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JOURNAL OF THE INTERNATIONAL ACADEMY FOR CASE STUDIES

Instructors' Notes

Editors

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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 *JIACS* 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 instructors' notes contained in this volume have been double blind refereed, simultaneously with their respective cases. The cases were published in a separate issue of the *JIACS*. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies

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 Executive Director of the Allied Academies: info@alliedacademies.org.

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

AUDIT VERSUS REVIEW: A CASE STUDY OF A CHAMBER OF COMMERCE

Dennis Elam, Texas A & M, San Antonio

CASE SYNOPSIS

The passage of Sarbanes Oxley specified greater transparency for public companies. In the process, demands for governance and assurance have spread to other non-public entities. The bar for assurance to stakeholders has been raised for non-profits as well. This case study examines a real world Chamber of Commerce (all names have been changed to a fictional Our City). The External Auditor requests a move to accrual accounting as well as an elevation from a review to an audit. The case challenges students to examine the current environment of assurance expectations, the qualitative difference between an audit and a review, use of statistical data to aid in the determination and finally a writing assignment in defense of a conclusive recommendation.

CASE DESCRIPTION

This case is intended for an undergraduate junior level or first graduate class in auditing. Reviews, compilations, and agreed upon procedures are usually discussed in later chapters in introductory audit texts. Hence this case would logically be presented later in the course.

This case could be an assignment outside class in conjunction with a chapter that discusses reviews and compilations. Appropriate class time for discussion could be fifteen minutes, assuming the students had previously read both the chapter and the case.

INSTRUCTORS' NOTES

This case requires the student to examine the assurance level provided by an Audit versus a Review. The cost considerations of each must be balanced against the assurance levels now suggested by Sarbanes Oxley and demanded by today's stakeholders.

The overall objective is for the students to study the information available and then write a proper conclusions, supported by their own calculations and research, that supports that recommendation to Ramon Vasquez.

The target student population would be those that will be working in smaller practice units with a more local focus. Large, national CPA firms do not perform as many reviews in the experience of this author as smaller local or regional firms. From that standpoint the case would have relevance and value as CPE inclusion in a forum for regional or local practice.

CASE OVERVIEW

The case contains the requirements of adequate assurance as specified by the Sarbanes Oxley Law. Comparative statistics with similar sized Chambers are also provided. The cost considerations are considerable. It is on this issue that the students will need to exhibit critical thinking and rigorous defense of their recommendation. The specific requirement is for the student to complete Paul Newman's letter with a recommendation for an Audit or a Review.

1. It is suggested that the Instructor require or suggest that the student examine the following issues in reaching their recommendation. What is the nature of a non-profit Chamber of Commerce? What is the purpose of a Chamber and how is it financed? How will those considerations be reflected in the recommendation?
2. What are the requirements of Sarbanes Oxley? Even though SARBOX does not specifically cover non-profits, how does this Law affect non-profits and the concerns of their stakeholders and Boards?
3. The student should compare and contrast the differences between an Audit, Review, and a Compilation. This topic receives scant attention in most audit textbooks. Yet Reviews and Compilations are a staple of smaller non-profits and businesses.
4. Finally, the student is asked to examine the differences in the actual wording of the report in an Audit versus a Review. This is important in teaching the student that an Audit is positive assurance that Generally Accepted Accounting Principles are met along with fair presentation of the financial results. A Review however does not express such positive assurance. A Review is a statement of negative assurance that nothing was found to suggest the statements do not represent what has happened.

DISCUSSION QUESTIONS

1. Identify the Vision Mission and Outcomes of a Chamber of Commerce.

Students may only have a vague awareness of the function of a Chamber of Commerce. Wikipedia provides this definition.

> A **chamber of commerce** (also referred to in some circles as a **board of trade**) is a form of *business network,* e.g., a local organization of businesses whose goal is to further the interests of businesses. Business owners in towns and cities form these local societies to advocate on behalf of the business community. Local businesses are members, and they elect a board of directors or executive council to set policy for the chamber. The board or council then hires a President, CEO or Executive Director, plus staffing appropriate to size, to run the organization.

Refer the students to this link and ask them to identify some common characteristics of Chambers. (http://www.2chambers.com/texas2.htm)

Here are some samples of what the students might be expected to find.
From the Alpine, Texas site http://www.alpinetexas.com

Our community relies on a network of businesses each doing their part in making Alpine a great place to live and work—a true hub of the Big Bend, with valuable services

From the Corpus Christi, Texas site http://www.corpuschristichamber.org/

The Corpus Christi Chamber of Commerce is a member-driven organization whose principle mission is to foster business growth by advocating business issues, enhancing the business climate, and providing services to our members

From the Conroe, Texas site http://www.conroe.org/spps/sitepage.cfm?catID=9

The Greater Conroe / Lake Conroe Area Chamber of Commerce represents a partnership of business and professional people. When you join the Chamber, you gain a new business partner, as well as opportunities to meet potential clients, expand contracts, increase management expertise, and become involved in issues that affect your business and community.

The conclusion of the students should be that a Chamber of Commerce is volunteer organization of businesses organized to promote business and tourism in the local area. The business community is a stakeholder as well as individual members. Membership will be fostered when everyone understands the finances of the organization.

2. **Sarbanes Oxley was written to address deficiencies in the audits of public companies. But the idea of proper governance and transparency has spilled over to non publicly held institutions as well. Why has this happened? The students should read the following article in preparation for a discussion about SARBOX and non-profits. . http://www.boardsource.org/clientfiles/sarbanes-oxley.pdf**

The discussion should include the following bullet points.

- SARBOX was passed in the wake of major accounting scandals. The overall result is creation of the Public Company Accounting Oversight Board PCAOB which ended the regulation of CPAs by themselves.
- SARBOX does not regulate non-profits but is a wake up call for good governance for all organizations with outside stakeholders.

Board Source makes specific recommendations for non profits as a result of SARBOX as follows

- SARBOX calls for the creation of an Audit Committee with specific powers.
  - Members must be financially sophisticated about the mechanics of an audit.
  - Orientation should include financial literacy
  - CPAs conduct Board Financial Service Programs
  - $500,000 in Federal Funds requires an audit
  - $1 M in annual revenue should have an audit
  - $250,000 in revenue should have a review
  - Or a compilation should be conducted

- SARBOX mandates changing the members of the outside audit team every five years but not necessarily the outside auditor.
  - Change partner or firm every five years
  - Avoid non-audit services but allow tax services, Form 990
  - Disclose critical accounting practices

- The CEO and CFO must certify to the fairness of the finance statements.
  - CEO CFO sign off on statements
  - Review Form 990
  - Board familiar with 990

- SARBOX mandates particular disclosure for insider transactions and any potential loans to executives.
  - Avoid personal loans to Directors or Executives
  - Any loans Board approved
  - Conflict of interest policy for Board and Executives

- SARBOX requires disclosure on internal control as well as material changes in operations or financial situation
  - File Form 990 electronically if possible
  - Audits Reviews Compilations should be easily accessible

- SARBOX provides whistle blower protection
  - Develop, adopt, and disclose a formal process to deal with complaints and prevent retaliation
  - Take any employee or volunteer complaints seriously, investigate, and fix the problems or justify no action
  -
- SARBOX addresses document destruction
  - Adopt a written mandatory document retention and periodic destruction policy
  - Develop guidelines for handling electronic files and voice mail
  - If an investigation is underway, stop an document destruction to avoid criminal obstruction charges

It should be clear that good governance for public companies is also expected for non-profits. This should transition to the next discussion area, what level of assurance satisfies these requirements? Students should understand that it is expected that non-profits spend most of their money on their Vision, Mission, to effect outcomes. It is quite possible for expense to outstrip assurance, which is the point of this case.

3. Students should then write a short summary comparing the requirements of an Audit, review, compilation and agreed upon procedures.

An audit is the highest form of assurance concluding that the statements do fairly reflect the financial position of the company in accordance with GAAP.

A review is the next level of assurance but is stated negatively. The conclusion is that the auditor did not find anything that would lead him to believe the statements do not fairly reflect the financial position of the company.

A compilation is gained from the client records without analytic tests of reasonableness. No form of assurance is expressed beyond the client statements themselves.

Students might do some original research by calling some of the smaller CPA firms in the area. What types of assurance services are CPAs providing for non-public companies? The results will no doubt surprise many students. This might also be a good topic for a local speaker at the Beta Alpha Psi or Accounting Club meeting.

Most audit texts only give scant attention to reviews and compilations. But in the real world of non-public companies and small non-profits, reviews and compilations are very much the order of the day.

Audits involve tests of transactions. A review does not involve such tests. A review begins with taking client information and performing analytical procedures. These procedures are not as in depth as audit procedures. These analytics are performed to determine if major changes in balances from the prior year are reasonable. Adjustments are made to the statements and a final analytic review is conducted for reasonableness. A client conversation is conducted to confirm findings. Essentially on a review client adjustments are made to conform to GAAP.

The point of this case is to further their understanding of the different levels of assurance. Then the case attempts to raise their awareness by evaluating the assurance levels provided by each type of accounting service. Here are three such examples actually written by various professionals, we have no relation with any of these people, they were chosen at random.

What's the Difference between an Audit and a Review?

http://www.k2scpa.com/knowledge-sharing/2007/07/whats-the-difference-between-an-audit-review-and-compilation

The Difference between an Audit, Review, and a Compilation by Richard Gavin CPA http://nyrej.com/29206

Audit, Review, or Compilation by James Ulvog, CPA

http://www.ulvogcpa.com/Audit_or_Review.html

4. Compare and Contrast the standard form report for an Audit versus a Review

The purpose of this section is to make students demonstrate in writing that they recognize the important distinctions between an audit report and a review.

Here is the standard report of a non public entity, taken from Principles of Auditing by Pany and Whittington, 16 e, McGraw-Hill, 2008, page 677

REPORT OF THE INDEPENDENT AUDITORS

To the Board of Directors, Chamber of Commerce

We have audited the accompanying balance sheets of the Chamber as of December 31, 20x1 and 20xx, and the related statements of operations, equity, and cash flows for each of the three years in the period ended December 31, 20x1. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 20x1 and 20xx, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 20x1 in conformity with generally accepted accounting principles (united States).

Audit Firm LLC
February 5, 20x2

Students should be asked to research the standard audit report for its ever present characteristics. This can be done with most any auditing textbook. Their findings should include the following characteristics.

- The report is in three paragraphs, *introduction, scope and opinion*.
- The title includes the world 'Independent' as to the auditors; it is addressed to the group that retained the auditor.
- The first paragraph, the introduction, indicates that
    - The financial statements have been audited
    - Financial statements are the responsibility of management
    - Auditors responsibility is to express an opinion on the statements
- The second paragraph describes the *scope* of the audit.
- The third paragraph expresses the opinion of whether the statements are in accord with generally accepted accounting principles. Students should note that there are opinions which are
    - Unqualified
    - Unqualified with explanatory language
    - Qualified
    - Adverse
    - Disclaimer
- The signature should be that of the firm not the individual in charge of the audit
- The date is the last day of fieldwork

The review standard report is considerably different and appears as follows.

REPORT OF THE INDEPENDENT AUDITORS

To the Board of Directors
Chamber of Commerce
San Marcos, Texas

We have reviewed the accompanying balance sheet of the Chamber of Commerce as of December 31, 200x, and the related statements of income and members' equity and cash flows for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. All information included in these financial statements is the representation of the management of the Chamber.

> **A review consists principally of inquiries of Company personnel and analytical procedures applied to financial data. It is substantially less in scope than an audit in accordance with generally accepted auditing standards, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.**

Based on our review, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles.

Our review was made for the purpose of expressing limited assurance that there are no material modifications that should be made to the financial statements in order for them to be in conformity with generally accepted accounting principles. The information included in the accompanying Schedules is presented only for supplementary analysis purposes. Such information has been subjected to the inquiry and analytical procedures applied in the review of the basic financial statements, and we are not aware of any material modifications that should be made thereto.

Students should note the following differences.

- The *introductory* paragraph states this is not an audit but a review, subject to a different set of standards.
- The *scope* paragraph limits the scope and makes it clear that an opinion will not be expressed.
- The *opinion* paragraph is stated negatively, the auditor did not find material modifications that need to be made. The assurance here is expressed negatively.
- The auditor uses inquiry and analytic procedures rather than tests of transactions.

Legal and Political Relationships

In some communities, the local governments make contributions to the local Chamber of Commerce. The CPA should examine any possible legal requirements as to assurance that should be provided to political entities as a result of their donor participation. The CPA. The CPA should also determine if there are any grant requirements for audit assurance if the Chamber is the recipient of grant money through another political entity.

Analytical Narrative

Another dimension to consider is the level of overall assurance that a negative versus a positive assurance provides. The language of the review is necessarily of the negative variety, the auditor did not find evidence that would cause one not to believe the representation is not fair. Will such an assurance resonate with a positive result in the eye of the reader of that statement?

The language of the audited statement is quite different. It states that in fact the statements fairly present the position of the firm and that statements are in compliance with GAAP.

The final result of assurance will only be achieved if, in the eyes of the stakeholder, that such assurance causes one to believe the statements are fairly presented. That is a dimension that must be explored with stakeholders and balanced with the attendant cost.

5. **With these summaries and analysis in hand, the student should now proceed to analyze the statistics provided in the case. Clearly different conclusions are possible, which is the nature of analysis. These are actual real world statistics; the names of the chambers involved have been changed. The final requirement is to write a conclusion supported by the research and facts provided.**

The actual conclusion provided in this case was as follows.

CONCLUSION

Research Methodology

I suggested that a survey be conducted among area or similar sized Chambers as to

- Membership size
- Annual Budget
- Whether they had a compilation, review, or audit
- Whether they had adopted a cash or accrual system

Certainly this is not nor do I claim it to be a rigorous, scientific survey of sufficient sample size to be regarded as a formal study. However, anecdotally it does speak to what other Chambers of similar size are doing about this issue.

The results of the survey are shown in the attached Excel Spreadsheet.

Examining the Research

I have ranked the results by membership from lowest to highest. Five of those surveyed are using cash and they are in the six smaller entities. This would seem to suggest that other Chambers have encountered the issue of cost consideration regarding moving to an accrual method. This also raises the question of who would prepare the entries. As noted, payroll is a fixed monthly expense yet can entail multiple entries reflecting payroll deposits to the government. Whether the information on the actual statement would be worth the difficulty and cost of creating it is up to the Board.

The results of the audit question were particularly interesting. Not surprisingly the two largest. Clarksville and McKinney with over 1,000 members had an audit. Their budgets are 2.5x and 12x times the LCC budget. Results using the last table which excludes the tow largest Chambers are

No outside examination	3
Compilation	2
Review	2
Audit	3

LCC was listed as no outside as there is not a history of having something done externally though a review was performed last year. One Chamber indicated it had a bi annual review (every other year) and another indicated that it alternated between an audit and then two annual reviews. The trouble with such a mixture is that the audit year will necessarily include an 'except for' regarding the unaudited numbers in the previous year's review. So one pays for but will never receive a completely 'clean' examination. One of the largest memberships, Twin Falls, indicated it was asking for bids. The reality of the situation is that CPAs, fearful of negative consequences in taking on new non-profit clients, have like other CPAs, increased their fees to allow for such contingency. It might be mentioned that my reading of accounting literature suggests that overall audit fees have doubled since SARBOX, an ironic outcome for a profession under the microscope for past misdeeds. One Chamber received an indication of an $8,000 fee for its audit. This would amount to over 8% of the non payroll budget for LCC.

Chamber Master

Joe Johnson is considering adoption of software specific to Chamber business marketed at the URL www.chambermaster.com. This would appear to allow for accruing member dues. In addition, like most use specific software, it would allow a greater database and flexibility component for the Chamber operation.

EPILOGUE

Chambers comparable to Lancaster are still using cash basis accounting. While two of them indicate they are audited, three are not. Three indicated a hybrid system of accruing larger amounts of revenue or expense.

The author was asked by the Chamber Director to assist in suggesting a procedure to reach a recommendation. It is my recommendation that OCCC obtain an annual review of its statements. It does not appear that moving to an accrual system would be cost effective for the information provided. New software like Chamber Master would appear capable of providing numerous other reports on spending activities.

THE NOT-SO-SUBTLE ART OF PERSUASION: THE CASE OF ATLANTIS SPA PRODUCTS

Lucia S. Sigmar, Sam Houston State University
Renée Gravois Lee, Sam Houston State University

CASE DESCRIPTION

The primary subject matter for this case involves the sales approach of a kiosk vendor, selling nail and skin care products, in a suburban American mall. The dialogue contains diverse persuasive appeals and customer responses. This case was designed for use in undergraduate business communication, marketing, or personal selling courses, particularly courses that address analysis of persuasive appeals and/or personal selling techniques, and development of persuasive communications.

The dialogue format is central to the case. Through the various ways the sales representative presents the product information and approaches the sales call, and the various ways the buyer responds, the dialogue is ripe with analytical opportunities for the students.

The case could be taught in two 50-minute or one 75-minute session(s) and is expected to require two hours of outside preparation by students. It can be used as a follow-up to class discussion of persuasive appeals or a range of personal selling techniques, or as a preliminary assignment to a written persuasive appeal or persuasive role play.

CASE SYNOPSIS

While shopping at a local mall, Lana Thompson is approached by a young woman dressed in a white dress shirt, black slacks and black apron, who offers Lana a slice of colorful soap wrapped in tissue paper. Lana slows her pace, accepts the gift, smells the soap fragrance, then turns toward the kiosk that features a variety of skin and nail products. The sales associate, Salima, selects another colorful soap sample from her tray and offers it to Lana who stops to accept it. This "hook," effective in its appeal to the senses, entices the customer, and the ensuing sales exchange focuses on the exclusive, mineral-rich beauty products from the Dead Sea. The sales call also demonstrates a number of other classic persuasive appeals, including scientific, emotional, rational, character, comparative, vanity, and sensory. The dialogue also stimulates class discussion of selling techniques including the hook, non-verbal and verbal selling techniques, features and benefits, customer care, responding to objections, and closing the deal.

INSTRUCTORS' NOTES

Recommendations for Teaching Approaches

The case gives students the opportunity to critically evaluate the choice of persuasive messages and selling practices employed by the Atlantis Spa Products sales representative. The case stimulates classroom discussion on a myriad of appeals (e.g., emotional, rational, character), language use (e.g., repetition, word choice, figurative language, testimonials, puffery, ethical issues), and other communication issues.

For business communications courses, we use this case with Mary Ellen Guffey's *Basic Business Communication* (8th edition) in conjunction with classroom coverage of persuasive messages. This case enhances student understanding of the persuasive strategies in composing a written appeal that conforms to building AIDA (attention, interest, desire, and action) in a message. Because the case is written in dialogue format, students can experientially enact the sales behavior and encode the dialogue with paralanguage and other non-verbal communication which emphasizes the influence that such encoding can have on communication outcomes.

For marketing courses, the case works particularly well in advertising or marketing communications courses in which students critically evaluate the effectiveness of various persuasive messages. In addition, students can use the case as a departure point for creating their own persuasive appeals across different media for Atlantis Spa Products. For personal selling courses, the case gives students many opportunities to evaluate the seller's techniques used in each stage of the sales process.

ASSIGNMENT IDEAS

In addition to in-depth class discussion opportunities, this case lends itself to a number of hands-on experiential classroom activities including written persuasive communications, advertising agency exercises, and role play exercises.

Written Persuasive Appeal

Following discussion, ask students to reflect on some of the differences between oral and written transmission of a persuasive (sales) message. One possible assignment is for students to write or develop a sales package (brochure, price list, illustrations) or a persuasive appeal for Atlantis Spa Products using the information in the dialogue.

Since written persuasive appeals are generally more effective when they are presented in indirect order, encourage students to overcome potential resistance by thinking of reasons and explanations for using/purchasing the product prior to the sales request.

Specifically, the opening paragraph of the persuasive appeal must get the audience's attention using any of the following: offering something of value; enumerating benefits; asking an open-ended question; providing a quotation or testimonial, fact, compliment, startling statement, or providing a personalized action setting.

The body of the letter must build interest and desire for the product by reducing resistance. A dual appeal (emotional and rational) is recommended for this particular persuasive request. Instructors can explain to students that emotional appeals typically appeal to sensual feelings, status, and ego. Emotional appeals are sometimes effective when the product is not essential. Rational appeals, on the other hand, appeal to security and financial success and are usually used when the product is expensive, long lasting, or important to one's health. In the case of Atlantis Spa Products, the product is both.

Finally, the closing paragraph must motivate action. Students might consider offering a gift, promising some sort of incentive, limiting the offer, or offering a guarantee.

After completion of the assignment, students should be able to distinguish the differences between a face-to-face sales interaction and a written persuasive message, but should also be able to articulate the similarities of the two approaches. Instructors can take this opportunity to discuss the importance of audience awareness in tailoring oral and written business messages.

Mock Advertising Agencies

Another approach is to group students into teams and have them work as advertising agencies for Atlantis Spa Products. Possible assignments could include:

- Have students create thumbnails of print advertisements, critique the thumbnails, and vote on the most effective persuasive appeals presented by their peers.
- Assume the client has been using the "healing properties of the Dead Sea" approach for several years and is ready for a change. Have students develop a new persuasive approach for the client's marketing.
- Different nail and skin care products appeal to different kinds of consumers, and consumers' reasons for purchasing these products vary widely. Assign students to identify the market segments they believe exist for this product category and briefly describe each segment using demographic, psychographic, and behavioral segmentation variables. Have students create a separate promotion message for each of these segments.
- Part of the strength of the Atlantis approach is the person-to-person sales interaction. However, only mall visitors walking in this section of the mall are likely to be exposed to the Atlantis kiosk. Assign students the task of recommending promotional tactics to drive more customers (both mall and non-mall customers) to visit the Atlantis kiosk. Instructors could also have students create mall signage, hand-bills, and/or incentives designed to get mall-goers to stop by the Atlantis Spa Products kiosk.
-

Personal Selling Role Play

For personal selling courses, or units in other courses that address buyer-seller interactions, having students role-play the interactions between buyer and seller is an effective method for them to try out various selling appeals and techniques. Depending on the professor's time available in class for role play, students could role play any number of selling techniques, such as the approach, the demonstration, feature and benefit presentation, handling objections, and closing. Encourage students to use concrete expression in these role plays. For example:

- Have students prepare and role play alternate ways to get the buyer's attention.
- Have students identify one persuasive appeal the seller did NOT use that would be effective for selling Atlantis products. Students can write a segment of the dialogue that could occur between the seller and buyer to illustrate use of this appeal and can role play the appeal in class.
- Students can prepare for a role play in which the buyer introduces an objection not in the script, and prepare the seller's response to that objection.
- Students can assume the role of sales trainers. Their job is to accompany associates on sales calls and to give them constructive critiques and suggestions on strengthening sales skills. Assume that today the sales trainer accompanied Salima on this sales call. Have students make a list of six concrete suggestions for improvement.

DISCUSSION QUESTIONS

1. **How does Salima initially get Lana's attention? What additional attention-getting approaches does she use?**

Salima's initial "hook" is the sliver of scented soap she hands to Lana which appeals to the senses. Then, she quickly asks to see Lana's hands and goes into the nail buffing demonstration. Other attention-getting techniques are non-verbal (smiling, positioning her body to draw Lana into the pitch) and verbal (asking questions, repetition of Lana's name, stating the unexpected, compliments, praise, and describing the problem).

2. **One of Salima's primary persuasive appeals is scientific. What are some ways she uses this appeal to persuade Lana? Evaluate the specific way she presents the scientific claims. Are the medicinal properties of the product believable? Is this information and/or the sales associate credible? Why or why not?**

Salima emphasizes that "scientific studies" have proven the benefits of Dead Sea minerals for body, skin, and health. Some of the specific product benefits that she mentions in reference to scientific studies include:

- "help to balance the water and moisture level in your skin"
- "heal your skin tissue which is damaged by sun and chemicals"
- "make the skin anti-allergic"
- "protect our skin against these pollutants in the air"
- "neutralize these toxins [that our bodies produce]"
- "help you relax . . . relieve stress"

- "help you with problems with stress, or fatigue, and even sleeplessness" [also arthritis, aches, poor blood circulation, heal wounds, wake up hair roots, eliminate dermatitis and dandruff, stop headaches and migraines, stop skin allergies, and stop eczema, skin rashes, and dandruff]
- "make your skin more beautiful and elastic"
- "heal and strengthen your hands and nails"
- "protects against UVA and UVB rays . . . [and contains] linoleic acid and alpha-linoleic acid, which are the essential fatty acids for younger-looking skin"

Students may notice that Salima makes numerous claims about the scientific studies, but that she offers little evidence or support for the claims. It is important to draw students' attention to the lack of support for the claims. For example, when the seller emphasizes that the products help with relaxation and stress reduction, she does not offer scientific evidence, but instead gestures to a photo of a woman in a bikini floating calmly on the waters of the Dead Sea.

3. In addition to the primary scientific appeal, the seller uses a number of other persuasive appeals throughout the course of the sales call. What are some of these other appeals? Give specific examples from the dialogue that illustrate each appeal, discuss whether these appeals are more rational or emotional in nature, and discuss the effectiveness of each appeal.

Character Appeal. Salima emphasizes that smart, alluring women like Cleopatra have known about the healing properties of the Dead Sea minerals for centuries. The implication that Cleopatra endorses this key product benefit (Dead Sea healing minerals) forms the character appeal.

Comparative Appeal. Salima uses a price comparison by emphasizing the high cost of a salon manicure versus the Atlantis manicure package. In addition, her demonstrations of before-and-after use of the nail and skin products serve as physical comparisons of the products' effectiveness.

Vanity Appeal. The seller emphasizes the desire to look and feel younger, to look better for yourself (self-esteem), and to look better for others. As an example, Salima states, "[p]eople are gonna think you had a face lift." She further stresses that the product "firms skin… makes you look younger, fresher and has anti-aging properties."

Sensory Appeal. Sensory appeals the students might identify include: appeal to senses of smell and sight by holding out a soap sample; appeal to sense of touch through each product demonstration (applying nail products, eye serum, face cream); appeal to sense of smell by having the buyer smell the lotions and asking her which lotion she likes best.

4. In addition to the traditional appeals listed in the students' textbook (such as character, comparative, etc.), sellers create a variety of situation-specific persuasive messages that build desire for the product. What are some other persuasive messages that Salima uses in her pitch?

Gift. The small soap samples are for mall-goers to keep, regardless of whether or not they stop at the kiosk. Some customers may feel obligated to stop and listen to the sales representative after accepting the "gift."

Exotic/Exclusive. The products are associated with the exotic and exclusive qualities of the Dead Sea. For example, millions of people travel to the Dead Sea to experience its tranquility and its "miraculous and healing effects." Salima states, "People from all over the world come to Jordan for these products and now we bring them to you." In addition, the association with Cleopatra may also appeal to some hidden fantasies in the customer.

Pampering and Relaxation. Salima notes that the products help customers relax and help relieve stress, fatigue, and sleeplessness. To reinforce the point, she asks Lana, "Lana, do you have stress in your life?", to which Lana responds affirmatively. Near the end of the dialogue, Salima states, "So pamper yourself now with these products. . . . Do something nice for yourself." A related appeal is that Atlantis Spa Products are made from natural minerals, not from chemicals, and are therefore healthier.

Life Changing. Salima states that the face products will "change your life seriously." While she doesn't go into any depth explaining this claim, she suggests that improving your facial appearance will make the customer look and feel better – for herself and others.

"Your Face is Most Important." The seller goes to great lengths to stress that a person's face is her most important asset. She emphasizes that the face is a "calling card" and gives others a first impression, so it's important to take care of it. The products can reduce the lines, wrinkles, and under-eye circles, and can help maintain a youthful appearance.

