vans for \$2,200 each. She decided to purchase one of the vans and paid for it through payroll deductions. After Smith shared her vision with a friend, Sharon Jones, they agreed to become partners in the business venture. Smith and Jones incorporated the business and each became a 50% owner in the company.

The company began operations by providing transportation to the general public. This included airport shuttle services and trips for organizations and businesses to various events, activities and destinations. During the first year of operation, the company used \$6,000 of its cash to purchase a children's transportation company that was going out of business. The purchase included a van and a list of 30 clients. This increased HE Delivers' services to include home-to-school (and back) transportation for children. Also in that year, the company increased its services to include reverse commuting to government agencies and the general public. Reverse commuting included picking up clients at a designated location, carrying them to work and returning to pick them up at the end of the day to take them back to their designated locations.

ORGANIZATIONAL STRUCTURE OF THE COMPANY

The company consisted of two female owners and nine employees. Lisa Smith, the founder, president and CEO of the company, majored in business administration and also studied computer technology at two local community colleges in the Baltimore metropolitan area. In addition, she worked in the administrative field for the past thirty years gaining business knowledge. Her duties as president of the company included cash management, development and implementation of client contracts, payroll and human resource related activities, scheduling transportation routes and the overall operations of the company. She was also a certified For-Hire Driver with an excellent driving record. From time to time, she participated in the transportation of clients when additional drivers were needed to perform company services.

Sharon Jones, co-owner and vice-president of the company, had an associates degree in mechanical design. After she realized the need for dependable transportation in the Baltimore area, she decided to accept the challenge of establishing and operating a transportation company. Her company duties included managing the office, advertising for new clients, implementing client contracts and scheduling transportation routes. She was also involved in making business decisions (purchasing and selling of vehicles, hiring new employees, etc.) with the president of the company. She too was a certified For-Hire Driver and transported clients when necessary.

The fleet manager was the son of the president. His responsibilities included managing the certified drivers, scheduling and performing required repairs and maintenance on the vans, refueling

all the vans at the end of the day, and transporting clients when necessary. He reported to the vice-president of the company.

At the end of year 2, the company had six (6) drivers. The certified drivers were responsible for providing safe, friendly, and dependable transportation for the company's clients. They received weekly schedule sheets on Monday, which detailed their clients' pickup and drop-off information for the week. The schedules were updated daily, as needed.

HE Delivers' board of directors consisted of 7 persons, which included the two officers of the company, an attorney, a certified public accountant and three business consultants/entrepreneurs.

GETTING FROM A TO B

HE Delivers obtained customers through word of mouth and contracts with private schools and governmental agencies. The private schools they serviced distributed fliers to all parents regarding the transportation service. HE Delivers charged the parents \$10 per one-way trip, or \$20 round trip. If HE Delivers transported more than one child in a family, the first child was charged the full rate and any additional children were charged 50% of the full rate. The parents were required to sign a contract with a 30-day cancellation requirement. They were billed quarterly, and payment was due at the beginning of each calendar quarter.

In her research of the transportation industry, Smith discovered that transportation was a factor in where persons who did not have personal transportation chose to work. To some extent, it even determined whether some persons became gainfully employed or not. One of HE Delivers' largest contracts was with a Welfare-to-Work Program. This program assisted persons in finding employment in order to get off welfare. As part of this program, the government agency subsidized the cost of the employee's transportation cost. This contract required persons to be transported from Baltimore city to Howard County and back each day. The cost for this roundtrip service was \$70 per day per individual. The employee paid \$6, and the government agency paid the remaining \$64 per day. In accordance with the contract, the employees paid \$30 for the week on Monday. The government agency, however, was billed monthly and payment was due by the 15th day of the next month.

HE Delivers also contracted home-to-work services with individuals. Due to the limited number of vans and drivers, HE Delivers only provided this service if there were at least four employees going to the same job destination. The individuals were picked up at their individual homes and taken to work. The rates for this service were \$50 per hour for groups or \$20 a day for individual roundtrip service.

The limited number of vans and drivers required HE Delivers to establish a 48-hour notice policy. Clients had to contact He Delivers at least 48-hours before the service was needed. Additional time was required for large contracts with routine pickups. This additional time was needed to schedule drivers and vans for the new routes. HE Delivers rarely provided services for

individuals with a one-time transportation need. In order to obtain a contract for services, HE Delivers required prospective clients to fax them information regarding their transportation needs. Once this information was reviewed, Smith met with the prospective client, discussed the fees and signed a contract for services.

