

**CHAPTER 8 – ORGANIZATIONAL STRUCTURE AND DESIGN****OBJECTIVES**

In this chapter we introduce the students to the topic of organization. Professors may prefer to use this chapter as placed or as a transition from micro to macro issues. With either course organization method, this chapter prepares student to think more broadly about the context within which organizational behavior occurs. Specifically, in the chapter the student should learn how the organization's environment affects the organization structure, organizational design and task structure. The student should also develop some awareness of the systems concept of organization and how those systems can vary as a function of the type of organization. The student should learn how these concepts about the environment and organization structure are related to the idea of generic organization types. Students will also be able to see how these generic organization types are related to the division of labor, specialization, and forms of departmentation.

Finally, this chapter introduces the concept of network (or virtual) organization. The main objective here is to focus on differences and similarities of this type of organization to other organizations introduced in the chapter.

**KEY POINTS**

The chapter touches on several important topics. For example, we discuss the nature of organization structure with a focus on the dimensions of complexity, formalization and centralization.

The next key point is the nature of the organization environment. Here we illustrate different sectors and dimensions of the environment with a focus on the technological environment and market environment. Following this discussion, we then show how the organization systems will differ in the various environments. This leads to the concept of generic organization types. The way that systems in the different generic types become departments is another key aspect in this chapter. This is explained in terms of differentiation, integration, and the structure of authority.

Perhaps the most important aspect in this chapter is the idea that organizations may be viewed as relatively predictable, stable interaction systems. The structure of the organization and its culture (as discussed in Chapter 8) may be better predictors of the individual behavior in organization than the traditional factors or models that are studied in conventional OB courses.

A final key point deals with network organizations and the unique aspects of its relationship management in terms of the requirement of the reciprocity and trust required to operate within a virtual network.

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### **TOPICAL OUTLINE**

#### The Nature of Organizational Structure

Some Properties of Organizations

#### Organizations and Environment

Environmental Sectors

Characteristics of the Environment

Basic Types of Organizations

Figure 8.1: The basic relationship between environment and types of organizations

Formal Organizations: Design and Structure

Division of Labor and Task Interdependence

Personal specialization

#### Organizational Design Alternatives

Product organizations and functional organizations

Figure 8.2 The Eagle Brewing Company as a functional organization

Figure 8.3 The Eagle Brewing Company as a product organization

The Matrix Organization

Figure 8.4: A classic matrix organization

Project organization

Figure 8.5: Project Organization

The Network (or Virtual) Organization

#### Summary

**KEY CONCEPTS**

Authority  
Basic organization types  
Centralization  
Complex environment  
Complex organizational  
Complexity  
Decentralization  
Department  
Differentiation  
Division of labor  
Flat organization  
Formal organization  
Formalization  
Functional organization  
Horizontal distribution of authority  
Integration  
Market environment  
Market-dominated mixed (MDM) organization.  
Matrix organization  
Mechanistic organization  
Network organization / Virtual organization  
Organic organization  
Organizational design  
Organizational structure  
Personal specialization  
Pooled task interdependence  
Product organization  
Project organization  
Reciprocal task interdependence  
Relevant environment  
Sequential task interdependence  
Simple environment  
Span of control  
Stable environment  
Strategic center  
Systems view of organizations  
Task interdependence  
Task specialization  
Technological environment  
Technology  
Technology-dominated mixed organizations (TDM)  
Volatile environment

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### EXERCISES

#### A. Exercise: The Organizing Problem

The Apple-Orange Company grows and markets apples and oranges in the southeastern United States. Apple-Orange has been in the produce business for the past 50 years and has some of the finest land for growing these fruits. They have also been quite successful in marketing their product. Up until now, Apple-Orange has been a family business operated by old John Graves, whose father and uncle started the business. He has had his son Carl working as his assistant since Carl returned from Vietnam.