Save Money/Time. Salima tells Lana that she can save both money and time by using the products instead of going to the salon and that, by using these products, there is no need to go to the trouble of going to the salon. A related message is that the products will last for one year, saving Lana money over the course of a year. The lifetime warranty for the sides of the buffing block further adds to the appeal for how the product is long-lasting.

5. In what ways does Salima connect to her customer's desires and needs?

We all want to be more beautiful, to stay eternally young, and we all want faster and easier ways to be more beautiful and youthful. Salima taps into these core human desires repeatedly throughout the sales call. In addition, she connects to the desire to explore uncharted territory by offering to bring the benefits and exoticism of the Dead Sea to Lana. On a more rational level, many customers want price deals, and Salima fulfills this desire for the "deal" as well.

While Salima does connect to some basic customer needs and desires, she does little to tailor the sales call to Lana's specific needs. Instead, Salima builds her sales call around generic issues that any customer might have. This weakness — the lack of tailoring the sales approach — is very important to highlight to the students.

6. How does Salima build interest in the product?

In addition to the persuasive appeals noted above, other specific interest-building techniques include proving the product's merit, using facts, statistics, expert opinion, providing specific details, relating the direct and indirect benefits, anticipating objections, and offering counterarguments. Salima also involves Lana in the product demonstrations and continually evaluates the effect of the product on Lana's skin.

7. In what ways does Salima anticipate resistance? Evaluate the techniques she uses to handle the buyer's objections and evaluate her effectiveness in handling objections.

In anticipating resistance to product cost, Salima compares the cost of salon treatments to the cost of the manicure set and emphasizes the savings compared to purchasing multiple beauty products throughout the year. When Lana objects to the price, Salima returns to the cost comparisons. She also emphasizes the multiple products included in the price—buffing block, nail file, cuticle oil, and lotion. As Lana continues her objections, Salima emphasizes a lengthy list of features and benefits such as beauty and health benefits, the ease of product use, the products' exclusivity, the long-lasting nature of the skin treatments, and personal customer service and customer care.

When Lana continues to resist the price, Salima begins offering a series of progressively-better deals, including price reductions, free product with purchase, buy-one-get-one-for-less, and offering her employee discount.

Near the end of the sales call, Salima becomes openly exasperated that Lana continues to object and she exclaims, "What is money? This is your skin we're talking about. I'm gonna help you." Her comments suggest that Lana is focusing too much on the money aspect and too little on her skin. Further, in offering Lana her employee discount, Salima gives the impression that she is investing in Lana's well-being.

8. What persuasive techniques does Salima use in her closing? How does she motivate action? What are some of her trial closes? Evaluate the effectiveness of the seller's trial close and closing practices.

Salima places the products in a bag and gives Lana the bag to hold; she moves toward the cash register; she uses testimonials of product effectiveness from passersby; she repeatedly asks Lana if she will use the Atlantis products and urges her to throw her other beauty products away. Trial closes include: "Which products will you use?" and "You like these products?"

9. List and evaluate specific ways the seller uses non-verbal communication and touch.

Paralanguage (*how* the message is conveyed rather than *what* is conveyed specifically) conveys the exclusive messages in this exchange. For example, Salima lowers her voice to emphasize that one side of the buffer is "pure silk" and to emphasize the lifetime warranty on the buffer. The seller also lowers her voice when she emphasizes that she is giving the buyer a special price.

Haptics (touch) is a powerful non-verbal cue. Salima engages the customer by using touch during each product demonstration (e.g., holding the buyer's hand while buffing nails, applying lotion to hands, applying eye serum and wrinkle cream to face). Salima also encourages the buyer to hold or take ownership of the products (e.g. holding the lotion , applying the product, and placing the products in a bag for the customer—having the customer accept and hold the bag). This action implicitly conveys that the seller is expected to purchase what is in the bag.

Salima's facial expression communicates intense concentration as she studies Lana's nails intently to assess the problem (poor condition of her nails). When she determines the solution (Atlantis Spa manicure set), she knowingly nods her head, to convey authority. She also squints her eyes and uses her facial muscles to indicate concentration when determining the price deal. Salima makes direct eye contact throughout the presentation. (An interesting side discussion is to have students critically reflect on Salima's use of eye contact outside her native culture. Perhaps she purposefully makes eye contact to connect with a North American customer. Ask students whether her use of eye contact might be different if the customer were Asian).

Kinesics (gestures) communicate emphasis and physically lead the customer to make conclusions about the product. Salima points to ridges on the nail that need to be smoothed. She points to wrinkles and under-eye circles before and after product application. Similarly, her hands and body expressions call attention to some of the "aha" moments. For example, she positions Lana's hand under the kiosk light and then ceremoniously removes her finger from Lana's nail to reveal the shinier nail. Similarly, later in the sales call, the seller says, "[c]over this side of your face with your hand. This is before." She then dramatically gestures to Lana's left facial area and says, "And this is after. Now, Lana, move your hand." Such theatrics are not only for the benefit of the customer but for the benefit of the onlookers.

Salima employs proxemics (distance) in her initial approach towards Lana. Both she and Lana are "squared-up" with each other indicating that both are receptive to what the other has to say. (Students might reflect on the implications of subtle and aversive body positioning on the communications outcome.)

10. How does Salima use language to build the persuasive message? What are some specific techniques she uses, such as repetition, word choice, and figurative language? Does her language border at times on puffery or stray into unethical behavior?

Salima uses the words "magical" and "amazing" in referring to the healing properties of products from the Dead Sea and in reference to the silky side of the buffing block. Tranquil images associated with the Dead Sea further support the exotic and exclusive nature of the products. Salima also repeats that the products will "change your life seriously." Both the magical and life-changing claims are examples of puffery. In addition, the unsubstantiated medical claims could raise some questions in the customer's mind about the validity of the claims and the credibility of the company.

Examples of repetition include using Lana's name repeatedly, counting 1-2-3-4-5 to emphasize the ease of use of the products, and reiteration of key selling points such as the natural and healing minerals of the Dead Sea.

Examples of figurative language include likening moisturizing lips to moisturizing nails. Salima tells Lana that, "[p]eople are gonna think you had a face lift." This metaphor underscores the products' capability to change dramatically Lana's appearance. An implied analogy is that customers who use Atlantis Spa Products will be like Egyptian queens.

EPILOGUE

Despite Salima's extensive sales efforts, Lana Thompson was simply unable to spend hundreds of dollars on the products. Lana finally purchased a manicure package for $19 and two bars of soap at $5 each from the Atlantis Store.

CHANGING THE GAME AT CHEROKEE NATION ENTERTAINMENT

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CASE DESCRIPTION

The primary subject matter of this case concerns building, communicating, and implementing a vision that will drive change in an organization. Secondary issues examined include overcoming resistance to change, building support in multiple stakeholder groups and powerful sponsors, the role of team leaders in the implementation process, acting with a sense of urgency and risk taking in implementing change. The case has a difficulty level appropriate for undergraduate seniors and graduate students, and is designed for courses addressing organizational change, leading change, and leading teams. The case may also be used to demonstrate strategic management concepts, including developing a vision and strategy implementation. It can be covered in a one hour class. Preparation for the case is expected to require 3-4 hours.

CASE SYNOPSIS

The case opens with Cherokee Nation Entertainment ("CNE") engaged in the process of evolving from a collection of low impact retail and bingo operations to a dynamic, growth oriented business employing current marketing and management concepts. Dave Stewart, CEO, is building a vision for CNE that embraces innovation and change in driving a transformation of the business' strategy and culture. The change in Oklahoma gaming laws provides the external opportunity. Stewart's vision encompasses a dramatic change in the basic philosophy of the business in attempting to integrate the edgy Hard Rock "culture" with the very traditional culture of the Cherokee Nation. The case follows Stewart and a Team of 8 key managers who navigate through multiple challenges and obstacles often encountered in transformational change in organizations. The vision and strategy provide the direction for change; however, the extent of the change provide significant challenges for Stewart and the Team of 8 in overcoming resistance to change, and building a sense of urgency so important to implementation. The case demonstrates one approach to building and implementing a vision and new strategy, and provides opportunities for students to analyze the key stages of organizational/strategic change. The case ends with the opening of the Hard Rock Hotel and Casino Tulsa; however, the change *process is not complete. There are still important issues for students to ponder about the future of the Hard Rock brand and CNE.*

INSTRUCTORS' NOTES

Discussion Questions

This is a complex case that can be viewed primarily from an organizational change perspective and leadership perspective. There are a variety of resources for developing understanding of organizational change; however, this review employs John Kotter's Eight Phases (Kotter, 1995; 2007). The article noted is available through Harvard University Press. Additionally, summaries of Kotter's concepts are readily available on the internet. A review and discussion of the eight phases in class prior to assigning the case will prepare the students for the Organizational Change questions presented in this case.

Directions:

Analyze the case employing John Kotter's eight phases of change. Students should focus on the transformation to the Hard Rock brand in their analysis, but should integrate relevant facts from the background and the 2002-2006 period of growth at CNE. Although the questions are relatively simple and straight-forward, the eight phases provide the structure for a comprehensive analysis. More advanced analyses will integrate the discussion of the different phases where they overlap. The 8 phases include:

1. Establish a Sense of Urgency.
2. Form a Powerful Guiding Coalition
3. Create a Vision
4. Communicate the Vision
5. Empower Others to Act on the Vision
6. Plan For and Create Short-Term Wins
7. Consolidate Improvements and Sustain the Momentum for Change
8. Institutionalize the New Approaches

For the first 6 phases:

- Identify the key players, the actions they took, and the result – positive and negative.
- Did Stewart and CNE follow the same order as Kotter's model? For those that were in a different order or overlapped, explain why Stewart and/or the Team of 8 varied from Kotter's sequence.
- Each of the phases may be addressed in order; however, a deeper understanding of the case suggests that some of the phases overlap, warranting an integrated approach. For example, establishing a sense of urgency overlaps with several of

the other phases. Building the vision, communicating the vision, and forming a powerful guiding coalition can be considered integrated activities in this case.

For phases 7 and 8:

- Identify the situation at the end of the case and the major challenges and issues Stewart and the team will have to face. Provide three solid recommendations for CNE management to consider in addressing these two phases.

CASE ANALYSIS OVERVIEW

The case starts at a pivot point, where Cherokee Nation Enterprises (the name subsequently was changed to "Entertainment" in 2009) has already developed a growth strategy by expanding entertainment types and venues in 2006. The case briefly reviews the progress up to that time, and introduces the challenge facing David Stewart to sustain growth and profitability. While searching for new approaches, Molly Jarvis, Vice-President of marketing, introduces him to the Hard Rock concept.

From this point forward, the case takes the student through the process of developing the vision, the strategy, analyzing the market, selling the vision in the face of significant resistance within the tribe and in CNE, putting together a team to implement the initiative, and keeping up a sense of urgency throughout. At the end of the case, there is an open ended challenge that allows the students to evaluate and develop their own approaches to sustain change, build on change, address inertial forces, and explore new growth opportunities.

The case provides an excellent venue for students to apply concepts they have been studied or been exposed to in Policy and Strategy courses, Organizational Change, and Leadership courses. This case can be analyzed from a comprehensive change process standpoint, or it can be used to demonstrate issues and approaches to major aspects of change, including developing and communicating a vision, overcoming resistance to change, and empowering people to lead change.

A comprehensive analysis can employ any of several models of change. In these notes we will address John Kotter's eight phases in his book *Leading Change* (HBS press: 1996). Note that there are other comprehensive models that also could be applied (e.g., Jick and Peiperl, 2003). In advanced classes, the instructor may assign additional readings, incorporate concepts from the course, or ask students to find other articles that address elements of change and integrate into their analysis.

CASE ANALYSIS

John Kotter's eight phases of change:

1. Establish a Sense of Urgency.
2. Form a Powerful Guiding Coalition
3. Create a Vision

4. Communicate the Vision
5. Empower Others to Act on the Vision
6. Plan For and Create Short-Term Wins
7. Consolidate Improvements and Sustain the Momentum for Change
8. Institutionalize the New Approaches

For the first 6 phases:

1. Identify the key players, the actions they took, and the result – positive and negative.
2. Did Stewart and CNE follow the same order as Kotter's model? For those that were in a different order or overlapped, explain why Stewart and/or the Team of 8 varied from Kotter's sequence.
3. Each of the phases may be addressed in order; however, a deeper understanding of the case suggests that some of the phases overlap, warranting an integrated approach. For example, establishing a sense of urgency overlaps with several of the other phases. Building the vision, communicating the vision, and forming a powerful guiding coalition can be considered integrated activities in this case.

ANSWERS TO QUESTIONS FOR FIRST 6 PHASES

Phase 1: Establish a Sense of Urgency:

A sense of urgency is evident in multiple parts of the case, particularly in selling the concept internally and with the tribal leadership, and in the work of the Team of 8, which faced deadlines and impending competitive actions.

Stewart himself believed that more significant changes than had been realized by 2006 had to be made in order to sustain or accelerate growth. He was only too aware that organizations often start to grow, but then retreat to the comfort of fine-tuning the operations recently created. Moreover, he understood a deep sense of conservatism in CNE that would make it difficult for people to take the risks necessary to engage in real change, and sustainable growth. The early stages of the Hard Rock initiative were off and on, but Stewart seized the opportunity when it arose, and continued to push the concept, getting approvals on the run. Note that he had to develop a financial justification to satisfy the Council, indicating that this had not been done in the early stages. His sense of urgency involved risk taking.

Coupled with the ongoing expansion project, Stewart created a sense of urgency within the company to facilitate the change. The continual focus on construction deadlines and milestones allowed the team of 8 to coordinate their change efforts. The new Hard Rock theme elements had to be tied to the new bars, hotel and casino features. This meant that as the milestones and new features were completed, the change in the décor and themes for each area had to be changed as well. The Critical Path and the Parking Lot mechanisms are examples of how a leader can encourage autonomy and individual initiative, but still keep a group of manager focused and coordinated, and maintain the momentum necessary to overcome obstacles and resistance to change.

Other factors that aided in the creation of urgency included the competition. Several competitors announced expansions and new facilities while the Hard Rock conversion was in progress. Stewart had already beaten them to the market place, but it did not take long for the competition to react. In an effort to minimize the impact of the competition's new facilities, Stewart pushed both the construction schedule and the licensing efforts to allow for the opening of 5 hotel floors. The announcement of the availability of these floors came within the same month of the competition's major opening. The effect was dramatic. CNE had braced for a dip in their financial performance, but due to the accelerated efforts, the impact was negligible. Once again, they beat the competition.

It is clear throughout the case that Stewart and the Team fully embraced Kotter's urgency concept. Kotter (2007) emphasizes the importance of overcoming inertia and comfort zones of management and employees alike. In the case, it was clear that Dave Stewart clearly saw the need for change and provided clear leadership from the beginning. The vision of growth and profitability were lightning rods for managers in the organization who bought into the vision. They would bring the rest of the organization along.

The make-up of the Team of 8 was critical to building momentum and driving the sense of urgency throughout. There could be no lukewarm players on this team. They grabbed the baton from Stewart and drove the process themselves. In concert with Kotter's encouragement to bring in outsiders, Stewart embraced the outside concept introduced by Molly Jarvis, the Hard Rock. The team benchmarked other organizations through on-site visits and promoted the application of market and customer surveys.

One difference from Kotter's view is that the leadership of the organization did not face obvious threats, but saw opportunity instead. In many ways, this approach represents a more difficult challenge. People often recognize threats once they are obvious, but are often frightened by the uncertainty associated with opportunity. Many organizations are restricted by a commitment to the status quo, and are held back by inertial forces. This is in stark opposition to the current thinking on change, and the drive behind Stewart's actions. It is not surprising that emails from Dave Stewart's secretary include the following quote from W. Edwards Deming, the father of TQM: "It is not necessary to change. Survival is not mandatory." This spirit is evident in Dave's philosophy and in the actions of the Team of 8. Stewart's commitment to sustained growth and competitive advantage drove him and the organization to invest in innovative ideas and to search for opportunities.

A concern at the end of the case is whether or not the sense of urgency can be maintained after such a significant change. This is a real issue. It is likely that the tribe and the CNE organization will want to absorb the changes enacted before moving to the next opportunity.

Phases 2, 3, 4: Create a Vision - Communicate that Vision – Form a Powerful Coalition:

Phases 2, 3 and 4 are clearly integrated in the case. These three phases set the stage for the empowerment phase. Rather than begin with the powerful coalition, the early vision came first and evolved over the life of the case. Selling the vision was accomplished concurrently with building coalitions at the tribal level and at the CNE level, typified by interactions with the Team of 8.

It is clear from the case that Dave Stewart started to build the vision of a high growth, profitable business in the first year he became the chief executive at CNE. His initial approach fit well within the stated policies of the Cherokee Nation, but it was obvious that CNE was far from a dynamic, growing company in 2002. Stewart started with a philosophy of consistent sustained growth even in times of economic decline. This is a significant challenge for any company, but it may explain the level of drive and urgency Dave Stewart exhibited throughout the case from 2002 to 2009. The vision evolved, building on the early successes, and was significantly impacted by change in gaming laws. Stewart actively worked on the gaming change and was fully prepared to take advantage of the opportunity. It was no accident that the vision would ultimately lead to the dramatic change in pursuing the Hard Rock license. Stewart was committed to significant differentiation, consistent with current marketing and strategic management theory and practice. He was fully committed to his convictions, but knew well that the Cherokee Nation and CNE were traditional and conservative and that something as radical as Hard Rock would face stiff resistance. As it evolved, the vision incorporated differentiation as a key strategy, eventually focusing on the Hard Rock concept.

In many ways the Hared Rock evolution of the vision started in a discussion with Molly Jarvis, Vice-President of Marketing. This is instructive about how visions start and take form. Dave had a problem (how to continue to grow and overcome historical conservatism) matched to an external opportunity (the legalizing of gaming) that could be capitalized on by acquiring the Hard Rock license. He quickly grasped the potential of the Hard Rock idea, and how it could provide meaningful competitive differentiation. He embarked on a campaign that involved urgency and commitment, and that had to deal with a conservative culture and organization. It is an understatement to suggest that Dave Stewart attacked the vision with passion.

Kotter notes that the vision must be clear, easy to understand and motivating. The early stage of the vision was all of this. The vision of growth and profitability provided inspiration for aggressive managers in CNE, and was consistent with the Cherokee Nation's commitment to building the economic strength of the tribe, creating jobs and providing funds for necessary services. The differentiation element of the vision was realized in introduction of the Hard Rock theme, which really changed the game. The transformation to the Hard Rock vision was clear and easily understood, but was considered so radical by many that even Chief Chad Smith was slow to lend his full support to the change.

For Stewart, arriving at the vision and evolving it to incorporate significant differentiation was in some ways the easy part of the change process. Motivating an entire organization and convincing the leadership of the Cherokee Nation presented a huge challenge. Many leaders would have chosen a slower, more evolutionary approach, with less personal risk. Stewart tackled it head on, but waited until the talks with Hard Rock had made significant progress. His commitment to the concept was full and unreserved. As noted by one of the Team of 8, Stewart's approach was fully consistent with Jim Collins' level 5 leader (Collins, 2001). He was fully committed and tenacious, and smart enough to know that communicating the concept was one of his most important tasks. The communication process had to be completed prior to and concurrently with Kotter's phase 2, building a powerful coalition.

The Hard Rock vision had to be sold on multiple fronts in the face of resistance from members of the tribe, the Tribal Council, and his own organization. Dave Stewart recognized immediately that he had to have the support of Chief Brad Smith, whose influence could make or break the project. This demonstrates an important confluence of several stages in the process. Not only was the vision created, but allies had to be found, especially when significant action required approval by the Tribal Council. Without this support and approval, the vision could have gone no further.

As importantly, the Hard Rock concept had to be sold to CNE employees and the Cherokee people. There were three critical elements to this task. The first was choosing the right people to lead the effort. The second was the structured communications and training program. The third was the one-on-one and informal networking communications program.

The formation of the Team of 8 was crucial to success. These were the people who would carry the project forward on two fronts: directing the actual work of the project and brining the rest of the organization on board. Stewart chose only those who could and would commit fully to the concept and to the urgency required. He did not use the existing hierarchical structure, but chose a mix of people from different management levels, augmented by outside talent structured as a team. This proved to be very successful. This team took responsibility for organizing the project and selling the vision to their CNE colleagues and members of the Cherokee Nation.

The formal communications program is outlined in the case. It involved a series of meetings and training sessions that was reinforced by the t-shirt giveaway program. The Vibe newsletter provided information. Detailed training and "walk-throughs" by CNE employees prepared them for the change. Their fears and concerns were answered in open discussion forums. The team made every attempt to gain the support of the management and employees of CNE.

A series of management meetings and informal information networks were crucial as well. Stewart met with every key manager, just as he had done with the members of the Tribal Council. He worked with the Team of 8 without interfering in their day-to-day operations. The Team of 8 and other managers who embraced the vision, constantly engaged colleagues and friends providing information and building trust. One of the Team members created a group of ambassadors to supplement the efforts of the Team. As reported in the case, these communication activities gained acceptance or buy-in by at least 70% of the CNE people directly impacted.

It is evident from the case that selling the vision and building coalitions were integrated processes. Stewart had to sell the vision to build the coalition. The coalition of Chief Smith and the Team of 8 enhanced the selling and built more support. Selling and coalition actions clearly built on each other. Chief Smith's support was crucial. He is the most powerful individual in the tribe and the clear leader of the businesses. Once his support was gained, the job of selling the Tribal Council and the Cherokee people became much less difficult.

Students could note some concerns over the aggressive "campaign" orchestrated by Stewart. His vision was still in the development stage when he had to show a strong financial picture to the Council. These projections were not fully developed until they became critical to the approval process. Stewart's vision also led him to take risks that could be questioned. The fact that approval was received at the last moment created substantial anxiety among the Team of 8. Was Stewart good or lucky or both? An ongoing concern is that leveraging the Chief's influence without winning over other important leaders in the tribe could lead to some blow-back even after the initial success.

Phase 5 and 6: Empower Others to Act on the Vision –Create Short-Term Wins:

The previous section outlined the selection of the Team of 8, and their actions in communicating the vision. Although critical, this was only part of their job. These managers were given the task of organizing and directing all tasks necessary to finish the building, convert all elements of the physical operation, put together entertainment programs, and market the concept on an accelerated basis. Each individual had their specific area of responsibility and were empowered to get the job done. There was no question that they had authority and responsibility. Stewart was careful to stay out of the details but to stay close enough to monitor progress and deal with problems.

The empowerment of the Team is consistent with Kotter's guidelines. Managers were allowed to take charge of their specified area of responsibility. They developed the critical path to keep all on schedule. Coordination was a team responsibility. The Tuesday meetings and the Parking Lot mechanism provided opportunity for the Team to discuss issues and build support for the vision. Although not specifically addressed in the case, the fact that they were set up as a team indicates that time and money resources were adequately provided. The team was clearly able to focus on the task.

The urgency and the real time issues of getting the job done make the issue of creating short-term wins less important for this case. The change was so focused and so dramatic that specific tasks had to be scheduled and completed for the entire project to be successful. The key was that each person was competent to get the job done and had the authority to do it. The fact that the team moved fast and organized the transformation through the rest of the organization provided more than enough evidence that the change was going to happen and be successful. There would be no option but to move forward.

Phases 7 and 8: Major Challenges and Issues; Three recommendations.

Consolidating Improvement/Sustaining Momentum for Change:

The case ends at the grand opening of the Tulsa Hard Rock Resort and Casino. The changes in the theme and the physical property are clearly evident, but to what extent has the culture been changed at CNE? Kotter's statement (2007), "Do not declare victory too soon", applies to this case. One concern is that three of the Team of 8 left CNE as of early 2010. This could mean that the business will pause to absorb the huge change before considering future aggressive projects.

From Stewart's standpoint, he will have to balance the need to stabilize the business, and to keep the organization moving so that they do not regress back to safe and sound actions (Kotter's "powerful forces of tradition"). Stewart would be well served to follow Kotter's advice to delve more deeply into what has truly changed in organizational capabilities and culture. One place to start is with the senior management of CNE. Which of the top management team embraced the change, and have increased their capacity and willingness to initiate innovative concepts? Which middle managers have shown the capacity for leadership, and can be counted on to lead the next project or bring new ideas to the table? Stewart must ensure that his top management team can lead change in the future, and that mid-range managers are rewarded and promoted for appropriate risk taking. The “pause” for the organization in general should not be applied to the top management and emerging middle management leaders.

Kotter indicates that it takes years for a culture of change to take hold in an organization. CNE started their changes in 2003, and accelerated the rate of change in 2008 and 2009. With almost eight years of involvement in change, a number of people in the organization should have developed skills that can be applied to future change. Clearly, most people will have grasped the message that effective change is important and will not stop. The estimate that 70% have accepted or embraced the Hard Rock concept is a good start. Now the challenge is to engage the employees more deeply into the change process. How the management engages them is an important issue.

Institutionalize the New Approach:

This phase may be a future issue, allowing the organization to consolidate the improvement and sustain momentum. Still, it should be one of Stewart’s long range issues to be addressed in the next year or so. While the bulk of the CNE organization focuses on consolidation and sustaining momentum, this should not be the case for the leadership. Kotter calls for the next generation of leaders to commit to the new ways, to innovation, continued differentiation, and growth. This should be Dave Stewart’s focus for the near term – identifying and building leadership strength in the organization.

Three Recommendations:

Three ideas that could contribute to the future success of the organization are:

1. Keep a smaller multi-level team to fine-tune and maximize the success of the new Hard Rock operation. This will ensure that any minor errors or overlooked opportunities could be dealt with. Moreover, it could be a first step in employing continuous improvement concepts into the Hard Rock culture, and keep employees at all levels engaged in making it better. A key element is their ability to engage employees at all levels of the organization in the improvement process.
2. Start a new team to look at spin-off opportunities for other casinos or entertainment venues. Look at the area around the Tulsa Hard Rock for other types of retail and entertainment concepts, capitalizing on the current success. Look at the area near Northeast Arkansas and review other casino locations for opportunities. In the early stage it should be investigative, but keep a sense of urgency by requiring an initial plan within 6-12 months.

3. Identify and challenge 2-5 potential change leaders who could serve in rolls similar to that which Dave Stewart served as the organization identifies new opportunities and takes on new change projects. At least two should be assigned to the teams identified in points 1 and 2. This approach ties to Kotter's guidelines in phase 8, where developing new leadership is critical to institutionalizing the commitment to change.

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SOMETIMES A SIMPLE CHANGE ISN'T SO SIMPLE

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CASE DESCRIPTION

The primary subject matter of this case concerns change management. Secondary issues examined include planning for change, empowerment, training, implementation, and political resistance to change. The case has a difficulty level of four. The case is designed to be taught in three class hours and is expected to require three hours of outside preparation by students.

CASE SYNOPSIS

Integrated Health was a large private, nonprofit health care system located in Tempe, Arizona. A year ago, the decision was made to implement a computerized medication administration record (MAR) at Integrated Health. During the first year, the MAR system would be implemented at Central Hospital of Tempe. After the "bugs" were worked out, the computerized MAR would be implemented system-wide. The MIS department at Central Hospital was designated as the initiator and direction setter for the project. Art Smith, the Chief Information Officer at Central Hospital assigned Kate Cohen, a programmer/analyst, as project leader. Kate had the responsibility for developing and implementing the MAR project at Central. Kate did the programming work for the MAR and assembled a team from Pharmacy Services, Nursing Services, and Internal Auditing. Members of the project team provided feedback on the software, made suggestions related to user training, and worked on an implementation schedule. Both team members and outside observers recognized the difficulty in developing and implementing the MAR in one year. Nurses' antagonism toward the project surfaced after their suggestions and recommendations were rejected without explanation. The MAR project was also affected when a management "shakeup" occurred during the project development phase. The MAR was implemented and immediately failed. By 10:00 a.m. on the first day of the implementation, users complained that the system did not work and was too complicated. After hearing nurses' complaints, physicians expressed concern about patient safety. At 1:30 p.m., Central Hospital's computer system crashed, and the MAR project was suspended. Early the next morning, we find Kate contemplating what she is going to say when she meets with Central Hospital's management group later in the afternoon.