TIMING IS EVERYTHING

The company's largest contract was with Simmeons Healthcare (hereafter referred to as Simmeons). This organization was located in Howard County. However, many of its employees lived in Baltimore city, and did not have personal transportation. Simmeons had contracted transportation services with another company for years. After a conflict occurred between the two organizations, Simmeons started looking for another transportation company. During that time, HE Delivers had been transporting persons from the welfare-to-work program to Simmeons for training. At the end of HE Delivers' first year of operations, Simmeons terminated its contract with the other transportation company and signed a contract with HE Delivers.

The contract between Simmeons and HE Delivers called for 10 trips a day, 7 days a week. HE Delivers picked up Simmeons employees at a location in east Baltimore and two locations in downtown Baltimore. The employees were taken to Simmeons and returned to the above locations at the end of their workday. The roundtrip rates were either \$35 or \$40 per day, per employee depending on their pickup and drop-off location. Simmeons paid the transportation costs in full for its employees. HE Delivers generated approximately \$11,000 in revenue a month from Simmeons. Simmeons was billed at the end of the month for the services they received for the month. Per the contract, they were scheduled to pay HE Delivers 15 days after the end of the month.

Simmeons was HE Delivers' largest client and HE Delivers depended heavily on the money they received from Simmeons. Simmeons, however, started having cash flow problems. Due to their financial woes, they were unable to pay their bills on time. After discussions with Simmeons' accounting manager, Smith graciously extended their payment due date to 30 days after the end of the month. Initially, Simmeons signed a 90-day transportation contract with HE Delivers. Subsequent to this time period, the contract became month-to-month with a 30-day termination notice. The new month-to-month contract also included a \$250 late payment penalty that was agreed upon by both parties. The late payment penalty was assessed when the monthly bills were not paid 35 days after the end of the billing month. Most of the time, Simmeons paid after the 35-day period and included the late penalty assessment with the monthly billed amount.

Simmeons' late payments began causing HE Delivers to also have cash flow problems. HE Delivers' checks and charges bounced several times because they had not received money from Simmeons and they did not have enough money in their account to cover expenses. Once, a \$304 check bounced and caused four of their gas charges to also bounce. Each time a check or charge bounced, the bank charged them \$25. This situation alone cost them \$125, and there were several

situations like it. At one point, Smith obtained a second mortgage on her house so that they could pay their creditors and employees on time. Based upon her conversations with those in the transportation industry, late payments appeared to be the norm in the industry.

MONEY MAKES THE WORLD GO ROUND

As quickly as HE Delivers received cash, they used it to pay bills. Cash was also used to make major purchases. HE Delivers purchased 3 of its 6 vans with cash. The costs of the vans were as follows:

Vans	Van Description	# of Seats	Cost	Method of Purchase
1	Chevy Express	15	\$2,200	Payroll deductions
2	Chevy Astro	8	5,000	Cash
3	Chevy Express	12	8,000	Cash
4	Chevy Astro	8	29,000	Leased
5	Chevy Astro	8	16,000	Financed
6	Ford Aerostar	7	3,900	Cash

Source: Data obtained from company records.

The majority of HE Delivers' vans were used vans purchased at auctions before the company began having cash problems.

"At the time, we had approximately \$40,000 of cash in the bank. We didn't think that it would dwindle down so fast. We used the cash because we didn't want to incur a lot of debt," stated Smith.

The only loan that HE Delivers had was for the financing of a van. That van was purchased for \$16,000. After the down payment, the loan agreement called for 36 payments of \$421 per month. The company, however, made additional payments monthly to expedite the repayment of the loan. The loan balance was \$1,300 at the end of year 2. Another van was leased through a three-year lease-to-own agreement. The lease payments were \$500 per month. High mileage became a problem and Smith figured she could have purchased several vans for the price of that one van. She ultimately paid a \$1,200 termination fee and returned the van the same year. Smith was proud that she had been able to operate the business this long without having incurred substantial debt.

FINANCIAL CONDITION

During the first year of operation, the company generated revenues of \$51,500. Revenues increased to \$188,000, in the second year of operation. While the growth in revenues was encouraging to the owners of the new company, the increase in expenses eradicated company profits. Expenses increased from \$72,339 in year 1 to \$196,803 in year 2. The company's only debt at the end of the second year was a \$1,300 vehicle loan balance. However, accounts receivable almost tripled, increasing from \$6,578 in year 1 to \$18,950 in year 2.

