Case 3: Is Marketing the Cure for Norton Kosair Children's Hospital's Ailing Market Share?

Traditionally, the primary concern of hospitals has been producing services, rather than servicing markets. However, due to increased competition, alternate delivery systems, and the recognition of the usefulness of marketing as a tool, the industry has begun to explore the potential of marketing research.

This trend began when Medicare started reimbursing hospitals by way of DRGs (diagnostic-related groups of illnesses), and thus paved the way for other insurance companies to use DRGs. This had a severe effect on hospital revenue, since it meant that only a set fee was paid for each category of DRG — affecting 40% of hospital revenue. Thus, hospitals faced the harsh reality of becoming more efficient or losing money. This loss of revenue has been further increased due to the glut of doctors and hospital beds. Hospital occupancy has continued to hover around the 70% mark nationwide according to the American Hospital Association’s report for 1997-8. Therefore, it has become necessary for health care marketers to evaluate consumer preferences, since the successful hospital marketer must target the key decision maker and make them aware of services that the hospital provides which are of crucial importance to the decision maker in the selection process.

The problems of low occupancy rates have turned health care into a buyer's market. Instead of physicians deciding where patients
are going for treatment, 70% of patients decide where they will go. Surprisingly enough, there is even indication that patients are not basing their decisions on quality of treatment (i.e. medical technology or adequacy in staffing), rather they are making buying decisions on the way they are treated (i.e., the room, the food, difficulty in parking, and whether people are friendly). Therefore, hospitals have begun to engage in advertising, offer customized and specialized services, and, in general, learn that people are markets and markets have needs that must be addressed if hospitals expect to stay in business. In short, the health care industry has developed a customer-service orientation. One of the ways in which children’s hospitals are making marketing improvements is with improved building designs, and interiors that are visually more appealing to parents and children.

Since numerous markets are served by health care organizations: patients, payers, caregivers, regulators, and the surrounding community, the organization has some latitude regarding which market to target. Especially since each of these markets represents market share potential, and a customer base on which to conduct market research. However, most hospital marketing programs have centered on patients and potential patients (i.e. a customer oriented approach). In particular, birthing centers are often the focus of patient oriented marketing programs. This is because routine obstetrical services often play the role of loss leaders. In other words, they are priced below cost — in order to build up hospital image and attract future, more profitable, business.
Decreasing revenue and loss of occupancy is the dilemma of Norton Kosair Children’s (NKC) Hospitals Inc. of Louisville, Kentucky. This hospital ranks sixth in awareness of local residents out of the nine hospitals in its market. It feels that one way to increase awareness, and thus business, is through the implementation of an aggressively marketed maternity care program. In particular, it is of the opinion that it could be successful in this venture if it employed a product-line marketing approach — packaging a service such as maternity care and promoting elements of that service (i.e. a birthing center: labor, delivery, and recovery — all in the same room to avoid moving the new mother unnecessarily; or a more expansive line that would include other inpatient services such as: cosmetic surgery, breast screening, and infertility, in addition to the birthing center — all in the same location).

NKC also raised $4.7 million in 1996 to renovate and enhance the existing pediatric intensive-care and transitional care units. The new rooms are 100 square feet bigger and have wider doors to accommodate movement of equipment. There is also a new meditation room, family education room, and a bigger waiting room. The renovation also includes brighter colors and special designs to make it more inviting.

The senior vice-president of corporate development for NKC, Mr. Galvagni, wonders how extensive the maternity care product line should be to capitalize on the local market, and to maximize hospital revenue. He is certain that the hospital has the capability to establish
a maternity care line that potential patients will like; but is uncertain how to market the maternity line.

References:
Case 3 Questions

CHAPTER 1
1) Marketing research involves the identification, collection, analysis, and dissemination of information. Explain how each of these phases of marketing research applies to NKC's problem.

2) Is the problem facing NKC a case of problem identification research or problem solution research? Explain.

3) Could NKC use DSS or marketing research suppliers to help them in their study? If so, describe how they could be used.

CHAPTER 2
1) In the hospital industry scenario, you first want to analyze environmental factors before attempting to define the problem. How would you acquire information on objectives, buyer behavior, legal environment, and marketing and technical skills? Specify what information you would want with respect to the hospital industry scenario, for each of the listed environmental factors.

2) State the management decision problem.