RECOMMENDATIONS FOR TEACHING APPROACHES

This case describes the handling of a change project in a hospital setting. The primary objective of the case is the introduction to issues associated with planning, managing, and implementing complex change. Other objectives are to provide students the opportunity: to illustrate the impact of political behavior on change implementation; to demonstrate the influence of inter-group conflict on change management; to illustrate leadership difficulties associated with technical changes; and, to illustrate the importance of good communication.

Based on field research, the case is appropriate for graduate or undergraduate courses in organizational behavior, organizational development, health care management, or management information systems. One way to teach the case would be to assign students to evaluate the management of the change project described in the case from different "actor" perspectives using the checklist included in Supplement 1 "A Strategy for Effectively Managing Change in Organizations."

POSSIBLE DISCUSSION QUESTIONS

How should or could this change project have been managed more effectively?
Why did this change project fail?
Why did MIS, Nursing, Pharmacy, and hospital management have such different perceptions about the MAR project?
What recommendations would you make to "solve" this problem? Who needs to be sold on the MAR so that they can become a change champion?
What should Kate Say at her 2:00 p.m. meeting with the management team?

AUTHOR'S ANALYSIS AND ANSWERS TO DISCUSSION QUESTIONS

How could or should this change project have been managed more effectively?

This question provides an opportunity for students to apply their knowledge of change management to the circumstances described in the case. Students may recognize that the change described in this case represents a first order change. First order changes are relatively minor in scope and complexity. A reading of the case suggests that the change described in this case was seen as a relatively minor, technical change by the people involved (Greenberg & Barron, 2008). Discussions of managing change frequently revolve around the three step process of unfreezing, changing, and refreezing. Student answers will vary depending upon the change management approach discussed in their particular class. Several models of the managed change process are described in management textbooks. The eight stage model of planned organizational change suggested by Kotter (1996) provides one useful approach. Other models are described in: Hellreigel, D., Jackson, S. E., & Slocum J. W. Jr. (2008). *Managing A Competency Based Approach* 11 the Edition, South Western. Griffin, R. W. (2008). *Management* 9th Edition. Boston: Houghton ifflin Company.

The following discussion illustrates an application of the Kotter model. (A graphic example of the model is included in Supplement 2.)

Step 1 Establish a sense of urgency: The objective at this stage is start the unfreezing process by establishing a sense of urgency that change is needed. In this case the demands of external stakeholders such as Medicaid/Medicare, and other third party insurers for a more efficient, automated billing system were used to establish the need for a change.

Step 2 Form a powerful guiding coalition: The objective at this stage is form a team that has the power to guide the change. As describe in the case, this step was not implemented at all. Students should recognize that the failure to form an effective management team to guide the team was a major cause for the ultimate failure of the project.

Step 3 Develop a vision and a strategy: At this stage of the change process management should communicate a vision that can serve as a guide for the change, and identify strategies for the achieving the vision. As with the previous step, this advice was not followed in this case. At no point did Art Baxter lay out a vision and strategy for the project. For example he never discussed the shift to electronic billing and record keeping that has occurred in the healthcare industry. Reading the case one gets the impression that this project was seen as an isolated software project with potential political benefit for Mr. Baxter.

Step 4 Communicate the vision widely: At this point in the process the leadership coalition communicates the vision and strategy as widely and as often as possible. At no point in this case was there any indication of a concerted effort by either management or the project team to sell the changes. Nurses concerns were dismissed, and furthermore the change was not discussed with physicians, a critical internal stakeholder group.

Step 5 Empower employees throughout the organization to act on the vision: At this point in the process management should focus on eliminating obstacles to change One could argue that in this case the opposite strategy was pursued. One good example was Art Baxter's refusal to change the implementation date when Lauren Hill and others identified problems the training schedule.

Step 6 Generate short-term wins: At this point in the change process managers should focus on performance and achievement. Changes take time. One suggested way to sustain momentum is set intermediate goals which when achieved energize employees. No such efforts were made in this case. Given the failure of the MAR effort as described in the case, students may argue that the application of the model ends at this point.

Step 7 Consolidate gains, create greater change: At this point managers' focus should be on building on short term wins as a means of building momentum for addition, more substantial changes. Again, there are no examples of such efforts described in this case.

Step 8 Institutionalize changes in the organizational culture: Analogous to the refreezing stage, the management objective at this step is make the change stick. When effective, the result is employees see the changes as a normal part of the organizations operation.

Why did this change project fail?

This case presents an excellent example of "how not to manage change." The probable reasons for the failure of the MAR project include some combination of the following factors.

(1) Lack of management involvement and support,
(2) Poor or inadequate communication which resulted in little or no employee commitment to the change,
(3) Lack of physician involvement at any stage in the process,
(4) Out-of-date computer technology at Central Hospital,
(5) Over reliance on junior people,
(6) An inadequate training plan,
(7) Unrealistic testing,
(8) Insufficient time for the design, development, testing, training, and implementation phases of the MAR project, and,
(9) The management reorganization in the middle of the project was a major distraction.

Experienced graduate students may identify additional reasons for the MAR project failure such as the following:

The lack of detailed planning for the MAR change.
The failure by management and the implementation team to accurately assess the nurses' readiness for change.
Management's (especially Art Baxter) failure to see the MAR project as only one part of a larger business process change.
The low power status of the project team meant that political resistance to the project could not be effectively managed.

Students may conclude that the lack of management involvement and support for the MAR project may have doomed the project from the beginning. Art Baxter, the MIS director at Central Hospital, was not very interested in the project. Both the Director and Assistant Director of Nursing were also opposed to the project. The MAR project had no management "champion." Another factor is the impact of the management reorganization that occurred while the MAR project was in development. The Chief Operating Officer, the Director of Nursing, and the Administrator of Hospital Operations were jobs eliminated as part of the reorganization.

Failure to communicate the reason for a computerized MAR clearly contributed to its downfall. Although the administration, the team, and a few select users understood the importance of a computerized record, the average nurse or medical staff member did not.

Lack of physician involvement also contributed to the failure of the project. A hospital project without physician commitment was doomed from the outset. Because there was little dialogue during the planning stage, physicians did not have the opportunity to learn the system. When the MAR was up and running any problem generated doubt. Nurses freely passed their concerns along to physicians who also became worried. This shared anxiety seemed to magnify many of the problems beyond their impact on the project or the patient.

Antiquated mainframe technology resulted several problems and for the MAR project. The following systems problems were identified in the case:

the screens were criticized for being too "cluttered" and difficult to read,
completing a transaction was difficult,
the system was perceived as slow,
information from nursing did not always synchronize with that from the pharmacy, and
numerous complaints about the shortage of computer terminals and their distance from the patient's room.

Although testing was conducted at every phase of development, it was not effective. During testing, there were only a few users at a time. Once dozens of users were on line, the system could not handle the volume. The slow response time left opportunities for errors when new information did not pass between the nursing and pharmacy environments of the system. The time gap between training and implementation had not been fully appreciated.

Why did MIS, Nursing, Pharmacy, and hospital management have such different perceptions about the MAR project?

For rank and file MIS employees, especially Kate Cohen, the MAR project was viewed as an opportunity. Therefore, the MIS department's perceptions were generally positive. If Kate could successfully develop and implement the MAR at Central Hospital, she might be assigned the implementation of the MAR across the entire system. The MIS staff saw the MAR as an expanded application of computer technology that would demonstrate their importance to Integrated Health.

Nursing employees had only limited knowledge of the MAR project. Their questions were usually ignored and their suggestions and recommendations were often rejected. Therefore, the nurses had a negative perception of the project. Nurses were going to be responsible for entering over 50 percent of the data. The MAR project was a significant addition to their workload, but the nurses say little benefit. The Director and the Assistant Director of Nursing did not support the change to the MAR system. The Assistant Director preferred doing work the traditional way, and she consistently opposed change.

Like the MIS staff, pharmacists had positive perceptions of the MAR process. The pharmacists saw the MAR as the logical extension of their computerized order entry function. Pharmacists viewed the computerized MAR as a tool to reduce work, eliminate mistakes, and reduce time spent entering orders.

For management in general, the MAR project was positively perceived. The MAR suited the needs of the hospital's administration and the insurance companies. Reimbursement was dependent upon the efficient and accurate transfer of information between provider and payer, and the computerized MAR was one step to facilitate this goal.

What recommendations would you make to "solve" this problem? Who needs to be sold on the MAR so that they can become a change champion?

The following discussion of the MAR project by a department manager suggests some of the recommendations that students may identify.

"The Integrated system and Central Hospital has gone through many changes since the computerized MAR project started. One of the most important factors was the management reorganization. With clinical services such as Food and Nutrition, Laboratory, Pharmacy, and

Nursing, reporting to the same vice president, there was a real opportunity for teamwork. Prior to the reorganization, the Director and Assistant Director of Nursing had their own agendas regarding the MAR and their own constituencies to consider. After reorganization, the newly appointed Vice President for Patient Care Services had one agenda – the success of the MAR and who could become the facilitator of the MAR project.

Since the computer system crashed, the MIS staff should examine the whole system including infrastructure and architecture. Physicians need to be linked to the MAR. If physicians are added to the project team, they can become boundary spanners for the rest of the medical staff.

In order to remedy MAR training for nurses, the nurse trainer should redesign the training program. Classes should be kept as small as possible, and the training should occur as close as possible to the implementation date for the MAR. The Vice President for Patient Care Service and the Chief Information Officer could communicate the importance of the computerized MAR to the nurses. By having the support of higher level administrators, the program is more likely to command respect from the nursing staff.

Testing should be even more rigorous than it was during the initial attempt at the computerized MAR. Maximizing the load on the system during the testing phase will give a reliable indication of what can be expected. Unusual drug combinations and odd times for medication administration should be expected. Orders that draw information from the nursing environment and the pharmacy environment should be tracked to insure that the information comes together at the same time.

There are several key agents of change who must successfully manage their pieces of the project in order for the computerized MAR to succeed. Key change agents include: the Vice President of Patient Care Services, the Chief Information Officer, Physicians, the Director of Pharmacy Services, Staff Pharmacists, Nurse Managers, the Nurse Trainer, and the MIS staff."

The nurse trainer was responsible for teaching 400 nurses on-line charting. The nurse trainer had discussed her training plans with the pharmacy trainer, and patterned the nurses' training after that of the pharmacists. However, there were fewer pharmacists to be trained than there were nurses to be trained. The classes were large, and some of the nurses who were trained early in the process may have forgotten much of what they had learned by implementation time.

What should Kate say at her 2:00 p.m. meeting with the management team?

Kate has a very tough challenge ahead of her. She is an awkward situation both operationally and politically. Students should recognize that as the team leader Kate has to accept responsibility for the problems that occurred as a result of actions taken be she and her team. Kate cannot just shift the blame to Art Baxter. Student responses to this question are likely to vary considerably. Some of the issues students should recognize include:

The MAR failure occurred only yesterday.
Neither Kate nor her team members have had an opportunity to research the "facts" surrounding the failure.
It's doubtful that Kate can avoid being blamed for the MAR implementation failure.

Based on the evidence available in the case, the management team hasn't really kept up with the MAR project.
As a relatively junior staff person, Kate probably doesn't have a base of political support independent from the CIO, Art Smith.

REFERENCES

Carnall, C. A. (1990). *Managing Change In organizations*. New York: Prentice Hall.

Daft, R. L.(2005). *The Leadership Experience* 3rd Edition (South-Western, 2005).

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Supplement 1: A Strategy for Effectively Managing Change in Organizations* Checklist One: Organizational Readiness for Change (Please check the appropriate statement)				
In the past, new policies or systems introduced by management have been:	Seen as meeting employee's needs	Not well understood	Greeted with some resistance	Vigorously resisted
Employees may be best described as:	Innovative	Independent	Apathetic	Conservative or resistant to change
The most recent and widely known change in the organization is viewed as:	A success	Moderately successful	Had no obvious impact	Not successful
Expectation of what change will lead to are:	Consistent throughout the organization.	Consistent among senior management but not otherwise	Not at all consistent	Unclear
What can people directly affected by the changes tell you about the organization's business or strategic plan?	A full description	A description of where it affects their own department or activity	A general idea	Nothing
Outcomes of the change have been:	Specified in detail	Outlined in general terms	Poorly defined	Not defined
Present work procedures to be affected by the change are seen as needing:	Major change	Significant alteration	Minor improvement	No change
The problems to be dealt with by the changes were first raised by:	The people directly involved	First-line management and supervision	Senior management	Outside consultants
The proposed change is viewed by end users as:	Crucial to the organization's future	Generally beneficial to the organization	Largely a matter of procedure	Beneficial only to part of the organization.
Top management support for the proposed change is:	Enthusiastic	Limited	Minimal	Unclear
Top management has:	Committed significant resources to the changes	Expects the change to be implemented from existing sources	Has withheld resources	Has not planned the resources needed
The management performance appraisal and review process is:	An important part of management development	A helpful problem-solving process	Routine	An obstacle to improvement
The proposed change deals with issues of relevance to the business plan:	Directly	Partly	Only indirectly	Not at all
The proposed change:	Makes jobs more rewarding financially and otherwise	Makes jobs easier and more satisfying	Replaces old tasks and skills with new ones	Makes jobs harder
The proposed change is technically:	Similar to others already under way	Similar to others undertaken in the past	Novel	Technically unclear
*SOURCE: Carnall, Colin A. (1990). Managing Change in Organizations. London: Prentice Hall (pp. 201-213).				

Management Analysis Guidelines for Check-list 1: Organizational Readiness for Change

Company Track Record of Changes (Questions 1-3)

The potential problems are:

Have past changes met with resistance?
Were past changes poorly understood?
Are employees too cautious?
Did recently introduced changes have limited or little success?

The potential solutions are:

Keep everyone informed by making information available, explaining plans clearly and allowing access to management for questions and clarification.
Ensure that change is solid realistically by making a practical case for it. Explain change in terms which the employee will see as relevant and acceptable. Show how change fits business needs and plans. Spend time and effort on presentations.
Prepare carefully by making a full organizational diagnosis, spending time with people and groups, building trust, understanding and support.
Involve people by getting feedback on proposals, getting people to fill out the checklists, discussing the data from these checklists.
Start small and successful by piloting, with a receptive group of employees, in departments with a successful track record. Implement changes in clear phases.
Plan for success by starting with things that can give a quick and positive pay-off. Publicize early success. Provide positive feedback to those involved in success.

Expectations of Change (Questions 4-6)

The potential problems are:

Do different people hold different ideas about the change?
Do people know what to expect?
Are objectives clearly defined?

The potential solutions are:

Clarify benefits of changes by emphasizing benefits to those involved, i.e. to the company.
Minimize surprises by specifying all assumptions about the change. Focus on outcomes. Identify potential problems.
Communicate plans by being specific in *terms* that are familiar to the different groups of employees. Communicate periodically and through various media. Ask for feedback. Do not suppress negative views but listen to them carefully and deal with them openly.

Who owns the problem or idea for change? (Questions 7-9)

The potential problems are:

Are the procedures, systems, departments, products, services involved seen to be a problem?
Was the change planned or introduced by top managers or staff departments?
Is the change viewed as a matter of procedure?

The potential solutions are:

Specify plans in terms that people understand. Ensure that employees' problems are addressed explicitly as part of the change. Arrange for visible outcomes.
Clarify employees' views by exploring their concerns about the changes and examining impact on day-to-day routines.
Present a clear case by specifying who wants change and why. Explain longer term advantages. Identify common benefits. Present potential problems clearly. Listen to problems.

Top management support (Questions 10-12)

The potential problems are:
Does top management support the change?
Will top management provide resources?
Is the management performance appraisal process an obstacle to change?

The potential solutions are:

Build a power base by becoming the expert in the problems involved. Understand top management concerns. Develop informational and formal support. Develop a strong and polished presentation in top management language.
Develop clear objectives and plans by establishing a clear timetable. Set up review processes to be supportive. Bring in top management and middle management to the review process. Focus meetings on specific outcomes, and specific problems.

Acceptability of change (Questions 13-15)

The potential problems are:

Does the planned change fit other plans?
Is there a clear sense of direction?
Does the proposed change place greater demands on people?
Does the change involve new technology, products/services, expertise?

The potential solutions are:

Identify relevance of change to plans by reviewing plans and specifying how change fits. Incorporate changes into on-going developments. If possible, frame changes in terms of the organization's style.
Clarify plans for change by communicating simply and openly.
Implement with flexible or adaptable people, people familiar with some or all of the change, in part of the business where there are strong supporters for change. Recognize why people support change (career, rewards, and company politics).
Do not oversell change by being adamant about conflicts with present practices. Encourage discussion of these conflicts.

Check-list 2: Managing Change Implementation Please check the appropriate statement.				
1. The implementation plan provides:	Clear targets	Acceptable targets	Broad objectives	No targets
2. The likelihood of the project deadlines being met:	High	Moderate	Low	Non-existent
3. Day-to-day control of the implementation is being managed by:	One specific person	Several people involved	No specific individual	Not sure
4. Implementation begins in:	One small work area or department	A number of units	A major department or division	Throughout the organization
5.The plan is being introduced:	Almost 'over-night'	Rapidly	Gradually	Very slowly
6. Those involved initially were selected:	Because they were flexible and supportive	Because they were very committed to the organization	Because they most needed the change	No reason
7. Training is being carried forward with:	Outside training only	Specially designed session in-house plus outside training	Technical or user manuals	Not at all
8. Training is designed to:	Solve problems with the new system	Involve the user's experience	For a wide range of audiences	Take no account of users
9. Training involves:	Only key end-users or those affected	Everyone affected	Does not involve end-users	No training provided
10. Implementation of the change will:	Allow people full control of the tasks they perform	Help people better control the tasks they do	Mean that the tasks are controlled by the 'system' or the technology	Control the people performing the tasks
11. Manager discuss changes with users and others:	To develop the plans for change	To get ideas and feedback on implementation	To keep them informed	To control progress
12. Implementation has:	Built-in incentives and rewards	Provision for some recognition for success	No specific incentives	Problems for the people using the system
13. Benefits will occur:	Immediately	Quickly	Within a year of implementation	Over a year following implementation
14. Direct benefits will be:	Clearly apparent to users	Apparent only to managers	Apparent only to top managers	Only indirect benefits
15. Effects will be:	Measurable in quantitative terms	Measurable only as 'ratings'	Largely anecdotal	Not clear
16. During change, people need to put in:	Very considerable effort, skill and extra work	Considerable effort, skill and extra work	Some extra effort, skill and work	No extra effort, skill or work
17. Management provides people with:	Excellent support	Good support	Limited support	None
18. People experience:	High levels of pressure or stress during change	Considerable pressure or stress during change	Some pressure or stress during change	None

Management Analysis Guidelines for Checklist 2: Managing Change Implementation

Clarifying plans (Questions 1-3)

The potential problems are:

Does the plan identify clear phases and deadlines?
Is the timetable realistic?
Is the responsibility for change clear?

The potential solutions are:

Assign one person to be accountable for change.
Define goals carefully by checking feasibility with people involved, experts, other companies, using measurable goals where possible but always looking at broader goals and outcomes.
Define specific goals by defining small, clear steps, identifying and publicizing critical milestones. Assign firm deadlines.
Translate plans into action by publishing plans. Build in rewards for performance. Give regular feedback.

Integrating new practices and procedures (Questions 4-6)

The potential problems are:

On how wide a scale will the change be introduced?
Is the speed of implementation too fast?
Are people involved supportive, informed, prepared?

The potential solutions are:

Plan the rate of change carefully by piloting to learn from experience, implementing for success, small steps and specific milestones. Allow *more* time.
Enlist firm support. Ensure that the new procedures, products, services are well understood.

Providing training and support (Questions 7-9)

The potential problems are:

Are we providing specific training?
Is the training flexible and geared to people's needs?
Are we targeting the right people for training/education?

The potential solutions are:

Classify objectives of training. Use existing skills and knowledge. Depend upon people as part of implementation. Use suggestions as part of the training.
Allow people to learn at their own pace. Provide opportunities for 'hands on' experience. Make training relevant to the job. Have line managers 'project manage' training.
Use different learning approaches. Respect and use people's experience. Allow people to solve problems and utilize their solutions.
Incorporate feedback into the training programs.

Ownership and commitment (Questions 10-12)

The potential problems are:

Does the change impose controls on people?
Does the change reduce managers' (or others') discretion, initiative?
Are those people who are affected being consulted?
Are there incentives, benefits?

The potential solutions are:

Plan change to bring benefits by using it to increase personal control over the job (and accountability). Enhance people's jobs and status. Ensure quick, visible benefits. Provide incentives for people to opt for change.
Involve people by asking for suggestions. Specify milestones and ask for feedback. Publicize ways in which suggestions and feedback are utilized.

Providing feedback (Questions 13-15)

The potential problems are:

Do visible benefits occur only over the long-term (one year)?
Are benefits visible to top management?
Is the impact on cost, productivity, resource utilization, market share, (etc.) well documented?
Are benefits clear and direct for the people involved?

The potential solutions are:

Make sure that the results are well documented, accessible, quickly available, positively described, relevant, achievement of 'milestones' recognized.
Arrange wide recognition of success of people involved throughout the organization. Specify how the change has helped the organization to achieve its goals.

Managing stress (Questions 16-18)

The potential problems are:

Are people overstressed?
Is performance declining because of the level of stress?
Is there a higher incidence of 'people' problems, volatile behavior problems between groups of people?

The potential solutions are:

Plan change to control the impact on people. Seek ways of controlling the pressure.
Allow more resources and time when the changes are novel.
Adopt a rapid implementation plan where people have been consulted *and agree to change*.
Empathy - constantly reinforce change - communicate and listen.

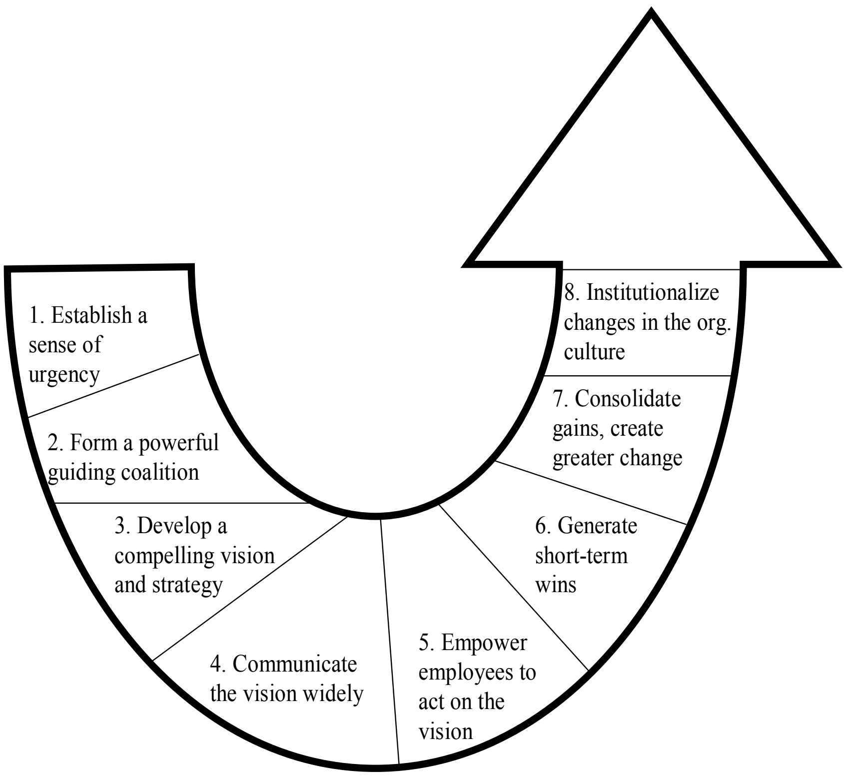
Checklist 3: Self -Assessment of Your Management Skills for Change				
	Where I need to improve my performance	*Where my performance is moderately good*	*Where my performance is good*	*Action plans to improve performance*
A. Preparing for Change				
Identify Problems and Causes				
Remaining calm under pressure				
Involving others where appropriate.				
Building an open climate.				
Setting and agreeing objectives				
Drawing out the inputs and contributions of others				
Check for agreement				
Reviewing objectives regularly				
Seeking new information				
Presenting ideas				
B. Planning Changes				
Identifying opportunities and solutions				
Critically evaluating options				
Communicating information clearly.				
Leading brainstorming meetings				
Identifying problems of implementation, resources needed and appropriate priorities				
C. Implementing Changes				
Identifying what needs to be done				
Identifying priorities and deadlines				
Identifying impact of change on people				
Identifying and dealing with the impact of stress on myself				
On others				
Allocating tasks				
Coordinating plans and action				
D. Monitoring Changes				
Making the time to review progress				
Discussing problems openly				
Giving feedback				
Identifying areas for improvement				
Building on success and keeping motivation high				
Building team spirit				
Improving the use of resources				
Allowing enough time for change				

Self-Assessment for Change

Checklist 3 is designed to help you review your own skills in the area of planning and managing change.
Go through the checklist and try to identify the main areas where you feel you need to improve your skills and performance. Then review the areas where you feel you need to improve and identify three or four priority areas for improvement. As you go through your self-analysis, try to keep in mind the typical problems related to change that people in your organization experience, as identified in the implementation questionnaire. Finally, look for practical ways in which you can improve your approach to managing change.

Supplement 2

The Eight-Stage Model of Planned Organizational Change



Source: John P. Kotter. *Leading Organizational Change* (Boston: Harvard Busdiness School Press, 1996). Adapted from: Richard L. Daft. *The Leadership Experience* 3rd Edition (South-Western, 2005).

MODINE MANUFACTURING: PRICING STRATEGIES FOR A GLOBAL OEM MARKET

Tim Rintelman, Modine Manufacturing Incorporated
James E. Finch, University of Wisconsin - La Crosse

CASE DESCRIPTION

The primary subject matter of this case is pricing strategy within the context of an international global company that manufactures and sells thermal management products and systems to global OEM's in the passenger, commercial and off-highway vehicle markets. As a seller of component parts to large multi-national manufacturers around the world, Modine faces competitive challenges and buyer demands that are formidable. The company needs to transition from its dependence on cost-plus pricing policies to strategies that will effectively communicate their products' superior value. This case has a difficulty level appropriate for undergraduate senior level and graduate courses. This case is designed to be taught in one class hour and is expected to require two hours of outside preparation by students. This study would be most appropriate for use within the context of a Marketing Management or Marketing Strategy course.

CASE SYNOPSIS

No one can ever truly be considered an expert in pricing … at least that's the opinion offered by a consultant who was hired to help Tinya Meeker solve a particularly challenging pricing dilemma. It is clear that Modine Manufacturing needs to migrate from its dependence on cost-plus pricing policies to strategies that will effectively communicate their products' superior value. However, Tinya is relatively new to the position of divisional sales manager and this is without question the most important decision she's ever been asked to make. She's narrowed her choices down to product-cost unbundling and value-based pricing as the two primary options. Modine employs more than 7,000 people worldwide and the consequences of her final decision could be far-reaching.