Like many new companies, HE Delivers did not have the funds to hire a full-time accountant. Smith used QuickBooks software to record the company's business transactions and managed the company based on the available cash balance. For the first two years, the company did not have formal financial statements. She, however, paid an accountant to prepare the company's annual tax returns. As the company grew, Smith realized that she needed someone with more time and knowledge to handle this task. She had not been able to prepare monthly financial statements due to the time she spent operating the company. During the beginning of year 3, Smith hired a bookkeeper to record the company's financial transactions.

FEMALE ENTREPRENEURS

In the U.S., there are approximately 6.2 million female-owned companies employing 9.2 million people and generating sales of \$1.15 trillion (About Women-21.gov). Women are starting businesses at twice the rate of men. Female-owned businesses, however, only represent a little more than 25% of all businesses and 4.2% of the gross receipts of the U.S. economy (Preston, 2008). While women are starting to shape and change the workforce, women continue to face challenges and obstacles. Only 43 women have climbed the ladder to become CEOs of Fortune 1000 companies in the last 35 years. Of the 43, only 3 were founders of the company; and all 3 companies were co-founded by men (Jones, 2008). To overcome challenges facing female entrepreneurs, Congress established a target that 5% of all federal contracts should go to women-owned small businesses (WOSBs). Also, the Small Business Administration and other various organizations have developed programs to help level the playing field for female entrepreneurs.

THE FUTURE

As Smith continued to reflect over the position of the company, she knew that she had to make some important decisions. The company had survived over the last 2 years, but in year 3 its cash flow problem had started to severely impact the company. Smith had envisioned expanding the company to include courier service and transportation for after school programs in the inner city.

With the company's cash flow problem, however, she wondered if her vision would come to fruition.

Smith had been advertising the company at schools and businesses she already serviced. She wanted to increase her customer base but she needed to do it on her current routes. Obtaining customers on new routes meant possibly having to hire more drivers and purchase more vans. Currently she was not prepared to take that step. Therefore, she had not performed any large-scale advertising.

The company needed capital. Obtaining loans were always an option but it was one that she only wanted to pursue as a last resort. Smith's below par credit rating would also impact the company's ability to get loans (Smith did not reveal her actual credit score. However, for purpose of analysis, assume it is 624). She had problems with her credit in the past, and the thought of acquiring debt and not being able to repay it frightened her. She knew that another option would be to increase the rates she charged her customers. Other transportation companies were charging higher rates than HE Delivers. She wanted, however, to always keep her focus on meeting the needs of disabled and underprivileged persons.

Smith was having serious thoughts about whether to continue operation of the business. She knew that the first couple of years would be challenging but now she wasn't sure how much longer she could remain in business. Should she continue to struggle, just using cash from the operations of the company to stay afloat or should she try to get loans and risk not being able to repay them? Should she increase her transportation rates even though it would make it difficult for disabled and underprivileged persons to afford her services? Where did things go wrong and now that they had, what should she do?

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NOTE

All names in the case have been disguised.

ACCESSING INTERNATIONAL CAPITAL MARKETS AT SLC

Benjamin L. Dow III, Southeast Missouri State University
David Kunz, Southeast Missouri State University

CASE DESCRIPTION

The primary subject matter of this case is the cost of raising capital internationally. Secondary issues examined include assessing exchange rate exposure and computing the conditional cost of an international debt issue. The case requires students to have an introductory knowledge of accounting, statistics, finance and international business thus the case has a difficulty level of four (senior level) or higher. The case is designed to be taught in one class session of approximately 3 hours and is expected to require 3-4 hours of preparation time from the students.

CASE SYNOPSIS

St. Louis Chemical (SLC) is a regional chemical distributor, headquartered in St. Louis. Don Williams, the President and primary owner, began SLC ten years ago after a successful career in chemical sales and marketing. The company has gradually expanded its product line and network of manufactures. A recent economic downturn in Europe combined with the strengthening of the US dollar has presented an opportunity for SLC to participate in a joint venture with a German Chemical distributor. In order to raise capital for the venture, SLC will need to borrow about \$50 million and has an opportunity to issue bonds denominated in US dollars, Euros or Euro/US dollar dual currencies.

BACKGROUND

St. Louis Chemical (SLC) is a regional chemical distributor, headquartered in St. Louis. Don Williams, the President and primary owner, began SLC ten years ago after a successful career in chemical sales and marketing. The company reported small losses during its first two years of operation but has since reported eight consecutive years of increasing sales and profits. The growth has required the acquisition of additional land, equipment, expansion of storage capacity and more than tripling the size of the work force. SLC has become the leading distributor in the St. Louis area. Since beginning his career in the chemical distribution industry Williams has developed solid

customer contacts in the St. Louis metropolitan area, as well as with major customers in Missouri, Illinois, Iowa, Indiana and Tennessee. He has also developed valuable contacts with key chemical manufacturers.