3) State the marketing research problem:
   a. Broad Statement:
   b. Specific Components:

4) How would you go about approaching the problem that faces NKC?

5) If you wished to conduct a case study, how might you go about it? A simulation?

6) In approaching the problem, what kind of outputs do you think you would get for:
a. analytical models
b. research questions and hypotheses
c. relevant characteristics

CHAPTER 3
1) In light of the information uncovered in defining the problem (Chapter 2), what are some examples of exploratory research that could be conducted for NKC? Descriptive research? Causal research?

2) Specify the six W's of NKC's research project.

CHAPTER 4
1) What are the criteria for evaluating secondary data, and how might they be applied to NKC's marketing research problem?

2) Discuss internal and external sources of secondary data in the context of NKC.

CHAPTER 5
1) What are the two types of direct techniques in qualitative research? Discuss how each of these techniques might be utilized by the researcher for NKC.

2) Give examples of each of the four projective techniques in the context of NKC's marketing research problem.

CHAPTER 6
1) What are the two types of descriptive research designs? Which mode of each of these techniques would be appropriate for NKC? Why?
2) What are the advantages and disadvantages of each of the two types of descriptive research and each of the primary modes you selected in your answer to question 1?

CHAPTER 7
1) What are the conditions for causality with respect to NKC's hypothesis that a specialized maternity care line will bring about high awareness for the hospital?

2) Define an experiment. Does the telephone survey proposed for NKC constitute an experiment? Why or why not?

3) Can this survey be used to infer causality?

CHAPTER 8
1) Identify the measurement scales that are commonly used in marketing research for both comparative and noncomparative techniques. How might you employ each of these scales to collect data that are useful for NKC's marketing researcher?

2) What are the comparative scaling techniques? Give an example of each in the context of NKC's marketing research problem and comment on the properties of the data obtained from each of the techniques.

CHAPTER 9
1) What are the two types of noncomparative techniques? Give an example of how each type of technique might be applied in the context of NKC's marketing research problem.

2) What kinds of decisions did you have to make when designing the itemized scales in Question 1? Why did you make the decisions you did?
3) Is the characteristic of hospital awareness better represented as a single or multi-item scale? Briefly explain why you chose the answer you did.

4) How would you evaluate the awareness scale of Question 3?

CHAPTER 10
1) Specify the information needed and type of interviewing method you would use if you wanted to administer a questionnaire that addresses NKC's marketing research problem.

2) Chapter 10 stresses the importance of carefully designing a questionnaire so that the data obtained is relevant to the marketing research problem, as well as internally consistent and able to be coherently analyzed. Often in practice, designing a questionnaire in such a manner is difficult; therefore it is important to be able to identify potential problems in questionnaire items. For the following questions, discuss what is wrong or could be improved about them, and how you would correct or improve them.

A) What is the approximate combined annual income of your household before taxes?

1. $10,000 or less_____ 4. $30,000 to 40,000_____ 
2. $10,000 to 20,000_____ 5. $40,000 to 60,000_____ 
3. $20,000 to 30,000_____ 6. $60,000 and over_____

B) Please rate the relative importance of the factors you considered in selecting a hospital for delivery.

Not so Important Very Important

a. Reputation of hospital 1 2 3 4 5 6
b. Quality of care 1 2 3 4 5 6
c. Distance from home 1 2 3 4 5 6
d. Advice from doctor 1 2 3 4 5 6
e. Advice from friends 1 2 3 4 5 6
f. Advertisements 1 2 3 4 5 6
g. Friendliness of staff 1 2 3 4 5 6
h. State-of-the-Art maternity facilities 1 2 3 4 5 6
i. State-of-the-Art nursery facilities 1 2 3 4 5 6
j. Maternity insurance 1 2 3 4 5 6

3) Design a questionnaire to address NKC's marketing research problem.

CHAPTER 11
1) If we choose to use a telephone survey of parents, what is the target population? The sampling frame? The sample size?

2) What type of sampling technique would be appropriate for carrying out the telephone survey mentioned in Question 1?

3) What kind of nonresponse issues should we anticipate if we carry out a telephone survey in the previously defined manner? How might we reduce the effects of these types of nonresponse?