INSTRUCTORS' NOTES

RECOMMENDED TEACHING METHOD

One or two class periods prior to discussing this case in class, advise students to set aside two hours to read and prepare answers for the questions. The instructor may suggest that students have a 'study partner' for this preparation step. On the day the case is reviewed in class, ask students to form groups of three or four people to compare answers and to develop group responses to the questions. Have all groups focus on Question #1 for 10 minutes, then call on a few of the groups to report their findings. On a white board or projection screen, prepare a composite list of all the responses provided. Add points from the answer key if they are not reported by any of the teams.

Ask student groups to focus on Questions #2 #3 and #4 for about 15 minutes. Repeat the procedure described above calling on groups to report their responses to each question in turn. On a white board or projection screen, prepare a composite list of all the responses provided. Add points from the answer key that no group reported.

The remaining questions can be addressed in the same manner described above. The relative importance of addressing each of the remaining four questions will be evident from the nature of students' responses to the first four questions. In this final stage, pay particular attention to the need to integrate pricing decisions within the overall strategy of the firm in shaping their strategic response to this situation.

ANSWERS TO END-OF-CASE QUESTIONS

1. What factors are contributing to the pressure on Modine's pricing? How have these forces worked to Modine's disadvantage in the OEM market for oil coolers?

(Case References: "Company Background," "Parallel Flow Offering Dilemma," "Customer price Management")

Both internal and external factors are exerting downward pressure on Modine's pricing.

Externally, the linear price modeling practices used by buyers to gain leverage in negotiations is the primary factor applying downward pressure on market prices by relating size to cost. Modine's PF oil coolers provide a higher level of heat transfer in a smaller package than its competitors so the price attributed to Modine's oil cooler by the customer is based on the smaller size rather than the cooling capability.

Internally: Modine's cost-plus pricing methodology has contributed to imposing artificially low price levels on some Modine products. This pricing methodology does not reflect the value of the engineered design for specific application in relation to cooling capacity or vehicle fit-up.

Working in tandem, these practices prevent Modine from using measures of value (which reflect their unique product advantage) in the processes of negotiation and establishing price quotes.

2. Is product-cost unbundling a good strategy for Modine to pursue with buyers?

(Case References: "Product Cost Unbundling," Table 4 unbundled hardware options)

Yes, product cost unbundling could be effective for Modine. It would enable the Sales team to demonstrate the effective value for cooling capacity which customer linear pricing and cost-plus models do not demonstrate when combined with expensive fittings, brackets and hoses *which can add significant amount of cost and engineering effort that the customer does not appreciate when included in a consolidated price. Cost unbundling will allow Modine to demonstrate to the customer the cost of the cooling capability vs. the cost of a customized application (fit-up, bracketing, etc.). This can help drive the customer to a more educated evaluation of design value and enable both Modine and the customer to drive out unnecessary cost. Table 4 shows the segmented cost for various hardware options. Fittings are an option that Modine should insist on being supplied by the Customer as the threads on the fittings can be easily damaged in the customer mandated returnable bulk shipping crates.*

3. Can Modine persuasively demonstrate that the Parallel Flow oil cooler design provides real economic value above and beyond the products offered by competitors? How can EVE be used in practice? To what forces are these EVE projections sensitive? How reliable are they?

Since this product's value is measured by performance metrics, it is relatively easy to demonstrate the economic value of the PF oil cooler. Modine can provide laboratory test results that will demonstrate the cooling superiority of a PF oil cooler application relative to the size and weight of competitive coolers. This re-framing of buyers' linear orientation to price-performance ratios is the primary advantage to using EVE in the price setting process.

See Linear Pricing Chart in Table 5 – <u>reference price</u> refers to the linear price per sq inch allowed by the Customer linear pricing model. <u>Core size</u> refers to the additional price required to adjust the smaller size (surface dimension) of the Modine oil cooler to the industry norm for size of an oil cooler with similar cooling capability. <u>Radiator Performance</u> refers to the added performance that is achieved from the radiator due to the higher efficiency of the oil cooler. Because the OC is smaller, there is greater cooling from the radiator which can also be downsized vs. traditional OC/Radiator applications. Since the oil cooler is mounted in front of the Radiator, air passing through the oil cooler is warmed before it passes through the Radiator, reducing the heat transfer of the Radiator. With the PF oil cooler from Modine, the oil cooler is smaller, and therefore it heats up less air before passing to the Radiator, making the heat transfer between the air and the radiator more efficient. The <u>weight reduction benefit</u> refers to the benefit that a smaller oil cooler and radiator has on the gas mileage of the vehicle. Less weight provides added gas mileage savings.

The significance of the higher performing Modine PF oil cooler to the vehicle performance has been completely ignored by the cost plus pricing method used in the past. By demonstrating the additional value provided by its PF oil cooler, Modine should be able to achieve higher pricing than it has traditionally received.

The challenge with EVE is that prevailing customer purchasing incentives contradict the communication of value-in-use. As long as purchasing decisions are evaluated based on individual component price metrics vs. entire cooling system value metrics, the task of persuading all of the influencers and decision makers within the customer organization may be too complex in the short run.

The reliability of the EVE-based sales projections are subject to the assumptions used in evaluating potential market share wins and the level of cooling required for each model.

Without evaluating each vehicle model in each segment, the amount of additional volume is not certain. At this point, however, if Modine understands its cost structure and the performance advantages of the PF cooler in application, the success of EVE-based communication plans will be evident from the acquisition of new customers and greater unit sales.

4. Is it possible to pursue both the product-cost unbundling and Economic Value Estimation approach to revising the company's pricing strategy?

Yes, Economic Value Estimation will enable Modine to effectively show the value of their core product, while product cost unbundling will enable them to bridge the gap between marketing standard design products versus custom design solutions. Product cost unbundling will also educate the Modine Sales Team in understanding the cost of hardware previously assumed to be "free" with the specific design of each product and drive them toward higher margin designs

5. Are cost unbundling and EVE the only two options to effectively communicating the true value of the product to prospective buyers?

Within the narrow domain of pricing strategy, these two options are the two viable options available to Modine if oil coolers are sold exclusively as independent components. However, many potential customers are paying too much for radiators if they are purchasing them separately from the oil cooler. Part of the larger marketing communications plan for the PF oil cooler is that if bundled together, the radiator and oil cooler combination would cost less since both can be smaller than traditional combinations. Additionally, Modine could partner with the customer to investigate vehicle models that are experiencing early transmission failures due to excessive heat and introduce a PF oil cooler application on a trial basis. This would attach the savings of warranty costs and lost sales due to consumer confidence issues directly to oil cooler applications, enhancing the economic value of Modine's product even more.

6. Is this strictly a pricing strategy problem … or is the challenge much larger than that?

The challenge is not just pricing strategy. It is a much larger marketing problem. Modine needs to improve their understanding of their customers, market segments, relevant points of brand differentiation and competitive positioning. Ultimately, they must educate their customers as well. It is clear that Modine has sold its oil cooler as an equivalent substitute to their competitor's oil coolers. Modine needs to focus its marketing strategy on positioning its PF Oil Cooler as the superior oil cooling option for any vehicle platform because it will improve the life of the vehicle transmissions and will provide higher gas mileage for the owners and will reduce warranty costs for the vehicle manufacturer.

7. How should Modine respond to the industry's practice of building linear pricing models as a means of exercising market price management?

Modine needs to educate the customer. They need to be able to demonstrate to the customer the comparable performance and cost/price information that makes comparisons between Modine's products and competitors' products meaningful. By using the EVE analysis and stressing the benefits that the PF oil cooler provides in weight reduction and radiator performance, Modine can help customers understand the total cost of their vehicle heat transfer and cooling package (radiator, transmission) relative to performance metrics. Additionally, Modine can also demonstrate the cost impact of special hardware and fittings required for specific applications. By doing this, the customer may be willing to re-design their system to make the PF application even less expensive relative to competitors' bulkier products.

8. Is it reasonable to expect that automakers will change the way they evaluate this one component of their final product? Can Modine make a persuasive argument that they need to change their attitudes toward the value of oil coolers? What value-added sales strategies can Modine use to counter buyers' resistance to change?

It will be difficult to change the way the automakers evaluate this individual component since they have been doing this type of evaluation for many years and it has been effective from a purchase price standpoint. However, if Modine can demonstrate the relative value of its oil cooler through empirical test data and show that price-to-cooling capacity is a more valid measure for product evaluation, customers may be willing to change. Prime opportunities exist where a vehicle manufacturer is having warranty failures due to transmission oil cooling or are utilizing in-tank oil cooling. Sufficient public data exists (e.g. Consumer Reports) that will call out transmission issues with specific vehicles that present an opportunity for Modine to approach the vehicle manufacturer for an opportunity to provide a cost effective solution using its PF oil cooler product.

EPILOGUE AND CONCLUSION

The transmission oil cooler market has been a confusing opportunity for Modine. Though armed with superior product designs, unit sales in this division have been disappointing. Using a cost-plus pricing model coupled with a one-model design approach, Modine struggled to find consistent opportunities to capture market share. By unbundling the functional components and understanding how the customer evaluates product pricing, it is possible to use Economic Value Analysis to establish the superiority of Modine PF oil coolers relative to their competitors. EVE analysis illustrates the value components that are incremental to the customer reference price. By understanding the price-performance relationships for this product category, Modine will be able to increase its revenue per unit, as well as sharpening its focus on the medium-duty oil cooler segment which can be effectively served by its standard product design. Finally, by unbundling the mounting bracketry and supply lines, Modine will be able to separate incremental costs for mounting and connection options from the base pricing of the heat transfer components enabling the sales force to more effectively communicate value for the core product while justifying incremental payments for discretionary design costs.

For the 2009 model year, product design trends have begun to move away from traditional component purchases toward bundling the engine cooling module components into a single front end module. This will make the value communication process more difficult since Modine will have to compete as second tier supplier. However, using the unbundling approach, will make the value communication process more straight forward and make the sales task easier to accomplish.

BRIGHT-AID PHARMACY: HUMAN RESOURCE FORECASTING AND STAFF BUDGETING

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CASE DESCRIPTION

The context of this case is a retail pharmacy in a large national drug store chain and requires students to forecast a staffing plan and calculate a labor budget to fit an operating schedule. It is specifically written for students learning about the management of Human Resources (HR) in any field of study. This case offers a step-by-step exercise (embedded within the case) to guide the student through the basic calculations required for planning the staffing of any operation. It addresses two of the three challenges (staffing and budgeting) presented by the tight labor market in one healthcare profession. Suggestions for the instructor related to variations on the case address the third challenge (scheduling) defined as the actual assignment of staff to certain days of the week or hours of the day. This case has a difficulty level of three on a scale of one to five and is appropriate for upper division, undergraduate students or graduate students. It is designed to be delivered in portions of two classroom periods with completion of the embedded exercise as homework between the two sessions or online in one learning module. When combined with a reading assignment, the exercise is expected to require one to two hours of student preparation.

CASE SYNOPSIS

Bright-Aid Pharmacy faces a challenge typical to retail environments: staffing the long hours of operations (9AM – 9PM every day of the week). In order for the pharmacy to operate, the store manager must staff several jobs: a pharmacist must be on duty, pharmacy technicians assist the pharmacist, and a cashier is needed. An exercise is embedded in the case to guide the analysis of this HR forecasting and staffing. Essential informational elements are provided to set the stage for designing, budgeting and implementing a staffing plan for a retail pharmacy of a large national drug store chain. The exercise and case questions require selection of appropriate informational elements to address the case components; calculation of production, full time equivalents of three levels of staff (pharmacists, pharmacy technicians and cashiers) and labor costs; and use of methods for monitoring performance in preparation for business growth due to such things as technology advances or national health insurance policy changes.

INSTRUCTORS' NOTES

Introduction

This case allows students to practice three HR forecasting methods: scenario analysis, managerial estimates and math models as outlined in the background and case introduction sections below. These sections could also be incorporated into a lecture in the classroom or in an online learning module.

Staffing Shortages Anticipated

Since there seems to be a drug store, and sometimes more than one, on every street corner, the competition model seems to be thriving in the retail pharmacy industry. Consequently, there is a high demand and a short supply of pharmacists as well as pharmacy technicians. Pal (2002) and an MSNBC report in 2005 underscore a nationwide shortage of pharmacists that will continue until at least the year 2020, which has prompted fierce competition. Desselle (2005) adds the importance for employers to address the national problem of high turnover among pharmacy technicians. These two circumstances call for careful use of the pool of available personnel through the human resource functions of staffing, scheduling and budgeting. These factors contribute to the 'scenario analysis' resulting in staff forecasting.

HR Forecasting and Staff Budgeting

Any operation requires a plan for staffing. Determination of staffing requirements (the number of people needed to operate a component of a business) is a basic first step in HR planning. The planning framework strives to match estimated labor demand (the number of people needed for each required skill level) with estimated labor supply (the size and availability of the talent pool in the labor market). Frequently used tools include job analysis (definition of duties to be performed) and job descriptions (define the role each staff member plays in delivering the desired service or product). Longest et al. (2004, p 535) define staff planning as "an action plan that ensures the appropriate number of employees with requisite skills is available". The result includes the number of required positions, the number of people to fill those positions as well as wages and benefits, which lead to a budget and performance tracking.

Comparing the labor supply to the labor demand indicates potential shortages and surpluses of employees (Cascio, 2006). HR planning matches organizational objectives with required resources, known as the 'managerial estimates method'. A manager needs to consider what is required for the organization to meet its objectives (how many people, what skills and qualifications) and compare this to what the organization currently has available. Gaps are then addressed with action plans (e.g., recruit, train, and transfer from other departments). Staffing requirements are derived from both qualitative analysis (such as expert opinion or experience in the particular field) and quantitative analysis (such as time and motion studies, 'math models' such as production formulae and ratio analysis).

RECOMMENDATIONS FOR TEACHING APPROACHES

This case typically fits into a syllabus early in a course addressing HR planning and is ideally assigned as homework along with a reading assignment on either or both staff forecasting and budgeting.

The subject matter on HR planning and budgeting should be delivered by lecture prior to completion of the embedded exercise as a homework assignment. The concepts of the high cost of labor, the link between HR planning and HR strategy, the whole context of HR forecasting, FTEs, and ratio analysis introduce the specific case calculations. Example content includes the following:

- Labor costs are high and are typically 20-25% of an organization's total revenue (Heneman & Judge, 2006). This case uses 20%.

- A key theme is that staff planning is derived from business plans and the organizational planning process. The goal of HR management is to support the operations of the organization and to contribute to the achievement of organizational goals and strategies.

- HR planning and forecasting require the consideration of a wide range of influencing factors including, but not limited to, sales projections, technological change, productivity improvement, and the legal/regulatory environment (Heneman & Judge, 2006).

- The basic HR planning model includes forecasting labor requirements compared to the labor availabilities; scanning the internal and external environments related to real and potential labor supply; determining the labor gaps; and developing action plans to fully staff an operation (Heneman & Judge, 2006).

- The staffing calculations in the embedded exercise include use of the term full time equivalent (FTE). Heneman and Judge (2006, pg 97) define this term as "work content in hours that can be accomplished by one full time employee with a full time employee defined as 40 hours per week or 2080 hours per year. Therefore, one person working 20 hours would be .5 FTE and one working 30 hours per week would be .75 FTE." However, the textbook authors show no distinction between paid hours and hours actually worked. In response, this case creates a concept of an *adjusted* FTE defined as hours one full time worker is *present* and *producing* work. Example: While a full time pharmacist is paid for 2080 hours per year (one FTE according to Heneman and Judge (2006), he or she is only present and producing work 1678 hours per year (*adjusted* FTE for purposes of this case).

- Ratio Analysis is one basic forecasting technique. For example, ratio analysis is presented by Heneman and Judge (2006) as $ sales: 1 FTE, such as $40,000 sales: 1 FTE.

Prior to a discussion period in the classroom or online, students could complete the exercise as homework on an individual basis or in teams. All questions should be addressed. Each student needs a calculator or a spread sheet for exercise calculations. Correct answers to the case questions should be distributed to students to initiate the case discussion.

CASE EXERCISE ASSIGNMENT WITH ANSWERS

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1. Estimate the total number of hours of operation per year.

12 hours x 364 days/yr = 4368 hours operation/yr

2. Estimate the number of prescriptions filled during one operational year.

300/day x 364 days = 109,200 prescriptions/yr

3. Estimate the number of pharmacists required to do the work per year.

4368 operational hours per year / 1678 production hours per year per full time pharmacist = 2.6 adjusted full time equivalents. Discuss why you would not use 2080 paid hours as the denominator.

4. Estimate the number of technicians required to do the work per year.

4368 operational hours per year / 1776 production hours per year per full time technician = 2.459 or 2.5 adjusted full time equivalents.

5. Estimate the number of cashiers required to do the work per year.

4368 operational hours per year / 1776 production hours per year per full time cashier = 2.459 or 2.5 adjusted full time equivalents.

6. Estimate the labor cost to operate the pharmacy per year as follows:

Pharmacists: 2080 paid hours x $55/hr = $114,400 plus 20% benefit package =$137,280 x 2.6 adjusted full time equivalents = $356,928
Technicians: 2080 paid hours x $11/hr = $22,880 plus 20% benefit package = $27,456 x 2.5 adjusted full time equivalents = $68,640

Cashiers: 2080 paid hours x $8.50/hr = $17,680 plus 20% benefit package = $21,216 x 2.5 adjusted full time equivalents = $53,040.
Total labor costs including wages and benefits = $478,608

Note: Be aware that all these estimates are slightly overstated since part time staff does not receive paid benefits.

7. Calculate total labor cost per operational hour (labor dollars per operational hour ratio expressed as $: 1 operational hour).

$478, 608 total labor cost / 4368 operational hours = $109.57 or $110 expressed as $110: 1.

8. Calculate total labor cost per prescription (Rx) filled (labor dollars per Rx ratio expressed as $: 1 Rx).

$478,608 total labor cost / 109,200 prescriptions filled = $4.38 expressed as $4.38:1.

9. Calculate the number of prescriptions (Rx) filled per technician hour worked (Rx per technician hour expressed as Rx: 1 technician labor hour). Note that the focus is on worked hours rather than hours paid, since the technician is not producing work when away on vacation or absent due to illness.

109,200 prescriptions dispensed / (1776 technician production hours of one adjusted FTE x 2.5 adjusted FTEs or 4440 hours) = 24.59 or 25 expressed as 25:1.

10. Calculate the number of prescriptions dispensed per operational hour (Rx per operational hour ratio expressed as Rx: 1 operational hour).

109,200 / 4368 = 25 expressed as 25:1. Note the closeness of answers in questions 9 and 10. If the two numbers diverge over time, a manager would want to explore the factors at play and the management implications.

CASE DISCUSSION QUESTIONS WITH ANSWERS

1. Discuss assumptions made in preparing the analysis. What are some of the implications of these assumptions?

Students will likely mention issues with no practical experience in HR matters or retail pharmacy arena, selecting incorrect case information elements for the calculations, transposing numbers or rounding of numbers. This discussion item could be enriched by requiring students to make a 30-minute observation visit to the pharmacy component of a local drug store as part of the homework exercise assignment.

2. Discuss why units of measure such as those in questions 7-10 above are important.

Examples include trending performance over time to justify changes in the staffing plan by day, week and month; planning business growth to accommodate increases in demand for prescriptions filled per day such as health reform legislation providing drug benefits for the uninsured population; expanding work space or staff; and compliance with performance benchmarks such as introduction of a pharmacy internship program that changes the flow or efficiency of the work process while meeting the daily production standards.

3. Assume new retail drug store technology (a more advanced robot) allows production to move to an average of 400 prescriptions filled per day of operation without any increase in staffing. What would be the impact on the number of prescriptions produced per year, total labor cost and labor cost per prescription filled?

The number of prescription filled in an operational year would increase to 145,000 (an increase of 36,400); there would be no increases in labor costs since staffing remains unchanged; and labor costs per prescription filled would be \$3.29, down \$1.09 from the previous \$4.38.

4. Assume there is a strategic plan for the drug store chain to merge with the chain that operates a competing drug store across the street. What would be the staffing and budgeting implications?

Examples include differences in job duties, pay scales, vacation and other benefits that would have to be reconciled. If there is more staff than the staffing plan allows, there may have to be layoffs, movement of some staff from full time to part time work or a requirement that some current staff move to another location within the corporate chain.

5. How could expected turnover among pharmacy technicians be factored into the budget and what would be the results?

Examples include a reduction in production due to an absent technician in the daily work flow; reduction in production if existing technicians have to cover for the missing technician and reduction in production for the seasoned technician as well as a newly hired technician during the orientation and training period of the newly hired technician.

6. What would be the staffing and budget implications of the pharmacy being closed on Sundays?

Examples include the reduction in operational hours per year, which serve as a basis for case questions 2-10. By plugging in the new number of operational hours in question one, the 4368 original operational hours change to 3744 (12 hour days times 312 operational days per year since closed Christmas Day and all Sundays). This one change slightly reduces all of the other variables such as prescriptions filled per year; number of required pharmacists, technicians and cashiers; and production ratios. Labor cost reduction by about $70,000 is the largest change. Recall that revenue earned per prescription filled is not part of this discussion. Therefore, lost revenue due to being closed on Sundays is unknown.

7. Conversely, what would be the implications of the pharmacy operating 24 hours per day including Christmas Day?

Examples include the doubling of operational hours per year, which also serve as the basis for case questions 2-10. Labor requirements double and would compound the problem of an existing shortage of pharmacists and known turnover among pharmacy technicians. While the labor costs double, production ratios do not change. Again, recall that revenue earned per prescription filled is not part of this discussion. Therefore, new revenue due to a doubling of operational hours per day is unknown.

8. What is the impact of an increase in hourly wages of each of the three levels of staff by ten percent while employee benefits remain unchanged?

Examples include an increase in operational costs. In exercise question 6, pharmacy wages would increase to $60.50 per hour and with the same 20% benefit mark up, total pharmacists costs would increase from $356,928 to $392,261. Technician wages would increase to $12.10 per hour and the 20% benefit would change total technician costs from $68,640 to $75,505. Likewise, cashier wages would increase to $9.35 per hour and when added to the 20% benefit, total cashier labor costs would increase from $53,040 to $59,345. These changes influence questions 7 and 8 as follows: raise total labor costs per operational hour to $120.53, up from $109.57, and change total labor cost per prescription filled to $4.82, up from $4.38.

ADDITIONAL CASE UTILIZATION FLEXIBILITY WITH ANSWERS

If adapted for distance learners, an online assignment using required course reading(s) and an introduction to HR forecasting in a posted lecture by the instructor prior to completion of the exercise as homework are recommended. All or some of the remarks provided as Instructors' Notes could become a lecture in the distance learning course format. An online discussion period can examine the variation of student answers to the exercise questions with reasons for the variation. The homework exercise could easily become a spreadsheet assignment.

Depending on the amount of class time available, the instructor is encouraged to consider the following options to extend the assignment, the discussion or both. Some or all of these options might be particularly useful if the case is used in a graduate course.

After the case questions are answered, require students to use a spread sheet to design an actual work schedule for four weeks to demonstrate how any number and combination of people can fulfill the *adjusted* full time equivalents requirement. Examples include one full time pharmacist and several part time pharmacists who could constitute the 2.6 adjusted full time equivalents for pharmacists in the exercise; variations on work schedules designed by students based on the assumptions made in the schedule design; or the impact of pharmacists working 10 hour shifts instead of 12 hour shifts.

Other possible assignment variations could include discussion of how any of the following could influence the staffing plan, scheduling spread sheet or the overall management of the pharmacy operation.

- A full time cashier is absent due to illness for 5 days during the month of the sample work schedule (changes the day-to-day scheduling).
- One full time technician is on vacation week 4 of the month of the sample work schedule (changes the week-to-week scheduling).
- One full time pharmacist is away for a two week vacation during the month of the sample work schedule (changes the week-to-week scheduling).
- Winter flu season increases demand for filled prescriptions by 20% in the months of January and February (changes the month-to-month scheduling).
- Examples include reduction in production if current staff has to cover the duties of those who are absent in addition to their own work or increases in labor cost if temporary replacement staff was hired from a staffing agency.
- A final suggestion is discussion about how the pharmacy could accommodate a 15% increase in demand for filled prescriptions as a result of health care reform providing medication coverage for the previously uninsured population. Examples include expansion of operational hours, expansion of the number of prescriptions filled per operational hour through technology advances, changes in job descriptions or operational policies to legally move responsibilities to the lowest staff level and changes in employee benefits to incentivize higher production standards.

CONCLUSION

This case and its embedded exercise provide an example of the array of informational elements one should consider when building a staffing model and estimating an associated labor budget. The discussion questions represent some of the possible variations on the original Bright-Aid Pharmacy scenario that require HR management through planning, forecasting and decision making.

LINEAR SYSTEMS: THE RE-INVENTION OF AN ORGANIZATION-THE DIGITAL IMAGING FUTURE

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CASE DESCRIPTION

Organizations dominate the landscape of our lives; their survival in this competitive world is very crucial. This case is about an organization (i.e. Linear Systems) that, as a result of the competitive nature of its industry, transformed itself from the business of selling computers and digital photographic equipment to becoming a leader in digital imaging technology.

The core pedagogical objective of the case is to provide an applied, hands-on format for students to increase their understanding of the topics of organizational lifecycle, change, and development.

This case is intended for use in advanced undergraduate or graduate courses in Organizational Behavior, Organizational Theory and Behavior, Organizational Development, and Strategic Management. It is designed to compliment knowledge derived from theories and concepts in organizational lifecycle, change, and development by providing the student with the opportunity to apply such theories and concepts in an actual organizational setting. The case is well-suited for a written case analysis and/or oral presentations. The authors developed the case for class discussions rather than an illustration of organizational (in) effectiveness. The case, instructor's manual, and synopsis were anonymously peer reviewed and accepted by the Western Casewriters Association Conference, February March 19, 2009, Midway, Utah.

CASE SYNOPSIS

From the time of its inception in 1988 until June 1992, Linear Systems' business focused exclusively on reselling computers and digital photographic equipment. Given the competitive and saturated nature of the market, Chris Parsons (founder and CEO) recognized the need for change. He commenced transforming Linear Systems, making it a leader in digital imaging technology. By September 1998, Parsons had reinvented Linear Systems' principal business purpose-digital photography and software. By leveraging Linear Systems' success in the digital imaging hardware market, Linear Systems has re-invented itself into both a software developer and a builder/integrator of computer hardware, the integration of which transformed Linear Systems into a full service digital-data management company which provided data management solutions to business and government agencies.

While the re-invention process started more than 10 years ago, the breakthrough came in 2005 when several large law enforcement agencies collaborated with Linear to develop its Digital Information Management System known as DIMS ImageServer.

As Linear Systems entered 2009, the key question facing the executive management in its strategic planning meeting on November 14 and 15, 2008 was what new directions were needed at Linear Systems to attain its goal of positioning itself as the digital imaging management vendor of choice to the nation's law enforcement agencies, particularly given its vision to become the standard for this still emerging, yet fast growing market.

Thus, the case focuses on the evolution and transformation of Linear Systems as it experiences its organizational life cycles and the change process itself.

Note: March 3, 2008, Linear Systems and Salient Stills (a leading video forensics and image enhancement software company) announced a partnership that enhanced the support of digital evidence management by integrating Salient Stills' VideoFOCUS (i.e. video forensics software) with Linear Systems' Digital Information Management System

(DIMS). On August 16, 2008, Linear Systems and Cardinal Peaks announced the integration of the CaseCracker Interview Management System to provide investigators with a complete digital media management system.

Decision Date: November 14 and 15, 2008.

2008 Expected gross profit is \$3, 500, 000 and 2009 Forecasted gross profit is \$5,800,000. Fiscal year at Linear is the same as calendar year. It starts on January 1 and ends on December 31st.