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 surrounded by dikes to prevent pollution in the event of a tank failure. 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. RMA Annual Statement Studies (2007-2008) indicates "profit before taxes as a percentage of sales" for Wholesalers - Chemicals and Allied Products, (SIC number 5169) ranges from 1.6 to 3.2% with an average of 2.7%. In addition to operating efficiently, a successful distributor will possess 1) a solid customer base and 2) supplier contacts and contracts which will ensure a complete product line is available at competitive prices.

THE SITUATION

During the first week of 2009, Williams received a phone call from Ruth Odar, the president of RMO International, a division of a much larger conglomerate Heidelberg GmbH. RMO International is a regional chemical distributor located in Frankfurt, Germany. Williams had first met Odar at the Association of Chemical Distributors annual trade show a few years ago. Odar and Williams had spoken on numerous occasions regarding current industry conditions, since both were in similar businesses. However, this phone call was a solicitation for a joint venture to buy a 51% stake in RMO International. The recent economic recession in Europe had left RMO International's conglomerate parent with liquidity issues and this particular offer also included the right to buy the remaining 49% in 5 years. Odar pointed out that Heidelberg had a strong relationship with one of Germany's largest banks, Zeutsche Bank. Zeutsche Bank had expressed a strong interest in helping finance the deal.

Williams spent the next few weeks performing due diligence on the potential investment and had concluded that a joint venture with RMO was a very attractive offer. The only potential downside to the deal was that while RMO was currently profitable, many capital improvement/replacement projects had been neglected over the past few years. Therefore Williams

was anticipating most of the cash flows generated by RMO over the next five years would have to be reinvested into the company in order to promote efficiency gains and sales growth for the future. After reviewing SLC's books, Williams decided that SLC would need to borrow the equivalent of about \$50 million in order to finance the deal. Williams met with his investment bank and they assured him that SLC could conservatively raise about \$50 million by issuing 8.25% semi-annual coupon bonds with a 5 year maturity. The bonds were expected to sell at face value and are subject to a 1.25% up-front fee.

Representatives from Zeutsche Bank were also aggressively negotiating with Williams and were confident they could arrange a €40 million 7.0% annual coupon Euro denominated Eurobond with a five year maturity. The Euro denominated Eurobonds were expected to sell at 101% of par value and are subject to a 0.90% up-front fee. However, Zeutsche Bank had proposed an alternative €40 million Euro/US dollar dual currency Eurobond. The dual currency bond would be a €40 million Euro fixed rate bond denominated in Euros, paying a 7.5% annual coupon in Euros, but repayment of principal at maturity would be \$50 million. Zeutsche Bank was confident the dual currency bond would sell at 99% of par value and was also subject to a 0.90% up-front fee.

As a goodwill gesture, Zeutsche Bank also offered the following forward rate contracts on the Euro/US dollar if Williams decided to hedge the currency exposure resulting from the Eurobond debt.

Spot Exchange Rate:	\$1.2500 / 1EUR
1-year Forward Rate:	\$1.2622 / 1EUR
2-year Forward Rate:	\$1.2775 / 1 EUR
3-year Forward Rate:	\$1.2921 / 1EUR
4 year Forward Rate:	\$1.3186 / 1 EUR
5-year Forward Rate:	\$1.3411 / 1 EUR

Details of the three proposed bond offerings are summarized below:

	US\$ Bond	Euro Eurobond	Euro/US\$ Dual Currency Eurobond
Par Value	\$50 mil	€40 mil	€40 mil
Price as a % of Par Value	100%	101%	99%
Fees	1.25%	0.90%	0.90%
Coupon Rate	8.25%	7.00%	7.50%
Frequency of Coupon Payment	Semi-Annual	Annual	Annual
Final Redemption	Par	Par	\$50 million

Williams was a little overwhelmed by the thought of even considering a Eurobond offering, but the representatives from Zeutsche Bank had been very aggressive in soliciting his business. They had pointed out that fees charged on a small Eurobond issue such as his are normally much higher, but Zeutsche Bank was very interested in doing business with SLC. However, Zeustche Bank needed an answer quickly as potential investor interest and the marketplace changes very rapidly. The lower coupon rates on the Eurobond issues were intriguing enough for Williams to certainly consider these proposals, however, Williams was a lot more comfortable utilizing his current investment bank and raising capital locally. A new international joint venture was enough to worry about, so Williams was very hesitant to tackle an international financing arrangement on top it as well.