CHAPTER 12
1) Suppose that the researcher for NKC takes a simple random sample of 100 couples who delivered a child in a local hospital within the last three months, in order to determine the average expense for delivery services. If the average expense is $10,000, and past studies indicate that the population standard deviation is $1,500, what is the 95% confidence interval for the population mean?
2) After examining the confidence interval obtained in the previous problem, the researcher does not feel that he needs the confidence interval to be that exact. Furthermore, he wonders if perhaps he broadens the interval, so that it is within $500 of the true population value, can he save time and money by reducing the sample size? What sample size should he use to get within $500 of the true population value — if a 95% confidence interval is desired?

3) Suppose that the standard deviation of $1,500, given in Question 1, was not the population standard deviation, but an estimate. Further suppose that a sample of 100 was used and yielded an average of $10,000 in delivery expenses with a sample standard deviation of $1,000. What would the revised 95% confidence interval be?

CHAPTER 13
1) Of the qualifications that field workers should possess, which characteristics would be of importance in selecting interviewers for NKC's telephone survey and why?

2) Discuss how the use of telephone interviewing as a field work procedure affects the supervision of field workers and validation processes.

CHAPTER 14
1) What are the reasons for not accepting a questionnaire from the field?

2) How would you code the following question from the questionnaire in Chapter 10?

Q5. In your opinion, what services should a perfect maternity facility offer?
3) Suppose it is necessary to determine the effect of the respondent's involvement in the survey on the responses. To do this, the five items of Q9 are added together to give one score. How can this score be used to distinguish low involvement, medium involvement and high involvement participants?
CHAPTER 15
During a one week period, 270 persons in the greater Louisville community responded to the survey designed in Chapter 10. Editing the data for completeness and correctness of entries, along with entering the data into matrix form for analysis by a computer statistical package consumed another week (see Appendix for details).

a. Run frequency distributions with all accompanying descriptive statistics. Print histograms to facilitate interpretation of these distributions.

b. To further explore the issues of prior use (Q1) being important in current hospital selection, run crosstab analysis (contingency table analysis). Use assignment statements to create new variables which correspond to the prior-use groups. Use recode statements to give values to each prior-use group variable which correspond to the respective number of the group. Finally, use an assignment statement to create a composite variable which combines all of the prior-use groups into a single variable. In this way the outcomes for the prior-use groups can be viewed in one table.

c. To determine the nature of the relationship between the variable for services offered by a perfect maternity facility (Q5) and the demographic variables (Q10 to Q14), run a cross-tabulation analysis of Q5 on each of the demographic variables.

CHAPTER 16
d. Run separate one-way ANOVAs using questions Q2 and Q6 as a dependent variable, and hospital selected in forced choice as the grouping variable (Q4).

CHAPTER 18
e. To see how factors rated as being important in selecting a hospital for delivery would do in assigning respondents to four different
groups, run a four-group discriminant analysis of Q1 on all questions comprising Q2. Form the four groups according to the respondents' frequency of use for maternity services as follows: Group 1 should correspond to hospitals B, C, and F; Group 2 should correspond to the NKC Hospital; Group 3 should be comprised of hospitals E, G, and H; and Group 4 should consist of hospital D and I.

CHAPTERS 19-20
f. Use factor analysis to determine if a reduced set of variables can be derived from the ten hospital selection factors (Q2A-J). This reduced set can then be used for clustering to determine if respondents can be clustered into groups according to their responses on the new set of variables. Cross-tabulation analysis can then be performed using cluster membership as one variable along with the composite variable above used for past visits to hospitals (Q1).

g. To assess whether the five dimensions of hospitals asked about in Q6 can be used to assign cases to the clusters developed after the factor analysis of Q2, run a four-group discriminant analysis of Q2 clusters on the five variables of Q6.

CHAPTER 21
h. To determine if any hidden reasons exist for the reputation hospitals carry in the mind of the public, run multidimensional scaling (internal unfolding analysis) using the ALSCAL procedure on the rankings provided by respondents in Q7.

CHAPTER 22
1) Prepare an executive summary of the results from the study.
CHAPTER 23
1) Suppose NKC or another hospital was interested in conducting business on an international level. Choose a country (other than the U.S.) and discuss environmental factors that would have to be considered and possible opportunities in light of these environmental factors.

CHAPTER 24
1) Describe two forms of unethical behavior that might be conducted by a hospital which is contracting with an outside research firm to conduct research on a new maternity care line.

2) Describe three unethical behaviors of a marketing researcher in the context of this case.