DISCUSSION QUESTIONS AND POSSIBLE ANSWERS

While there is no one single approach to addressing organizational life cycle, change and development constructs, emphasizing student application of such constructs is extremely important to the learning process. Individually or as a five-member's group, students will be asked to consult the management of Linear Systems to help address the presented issues. A Power-Point presentation and a written report of 4-6 pages should address the following assignments and/or questions:

1.What problems did Chris Parsons identify as obstacles to growing Linear Systems in the mid-nineties; and what kinds of change strategies did he develop at Linear Systems?

Students' answers will vary. Organizational change is a very important part of the organizations' life. Before 1992, Linear Systems' business operations focused on the reselling of computers and digital photographic equipment. Given the competitive nature of digital equipment market, Parsons came to a realization that there was little opportunity for growth in the new technologies. Said market eventually becomes commoditized and that means there will be very little product differentiation. In this case, it is difficult for the firm to recoup profits driven by such differentiation. The answer to the impending commoditization confronting Linear Systems was for Linear Systems to reinvent itself.

Mr. Parsons initiated an organizational move towards digital photography by envisioning a need to emphasize a new organizational direction that was in accord with his personal and

competitive strengths. Mr. Parsons actualized change by capitalizing on the fact that digital images could easily be enhanced and/or altered to provide false testimony. Parsons observed the ease with which digital data could be manipulated negatively impacted law enforcement agencies demand for and prospective use of digital technology. By 1993, Parsons had reinvented Linear Systems' principal business purpose-digital photography and software. By emphasizing a new direction (grounded on Parson's knowledge and expertise in the digital technology market), Linear Systems was no longer dependent upon maximizing digital equipment (commodity) sale.
By leveraging Linear Systems' recent success in the digital imaging hardware market, Linear Systems was ultimately re-invented into both a software developer and a builder/integrator of computer hardware, the integration of which transformed Linear Systems into a full service digital-data management company selling data management solutions to business and government agencies in 1998. It was in this same year (i.e. 1998) that Linear Systems introduced its revolutionary Digital Information Management System, "DIMS".

It is important to stress to the students that Parsons's managerial actions and re-actions to the organization's internal and external experiences were necessary to sustain his organization and ultimately move it to the next level of growth and success. Organizations often find themselves with the choice to make changes with respect to their product/service markets in response to changes in either or both of its internal and external environments. Linear Systems developed and marketed a digital imaging software program that could sell with its digital hardware.

2. How did Linear Systems implement a change in its organizations and what difficulties did it face when initiating such change?

While students' answers will vary, change requires an implementation plan. Such plan includes: clarification of the organization's goals, sharing information-survey feedback to stress the need for change, identifying of the organization's competitive advantage (its unique qualities and special strengths of an organization), rolling out only small changes in a deliberate sequence, and the enhancing of the quality of work life programs. [1] To that, Parsons clarified its mission to *be the leading provider of backend content management and chain of custody solutions for the emerging field of Digital Evidence. The company's* emphasis shifted to focus on the design and manufacturing a turnkey system for chain of custody evidence. Parsons and company knew Linear's future competitive advantage would be grounded on its unique qualities, and special strengths-its ability to provide a turnkey automated digital information solutions to both the private and public sector. Year after year, Linear is working to enhance its product line.

Additionally, it is important to emphasize to the students that management must identify the forces for change in the organization (i.e. Linear Systems) and to follow the five steps of the action research process (i.e. diagnosis, analysis, feedback, action, and evaluation). A good answer will focus on identification of the areas that Linear Systems should focus on improving to become a high-performance organization. One way to do so is to determine its performance gap. Brown and Harvey defined the performance gap as "the difference between what the organization could do by virtue of its opportunity in its environment and what it actually does". [2]

At Linear Systems, it was obvious that its strength was the expert knowledge in digital photography and software.Based on data provided in this case, Linear Systems' performance gap can be summarized by the fact that Linear's actual performance is below its potential and below the market potential. The info-imaging industry was recently estimated to be approximate $385 billion. [3] In 2008, it was estimated in the United States that there were 17,784 law enforcement agencies, spread across federal, state and local jurisdictions. Policing and law enforcement services are mainly provided and administered by local government. It was further estimated that there were approximately 12,666 local police agencies and 3,070 local sheriff's departments.

Additionally, it was estimated that only five percent (5%) of law enforcement agencies had adopted a system to manage their digital evidence, two percent (2%) of which Linear Systems currently services. Thus, there is tremendous growth potential in the digital evidence management solutions product/service market. [4]

As it was described in the case, the Las Vegas Metropolitan Police Department Photo Lab alone acquired and archived over 1 million digital photographs from field Crime Scene Investigators ("CSI") in 2007, and it was anticipated that number would grow 50% every year. With digital photography evolving from a curiosity to a mainstream application in the space of a decade, and with audio and video recording following suit, law enforcement agencies across the nation were looking for solutions to manage the ever-increasing amounts of this vital evidentiary data. While Linear provides products that are in demand by law enforcement agencies across the nation, its estimated gross profit for 2008 and 2009 is only $3,500,000 and $5,800,000 respectfully (see Exhibit 1).

EXHIBIT 1: Linear Systems' Financial Highlights: Gross Profit 1989- 2008 [5]

Year	$ Gross Profit	Year	$ Gross Profit	Year	$ Gross Profit
1989	143, 000	**1996**	489, 500	**2003**	2, 420, 000
1990	211,000	**1997**	512, 000	**2004**	3, 800, 000
1991	189, 000	**1998**	771, 000	**2005***	3, 200, 000
1992	222, 500	**1999**	980, 000	**2006***	2, 400, 000
1993	288, 000	**2000**	1,020, 000	**2007***	2, 900, 000
1994	298, 000	**2001**	1, 110, 000	**2008****	3, 500, 000
1995	312, 000	**2002**	1, 370, 000	**2009****	5, 800, 000

* The drop in gross profit for 2005, 2006, and 2007 resulted from Linear Systems decision to phase out products sale and focusing on the development of the Digital Information Management System. The phasing out of the products started in the year 2005 and was completed in the year of 2007.
** 2008 was expected and 2009 was forecasted.
*** Net profit data is unavailable due to its confidential nature. Although Linear Systems' net profit data was confidential, the authors of the case have sufficient evidence indicating a positive correlation existed between the company's gross and net profits.
Source: This exhibit was derived from gross profit data provided by Linear Systems. [6]

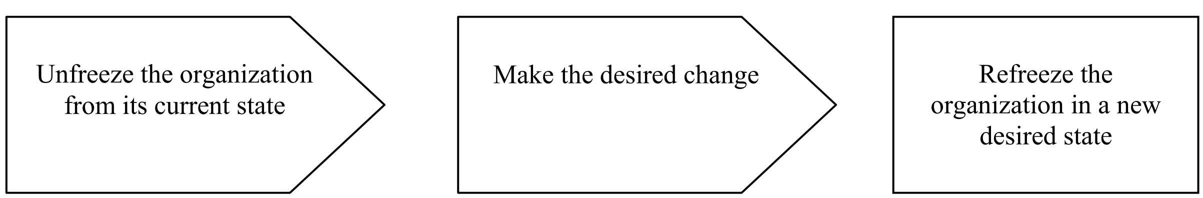
Linear has the "know how"; its competitive advantage is its innovations in the field of the digital imaging management solutions. To reduce this gap, today Linear is leveraging its potential via:

1) expanding its operations through adding of more people (technical and non-technical) to support its customers;
2) participating in all the major law enforcement associations' shows and conferences across the nation to showcase its products and services;
3) creating strategic partnerships with other organizations that provide complementary products to its DIMS, including the partnership with Salient Stills, a leading video forensics and image enhancement software company, and Cardinal Peak that Provides a crystal-clear record, using video and audio, of exactly what was said during police interviews.

Finally, in explaining the difficulties associated with initiating change, students should identify the major sources of organizational resistance to change and how to overcome such resistance. They should emphasize the needs for management and managers to increase the forces for change and reduce the forces against change via: (a) knowing what forces for and against change exist; and (b) how these forces can be reduced or increased. Additionally, managers should decide on the most appropriate change-agent, meaning management must decide on the type of change-agent that fits best with a given organizational situation before implementing the large-scale change programs. It is important to note that management must implement very effective intervention strategies during the change process. It is important to point out that evaluation is very important before institutionalization of the organizational changes.

According to Kurt Lewin, implementing change is a three-step process. These steps are: (1) unfreezing the organization from its current state; (2) making the desired change; and (3) refreezing the organization in a new desired state. [7] Please see Exhibit 2.

EXHIBIT 2: Lewin's Three-Step Change Process



Source: Adapted from Jennifer M. George and Gareth R. Jones, "Managing Change: Action Research" in Understanding and Managing Organizational Behavior, 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2008). [8]

Lewin noted that resistance to change regardless of its source(s) will cause the organization to go back to its old ways of doing things unless the organization proactively takes the necessary steps to refreeze the organization with the new desired changes. [9]

4. What environmental survival strategies (r-strategy versus K-strategy and Specialist versus Generalist) did Linear Systems use to grow its business? What are the advantages and disadvantages of its approach?

Linear Systems developed its Digital Information Management System "DIMS" and marketed it to law enforcement agencies. It followed r-strategy. R-strategy means that a company enters a new environment early. [10] As consequences of early entrance, an organization experiences first-mover advantages that help enhance its core competencies and its growth. A good example of Linear obtaining the first mover advantages was the collaboration of several large law enforcement agencies in 2005 with Linear to develop its Digital Information Management System known as DIMS ImageServer. The organization's success had attracted the attention of other competitors, such as Foray Technologies and Dataworks Plus, who pursued a K-strategy and actively marketed to law enforcement agencies.

Additionally, Linear Systems pursued a specialist strategy-meaning that it focused its skills and resources in pursuing a narrow range of resources within the law enforcement niche market. [11] It only focused on the digital imaging management for the law enforcement market. This strategy is also known as a niche strategy. Please see Exhibit 3.

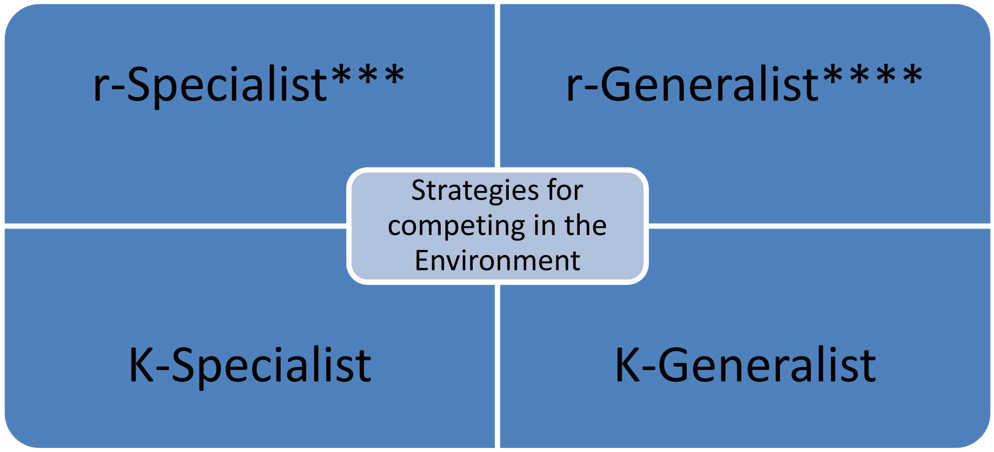
The advantages of this specialist strategy include: (a) the potential of developing superior products and solutions (the case of Linear Systems); and (b) the ability to provide better customer support and services as a specialized provider than as a generalist. [12] The disadvantage of this approach includes: (a) the risk that the niche will disappear in uncertain environment or when a better product/solutions enters the market. [13] To combat that, continued research and development is a key for survival and supporting customers.

It is important to say that the choice of strategy evolves over time. As organizations grow and expand, they tend to become r-generalists and compete in new niches. Linear Systems plans are to pursue additional growth by expanding nationally. Linear Systems has hired Stephen Monteros, a former business development and channel distribution expert as its Chief Operations Officer ("COO") to lead the expansion efforts and to assist in finding and establishing alliances with other firms and/or equity partners for the purpose of facilitating continued growth and expansion.

On January 2009, Linear Systems opened its east coast operations in New York City. The Eastern Region represents a key, rapid growth market for Linear. The opening of such an office is part of a strategic plan to increase its nationwide presence. This expansion aimed at positioning Linear Systems to provide its solutions and services to State, local Governments, and to the private sector in the eastern region.

EXHIBIT 3: Strategies for Competing in the Environment

Specialist Strategy* **Generalist Strategy****



Source: Adapted from Gareth R. Jones, "Strategies for Competing in the Resource Environment" in Organizational Theory, Design, and Change, 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2008): P. 310. [14]

*Specialist Strategy means that the organization operates in one single niche. **Generalist Strategy means that the organization operates in several niches.
***r-Strategy means that the organization had an early entrant into the environment.
****K-Strategy means that the organization had a late entry into the environment.

5. What new directions are needed to "position" Linear Systems to meet its market challenges?

Management must regularly examine the following: (a) its organization's mission statement; (b) its current position (i.e. where they are today); (c) the organization's official goals (where the organization wants to go), and d) make sure to tie said mission statement to the organization's official goals and suggest a strategy or strategies to accomplish it (how it will get there). This strategic planning needs to be a major management focus. Attention to this area will ensure that management is on top of its challenges and is continually evaluating the organization. In other words, management should practice strategic management as a way of approaching business opportunities and challenges. [15]

In this case, the student should acknowledge and discuss Linear Systems' continued evolution as a digital data management solutions firm-- from the sale of digital camera, to the sale of supporting data management software, to its evolution into a forensic data software solutions firm, supported by the additional introduction of a number of related forensic/law enforcement investigatory support products in 2008. The student should then be encouraged and directed to identify and evaluate future possible directions and opportunities that may be available to Linear Systems. For example, Linear's present market, while expanding with respect to specific management solutions for forensic digital data, is presently limited to a very small portion of domestic law enforcement agencies. Thus, there is potential for further growth with respect to its present product/service market.

Students should be asked to strategize as to what other potential product and services Linear Systems' management solutions may add value to the management of digital data collected by: (1) traffic cameras; (2) speed radar detections devices; (3) public and private security cameras; (4) alcohol breathalyzer apparatuses; (5) courtroom/hearing digital recording and transcription devices; (6) medical diagnostic devices; (7) etc.

With the advent of the digital revolution, the breadth of possibilities is enormous, and thus this portion of the exercise should reveal interesting and creative observations. In this case, the organization tends to become r-generalist and compete in new niches.

Students should also identify Linear Systems' enormous growth potential with respect to expanding its digital data management solution offerings in both the private sector and the international sector.

In addition to that, it is important to point out that Linear Systems opened its east coast office in New York City on January 2009. This expansion represents a key, rapid- growth market for Linear. The opening of such an office is part of a strategic plan to increase its nationwide presence. This expansion aimed at positioning Linear Systems to provide its solutions and services to State and local Governments, and to the private sector in the eastern region. Other possibilities or suggestions are for Linear Systems to open other offices in different regions gradually. A suggestion would be for the company to open two regional offices; one in Chicago, Illinois by 2010 to capture the Midwest business and one in Dallas, Texas by 2012 to capture the Southwest market.

One of the implications to organizations that develop innovations will be to protect their intellectual property (when it is easy to protect through existing intellectual property laws) [16] or through co-specialized assets existed within the organization's core capabilities. [17] Linear Systems was able to improve its total return to research and development by using available property laws.

Linear has built a formidable portfolio of intellectual property in an effort to build value in the company and reduce the threat of new entrants. Linear owns the source code for DIMS Core and DIMS ImageServer. The workflow used by DIMS was developed over a ten-year period in cooperation with both large and small law enforcement agencies. The intellectual property rights include workflow designs specifically addressing efficiency and reliability concerns of the law enforcement sector. Additionally, the workflow design of DIMS Core and DIMS ImageServer incorporates digital management features that are in compliance with applicable state and federal regulations pertinent to the administration of law enforcement duties with respect to the collection, storage, distribution and reproduction of digital evidence. Consequently, Linear's intellectual property rights not only result in a competitive advantage in their relevant market, but also create a significant barrier of entry to organizations that wish to enter this space. [18]

Importantly, Linear has negotiated through the Department of Defense an exclusive license for the use of certain technologies used by the military for the detection and resolving of images through video enhancement.

6. Which organizational structure will allow Linear Systems to best achieve its goals of (a) being the industry leader, and (b) being responsive to customers? Draw the structure and discuss the pros and cons of adopting your suggested structure.

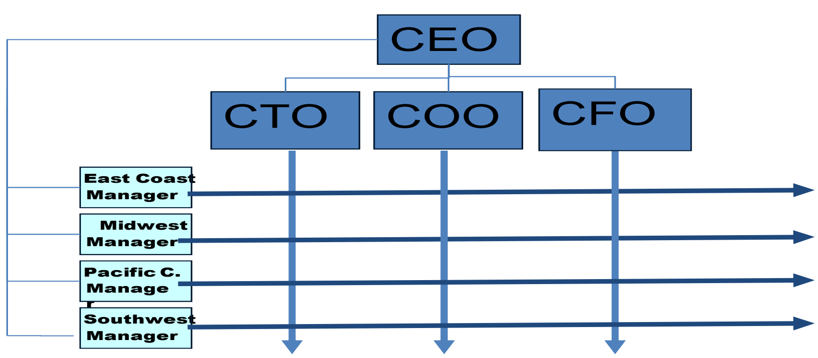
To manage the relationship between the corporate office and other locations, a matrix structure will be helpful and complimentary to its functional structure. According to Jones:

All organizations are initially organized by function because the development of separate functions allows organizations to manage an increase in specialization and the division of labor most efficiently… However, as an organization continues to grow and differentiate, functional structure creates problems. Often the problems arise from the organization's success: As the organization's skills and abilities increase and the organization is able to produce better or more varied goods or services, the organization's ability to service the needs of its growing product line is strained". [19]

Based on that, lots of coordination is needed in our competitive and ever changing environment. Such coordination will be limited by functional or divisional silos that characterize the functional structure. [20]

As shown in Exhibit 4, a matrix structure is an organizational design that groups people and resources simultaneously into two ways: By function and by product or project. [21] As you see in Exhibit 4, it combines a vertical structure with an equally strong horizontal overlay. [22]

EXHIBIT 4: Proposed Matrix Organization to Manage Linear Systems' Gradual National Expansion (regional basis*)



Source: Based on Richard L. Daft, "Matrix Structure" in Organization Theory and Design, 2004, p. 105-110; and Jennifer M. George and Gareth R. Jones, "Matrix Structure" in Understanding and Managing Organizational Behavior, 2008, p. 545-546. [23]

* Each Regional Team consist of business development person(s) to develop business (sales and marketing) and technical support personnel for installation and continued technical service and support. While the business development personnel report to both the COO and the region's manager, the technical support personnel report to both the CTO and the regional manager.

This structure gives Linear Systems enough flexibility to respond quickly enough to regional customers' requirements. In the provided matrix structure, employees are grouped by functions (customer support, technical and business development). This grouping allows them to learn from each other and become better skilled. On the other side, employees are grouped into project (regional) teams in which members of different functions work together to deliver the customized product and solution to the regional customer (law enforcement agency). As a result of that, each person in a regional team reports to two bosses: (a) a functional boss, who assigns individuals to a team and evaluates their performance from a functional perspective (business development and customer technical support in the case of Linear Systems), and (b) the boss of their respective product team manger (one of the these regional managers: East Coast, Midwest, Southwest, and Pacific Coast operations Managers or team leaders) who assesses the employee's performance and contributions to the team.

The vertical lines show the functions of an organization, and the horizontal lines show the product and solutions teams responsible for the regional business development, delivery, and regional technical service and support. At the intersection lines are the employees who report to both a functional boss and a regional boss.

The major advantages of this structure are:

a. That it provides the necessary coordination to meet the needs of the customers and the dual demands by Linear Systems (i.e. business development and customer technical service and support). [24]
b. Flexible sharing of organizational human resources. [25]
c. Provides opportunities for both functional and product/solutions development. [26]
d. It maximizes communication and cooperation between members. [27]

The major disadvantages of this structure are: [28]

a. Dual authority might be a source of frustration for organizational members who report to two bosses.
b. Assumes that participants have good interpersonal skills and extensive training.
c. It is time consuming. It involves extensive meetings and conflict resolution sessions.
d. Require good effort to balance and maintain the balance of power.
e. However; the success of this structure depends on members' understanding that such structure requires the fulfillment of the following four conditions: [29]
f. Chief Executive Officer. The chief executive officer needs to balance the power and the relationship between the regional and the functional sides of Linear Systems.
g. Team Leaders (Regional Managers). In addition to skills and technical knowledge in digital imaging management, the regional manager or the regional team leader must have a general management orientation, and must be skillful in conflict resolution, project management, scheduling, and great coordination abilities.
h. Functional manager. Functional managers (COO and CTO of Linear Systems) must take a proactive approach by reaching out, recruiting, and offering their best talented people to

the regional manager. Additionally, they should exert good coordination with regional managers and team members who directly report to them.

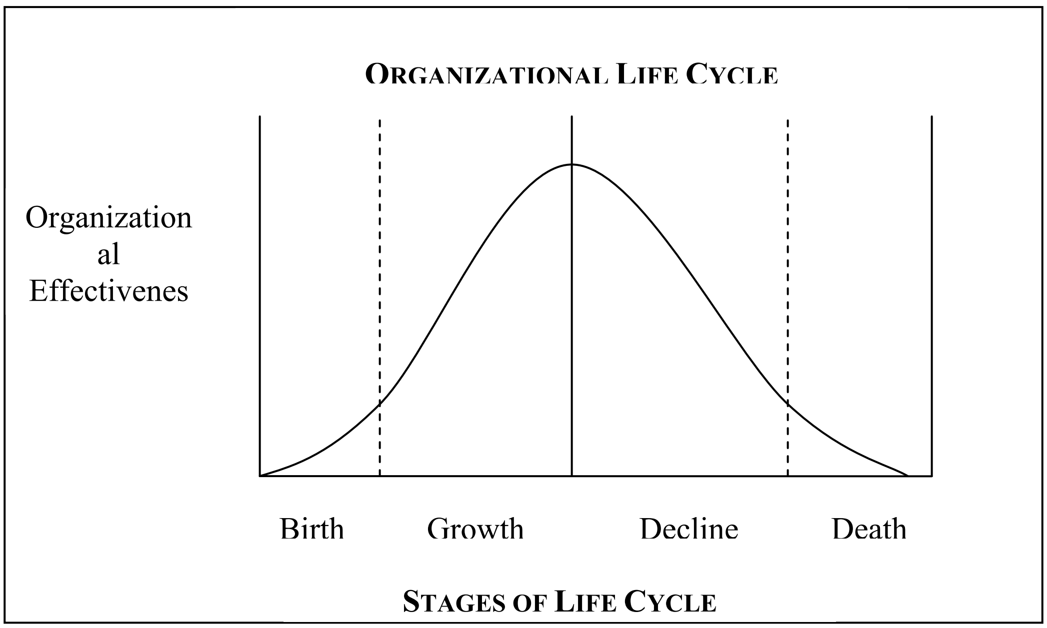
i. Two--Boss Employee (or Manager). Not everyone in the organization has two bosses.

As Exhibit 4 illustrates, two-boss employees (and in some instances managers) occur at the intersection of the crossing vertical and horizontal lines of authority. The two-boss employee (manager) must learn how to deal with ambiguity and challenge of dual authority.

7. Many organizations progress through a four stage organizational life cycle (i.e. birth, growth, decline, and death). Briefly explain the four stage life cycle and describe and argue in which stage Linear Systems is in.

As shown in Exhibit 5, these stages of the organizational life cycle are: Birth, growth, decline, and death. [30] Emphasize that not all organizations experience every stage.

EXHIBIT 5: Model of the Organizational Life Cycle [31]



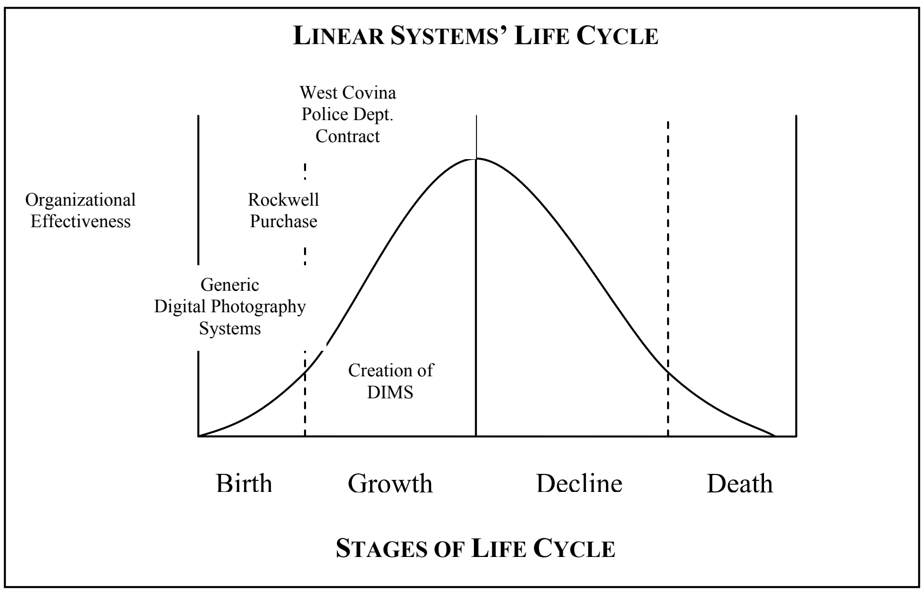
Source: Adapted from G.R. Jones "A Model of the Organizational Life Cycle" in Organizational Theory, Design, and Change- 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2007) 303.

The first stage is the *birth* stage. Organizations are born when individuals, called entrepreneurs, recognize opportunities to use their skills and abilities to create value. However; this stage is a very dangerous one associated with a great chance of failure. The failure rate is high due to the liability of newness (being new) adding to the fact that entrepreneurship is risky, and no formal structure provides stability. The second stage is *growth* characterized with growth and expansion of organizational resources. It is important to say that organizations grow as they satisfy stakeholders' interests. Organizational *decline* is the third stage that may result from inertia or changes in the environment. Managers must act to reverse the trend of decline. If unsuccessful, the fourth stage, the *dissolution* stage begins and that results in organizational death. [32]

No established timetable is set for these stages. It is important to say that while organizations go through these stages at different rates, some do not experience every stage. According to Jones, [33] some organizations move straight from birth to death. Other organizations spend a long time in the growth stage, which has its own sub-stages. It is important to note that some organizations may abate a decline stage and redirect themselves to a renewed growth stage. [34] If an organization fails to manage problems in each stage, it will fail. While these stages are models, [35] every organization has unique experiences.

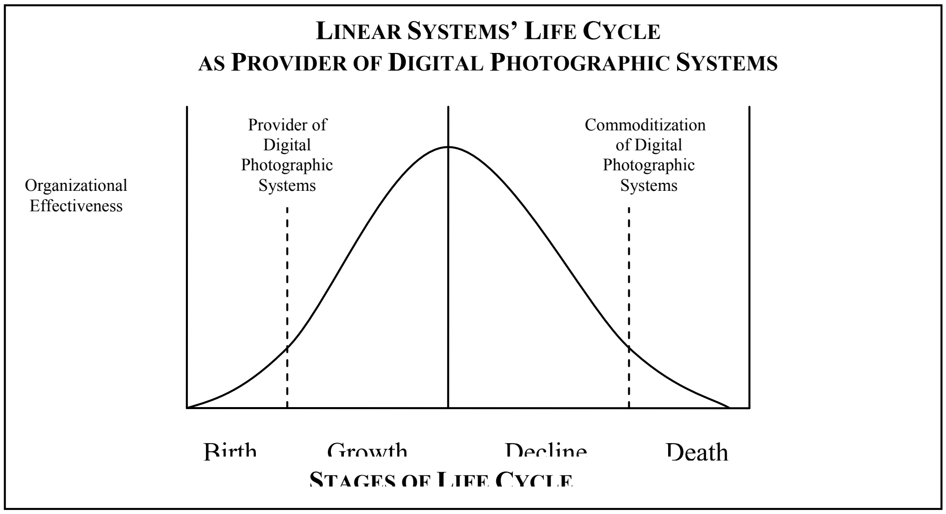
Although student analysis may vary, students may analyze Linear Systems life cycle as shown in Exhibits 6, 7, 8, and 9.