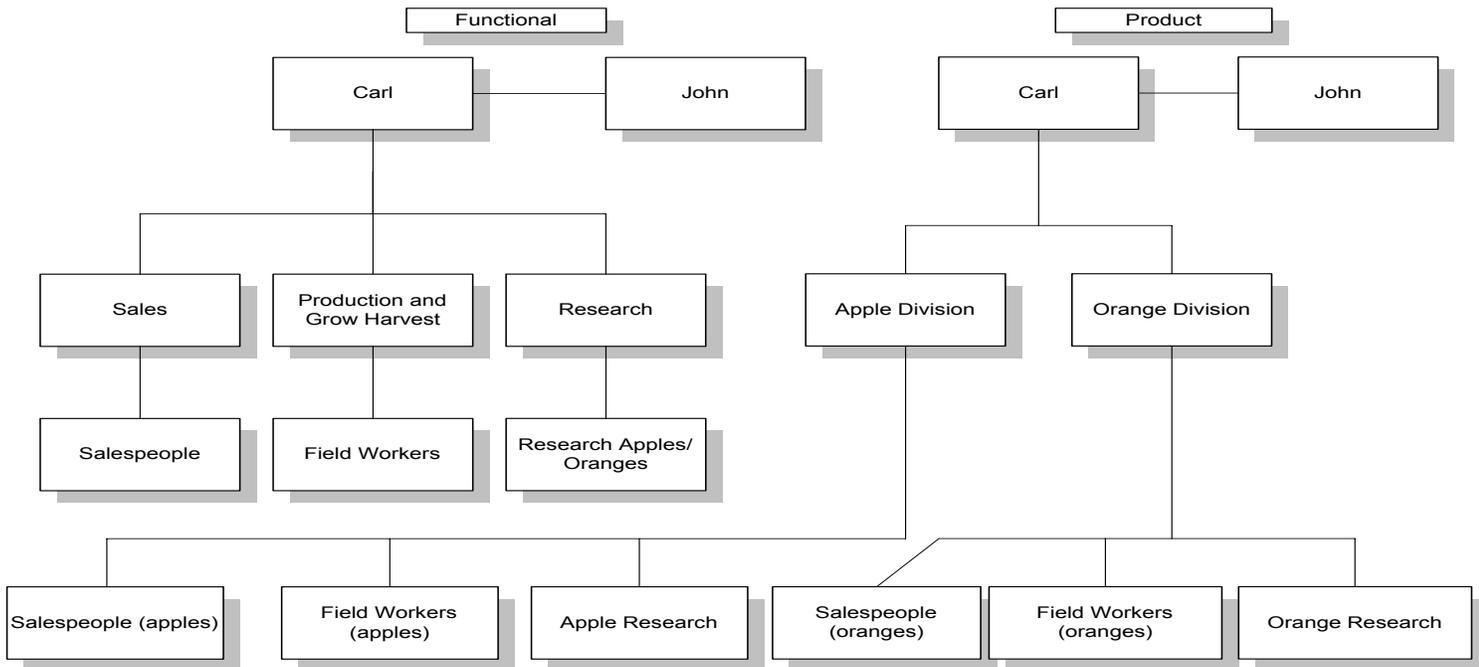
Basically there are three major sets of activities that must be accomplished to grow and market Apple-Orange's products.

- One group of workers and managers work in the fields, handling the growth and harvesting of the apples and oranges.
- Another group of workers and managers work in development research. This group is comprised largely of agricultural scientists who attempt to improve the varieties grown and to increase crop yield.
- Marketing is handled by several sales personnel who call on wholesalers and fruit distributors in the region. The sales staff is very large and has been, like all other employees, very effective.

John and Carl have been managing Apple-Orange without many formal policies and procedures. The company has few set rules, procedures, and job descriptions. John believes that once people know their job, they should and would do it well.

However, Apple-Orange has grown fairly large and John and Carl both believe that it is now necessary to develop a more formal organization structure. They have invited D.J. Blair, a noted management consultant, to help them. D.J. has told them that they have, basically, two choices. One is a functional organization structure and the second is a product-based organization structure. These two different forms are shown in the figure below.

Which would be your choice of structure? Functional or product? Why do you prefer it?



Now, read these ten descriptions of organization characteristics, conditions, or problems. Place an X on the line under the type of organization that fits the description of the statement on the left.

	Functional	Product
1. Job specialization will be most extensively developed; in a typing pool one person might specialize in correspondence and another in reprints.	_____	_____
2. Individual will perform a fairly broad range of activities in their job area. They will be less likely to become specialists.	_____	_____
3. People will very likely be promoted in their field of specialization and will probably supervise several subordinates who do similar work.	_____	_____
4. Managers of major departments are more likely to have subordinates who do a wide variety of jobs.	_____	_____
5. Individuals can learn a lot about their field of specialization because they will be working with people who do similar work.	_____	_____
6. Coordinating and scheduling the activities between	_____	_____

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production, research, and marketing will be difficult. \_\_\_\_\_

7. Coordinating and scheduling production, marketing and research will be easier. \_\_\_\_\_

8. Departmental conflict between functional units (production, marketing, and sales) will be less. \_\_\_\_\_

9. There are fewer tendencies for those in the organization to be over specialized in their work area. \_\_\_\_\_

10. Individuals will tend to learn a good deal about all the things that must be done to produce the product. \_\_\_\_\_

Finally, answer these diagnostic questions

1. What do you think happens to the product-type organization when it becomes larger?
2. What do you think happens when a functional organization gets larger?
3. Which one of the two forms do you think would be more efficient? Why?
4. Which one would provide the best product, or be more customer oriented? Why?