Williams needed help digesting all of these numbers, so he brought the three proposals to the office of James Thorton, a newly hired MBA currently working in the finance office. Williams explained to Thorton that he needed a complete analysis worked up by tomorrow and included a list of questions he needed Thorton to answer before he could make a decision. Thorton promised to look into the matter and prepare a report for Williams within 24 hours.

THE TASK

The most important consideration for Williams is the all-in annualized cost of each bond issue. Secondary considerations involve whether or not to hedge the exchange rate risk from the Eurobond issue.

- 1) Williams has asked Thorton to first prepare a series of spreadsheets showing the cash flows associated with each of the three bond issues expressed in terms of US dollars where applicable (use the forward rates provided by Zeutsche Bank). Both investment banks had explained that the up-front fees are deducted from the par value of the bonds. For the US dollar bond, a 1.25% up-front fee totals \$625,000 (1.25% of the \$50 million Par Value). If the bonds are sold at par value, SLC will only receive \$49,375,000.
- 2) Explain to Williams the primary factors influencing the differences among the initial cash flows for each proposed bond offering (in terms of US dollars) received by SLC.
- 3) Discuss the primary factors influencing the differing interest (coupon) payments and principle repayment in terms of US dollars made by SLC over the five year life of each bond.
- 4) Compare the annualized all-in cost of each bond issue assuming exchange rate risk for the Eurobond issues is hedged using the forward rates provided by Zeutsche Bank (The

annualized all-in cost is the internal rate of return that equates the present value of the future US dollar outlays with today's US dollars received, net of fees.)

- 5) Make a recommendation to Williams assuming the exchange rate risk for the Eurobond issues is hedged using the forward rates provided by Zeutsche Bank.
- 6) Discuss possible explanations for the difference in fees between the two investment banks.
- 7) Discuss the difference in the straight Euro Eurobond issue versus the Euro/US dollar dual currency Eurobond from a European investor's point of view.
- 8) Assume that Williams decided not to hedge the exchange rate risk with forward rate contracts, but left the Eurobond exposure un-hedged. Use the following exchange rate scenarios:

Scenario A: The Euro is currently trading at \$1.25/1EUR but strengthens relative to the dollar by 3.75% each year for the next 5 years.

Scenario B: The Euro is currently trading at \$1.25/1EUR but weakens by 3.75% each year for the next 5 years

Calculate the all-in cost of each bond issue under each scenario and describe the impact of un-hedged currency exposure on the all-in cost of the US dollar denominated bond, Euro denominated Eurobond and Euro/US dollar dual currency Eurobond.

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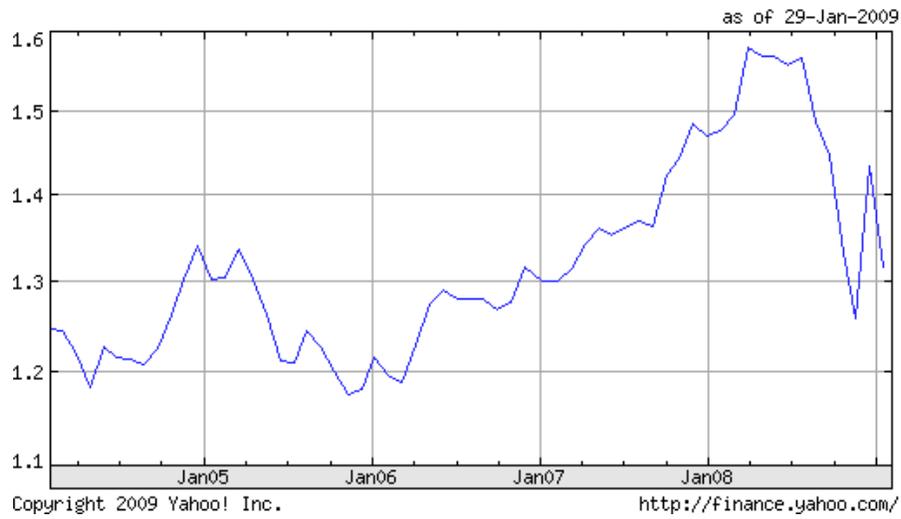
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Exhibit 1: Historical Foreign Exchange Data (# of US dollars / 1 Euro)



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