EXHIBIT 6: Linear Systems Life Cycle: Based on Available Case Information



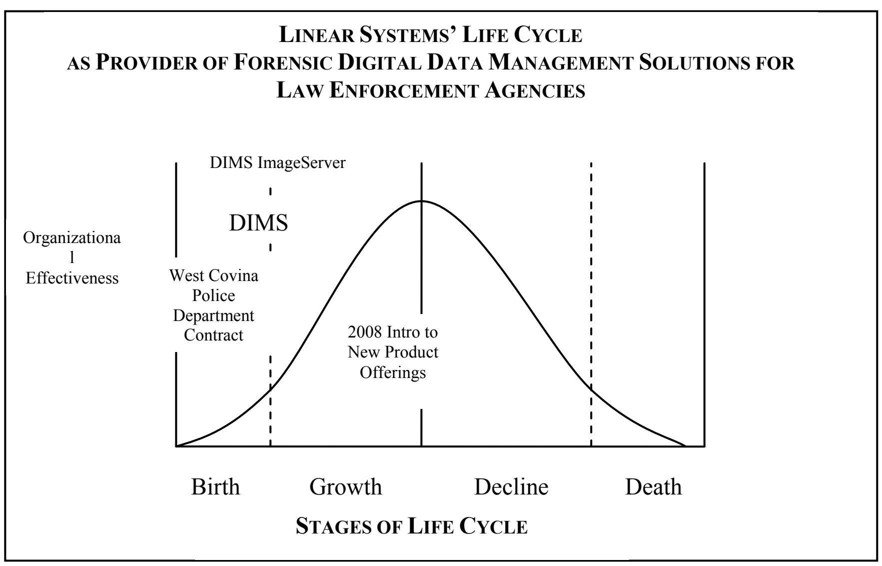
Source: Adapted from G.R. Jones "A Model of the Organizational Life Cycle" in Organizational Theory, Design, and Change- 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2007) 303.

EXHIBIT 7: Linear Systems Organizational Life Cycle (a different scenario): Based on available case information



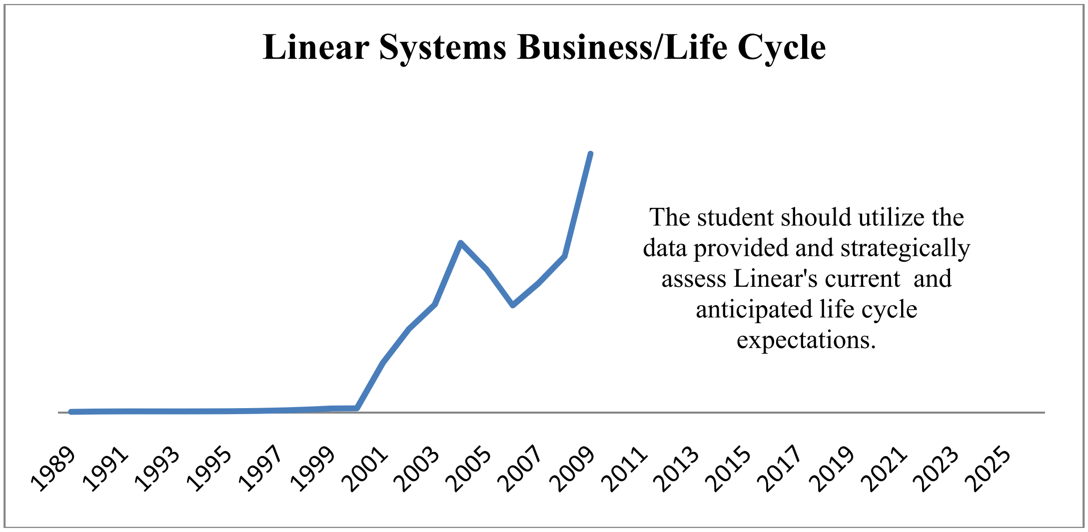
Source: Adapted from G.R. Jones "A Model of the Organizational Life Cycle" in Organizational Theory, Design, and Change- 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2007) 303.

EXHIBIT 8: Linear Systems Organizational Life Cycle (a different scenario): Based on available case information



Source: Adapted from G.R. Jones "A Model of the Organizational Life Cycle" in Organizational Theory, Design, and Change- 5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2007) 303.

EXHIBIT 9: Linear Systems Gross Profit Changes for Fiscal 1989 thru 2009: Based on available case information.



Source: This exhibit was based on Linear Systems provided gross profit summary. [36]

Linear Systems is currently in the growth stage characterized by growth and the expansion of its organizational resources. As explained in the case, Linear Systems is adding new products, new customers, and new skilled employees. Digital evidence is an emerging field characterized by acceptance and demands from police departments across the country. The biggest challenge to Linear Systems management is to duplicate its success and be able to diversify its user base by providing new usage and different type of users for its products.

Another analysis may view the Linear System experience to have tracked the birth, growth, decline and death of one organization specializing in generic digital photographic systems, followed by its re-birth as an essentially new organization specializing in the provision of management solutions for forensic digital data collected, stored, analyzed and used by law enforcement agencies.

EPILOGUE

On January 2009, Linear Systems announced the opening of its East Coast Operations Center in New York City. The Eastern Region represents a key, rapid growth market for Linear. The opening of such an office is part of a strategic plan to increase its nationwide presence. This expansion aimed at positioning Linear Systems to provide its solutions and services to State and local governments and to the private sector in the eastern region. According to its COO, “it positions Linear to reach further into the Federal government market”. [37]

To manage its East Coast operation, Linear Systems hired Michelle Reu; a former Director of Sales and Marketing with Euroson PoINT Software. Michelle is an expert in data management, archival and retrieval of mission critical data, and brings a wealth of knowledge and experience to Linear. [38]

TEACHING PLAN

Before using this case study, the following are helpful tips to facilitate the case to your students:

Introduction of the case in the class

It is recommended that you introduce the script a few days or a week before the class discussions (duration from 30 minutes-1.00 hour). You might want to assign to students the questions derived out of the case. Doing so ensures that the students have read and understood the issues of the case. While this case could be done on an individual basis, we have found it most effective to create case study groups and request formal group answers to the case questions. If it is to be done in a group environment, please refer to groups' formation and groups' report and presentation for more teaching instructions.

While there is no one single approach to addressing organizational life cycle, change and development constructs, emphasizing student application of such constructs is extremely important to the learning process. Individually or as a five-member group, students will be asked to consult the management of Linear Systems to help address the presented issues. A Power-Point presentation and a written report of 4-6 pages should address the following assignments and/or questions:

Based on the authors' experience, requiring a formal response to the questions helps students sharpen their written communication skills. Please note that this formal write-up of the case requires you to read and grade the students' work more critically. We suggest placing this case toward the middle of your course.

Finally, remember to have enough copies of the script with its instructions to distribute to students few days or couple weeks before the class discussions.

Reasons for this Case Study

Students need to understand why you are requiring them to do this case. It is because they need to understand the key concepts of organizational lifecycle and organizational change and development. In addition to that, you want to encourage them to be effective managers. Effective managers must understand that change has become the norm rather than the exception in most organizations.

According to Nelson & Quick, adaptiveness, flexibility, and responsiveness are key characteristics of successful organizations that meet the competitive challenges facing them. [39] How to adapt and respond depends on the organization's unique life cycle maturation.

This case seeks to provide an applied, hands-on format for students to increase their understanding of the subjects of organizational lifecycle and organizational change and development. Answers to the questions in the case will derive from what students learn from theories and concepts. The case is expected to be completed and presented for the class discussions.

Forming Groups

A few days or a week before the class discussions, students will be encouraged to network and get to know fellow students in order for them to decide with whom they want to team. Allow 10-15 minutes towards the end of the class meeting to submit group members' names. Students need to form a group of up to five (5) students to conduct this required case study.

Group Report and Presentation

Each group is required to write at least a 4-6 page report (12 point font, double-spaced and followed by the APA's writing style- only one report is needed for each group) and do a 10-15 minute PowerPoint presentation of their answers. Students are required to use the chapters assigned for the course. To support their responses and enhance their report, students must include outside references such as books, journals, newspaper, internet information, or a direct interview as resources for the case answers (in case of an interview, they need to include their interview questions as an appendix of their report).

Process

Each group will start working on this case after the instructor introduces the subjects of organizational lifecycle and organizational change and development and build their responses (individually or as group) on their acquired knowledge. It is recommended that the instructor address and clarify case questions ahead of time.

Use of PowerPoint and Audiovisuals

It is recommended that students be encouraged to create an effective group presentation. That could be achieved through the use of whatever audio-visual materials, including but not limited to PowerPoint. The case itself does not come with a video.

Starting the Class Discussion

Before engaging in a class case discussion, it is highly recommended to stress to the students that they might find themselves in disagreement on issues addressed in the case study, and such disagreement is healthy and should not be taken personally. A reminder is helpful. This clarification and reminder ensures that the disagreements/discussions remain open and inviting and do not turn into personal matters.

Content and Grading

Students' answers and presentations should clearly and concisely demonstrate their knowledge and comprehension of the subject concepts learned in the class, as well as the individual or the group's ability to apply knowledge learned in class and through research- (synthesize, analyze, and evaluate his/her/their work). Students will be graded based on the following criteria: a. Use of innovative and creative ideas; b. Application of concepts learned in the case; and c. Use of outside research to support the case. It is recommended that this case study constitutes 10-15% of the student's participation grade.

Analysis

Since this case is an application of topics covered in the subjects of Organizational Behavior, Organizational Theory and Behavior, Organizational Development, and Strategic Management, students' understanding of the topics of organizational lifecycle and organizational change and development will be essential.

Recommended Outline

The structure of the written report is critical. In the first part of the case written report, students need to outline briefly what the organization does, how it developed historically, what problems it is experiencing, and how they are going to approach the issues in the case write-up.
It is important for students to start by providing a synopsis of the case, discussing the environment of the organization, its goals, challenges, and provide recommendations for taking the organization to the next level.

In the second part of the case write-up, the strategic analysis section, students are supposed to analyze and discuss the nature and specific problems facing the organization as outlined in the questions.

Students are supposed to break up information by means of headings and subheadings. Chapter format is preferred (e.g. Chapter 1: Organization Mission Statement, Goals, and Strategies; Chapter 2: "The Diagnostic Process; etc.).

In the third part of the case write-up, present your solutions and recommendations. Be comprehensive, and make sure that they are in line with the previous analysis so that the recommendations fit together and move logically from one to the next.

RESEARCH METHODOLOGY AND EXPERIENCE TEACHING WITH THE CASE

Research Methodology

This research is based on primary data obtained by the authors from direct interviews and consultations with Linear Systems' executive management team. The authors also obtained data from the review of firm documents, census bureau data, and other public records.

The name of the organization (i.e. Linear Systems), its location, the names of its officers, and the very nature of the business are all real.

In addition to teaching, it is important to mention that Dr. Issam Ghazzawi is a management consultant to IT organizations. He has over 25 years of organizational experience and served on the channel advisory board for Microsoft, Lexmark, Lenovo USA, and Targus.

Additionally, Dr. Marshall has over 20 years experience as a business law consultant and is an expert in the field of competitive market analysis.

Experience Teaching with the Case

I have used “Linear Systems: The Re-invention of an Organization**--** the Digital Imaging Future” as a case since the fall of 2008 in my graduate course “Designing Effective Organizations”. I teach this case after covering the subjects of organizational transformation (Birth, Growth, Decline, and Death) and managing organizational environments and inter-organizational relations. It is important to point out that the case was well received by the students.

TEACHING MANUAL ENDNOTES

1. D. L. Nelson and J.C. Quick, Organizational behavior-6th ed. (Mason, OH: Southwest Cengage Learning, 2009).

2. D. R. Brown and D. Harvey, An Experiential Approach to Organizational Development-7th ed. (Upper Saddle River, NJ: Pearson Prentice Hall, 2006), 129.

3. Linear Systems. *Business Plan-August 2008 pages 10-12*-Unpublished document. Rancho Cucamonga: CA, Linear Systems.

4. Ibid.

5. Gross profit, is simply sales revenue less cost of goods sold. It is a fundamental measure of profitability.

6. Stephen Monteros. *Linear Systems: An Interview (December 15, 2009).*

7. J. M. George and G. R. Jones, Understanding and Managing Organizational Behavior-5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2008).

8. This section is based on J. M. George and G. R. Jones, Understanding and Managing Organizational Behavior-5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2008).

9. Ibid.

10. For more information on the r-strategy, refer to G. R. Jones, *Organizational theory, design, and change*-5th ed., chapter 11, “Organizational Transformations: Birth, Growth, Decline, and Death”, (Upper Saddle River, NJ: Pearson Prentice Hall, 2007), 302-331.

11. Ibid.

12. This section is based on G.R. Jones, “Survival strategies” in Organizational Theory, Design, and Change-5th ed., (Upper Saddle River, NJ: Pearson Prentice Hall, 2007): 308-311.

13. Ibid.

14. Adapted from Gareth R. Jones, “Strategies for Competing in the Resource Environment” in Organizational Theory, Design, and Change, 5th ed. (Upper Saddle River, NJ: Pearson Prentice Hall, 2008), 310.

15. *R. W. Griffin, Management-9th ed. (Boston, MA: Houghton Mifflin Company, 2008).*

16. R. A. Burgelman, C. M. Christensen and S. C. Wheelwright, Strategic Management of Technology and Innovation-5th ed., (Boston, MA: Irwin/McGraw-Hill, 2009)

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WHICH RETIREMENT PLAN IS BEST FOR ANN SMITH?

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BACKGROUND

Ann Smith had just started a new position as a junior executive at Fowler Inc. five weeks ago. She was finally well settled into her new job and was now focused on sifting through all the details of the retirement plan options available to her through her employer. The plan choices available differed considerably in their characteristics and the variables that affected possible retirement income. Complicating the decision was the fact that the retirement income under the available choices was a function of how many years Ann will work with her current employer, at what age she decides to retire, how many years she spends in retirement, how risk averse she is, and what the expected return of investment is. Answers for these issues would result in big differences in the retirement benefits. Time was of the essence since a retirement plan had to be chosen within the first 60 days of employment. Otherwise it would result in a default selection of the ERS. Moreover, once a retirement plan was chosen it would be irrevocable.

Ann could not delay her retirement choice any longer. She had only three weeks left in the 60-day window allowed for making a decision. She and her husband Frank were in the process of gathering as much relevant information as possible. They would then put their heads together to make the best decision about this critical financial choice that would have a significant impact during their time in retirement.

CLASSROOM USAGE

This case provides an opportunity to examine one of life's important decisions – which retirement plan option works best for me? With increased life expectancies, it is not uncommon for people to spend 20 years or more in retirement. This combined with the fact that the selection of a retirement option plan is often irrevocable underscores the need to make a good choice.

The case is appropriate for assignment in both undergraduate and graduate accounting and finance classes. Several possible teaching approaches can be used to present this case. In its simplest form, by covering just the basic fundamentals, the case would be an introduction to retirement plan decisions in general while also serving as an exercise to enhance spreadsheet skills. In a more advanced setting, the requirements in the case can be used to motivate class discussion of the relevant individual variables, such as age, life-expectancy, time value of money, net present value, expected return on investment, and cost-of-living adjustments, that affect retirement plan choice.

An important objective of the case is to teach students to appreciate that any prediction of the future detailed enough to be useful for planning purposes will inevitably contain errors. On the other hand, any forecast oversimplified down to just a few details in order to avoid errors will be essentially useless for planning purposes. This is the fundamental paradox that renders detailed single point forecasts unworkable. The best approach to this is the consideration of multiple alternative scenarios, as demonstrated in this teaching note. These scenarios of the future should be customized to deal with the specific needs and circumstances of an individual, capturing a full range of plausible outcomes, with each individual scenario containing enough detail to be useful to decision-makers. After calculating projected retirement incomes under varying assumptions, students will be required to choose the "best" retirement plan option based on the scenario that seems most appropriate or most likely to occur.

The material in the case can be covered by asking students to do analysis individually or by employing a team learning approach. If small groups are already being used in the course, the case materials can be used effectively as a mini-test in which students are graded individually and in groups on case requirements. On an individual basis and prior to class, students can be assigned the basic requirements. During the class period, groups of 4-5 students can be formed and assigned additional (advanced) case requirements to work through during the class period. A lively discussion should ensue as student groups present and are asked to defend their solutions. The instructor can help guide the discussion and introduce the more advanced concepts as the discussion unfolds.

VARIABLES TO CONSIDER

Salary

Both retirement plan benefits are determined using salary as a variable. The Employee Retirement System determines retirement benefits by using the following formula:

Monthly ERS benefits = (2% * years of service) * highest 24 month average salary.

For the ERS plan, retirement benefits are determined by multiplying Ann's average salary for the highest two years, which is usually the last two years of employment, by 2% times the number of years of service. For the Optional Retirement Plan, contributions are first determined by multiplying the annual salary per year by the percentage of the combined employee and employer contributions. Retirement benefits are a function of the return on generated by the contributions. Ann has a starting salary of $60,000 per year.

Expected return on investment (ROI)

The retirement benefits under an ORP are a function of the returns generated by the investments chosen by the employee in the retirement plan. This may fluctuate greatly and provides no guaranteed minimum rate of return. Generally, the riskier the investments, the greater the expected return. Choosing a well-diversified portfolio and taking into account the number of years to retirement are keys to success. Retirement benefits under the ERS are not linked to ROI and provide a defined benefit to the employee. When making a retirement choice, it is important to consider a range of expected ROIs.

Employer contributions

For the Optional Retirement Plan, contributions are determined by multiplying the annual salary per year by the percentage of the combined employee and employer contributions. Clearly, all other factors being equal, larger contributions result in greater retirement benefits. Ann's employer, Fowler Inc., contributes 10% of the base salary, whereas Ann has to make a mandatory contribution of 5%.

Number of expected years of work, number of years expected in retirement, and life expectancy

Since the ERS plan offers defined benefits for the duration of time spent in retirement till death of the surviving spouse, it is usually the more beneficial retirement plan when an employee starts a job at an early age, earns 30 or 40 years of service by the time they are is 60 or 70 years of age, retires, and then, based on life expectancy, expects to live another 20 years or more in retirement. Since the benefits in the ERS system are fixed, the longer the surviving spouse lives, the greater the retirement benefits received. Under the ORP plan, however, the employee accumulates a lump sum benefit at retirement and has the option to annuitize the amount and receive annual retirement benefits. In this plan, the greater the life expectancy and the greater the number of years spent in retirement, the less the annuitized benefits.

Inflation protection

The ERS plan offers some measure of protection after retirement against inflation. While this protection varies considerably across states, Georgia, the state in which Ann is employed, provides protection against inflation as measured by the Consumer Price Index. Historically, benefits have been adjusted 1.5% every 6-months. For employees expecting to live 10, 20, or even 30 years or more in retirement, this feature provides an incentive for employees to choose this plan.

Ann is currently 32 years old and, if she remains in good health, expects to work for 25 to 35 years. Given her life expectancy of 82 years, this means that she would retire between the ages of 57 and 67 and spend approximately 15 to 25 years in retirement. Frank, currently 33 years old, would be between the ages of 58 and 68 at the time of Ann's retirement. Given his life expectancy of 78 years, he would spend about 10 to 20 years in retirement.

THE DECISION

The retirement decision involves several variables and therefore it is impossible to have a single point forecast indicating an absolute decision. A more appropriate approach is to view this as a determination of a range of forecasts for the appropriate variables and arrive at a decision based on the forecasted benefits within that range.

Tables 1 – 3 present Ann and Frank's situation in which Ann has a starting salary of \$60,000; is expected to work for approximately 30 years; have a combined (employer + employee) contribution of 15% in the ORP; and spend 10, 15, or 20 years in retirement based on her life expectancy. The monthly retirement benefits expected in the ERS plan are determined as (2% * years of service) * highest 24 month average salary. The salary is considered to be a real salary where the increases in annual salary are negated by inflation and therefore stays constant during the employment period. The discounting rate of 0% reflects that assumption. In Table 1, the monthly ERS retirement benefits are determined to be (2% * 30 years of service*\$60,000)/12 = \$3,000. The employee will therefore expect to receive a monthly annuity of \$3,000/month for the 10 years (120 months) spent in retirement, for a total of \$360,000. The present value of this future stream of benefits is then determined at a discount rate of 0%.

For the ORP, the monthly contribution of \$750 is determined by multiplying the combined contribution rate of 15% by the monthly salary of \$5,000 (\$60,000/12). The retirement benefits are then determined as the future value of this stream of contributions under a range of expected ROIs ranging from a low of 2% to a high of 6%. For example, in Table 1, for an ROI of 2% and a 0% discounting rate, the amount \$371,981 is computed as the future value of \$750/month for 30 years (360 months) at a monthly ROI of 0.00167, i.e. 2%/12.

Table 1 indicates that, under the prescribed range of variables, the ORP is the more desirable plan regardless of the expected ROI. However, Table 2, in which the number of years in retirement changes from 10 to 15 years, with all other variables remaining constant, indicates that the ERS is the preferred choice for ROIs ranging from 2% to 4% and that the ORP is the preferred choice only at a ROI level of 6% and higher. Table 3, in which the number of years in retirement changes from 15 to 20 years, with all other variables remaining constant, results mirror Table 2 albeit with the spread between the ERS and ORP benefits being smaller at an ROI of 6%. This clearly indicates that, under the prescribed range of variables chosen for Tables 1-3, as the number of years spent in retirement increases, the ERS is the preferred choice.

An interesting observation is that in Table 2, both plans would yield similar retirement benefits at an ROI of 4.2%. However, in Table 3, when the number of years spent in retirement increase from 15 to 20 years, both plans would yield similar retirement benefits at an ROI of 5.75%.

Tables 4 - 6 use the same variables as Tables 1 – 3 with the exception that the salary has been changed from 60,000 to \$80,000 to determine whether the retirement decision changes with a corresponding change in salary while keeping all other variables constant. The results mirror the results from Tables 1 – 3.

Tables 7 – 9 use the same variables as Tables 4 – 6 with the exception that the discounting rate has been changed from 0% to 1%. The discounting rate for the ERS monthly payments was set at 0% on the assumption that the inflation adjusted benefits mirror the inflation rate. Inflation adjustments on defined benefit plans such as the ERS vary considerably across states. While some states, including Georgia where Ann is employed, provide an inflation adjustment equal to the Consumer Price Index (CPI), thereby negating the erosion of benefits due to inflation, others determine inflation adjustments on an ad-hoc basis. In states where the actual inflation exceeds the inflation adjustment, it can lead to an erosion of real retirement benefits. In this scenario, a 1% discounting rate reflects a situation where the actual inflation exceeds the inflation adjustment by 1%.

For the ORP, the monthly contribution of $1,000 is determined by multiplying the combined contribution rate of 15% by the monthly salary of $6,667 ($80,000/12). In Table 7, for an ROI of 6% and a 1% discounting rate, the amount $1,004,515 is computed as the future value of $1,000/month for 30 years (360 months) at a monthly ROI of 0.00417, i.e. (6% - 1%)/12.

As stated above, Tables 7 – 9 use the same variables as Tables 4 – 6 with the exception that the discounting rate has been changed from 0% to 1%. In comparing Tables 4-6 with Tables 7-9, a shift occurs only in Table 8, where the ORP is now the preferred choice at an ROI of both 4% and 6%, whereas in Table 5 it was the preferred choice only at an ROI of 6%.

Tables 10 – 12 use the same variables as Tables 7 – 9 with the exception that the number of years of service has been changed from 30 years to 20 years to determine whether the retirement decision changes for employees who start their careers late and therefore have fewer years of employment before retirement. The years in retirement have been maintained at 10, 15, and 20 years. The results show that the decision choice would be different under several assumptions with each change being in favor of the ERS plan. This clearly indicates that the ERS is usually a better retirement option for employees with a shorter working career and greater years spent in retirement than the ORP unless the ROI generated by the investments in an ORP are higher than 6%.

OTHER VARIABLES TO CONSIDER

Portability

The ERS plan has limited portability. On termination prior to retirement, a vested employee can either withdraw or rollover their contributions to a tax-deferred account. An employee cannot, however, access employer contributions and earnings on those contributions if employment is terminated prior to retirement. In addition, a retiree's estate and/or heirs have no legal claim to any ERS assets. If, for example, an employee dies while employed, either a lump-sum death benefit or an annuity is paid to the surviving spouse. This annuity ceases upon the death of the surviving spouse even if the employee's contributions to the plan, and earnings on those contributions, exceed the cumulative amount received by the employee and/or the surviving spouse. With an ORP, however, employees do not lose any benefits even if employment is terminated prior to retirement. The balance in the ORP account, which includes employee and employer contributions plus any earnings on those contributions, can be rolled over to the employee's new plan administrator at the new job. In addition, an employee has the option of passing on all assets in the ORP to their estate or heirs.

Buy-in-provision

Employees choosing the ERS have the option of purchasing "credit" for previous public-sector employment without retirement benefits. Employees have the option of purchasing credit of up to 5 years with pre-tax dollars. The purchase price is determined as a function of the employee's age at buy-in, life expectancy, and current salary.

Table 1

Years in retirement	10
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$60,000
Discounting rate	0

	ERS	ORP
ROI 2%	$360,000	$371,981
ROI 3%	$360,000	$437,053
ROI 4%	$360,000	$516,842
ROI 6%	$360,000	$753,386

Table 2

Years in retirement	15
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$60,000
Discounting rate	0

	ERS	ORP
ROI 2%	$540,000	$371,981
ROI 3%	$540,000	$437,053
ROI 4%	$540,000	$516,842
ROI 6%	$540,000	$753,386

Table 3

Years in retirement	20	
Years of service	30	
Employer+Employee contribution to ORP plan	15%	
Salary	$60,000	
Discounting rate	0	

	ERS	ORP
ROI 2%	$720,000	$371,981
ROI 3%	$720,000	$437,053
ROI 4%	$720,000	$516,842
ROI 6%	$720,000	$753,386

Table 4

Years in retirement	10	
Years of service	30	
Employer+Employee contribution to ORP plan	15%	
Salary	$80,000	
Discounting rate	0	

	ERS	ORP
ROI 2%	$480,000	$495,975
ROI 3%	$480,000	$582,737
ROI 4%	$480,000	$689,122
ROI 6%	$480,000	$1,004,515

Table 5

Years in retirement	15
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	0

	ERS	ORP
ROI 2%	$720,000	$495,975
ROI 3%	$720,000	$582,737
ROI 4%	$720,000	$689,122
ROI 6%	$720,000	$1,004,515

Table 6

Years in retirement	20
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	0

	ERS	ORP
ROI 2%	$960,000	$495,975
ROI 3%	$960,000	$582,737
ROI 4%	$960,000	$689,122
ROI 6%	$960,000	$1,004,515

Table 7

Years in retirement	10
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$457,506	$495,975
ROI 3%	$457,506	$582,737
ROI 4%	$457,506	$689,122
ROI 6%	$457,506	$1,004,515

Table 8

Years in retirement	15
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$670,312	$495,975
ROI 3%	$670,312	$582,737
ROI 4%	$670,312	$689,122
ROI 6%	$670,312	$1,004,515

Table 9

Years in retirement	20
Years of service	30
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$873,149	$495,975
ROI 3%	$873,149	$582,737
ROI 4%	$873,149	$689,122
ROI 6%	$873,149	$1,004,515

Table 10

Years in retirement	10
Years of service	20
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$305,042	$296,051
ROI 3%	$305,042	$328,302
ROI 4%	$305,042	$365,131
ROI 6%	$305,042	$462,041

Table 11

Years in retirement	15
Years of service	20
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$446,931	$296,051
ROI 3%	$446,931	$328,302
ROI 4%	$446,931	$365,131
ROI 6%	$446,931	$462,041

Table 12

Years in retirement	20
Years of service	20
Employer+Employee contribution to ORP plan	15%
Salary	$80,000
Discounting rate	1%

	ERS	ORP
ROI 2%	$582,172	$296,051
ROI 3%	$582,172	$328,302
ROI 4%	$582,172	$365,131
ROI 6%	$582,172	$462,041

A DAY AT THE SPA

Leonard Rymsza, California State University, Northridge
Gordon Johnson, California State University Northridge
Kurt Saunders, California State University Northridge

INSTRUCTORS' NOTES

CASE DESCRIPTION

The primary subject matter of this case concerns business law and statistical analysis. Secondary issues involve negligence vs. negligence per se; duty; breach of duty; causation; contributory vs. comparative negligence; and statistical concepts involving linear regression analysis, probability and expected value. The case also presents strategic thinking and ethical issues related to business conduct and their affects on consumers.