### B. GENERIC ORGANIZATION TYPE EXERCISE

This exercise helps students develop an understanding of the concept of generic organization types. Ask them to identify organizations which are in different businesses but seem to be similar in the ways that work and people are related. For example, you might stimulate their ideas by asking how the following organizations are similar and different

1. Fast food restaurants and automobile manufacturing plants.
2. Hospital emergency facilities and fire departments.
3. Baseball, soccer and football teams compared to tennis, golf and ski teams.

### TASK INTERDEPENDENCE EXERCISE

Illustrate task interdependence by discussing the advantages and disadvantages of group assignments compared to individual assignments in classes. You can ask questions such as:

1. How many of you prefer group instead of individual assignments? Why?
2. For group assignments, do you prefer to have the same grade assigned to each group member?
3. What are the problems with getting the work done in group assignments?
4. Are there some courses or projects for which group assignments and grades make very good sense?

**STUDY QUESTIONS**

1. In stable technological and market environments, why is it possible to design the departmental structure of an organization in either the functional or product form?

The choice of structural forms is possible here because the environment is stable and the subsystems can adapt in several different ways. Essentially, the choice then becomes one of managerial preference and philosophy. With the functional form, the emphasis is on cost efficiencies that can be achieved by grouping similar functions. The main problem will be coordinating the activities of the separate units. With the product form, the emphasis is on customer satisfaction because each major unit will have the whole product. Here the coordination problem is less, but the efficiency problems are greater.

2. What would happen if an organization was in a stable market and stable technological environment and the form of departmentation chosen was matrix?

There are two possible outcomes. If the matrix structure is maintained, conflict will arise from the dual responsibilities managers will have to both functional superiors and project superiors. This could lead to a lot of unnecessary stress in the organization. The other possibility, and the most likely outcome, will be a move toward a product or functional form in order to minimize the problems discussed above.

3. How do accounting control systems and performance measurement systems differ in the different types of organizations?

In the mechanistic organization, historical measures will be the dominant form. Performance measurement will focus on end results, that is, costs, production levels, etc. In the organic organization, there will be a lack of historical cost data, so we believe that cost projections will be used. To measure performance, the emphasis will be on how the work is done, rather than end results. This does not mean to say that end results are unimportant, but there will be more time delayed outcomes and, hence, more difficulty in measuring them.

The mixed organizations will use different types of performance measures in the various components. The problem here will be to develop a way to achieve comparability and equity between them.

4. How do the concepts of differentiation and integration explain organizational design choices?

The way managers break apart (differentiate) the various subsystems and then restructure the relationships among them (integration) is fundamental to the issue of organization design. In fact, organization design may be viewed as the process of differentiating and integrating the subsystems in various ways. Thus it becomes clear that the initial form of the subsystems is the basic constraint or design choice.

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5. Is the R&D function (an adaptive subsystem) more important to the effectiveness of a mechanistic or an organic organization? Explain.

The R&D function is important in both. However, the R&D function is more complicated and more problematical in the organic organization because of the extensive variability of the environment. The environment is more difficult to assess and therefore it will have to be monitored by individuals who are highly skilled in interpreting it. In the mechanistic organization the stability of the environment permits the development of more routine monitoring systems. Thus, in the organic organization those who interact with the environment are likely to be more influential and have more status and power than those who interact with the environment in mechanistic organizations.

6. What are the particular problems of managing mixed organizations? What are the important differences between the technology-dominated and the market-dominated organization?

The problems of managing mixed organizations stem primarily from the fact that each of the major subunits will have different systems properties and, probably, personnel with very different values and attitudes. Thus, the issue here will be to develop an effective way to integrate these two very diverse sets of subsystems.

The main difference between technology-dominated and market-dominated organizations, we believe, is the source of major policy and strategy influence. In the technology dominated organization, the major policy influence will come from engineering and technical staff. In the market-dominated organization the major policy influence comes from the marketing groups.

7. Compare the strengths and weaknesses of the product and functional organizations.

Overall it is easier to establish cost and profit centers, for accountability, in the product organization because the units are self-contained. That is, one major division is responsible for the design, manufacturing, and marketing of the product. There should be less conflict between major organization units since there is less coordination required than in the functional organization.

There will be more staff duplication in the product than in the functional form, however, because each unit is somewhat self-contained. This should result in less efficiency than in the functional form. In the functional form, similar activities are grouped together, providing opportunities for economies of scale.

In the product organization there should be a stronger customer orientation, because the unit is responsible for the complete product, not just a part of it. There is also more likely to be a long-term orientation, rather than a short-term focus.

8. What is the relationship between the division of labor and the concept of organization subsystems?

Organization systems are related tasks. Specialization occurs when these tasks are separated and grouped together in particular ways, then assigned to individuals as jobs. When this subsystem task differentiation results in jobs with narrowly defined functions which require a relatively limited range of skills, it is task specialization. When the differentiation of subsystem tasks results in jobs or occupations in which broader ranges of activities are performed and broader skills are performed, it is personal specialization.

9. What is the difference between task specialization and personal specialization? Give some examples of highly professionalized jobs which illustrate that task specialization can exist in jobs other than blue collar jobs.

Task specialization means that the job is composed of very simple elements so that it is quite easy for the person to fit into it. In a sense the work is specialized. In personal specialization the person possesses a wider range of skills that can be used when the situation, which may be somewhat variable, calls for them. In line with this definition, then, even a person who is educated and trained in a profession may end up performing a very limited number of activities and could be considered a task specialist. Thus, the attorney who handles only divorce cases or the physician who only treats teenage acne works in a task-specialist way.

10. What is meant by the term task interdependencies? What are the different types of task interdependencies? Give some examples of each from your work experience. Are there different types of task interdependencies in different types of sports? Give some examples.

There are three ways to classify task interdependencies. One is sequential interdependence, where it is not possible to begin a task until previous activities have been completed. Reciprocal interdependence occurs when individuals in two tasks are mutually dependent upon each other to perform. Pooled task interdependence is when each person is autonomous, but their contributions must be pooled to achieve success.

You will have to draw the class out here to get their work experience. Anyone who has worked on an assembly line can give you an example of sequential interdependence. A good mutual interdependence example can come from someone who has worked in a department store or a student who has had to check customer credit with the credit office. A good pooled interdependence example can come from anyone who has been a salesperson. The success of the unit depends upon how each one does.

Some examples from sports are helpful here. Sequential interdependence can be illustrated by a relay track team. Reciprocal interdependence characterizes almost every team sport, such as, baseball, football, basketball, soccer. Pooled interdependence is exemplified by teams in sports such as golf, tennis, and bowling.

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### ETHICAL, DIVERSITY AND GLOBAL ISSUES

#### **A Question of Ethics: Formalization and Electronic Mail Snooping**

Does an organization have the right to “open” the private email of an employee that is in its own electronic communication system? Should employees use the company’s email system for their own personal business or communication?

Email is now a major communication medium that can cause different sorts of problems for a firm. For example, employees might use the firm’s email for personal communications or business. Or, some firms believe that it is acceptable practice to read the email messages that employees receive through the company’s system. In fact, in some cases in some cases in which employees have had their personal mail at work read by someone in the firm, they have brought a legal suit for invasion of privacy. Usually the firm wins, but it can be an expensive victory.

One approach to alleviate this problem is a formal policy that outlines what is acceptable and what is not. Yet a survey found that only 36% had any formal policy covering what is acceptable practice. One company that does is DHL Systems, a division of DHL Worldwide. "We felt it was important that everyone knows exactly what the rules are. The idea was to be up front and honest about what behavior is acceptable and what isn't." DHL Systems researched the law on the matter, asked staff members for feedback, and then developed a formal policy that articulates its approach to governing email and online access for its employees. The policy prohibits discriminatory or harassing communication and obscene messages. The email system can be used, judiciously by employees for non-business purposes, but employees are not to abuse the privilege. The policy also states that, in general, information created on the firm's computers is private, but DHL Systems reserves the right to review electronic messages and files to ensure that employees are complying with the policy.

*Source: Adapted from Greengard (1996)*

#### **Global Focus: Organizational Design at Procter and Gamble**

For many years Procter and Gamble used a regional form of organizational structure. There were four regional area divisions for the complete global operations. P&G will now have, instead, seven global product divisions for its product lines; baby care, beauty care, fabric and home care, feminine products, food and beverage, healthcare and corporate new ventures, and tissues and towels. There will be eight market development organizations in North America, Central and South America, the Middle East and Africa, Central and Eastern Europe, Western Europe, Japan/Korea/ India/ Australia, China, and Latin America. The role of the market development organization is to develop P&G product portfolios in each of these geographical sectors.

Instructor's Manual To Accompany: Fundamentals of Organizational Behavior: What Managers Need to Know (Tosi & Mero)

One of the main reasons for the change in the organization structure is that it will shift the orientation of P&G from a regional focus to a product focus. It will also result in more efficient operations at P&G's headquarters (*Manufacturing Chemist*, 1998).