The case has a difficulty of level three, appropriate for junior level courses. The case is intended to be taught in three class hours, including a class presentation by student teams. The case is expected to require a minimum of three hours of outside preparation by student teams that present a report.

This case is designed for use in an upper division inter-disciplinary business course. The purpose of the course is to enable students to utilize the knowledge they have gained in their lower division core business courses that include one business law course and one statistics course. However, the case can be easily modified for use as an in class or take-home assignment in an introductory business law course by eliminating the Case A Questions on statistics.

CASE SYNOPSIS

Students are faced with a factual setting that presents practical business and ethical issues. After learning from his doctor that he was a prime candidate for a heart attack, the victim in this case considers a regimen of diet and exercise. The exercise aspect of the plan involved possible membership at a local gym, of which his wife was already a member. Following a discussion with his wife, it was decided that the victim would drive his wife to the gym and return to pick her up when her exercise session was completed. When the victim returned to the gym to pick up his wife, he waited for her in the gym lobby. While waiting for his wife, the victim suffered a cardiac arrest. Although medical assistance was immediately administered by a gym employee, and later by emergency medical technicians and trauma center personnel, the victim did not survive.

Following the victim's death, it was learned that he had suffered a sudden cardiac arrest. Individuals who suffer a sudden cardiac arrest generally survive if heart rhythm is restored using a defibrillator. The gym did not have a defibrillator on the premises. Was the gym negligent in failing to have a defibrillator on the premises? If the gym had had a defibrillator on *the premises would the victim have survived? Since the victim was a prime candidate for a heart attack did the victim contribute to his own death?*

In answering these questions, the case is divided into three major parts. The first part of the case requires students to utilize their understanding of several statistical issues. They are required to: use linear regression to predict age at death given a specific cholesterol level; determine the expected cost of owning a defibrillator; calculate the age at which the average person will experience their first cardiac incident; and estimate the number of lives that are saved if a defibrillator is available for use.

The second part requires students to analyze a possible negligence claim against the gym with respect to its failure to have a defibrillator on the premises. Students are required to address the following negligence concepts: duty; breach of duty; negligence per se; actual (cause in fact) causation; damages; and defenses to negligence (i.e., contributory vs. comparative negligence).

The last part of the case enables the students to propose strategies regarding settlement and ethical issues raised by the gym's refusal to assume responsibility for its actions.

RECOMMENDATIONS FOR TEACHING APPROACHES

This case is designed for use in an upper division inter-disciplinary business course. The purpose of the course is to enable students to utilize knowledge they have gained in their lower division core business courses. In addition, the course also aims to improve a student's communication, written and oral, and teamwork skills. Student teams prepare the answers to questions presented in the case with coaching from faculty. The faculty coaching is intended to provide answers to team questions. All teams submit a formal written business report containing an analysis of the issues presented in the case. One team of students formally presents their case solution to the class. A second team of students acts as a "discussion team" by asking the presenting team for further explanation or clarification of its case solution. Following the discussion team's exchange with the presenters, the entire class is welcome to participate in an active question and answer session.

Although this case is designed to be used in an upper division inter-disciplinary business course, the case can be easily modified for use as an in-class or take-home assignment in an introductory business law course by eliminating the Case A Questions on statistics.

CASE A QUESTIONS - STATISTICAL

1. Using the data set in Table 1, use linear regression to obtain an equation to predict age at death given a specific cholesterol level. Predict the age at which Tommy will die given his cholesterol level is 290 mg/dL. Interpret the slope in the context of this problem. Interpret the coefficient of determination.

Statistical linear regression analysis provides an algebraic relationship between two variables: x = independent variable, y = dependent variable = a + bx, where a = y-intercept and b

= slope = change in y/change in x. If positive correlation, b is positive, so y increases when x increases. In this case, y DECREASES when x increases because x = high cholesterol is associated with low values of y, death at earlier age. This is negative correlation, and b is negative. You forecast y given x by substituting x value into the equation.

The coefficient of determination is explained variation/total variation, where explained variation is variation in y explained by variation in x. Total variation is total variation in y. If coefficient = 0, x explains nothing. If coefficient = 1, variation in x explains all the variation in y.

Excel software provides linear regression equation ***y = 96.89 - .16x***, where x = cholesterol and y = age at death. To forecast age at death if cholesterol = 290, y' = 96.89 - .16(290) = ***50.5*** years old. To interpret the slope, if A's cholesterol is 10 points higher than B's, A's life expectancy is 1.6 years lower than B's. To interpret coefficient of determination, ***30%*** of total variation in age at death is explained by variation in cholesterol. ***70%*** of variation would be due to other variables (ex: blood pressure, weight, etc).

2. Suppose it costs $10,000 to buy a defibrillator. Find the expected value of owning a defibrillator if there is a .03 probability that Silver's will lose a lawsuit regarding its operation, with each lawsuit resulting in Silver's being liable in the amount of $900,000.

Expected value of a random variable is a forecast of a future value using probabilities. E(x) = x1P(x1) + x2P(x2) + … + xnP(xn). Expected value is a long run average. In this case there is a fixed cost = $10,000 plus a variable cost, which is E(x). If there is a lawsuit, x1 = 900000, P(x1) = .03. If no suit, x2 =0, P(x2) = 1-.03 = .97.
The expected cost of ownership = 10000 + expected cost of lawsuits = 10000 + E(x) = 10000 + ΣxP(x) = 10000 + 900000(.03) + 0(.97) = 10000 + 27000 = ***$37,000***

3. If the age of an initial cardiac incident (heart attack or sudden cardiac arrest) is normally distributed with a population standard deviation = 15 years, find the age at which the average person will experience their first cardiac incident, given that 5% of all initial cardiac incident victims are younger than 45.

If a random variable x has a normal distribution, probabilities can be obtained from the Z Table, where Z is the standard normal random variable. In this case algebra can be used to calculate the mean (Greek letter mu) since Z is indirectly given. If Z = 1.65, the Z Table indicates that 5% of the area under the bell curve is in the tail to the right of Z =1.65. However, the word "younger" implies the left tail of the bell curve, so Z = -1.65. The Greek letter sigma is used for the population standard deviation = 15.

Let x = age at first incident = 45, with σ = 15. From normal table, P(Z <-1.65) = .05, so Z = (x-μ)/σ = (45-μ)/15 = -1.65, so μ = 45 +1.65(15) = ***69.8***, shortly before 70^{th} birthday.

4. Suppose that over the next several years, there will be 100 cardiac incidents at Silver's. Without a defibrillator, 30 victims will die before paramedics arrive. With a defibrillator, there is a .80 probability of saving a victim who would die without it. However, there is a .03 probability that improper use of the defibrillator will kill a victim who would have otherwise lived. Find the expected number of lives saved by the defibrillator.

Case 1: No defibrillator: 30 die, 70 live. Case 2: With defibrillator 80% of the 30 who died in case 1 live, but 3% of the 70 who would have lived are mistakenly killed. Answer = .80(30) - .03(70) = ***21.9***

CASE B QUESTIONS – LEGAL ISSUES - NEGLIGENCE

5. Was Silver's Gym negligent in failing to have an AED on the premises? (In answering this question assume that Gould Health & Safety Code §204 and §205 and Gould Evidence Code §966 in the Case Library WERE NOT in force at the time of Tommy's death.)

THE PRIMA FACIE CASE IN NEGLIGENCE

In order to prevail in a claim for negligence, a plaintiff must establish several points. These elements combined are referred to as the prima facie case. The prima facie case in negligence consists of the following: (1) conduct; (2) duty; (3) breach of duty; (4) actual cause; (5) proximate cause; and (6) damage. (Note: some textbooks do not include conduct as a specific point in the prima facie case, and some may include actual and proximate cause as a single causation element.)

In a negligence case against Silver's Gym some of the elements (conduct and proximate cause) can be easily established, while the remaining elements may be more difficult to prove.

CONDUCT

Conduct includes acting affirmatively (doing something) or failing to act (an omission). What is Silver's conduct? The conduct leading to the claim of negligence in this case is a failure to act, an omission on the part of Silver's - failure to have an AED on the premises.

DUTY

"A duty, in negligence cases, may be defined as an obligation, to which the law will give recognition and effect, to conform to a particular standard of conduct toward another." (*Prosser and Keeton on Torts*, 5th ed. Page 356) In light of this definition, duty has two aspects. First, there is an obligation to conform to a particular standard of conduct. Second, the conformity is directed toward another. These two aspects of duty give rise to two questions. First, what is the particular standard of conduct that must be exercised by the defendant? Second, to whom is the standard of care owed?

Standard of Care – Traditional Approach

With respect to the standard of care, in very general terms one must act in such a way as to not expose another to an unreasonable risk of injury. Stated differently, one must act as a reasonable person of ordinary prudence would act under the same or similar circumstances. In this particular case it can be said that Silver's must act in a way that we would expect an operator of a gym to act under the circumstances. The standard of care is usually described in very broad terms. It is not possible to describe in very specific terms exactly how one is expected to act under every type of circumstance that may arise. For example, homeowners, landlords and merchants have a duty to act in such a way that each of their premises is reasonably safe for individuals who may come on to their property. Here, the duty is described in very broad terms: property owners owe a duty to others to maintain their premises in reasonably safe conditions. In very general terms, Silver's must be concerned with protecting, at a minimum, the health and safety of its members when they are at the gym. Whether Silver's must also be concerned with the health and safety of non-members who come on its premises is the focus of the next section of this discussion.

The standard of care may be determined several ways. For example, custom in the exercise industry may be an indication of how Silver's should act under the circumstances. Without specific custom or usage evidence, students may merely arrive at a conclusion that they would feel is reasonable under the circumstances.

It is important at this point, however, for students to be careful how they define Silver's duty. Stating the duty in broad terms is to be encouraged. As stated earlier, Silver's duty can be simply stated as the duty to protect the health and safety of its members. Of course, the question that really needs to be answered is whether Silver's should have had an AED on the premises. However, to define the duty in specific terms, for example, all employees must be trained in CPR, or at least one AED must be present on the premises; or the exercise machines need to be inspected at least once every three days, leads to a very restrictive idea of duty and the standard of care that is expected of the defendant. The specific question as to whether Silver's should have had an AED on the premises is one that will be answered when the breach of duty element is considered.

To Whom Is The Duty Owed?

Given that Silver's has a duty to maintain a healthy and safe environment, the next issue then is to whom does Silver's owe this duty? If Tommy were a member of the gym, all would agree that Silver's would owe him a duty to provide a healthy and safe environment within which to exercise. However, Tommy is not a member of the gym. In spite of not being a member of the gym, does Silver's still owe a duty to Tommy?

Duty is not owed to the world at large. The idea of "negligence in the air" is not sufficient. No action will lie following a finding of a breach of a duty owed only to some person other than the plaintiff. The plaintiff must establish that the duty was owed to him or her and not to some other person.

There is a certainly a large number of cases available for class discussion that can be used by the instructor to introduce students to the various ways courts resolve the issue of whether or not one owes a duty to another. [See*, Palsgraf v. Long Island Railroad Co.*, 248 N.Y. 339, 162 N.E. 99 (Court of Appeals of New York, 1928); *Biakanja v. Irving*, 49 Cal.2d 647, 320 P.2d 16 (Cal. 1958); *Rowland v. Christian*, 69 Cal.2d 108, 443 P.2d 561 (Cal. 1968); *Tarasoff v. Regents of the University of California*, 17 Cal.3d 425, 551 P.2d 334 (Cal. 1976).] Three factors that can be considered in determining whether a defendant owes a duty to the plaintiff are: (1) the nature of the relationship between the plaintiff and the defendant; (2) the foreseeability of harm to the plaintiff as a result of defendant's conduct; and (3) public policy concerns. Satisfying any one of the three factors alone would be sufficient for the court to impose a duty on the defendant. For example, there may not be any relationship between the plaintiff and defendant (merchant - customer, e.g.) and the harm may not be foreseeable and the court still conclude that because of public policy concerns a duty should be imposed on the defendant.

The report should look at each of the three factors and come to a conclusion regarding whether a duty would be owed to Tommy. There is certainly no contractual relationship between Silver's and Tommy. Tommy is not a member of the gym. Therefore, Silver's would argue that no duty was owed to him.

However, does Silver's owe a duty to anyone (members, prospective members, non-members) who might visit the gym? Of the three factors, the reasonable foreseeability of harm to the plaintiff is generally considered the most important factor. The precise nature of the relationship of Tommy to Silver's is not as important as is the foreseeability of his presence at the gym. It might be argued that although Tommy's presence is foreseeable, Silver's was not involved in any affirmative activity that rendered the premises unsafe. However, the counter argument would be that the gym was unsafe because of a failure to have AEDs at the gym.

Lastly, what about public policy concerns? Several points can be considered from a public policy perspective. Among the points to consider are: the moral blame to be attached to the defendant's conduct; the extent of the burden to the defendant and consequences to the community of imposing a duty on the defendant; the policy of preventing future harm; and the availability, cost and prevalence of insurance for the risk involved. There is no right answer to the question raised regarding to whom Silver's owes a duty. What is expected, however, is that the reports should at least recognize the factors and make an attempt to evaluate each of the factors in light of the specific facts of the case and come to a conclusion.

BREACH OF DUTY

Whether the duty to provide for the health and safety of customers, members, prospective members or merely individuals who may be at the spa includes having an AED on the premises is a matter of breach of duty. One method used by the courts in determining if the defendant has breach the duty owed to the plaintiff is to calculate the risk to which the plaintiff is exposed. This calculus of risk approach (benefit vs. cost analysis) was first espoused by Judge Learned Hand in the case of *United States v. Carroll Towing Company*, 159 F.2d 169 (Second Circuit, 1947), weighs the chances and severity of harm against the cost of prevention and the value of the nature of defendants conduct. One thing to keep in mind is that, although Judge Hand, for purposes of illustration, stated the calculus as a mathematical formula, the weights given to the various elements of the formula are not exact. The formula was stated to illustrate one way to determine if the defendant has breached a duty owed to the plaintiff.

In light of the facts of this case what are the chances and severity of the harm that might be suffered by the plaintiff in light of there being no AED on the premises? The case provides several statistics that may be analyzed. For example, the case states that 250,000 people die in the United States each year from sudden cardiac arrest (SCA). If the population in the United States is 300 million people, one should be able to determine the percentage of the population that will experience a SCA every year. The case also states that in a survey of 65 randomly selected Gould health clubs, 17 % of the clubs reported a club member having a sudden cardiac arrest or heart attack during a five –year period. The report might question the value of this statistic since it includes death from either SCA or heart attack. Would this statistic be mixing apples with oranges? The point here is that the report should attempt to determine the chances of suffering a SCA. The severity of the harm is addressed throughout the case. Death is almost certain if medical assistance is not almost immediate. For every minute of delay before defibrillation is used a victim's chances of survival decrease by 10 percent. If the average response time for emergency medical personnel to arrive on the scene is ten minutes, by the time help arrives the victim's chances of survival are zero. On one side of the scale the chances of harm (suffering a SCA) may be low but the severity of the harm (death) is high without immediate defibrillation.

The other side of the scale primarily weighs the cost of adequate prevention. How much will it cost Silver's to prevent a death from SCA. Here again, the case has information regarding various costs associated with AEDs. Information is given regarding the cost of AED units, the cost of maintenance and testing of the units, education and training costs for employees, litigation costs, etc. Some of the costs are precise (cost per unit) and others are somewhat speculative (litigation costs). The report might make reference to the answer reached in Question 2 regarding the expected value of owning an AED.

The report should attempt to weigh the values on each side of the equation and come to a conclusion. If the chances and severity of the harm outweigh the cost of adequate prevention then Silver's has breached its duty to Tommy. However, if the cost of adequate prevention outweighs the chances and severity of the harm, then Silver's has not breached the duty it owes to Tommy. The important part of this analysis is not whether the report concludes breach or no breach. The important part is that the report makes an effort to use the facts in the case to support whatever conclusion is reached on the breach of duty issue.

ACTUAL (DIRECT) CAUSE

The defendant's action must have caused the legally recognizable damages suffered by the plaintiff. The causation theory could be based upon three possible situations – one would be failure to have an AED available on the premises; two – failure to use an AED that is available or three – improper use of the AED. In this case, the causation element would be based upon Silver's failure to have an AED on the premises.

Generally the issue of actual cause is analyzed using a "but for" question. "But for" the defendant's conduct, the plaintiff would not have suffered a loss. Stated differently, the defendant's conduct led in fact to the plaintiff loss.

Of the six points of the prima facie case, this point is the most difficult for Jipsy to establish. Actual cause requires that there be a direct link between the conduct of the defendant and the harm suffered by the plaintiff. In this case Silver's failure to have an AED on the premises must be the cause of the damage suffered by the plaintiff. So what is the difficulty facing Jipsy in this case?

The emergency response and use of an AED must be very quick – each passing minute decreases chances of survival by 10%. Could Tommy's death have been prevented if the AED was available? Ninety-five percent of cardiac arrest victims die because they either don't have access to defibrillation, or if they do, its administration is delayed by 10 minutes or more (as in this particular case). Cardiac arrest is usually reversible if defibrillation occurs within the first few minutes after collapse. The sooner the shock is delivered, the better. As many as 50 percent of cardiac arrest victims could be resuscitated if they were defibrillated within seven minutes or less. In one study in Las Vegas, survival rates reached 70 percent. (Rapid Defibrillation by Nontraditional Responders: The Casino Project; T.D. Valenzula, et. al, Academic Emergency Medicine; May 1998, Vol. 5/No. 5, pg. 414.) Survival can be as high as 90 percent if a victim is defibrillated during the first minute after collapse. Combining CPR with defibrillation within the first minute after arrest increases the success rate of survival to 95%. Each minute defibrillation is delayed, the chance of a person surviving a cardiac arrest drops 10 percent — even if CPR is started immediately. The success rate of restoring normal heart rhythm through CPR techniques alone is less than 5%. If a sudden cardiac arrest victim isn't defibrillated within 10 minutes, his or her chance of survival is less than 2 percent. The chance of survival will drop even further if CPR isn't begun before the defibrillator arrives. If the heart isn't restarted within the first four to six minutes after the arrest, the victim will most likely sustain irreversible brain damage. Most of this information is included in the magazine and newspaper articles found in the case library.

What is unknown in the case is whether Tommy was still alive when he hit the floor. The facts indicate that Tommy had no pulse, was not breathing, and appeared to be unconscious and unresponsive when assistance was initiated by a Silver's employee. Was Tommy still alive at that time? If not, having ten AEDs on the premises would not have saved Tommy. Assuming Tommy was alive, Jipsy would argue, in light of the statistics noted in the previous paragraph, that if an AED had been present at the gym and used immediately when CPR was begun Tommy would have survived.

PROXIMATE (LEGAL) CAUSE

This point of the prima facie case is easily met. It is important to note that proximate cause has nothing to do with proximity or closeness of the loss to defendant's conduct. Proximate cause is a concept that limits the extent or scope of a defendant's liability for conduct, on the part of the defendant, that has actually (in fact) resulted in a loss to the plaintiff.

Some courts discuss proximate cause as the natural and probable consequences of a defendant's conduct. Cases in which proximate cause is a difficult issue to resolve are those where the plaintiff's loss, although foreseeable, arises as a result of a series of connected, all be it, weird and unforeseeable events.

In this case what would be the natural and probable consequences of Silver's actions? Stated differently, are the damages suffered by Jypsy the natural and probable consequences of Silver's failure to have an AED on the premises? The answer is most certainly yes. The events leading to the loss are not weird or unforeseeable. There are no intervening forces at work here. Tommy suffers a SCA, aid is rendered, no AED is available for defibrillation, Tommy dies.

The reports may attempt to place blame on Tommy because of his being overweight, lack of exercise, high blood cholesterol level and high blood pressure. The argument here is that Tommy's failure to exercise good health is an intervening force and the extent of his injury (death in this case) was unforeseeable and thus Silver's should not have any liability. This argument is, however, misplaced. The argument is primarily misplaced because of the "thin-skull doctrine." Under this doctrine Silver's takes Tommy as it finds him when he suffers the SCA. How or why Tommy suffers the SCA is irrelevant. What is relevant is that Tommy suffered the cardiac arrest at Silver's gym and if it is determined that Silver's owed a duty to Tommy and breached that duty by failing to have an AED on the premises then Silver's would be liable for the full extent of the damages suffered even if unforeseeable. Silver's would be liable for the damages even if the damages are greater than would be expected due to the fact that Tommy had a pre-existing condition that caused him to sustain a much greater damage than the average victim who have suffered.

DAMAGES

If Jipsy is to recover damages in this case, the damages would be compensatory in nature. The plaintiff is compensated for whatever damages are suffered as a result of the defendants conduct. Compensatory damages include a wide range of losses that are suffered by the plaintiff including: (1) the loss of love, affection, companionship, care, protection, and guidance since the death of the decedent and in the future (generally referred to as loss of consortium); (2) the pain, grief, sorrow, anguish, stress, shock, and mental suffering already experienced, and reasonably probable to be experienced in the future; (3) the income and services that have already been lost as a result of the death, and that are reasonably probable to be lost in the future; (4) the reasonable expenses of funeral and burial; and (5) the reasonable expenses of necessary medical care and services.

In determining the amount of compensatory damages that Jipsy might recover one critical matter that must be considered is Tommy's life expectancy at the time he suffered the SCA. Although Tommy's pre-existing health conditions were not relevant in the proximate cause discussion, they are relevant in determining the extent of damages that may be recovered by Jipsy in her suit against Silver's. The report might make reference to the answer reached in Question 1 which predicted the age at which Tommy would die given his cholesterol level of 290mg/dL.

DEFENSES

In lawsuits based upon a negligence cause of action there are several defenses that may be available to the defendant. If successful, a defense is generally a complete bar to recovery by the plaintiff in spite of having established that the defendant was negligent. This is the result of a successful defense of contributory negligence. If the plaintiff contributes to his loss to any degree, then the plaintiff will recover nothing for the damages suffered as a result of the defendant's negligence.

Most states have abandoned the common law rule of contributory negligence in favor of a comparative negligence system. The comparative negligence rules vary among the states, however, there are basically two different applications. One form is described as "pure" and the other as "mixed" or "limited." Under the "pure" version of comparative negligence, the award of damages to the plaintiff will be reduced in direct proportion to the plaintiff's percentage of fault, regardless of degree. Under the "pure" comparative system the harshness of the contributory negligence is significantly softened. Under the "mixed" or "limited" version of comparative negligence, in order for the plaintiff to receive any damage recovery, the plaintiff must be no more than 50% at fault for the damages suffered. Thus if it is determined that the plaintiff is 51% at fault for the damages suffered the plaintiff would not recover any damages. Under the "pure" version of comparative negligence, however, the plaintiff would recover 49% of the total damages suffered.

The reports may attempt in one way or another to reduce the amount of damages that Silver's must pay. Technically, the argument to reduce the extent of the damage liability arises when determining the compensatory damages as discussed earlier. When determining the damages that Jypsy might recover, Tommy's pre-existing health conditions would be relevant. Although, attempts to reduce Silver's liability by way of a proximate cause or contributory/comparative negligence argument are not technically correct, at least the reports recognize that Tommy's pre-existing health habits are relevant to the case.

6. Suppose Gould Health & Safety Code §204 and §205 was in force at the time of Tommy's death. Would your answer to Question 5 change? Why or why not?

NEGLIGENCE PER SE

The answer to this question requires a complete discussion of the *negligence per se* doctrine. Statutes can clearly specify how a person should behave. Proof of a statutory violation can create a presumption of negligence. The common law doctrine of *negligence per se*, pursuant to which state statutes and regulations may be used to establish duties and standards of care in negligence actions, presumes the failure of a person to exercise ordinary care if: (1) he violated a state statute or regulation of a public entity; (2) death or injury results from an occurrence of the nature which the state statute or regulation was designed to prevent; and (3) the person suffering the death or the injury to his person or property was one of the class of persons for whose protection the state statute or regulation was adopted. In other words, the statute or regulation defines the duty to be obeyed and violation of the statute establishes the breach of duty.

Does the Gould Health and Safety Code impose duties and standards of care on Silver's and do those duties and standards of care apply to Tommy? The relevant provision of the Health and Safety Code is the requirement that health studios (including gyms) have AEDs. In light of this statutory requirement will the *negligence per se* doctrine apply?

STATUTE – STANDARD OF CARE OWED TO TOMMY

The Health and Safety Code clearly requires health studios (including Silver's Gym) to have AEDs. The statute defines the standard of care (the duty) that must be exercised by Silver's. Silver's has a duty to have an AED on its premises. Also, it is clear that the statute was enacted in recognition that "the key to survival of sudden cardiac arrest is the timely implementation of a 'chain of survival' including . . . the restoration of an effective heart rhythm by defibrillation" using an AED. Tommy died as a result of suffering a sudden cardiac arrest. The statute was designed to prevent Tommy's death by requiring AEDs in health studios.

The next issue is whether under the statute Silver's owes Tommy a duty to have an AED at the gym. Is Tommy a member of the class of persons for whose protection the statute was adopted? Certainly the statute was adopted to promote the health and safety of health studio patrons. However, Tommy was not a patron of Silver's Gym. Might the statute have been adopted to promote the health and safety of a wider category of individuals? The preamble to the statute (§ 204) indicates that § 205 was enacted in order " to promote the health and safety of" the "citizens" of Gould. Presumably, if the legislative intent was for the statute to apply to only members or patrons of the health studios the statute could have used that specific language. The problem that is being dealt with here is one of statutory interpretation. The legislature enacts a statute and the courts are then charged with the responsibility carrying out the intent of the statute. In this regard, courts do the best that can be done in determining the intent of the legislature. Jipsy, of course would argue that the legislature intended the statute to apply to all of the "citizens" of Gould. Silver's would, obviously, contend that, although the statute uses the designation of "citizens," the overall intent of the statute was to apply only to members or patrons of health studios. There is no clear answer to this question.

STATUTE – BREACH OF DUTY

The statute requires Silver's to have an AED on the premises. Silver's did not have an AED and therefore is in violation of the statute. The failure to have the AED is a breach of the duty specified in the statute.

DOES THE ANSWER CHANGE?

If the requirements for *negligence per se* are met, then one must conclude that Silver's not only owed a duty to Tommy, but also breached that duty by failing to have an AED on the premises. However, it must be remembered that proof of the statutory violation and the subsequent application of the *negligence per se* doctrine only satisfies two elements of the case for negligence – that of duty and breach of duty. Jipsy must still prove the remaining elements of causation and damage in order to prevail in her negligence lawsuit.

Would the answer to Question 5 change based upon the *negligence per se* doctrine? The answer to this question is either yes or no, depending upon the conclusion reached in analyzing the *negligence per se* arguments. There is no doubt that Jipsy has been damaged as a result of Tommy's death. So all the reports should be consistent with this conclusion.

The element of actual causation may be resolved in favor of Jipsy or in favor of Silver's. If the actual causal linkage is not satisfied then Jipsy will not prevail in her lawsuit. Regardless of the conclusion reached in the application of the *negligence per se* doctrine, Jipsy will not prevail in her case. Why not? Jipsy will not prevail because she was not successful in establishing one of the elements of the prima facie case of negligence. Even though the duty and breach of duty element are proven (either under the approach in Question 5 or by application of *negligence per se*) the causation element is not met and therefore Jipsy will not prevail. A report that concluded that Jipsy would not prevail because in part she failed to establish a causal connection between Tommy's death and Silver's conduct would arrive at the same conclusion in Question 6 (Jipsy loses), regardless of *negligence per se*.

If, however, the causal connection is met, the answer to Question 5 may or may not change depending upon the conclusions reached in Question 6 relating to duty and breach of duty and the application of the *negligence per se* doctrine. To simplify the answer to this question we can make a few assumptions with the understanding that the answer may not cover all of the possible variations that could occur. Remember that at this point we are assuming that the causation and damage elements have been satisfied. If the report has concluded that the duty and breach of duty elements were both satisfied in Questions 5 and 6 (Silver's is liable), then the answer to Question 5 would not change (Silver's is still liable). If the report concluded that the duty and breach of duty elements were not satisfied in Question 5 (Silver's not liable) but were met in Question 6, then the answer to Question 5 would change (Silver's is liable).

7. Regardless of the conclusions reached in Questions 5 and 6, would your firm recommend that Silver's have an AED on its premises in the future? Your answer should consider the statistical and legal issues involved as well as ethical and strategic issues.

The statistical and legal issues should have been discussed fully in the prior sections of the report. At this stage in the report all that would be needed would be a reference to that prior discussion and how it might fit into the ethical issues being raised at this point. Also, the report might recognize that if Health & Safety Code §204 and §205 are enacted at the time of the report, the ethical and strategic issues are rendered moot in light of the fact that the statutes would require that Silver's Gym have an AED on it premises.

Assuming the statutes are not in force at the time of the report, then the reports would be expected to evaluate Silver's actions in light of the various ethical approaches that might be discussed in class. Silver's Gym has a statement of its mission, core values, and vision. Any conclusion reached regarding the ethical nature of Silver's conduct should take these corporate statements into account. For example, the Google corporate webpage specifies ten things that Google has found to be true. Number six is a statement that "you can make money without doing evil." This finding has been stated several different ways. Two paraphrases state the finding as "Don't Be Evil" or "Do No Evil." Similar to the Hippocratic Oath, "Do No Harm." Students should carefully review the mission, core values and vision statements in an attempt to determine what is the basic philosophy of Silver's Gym with respect to its ethical responsibilities.

There are numerous approaches that are used to determine if one's actions are ethical. The most common of these approaches is the Stakeholder/Utilitarian Theory (maximize the net benefits to society as a whole, *i.e.,* the greatest good to the greatest number). Other theories include the Rights Theory (respecting and protecting individual rights); Justice Theory (fair distribution of benefits and burdens); Categorical Imperative Theory (looking at the results if everyone acted in the same manner); and the Front Page Test (reaction if the decision is reported on the front page of the local newspaper). In order to answer this question instructors must provide students with a framework whereby they can analyze Silver's behavior from an ethical standpoint. Certainly the instructor will prefer that the ethical discussion include the approaches discussed in his or her course.

There are certainly a number of ways to approach the issues of strategy that are raised in the case. One approach is the Liedtka model. This model consists of five elements of strategic thinking – a system perspective; intent-focused; intelligent opportunism; thinking in time; and hypothesis-driven. The primary focus of strategic thinking is concerned with a creative and divergent thought process. Strategic thinking looks to the future. Strategic planning, in contrast, involves a thought process that is utilized to achieve the strategies developed through strategic thinking. In this case, the report should analyze the five elements of strategic thinking in an attempt to develop strategies to deal with legal liabilities that may arise in the future. Once the strategies have been developed then a plan should be developed to carry out or implement the strategies.

WATER WORLD INSTRUCTIONAL CASE : INTEGRATING FINANCIAL AND MANAGERIAL ACCOUNTING WITH STRATEGIC PLANNING

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CASE DESCRIPTION

The primary subject matter of this case concerns integration of strategic planning with financial and managerial accounting. Secondary issues include financial accounting journal entries, relevant costs in decision making, budgeting, production schedules, and the accounting cycle. The case has a difficulty level of two, appropriate for sophomore level and five, appropriate for first year graduate level. The case is modular in nature, and is designed to be taught in 1-5 class hours. The number of hours of outside Preparation will depend on the portions of the case selected for use in the classroom, but should not exceed 10 hours.

CASE SYNOPSIS

Much has been published about integration of accounting content and breaking down of silos created within colleges of business. Introductory accounting courses generally are still divided between managerial and financial accounting or, if there is only one course, the highlights of each are presented separately. Further, business strategy is often considered only as part of a capstone class, and the use of accounting information to support strategic decision making is often overlooked.

The purpose of this case is to provide related financial and managerial accounting projects which culminate in a strategic plan. The projects are simplified but provide a discernable thread from raw materials and direct labor to plans to expand the firm. These projects are suitable for a blended financial and managerial introductory course for undergraduates or for MBA students and have been used effectively in an online teaching environment. The modular nature of the projects means that instructors can easily customize case materials.

BACKGROUND

This case provides multiple related projects that can be started during the first week of class, and which culminate in a strategic plan to expand the firm. The individual projects deal with financial and managerial topics but extend the typical problems and journal entries into an integrated project that requires critical thinking, research and analysis. This project was created for an internet based course in introductory accounting. The case provides an opportunity for the students to practice basic accounting skills and then immediately apply that new knowledge in a less structured situation.

Studies examining the effect of integrating accounting topics suggest that integration can result in enhanced student learning. For example, Kopp and Phillips (2005) used a laboratory setting to compare the effect of financial and managerial topic presentation on students' ability to deal with problems extending over both areas of accounting. They found students were better able to deal with these extended problems when the materials also integrated financial and managerial topics. Rhul and Hartman (1994) used a case to demonstrate the interplay between the budget process and organizational goals and strategies, and found that use of the case enhanced student understanding of the role of budgets. The results of both studies support Walker and Ainsworth's (2001) contention that without guidance, students find it difficult to make connections among business disciplines.

Relatively unstructured research projects can also enhance learning and aid in developing critical thinking skills. Nearly 20 years ago, the Accounting Education Change Commission's Faculty Incentives Task Force stressed the value of including research in accounting courses. Burilovich (1992) reported that adding research into teaching created a more appealing framework for the non-accounting major to develop his or her understanding of accounting in the economy. While some structure is important for any classroom research project, Cullen, Richardson and O'Brian (2004) provide evidence that 'messy stories' of accounting can be used to develop student critical thinking skills when students are required to sift through the cases and determine salient factors. Thus, assignments with no 'right answer' are valuable learning tools. Springer and Borthick (2004) also found that students "would rather avoid the ambiguity inherent in solving real business problems."Instructors also have mixed opinions about complex assignments. Springer and Borthick also found some enthusiastic and others unsure that students could rise to a challenge requiring critical thinking.

In summary, prior studies have emphasized that learning is enhanced by the integration of accounting topics, slight ambiguity in cases and problems and the need for research. By adding these factors, students in accounting courses realize that there is not one 'right' answer. They are introduced to the multiple facets of accounting information and the need to combine that information with additional research into industry, cultural and economic factors

RECOMMENDATIONS FOR TEACHING APPROACHES

The case addresses various financial and managerial accounting issues using the setting of a water park company and its subsidiary toy production facility. In each of the first four projects, instructors can choose how to use the assignments: as class examples or as graded work. It culminates in a required paper that requires the students to propose a future strategy based on the data from prior assignments.

The first project has two parts. In part I, students schedule production of stuffed animals. The range of output is given, along with sales projections for the upcoming year. Sales are seasonal, peaking in the summer and a small increase in demand at Christmas. There is very little flexibility in scheduling because production must be maximized for at least seven months to cover the summer demand. Part II requires a cash budget for the year based on the production schedule developed in the first assignment. All sales and purchases are cash. Two raw materials and two types of production workers are given as variable costs. Variable and fixed cash costs for overhead are given, plus a fixed sales and administrative cost.

The second project considers multiple production decisions including make vs. buy, and special orders. The focus of this project is on relevant costs in decision making; if relevant costs are not covered, this portion of the case can easily be omitted.

The third project requires students to journalize one month of production activities. The primary objective of this assignment is to track manufacturing costs to finished goods inventory and cost of goods sold. Although journal entries are shown in the teaching notes, this objective can be accomplished also by using the accounting equation.

The fourth project introduces financial accounting, and consists of a set of transactions based on the activities of the parent company for first month of the summer. Beginning balances are given and the assignment requires the development of end-of-the-month financial statements.

The fifth and final project is to consider all the information provided in the first four projects and develop a growth strategy for the production facility and the water park. The facts about maximum capacity must be combined with the cost of holding finished goods inventory, the cost of skilled labor and the cyclical nature of the business to formulate a plan. This last project requires students to research growth alternatives from multiple perspectives.

ABILITY TO CUSTOMIZE THE ASSIGNMENTS

Instructors can easily adapt these projects to specific course needs in a number of ways. For example, faculty can choose to use the projects as graded assignments or as in-class examples. The first four projects are especially well-suited for use as in-class examples over the course of the semester. If given as graded student assignments, the instructor can choose whether the projects should be completed in phases over an entire semester or completed as a final integrative project at the end of the semester. The modular nature of the case means that faculty wishing to focus on the accounting mechanics of the case can easily omit projects 2 and/or 5 without impacting any of the other projects.

The case is designed to be used in undergraduate and graduate introductory courses with students who have limited exposure to basic accounting concepts. If used as an assignment rather than as an in-class demonstration tool, successful completion of the case requires that students be familiar with only very basic financial and managerial accounting concepts. If assigned as graded materials, the case is most effectively completed by individual students rather than groups; the final portion of the project involving recommendations for growth strategies is suitable for completion by groups of students at the discretion of the instructor, however.

LEARNING OBJECTIVES

As the business environment becomes more complex, business graduates are expected to have extensive spreadsheet skills, research abilities, analytical abilities and accounting knowledge. Often the skills and topics are required but seldom linked. Beginning accounting students can easily become lost in the minutia of accounting, and course assignments designed to reinforce chapter concepts often fail to help students integrate and apply concepts across topical areas. This lack of integration can be particularly notable in Internet-based courses because online courses are often designed in modules. The benefits of this case include the integration of financial accounting, managerial accounting and strategic planning. It includes the elusive links between production and cash flows, production and journal entries and managerial decisions and cash flow.

The Water World case has a variety of learning objectives. First, the case is designed to help students apply basic financial *and* managerial accounting concepts in a business setting. Second, the case is designed to give students an appreciation for the wide range of accounting-related decisions supported by the accounting information system. By using the information generated to make basic operational decisions (such as whether to make or buy a product) to more complex decisions related to corporate growth strategies, students begin to gain an understanding of the importance of accounting information. Further, the case helps students gain experience with the various ways the information generated from the accounting system can be used by managers. Finally, the case reinforces classroom learning about the accounting cycle, budget preparation, and relevant costs in decision processes.

STUDENT REACTIONS

The case was successfully used in an online introductory course for master of business administration (MBA) students during the fall 2007 and 2008 semesters. Student attitudes toward the case were assessed through an anonymous questionnaire consisting of seven questions. The questions employed a five-point scale where an answer of 5 indicated that the student strongly agreed with the statement, and 1 meant strong disagreement with the statement. The results are summarized in Table 3. Students generally found the case to be challenging and felt that the case helped students to understand managerial accounting and to develop analytical skills.

TABLE 3: Post-Case Questionnaire Results

Question	Median Response
Completing these projects helped me to understand the accounting cycle	3.5
Completing these projects helped me to understand managerial accounting	4
I found these projects to be challenging	4
These projects integrated managerial and financial accounting	4
These projects provided an opportunity for me to increase my financial analysis skills	4
These projects taught me to use accounting information to make professional decisions:	4
These projects will help me use accounting information to develop innovative strategies as a professional	3.5

Some students indicated frustration with a lack of background information about Water World and Otter Land. The "Overview" discussion which begins the current case has been added to address those concerns. Other students indicated that the case was "interesting", "stimulating and intellectually challenging" and that it helped students "think out of the box".

Incoming students in this program expressed their frustration with courses that required them to learn basic information in topics such as accounting, finance and economics but never allow opportunities to use that information to make decisions. In many accounting courses, a brief discussion of ratio analyses appears to be the only use for accounting information. This case takes students though the process of creating accounting based data and then requires students to use all the information to develop a plan.

Solution to Project 1: Scheduling and Budgeting													
Part I: Production Schedule *Required:* Provide a monthly production schedule for the fiscal year beginning January 1, x1.													
all numbers in units	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Beginning Inventory	60,000	60,000	120,000	130,000	200,000	250,000	200,000	150,000	100,000	100,000	100,000	100,000	
Production	60,000	120,000	130,000	150,000	150,000	150,000	150,000	100,000	50,000	50,000	60,000	60,000	1,230,000
Available inventory	120,000	180,000	250,000	280,000	350,000	400,000	350,000	250,000	150,000	150,000	160,000	160,000	
Projected sales	60,000	60,000	120,000	80,000	100,000	200,000	200,000	150,000	100,000	50,000	60,000	100,000	1,280,000
Ending Inventory	60,000	120,000	130,000	200,000	250,000	200,000	150,000	100,000	50,000	100,000	100,000	60,000	
Minimum ending inventory	60,000	120,000	80,000	100,000	200,000	200,000	150,000	100,000	50,000	60,000	100,000	60,000	
Part 2: Monthly cash budget *Required:* Prepare a monthly cash budget for the year, with detailed listing of receipts and disbursements. For this calculation, assume that all sales are in cash.													
Monthly Cash Outflows:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Raw material fill (oz)	120,000	240,000	260,000	300,000	300,000	300,000	300,000	200,000	100,000	100,000	120,000	120,000	
Raw material fill ($)	30,000	60,000	65,000	75,000	75,000	75,000	75,000	50,000	25,000	25,000	30,000	30,000	615,000
Fabric (oz)	120,000	240,000	260,000	300,000	300,000	300,000	300,000	200,000	100,000	100,000	120,000	120,000	
Fabric ($)	90,000	180,000	195,000	225,000	225,000	225,000	225,000	150,000	75,000	75,000	90,000	90,000	1,845,000
Direct labor: cutters	30,000	60,000	65,000	75,000	75,000	75,000	75,000	50,000	25,000	25,000	30,000	30,000	615,000
Direct labor: finishers	450,000	900,000	975,000	1,125,000	1,125,000	1,125,000	1,125,000	750,000	375,000	375,000	450,000	450,000	9,225,000
Variable mfg overhead	12,000	24,000	26,000	30,000	30,000	30,000	30,000	20,000	10,000	10,000	12,000	12,000	246,000
F. man. overhead	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	900,000
Total manufacturing costs/mo	687,000	1,299,000	1,401,000	1,605,000	1,605,000	1,605,000	1,605,000	1,095,000	75,000	585,000	687,000	687,000	13,446,000
Selling & Admin cost	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	300,000
Total monthly costs	712,000	1,324,000	1,426,000	1,630,000	1,630,000	1,630,000	1,630,000	1,120,000	100,000	610,000	712,000	712,000	13,746,000
Cash Budget:													
Beginning cash balance	1,900,000	2,088,000	1,664,000	2,038,000	1,608,000	1,478,000	2,848,000	4,218,000	5,348,000	6,748,000	6,888,000	7,076,000	1,900,000
Cash inflow (proj sales x 15)	900,000	900,000	1,800,000	1,200,000	1,500,000	3,000,000	3,000,000	2,250,000	1,500,000	750,000	900,000	1,500,000	19,200,000
Cash outflow	(712,000)	(1,324,000)	(1,426,000)	(1,630,000)	(1,630,000)	(1,630,000)	(1,630,000)	(1,120,000)	(100,000)	(610,000)	(712,000)	(712,000)	(13,236,000)
Ending cash balance	2,088,000	1,664,000	2,038,000	1,608,000	1,478,000	2,848,000	4,218,000	5,348,000	6,748,000	6,888,000	7,076,000	7,864,000	7,864,000

Project 2 SOLUTION: Relevant Costs

Required: Consider each of the following situations separately. Use the information from the cash budget you prepared in Part 2 of Project 1 to answer the following:

1. *Make or Buy:*

a. Costs/toy avoided if toys are purchased:

Materials:			
Fill	2 oz * 0.25	0.50	
Fabric	2 oz * 0.75	1.5	
Labor:			
Cutters	.05 * 10	0.5	
Finishers	.5 * 15	7.5	
VMOH		0.2	
FMOH	10,000/100,000	0.1	
Mfg costs/toy avoided		10.30	
Purchase costs per toy [9.25+(10,000/100,000)]		10.25	
Savings/toy to purchase		0.05	
Management should accept the offer and purchase the toys. Total savings:		.05 * 100,000 toys purchased	5,000.00

b. Some other factors to consider
* Effect on employee morale
* Can the overseas manufacturer make the toys of the desired quality?
* Will the overseas manufacturer be able to deliver the toys in a timely manner?
* Will Water Works be able to quickly and easily take over production if the overseas manufacturer can't meet contract terms?
* Possible negative publicity resulting from outsourcing

2. *Sell or process further:*

Additional revenue per named sea otter sold ($21-15)	$6.00
Additional processing costs	4.00
Additional operating income per sea otter	$2.00
Anticipated sales (in units)	50,000
Additional operating income if processed further	100,000

Yes, Otter Land should process the toys further

3. *Special Order:*

a. Minimum acceptable price:

	Materials:		
	Fill	2 oz * 0.25	0.50
	Fabric	2 oz * 0.75	1.5
	Labor:		
	Cutters	.05 * 10	0.5
	Finishers	.5 * 15	7.5
	VMOH		0.2
	Minimum acceptable price		10.20

i. Yes, the answer will change. Over the long term, Water Works will need to recoup all of its costs, whether fixed or variable. The minimum acceptable price will then become:

	Materials:		
	Fill	2 oz * 0.25	0.50
	Fabric	2 oz * 0.75	1.5
	Labor:		
	Cutters	.05 * 10	0.5
	Finishers	.5 * 15	7.5
	VMOH		0.2
	FMOH[1] (Rounded to the nearest penny)		0.68
	Mfg costs/toy avoided		10.88
	[1] 75,000/(60,000 + 50,000)		

b. Change in profits			
	Revenue per toy		11.00
	Variable costs		10.2
	Contribution margin per unit		0.80
	Units sold		50000
	Increase in operating income		40000
c. Other factors * Impact on existing sales * Will the toy retailer be competing with Water World, thus reducing sales? * Will the toy be displayed/marketed in a manner that will enhance the Water World Brand image? * Will Water World be able to hire enough temporary workers to meet the add'l production needs * If not, will existing employees need to be paid overtime?			

Project 3 solution: Production journal entries

Required: Prepare the necessary journal entries to record the transactions below for Otter Land for February. Use the chart of accounts shown in Table 1.

Journal Entries:

Inventory: Work in Process	$240,000	
Cash		$240,000
Salaries Expense: Administration	$15,000	
Cash		$15,000
Manufacturing Overhead	$65,000	
Selling & Administrative Expense	$10,000	
Cash		$75,000
Work In Process	$960,000	
Cash		$960,000
Manufacturing Overhead	$10,000	
Cash		$10,000
Manufacturing Overhead	$24,000	
Cash	$24,000	
Manufacturing Overhead	$12,000	
Accumulated depreciation:		
Building & Equipment		$12,000
Depreciation Expense	$10,000	
Accumulated depreciation:		
Building & Equipment		$10,000
Inventory: Work in Process	$111,000	
Manufacturing Overhead		$111,000
Inventory: Finished Goods	$1,311,000	
Inventory: Work in Process		$1,311,000
Cash	$750,000	
Plush Toy Sales		$750,000
Cost of Goods Sold	$546,250	
Finished Goods Inventory		$546,250
(1,311,000/120,000 x 50,000 = $546,250)		

Project 4 SOLUTION: Water World Monthly Journal Entries

Required:
* Prepare the necessary journal entries. Use the chart of accounts shown in Table 1.
* Beginning with the June 1 account balances shown in Table 2, create a worksheet which shows the ending balances in all accounts after the monthly and adjusting journal entries have been posted.
* Journalize the closing entries.
* Create a post-closing trial balance.
* Use your information to develop an income statement and balance sheet for the month of June.
* Otter Land handles the production, distribution and sales of the otter toys and the Otter Land transactions are not recorded here.

Journal Entries:

1.	Maintenance Expense	$1,500,000	
	Cash		$1,500,000
2.	Cash	$600,000	
	Unearned Revenues: Season Passes		$600,000
3.	No entry required		
4.	Water Treatment Expense	$280,000	
	Inventory: water chemicals		$250,000
	Inventory: water saline		$30,000
5.	Cash	$2,500,000	
	Admission Revenues		$2,500,000
6.	Cash	$700,000	
	Concession Sales		$700,000
	Cost of Goods Sold	$250,000	
	Inventory: Concession		$250,000
7.	Salaries Expense: Operations	$250,000	
	Salaries Expense: Administration	$225,000	
	Cash		$475,000
8.	Inventory: animal food	$60,000	
	Accounts Payable		$60,000
	Animal food expense	$100,000	
	Inventory: animal food		$100,000
9.	Utilities Expense	$25,000	
	Cash		$25,000

Adjusting Journal Entries:

10.	Depreciation Expense	$50,000	
	Accumulated Depreciation: building & equipment		$50,000
	[($26,000,000 – $5,000,000)/35 years] x 1/12		
11.	Interest Expense	$115,000	
	Interest Payable		$115,000
	(23,000,000 * .06)/12		
12.	Unearned Revenues: Season Passes	$400,000	
	Admission Revenues		$400,000
	(600,000 + 600,000)/3		
13.	Insurance Expense	$500,000	
	Prepaid Insurance		$500,000
	(4,000,000/8)		

Closing Entries:

Admission Revenues	$2,900,000	
Concession Sales	$700,000	
Income Summary		$3,600,000
Income summary	$3,295,000	
Cost of goods sold		$250,000
Animal Food Expense		100,000
Depreciation expense		50,000
Insurance expense		500,000
Interest expense		115,000
Maintenance expense		1,500,000
Salaries expense: Administration		225,000
Salaries expense: Operations		250,000
Utilities expense		25,000
Water treatment expense		280,000
Income summary	$305,000	
Retained Earnings		$305,000

Water Works Worksheet											
30-Jun-x1		Transactions			Adjustments			Closing Entries		Post-closing Trial Balance	
	Beginning Balance	Dr	Cr	Unadjusted Balance	Dr	Cr	Adjusted TB	Dr	Cr	Dr	Cr
Cash	1,000,000	3,800,000	2,000,000	2,800,000			2,800,000			2,800,000	
Prepaid Insurance	4,000,000			4,000,000		500,000	3,500,000			3,500,000	
Inventories:				0			0				
Animal Foods	50,000	60,000	100,000	10,000			10,000			10,000	
Water chemicals	255,000		250,000	5,000			5,000			5,000	
Water saline	31,500		30,000	1,500			1,500			1,500	
Concession	450,000		250,000	200,000			200,000			200,000	
Administrative	60,000			60,000			60,000			60,000	
Land	16,000,000			16,000,000			16,000,000			16,000,000	
Buildings & Equip	26,000,000			26,000,000			26,000,000			26,000,000	
Accum Depr	-11,000,000			-11,000,000		50,000	-11,050,000				11,050,000
Accounts payable			60,000	-60,000			-60,000				60,000
Interest payable				0		115,000	-115,000				115,000
Unearned revenues: Season Passes	-600,000		600,000	-1,200,000	400,000		-800,000				800,000
Notes Payable	-23,000,000			-23,000,000			-23,000,000				23,000,000
Stock	-4,000,000			-4,000,000			-4,000,000				4,000,000
Retained Earnings	-9,246,500			-9,246,500			-9,246,500		305,000		9,551,500
Admission Revenues			2,500,000	-2,500,000		400,000	-2,900,000	2,900,000			0
Concession Sales			700,000	-700,000			-700,000	700,000			0
Cost of Goods Sold		250,000		250,000			250,000		250,000	0	
Animal food expense		100,000		100,000			100,000		100,000	0	
Depreciation expense				0	50,000		50,000		50,000	0	
Insurance expense				0	500,000		500,000		500,000	0	
Interest expense				0	115,000		115,000		115,000	0	
Maintenance expense		1,500,000		1,500,000			1,500,000		1,500,000	0	
Salaries expense: Administration		225,000		225,000			225,000		225,000	0	
Salaries expense: Operations		250,000		250,000			250,000		250,000	0	
Utilities expense		25,000		25,000			25,000		25,000	0	
Water Treatment expense		280,000		280,000			280,000		280,000	0	
Total	0	6,490,000	6,490,000	0	1,065,000	1,065,000	0	3,600,000	3,600,000	48,576,500	48,576,500

Water Works, Inc: Income Statement For the Month Ended June 30, 20x1		
Revenues		
Admission Revenues	2,900,000	
Concession Sales	700,000	
Total Revenues		3,600,000
Less: Cost of Goods Sold		250,000
Gross profit		3,350,000
Expenses:		
Maintenance expense	1,500,000	
Insurance expense	500,000	
Water treatment	280,000	
Salaries: Operations	250,000	
Salaries: Administration	225,000	
Interest expense	115,000	
Animal food	100,000	
Depreciation expense	50,000	
Utilities	25,000	
Total expenses		3,045,000
Net income/(loss)		305,000

Water Works, Inc: Balance Sheet at June 30, 20x1		
Assets		
Cash		2,800,000
Prepaid Insurance		3,500,000
Inventories:		
Animal foods	10,000	
Water chemicals	5,000	
Water saline	1,500	
Concession	200,000	
Administrative	60,000	276,500
Buildings and Equipment	26,000,000	
Less: Accumulated Depreciation	11,050,000	14,950,000
Land		16,000,000
Total Assets		37,526,500
Liabilities and Stockholders' Equity		
Liabilities:		
Accounts payable	60,000	
Interest payable	115,000	
Unearned revenues: Season passes	800,000	
Notes payable	23,000,000	
Total Liabilities		23,975,000
Stockholders' equity:		
Stock	4,000,000	
Retained Earnings	9,551,500	
Total Stockholders' Equity:		13,551,500
Total Liabilities and Stockholder Equity		37,526,500

Project 5 SOLUTION: Proposal

Required: Using all Otter Land and Water World data from the earlier projects, propose ways for the company to expand.

This portion of the case is less structured than the previous projects, and the acceptable responses will vary widely. Students who have completed this project in the past have proposed everything from a simple marketing campaign to the addition of businesses or product lines designed to smooth the cyclical nature of the Water World revenues. One of the more creative proposals was to locate a sister park in Australia to take advantage of the fact that summer in Australia is winter in North America.

Regardless of the nature of the responses, this project provides an opportunity for students to experience using accounting-related information to gain insights into relatively unstructured problems.

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