### **Diversity Issues: Work Teams with Women and Minorities**

Using cross-functional work teams brings a broader range of skills to the solution of complex problems in organizations. Cross-functional teams bring together individuals from different functional areas of the organization with different competencies to work on serious problems, making cooperation an important ingredient to team success.

One factor which could get in the way is when the team is highly diverse, not only in terms of member loyalty to different organizational units, but also when there is gender and racial diversity on the team. This is an increasingly important question since women and minorities are becoming a larger portion of the work force.

A study was conducted in a state government agency that examined this question, focussing on the specific issue of racial and gender composition on how team members themselves and external evaluators judged the effectiveness of teams [Baugh, 1997]. One important result is that members of cross-functional work teams with women and minorities perceived their teams as less effective than those on homogeneous teams. However, those on diverse teams did not view their team as having less effective interpersonal working relationships than the homogeneous teams. Another interesting result is that white members of diverse teams believed that the work was less evenly divided than do minority members. However, and this is a key point in this study, the external evaluators do not appear to share the perception of unequal effort within teams with racial variation relative to homogeneous teams. This suggests that while diverse teams may be able to achieve good organizational results, attention must be given to managing the internal group processes.

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### CASE: COLE AND WILEY

#### Case: Cole and Wiley

Cole and Wiley is one of the largest drug manufacturers the world. It has developed some of the most popular drug preparations for a wide variety of diseases and illnesses. Ben Watkins, the New England regional sales manager for the company, was interviewed by Mary Paine, a reporter for a nationally distributed marketing and sales magazine, about the company's system for managing the sales force.

Paine: Let's talk about the situation that your medical representatives typically face in carrying out their job. What, basically, are they supposed to do?

Watkins: Their job is to make sure that physicians know our products and are aware of our product's advantages. They should call on all of the physicians in their area at least once a month. During a visit to a physician, the medical salesperson must talk about whatever preparation we are emphasizing at that particular time. We usually require our sales personnel to discuss two or three products on a single visit, with one product receiving the greatest emphasis.

Paine: What do you do to help them convince the physician to prescribe your products?

Watkins: We provide them with many different selling aids. Here's one, for example. This little booklet provides a lot of information about epilepsy and an anticonvulsant drug we have developed to deal with it. We also furnish the physician with free samples of our drugs, with articles that report on the use of our products in various research studies, and with other promotional material such as these notepads, or these little flashlights designed to keep the name of a new drug in the physician's mind.

Paine: What else do you do to help sell your products?

Watkins: Well, of course we carefully select our personnel. We prefer to hire an individual with a master's degree in business and a science undergraduate degree. We need people who are able to converse effectively with physicians. We also spend an enormous amount of time and money on training. Here is a book we had produced to teach our medical representatives about glaucoma. We recently produced a preparation for the treatment of glaucoma that does not have the side effects of another company's preparation, which was a drug long used for this disease. As you can see, it uses a programmed learning format so that the medical representative can progress at his or her own rate for self-instruction. In addition, we also bring our sales personnel back to Boston for various conferences we run

on our new preparations and our current sales programs. We also teach our sales personnel how to make a presentation to a physician.

Paine: So they are supposed to follow a specific procedure in calling on a physician?

Watkins: Definitely. We tell them exactly what to say, when to say it, and how to say it. We work out the best way to get a good result and try to get them to do it that way.

Paine: Do they only call on physicians? Is that the only thing they do?

Watkins: No, they sometimes run meetings in a community where they provide dinner and drinks to physicians and their spouses and show some film or videotape that our marketing department has commissioned. We send these films to various locations around the country. The films generally deal with some medical problem for which we have developed products. Also, our sales personnel staff booths that we set up at state medical association meetings. In addition, they call on pharmacies as well as physicians.

Paine: What do they do at pharmacies?

Watkins: They tell the druggist what drugs the company is promoting in that area at the time so the druggist knows that local physicians may be prescribing them. They also check the druggists' supply of our products to make sure they have an adequate amount on hand and carry out other promotional programs directed at the druggist. We tell our sales staff each month what we want them to do when visiting the various pharmacies in their area.

Paine: Do you assign them a certain number of physician calls to make in a particular period?

Watkins: Yes. Our salespeople have a schedule for each day, which they must follow or explain to us why they deviated from it. Of course, the schedule depends on the amount of travel time necessary for a salesperson to reach a certain community. We do expect the salesperson to stay overnight at those locations that are far from his or her home.

Paine: How do you evaluate their performances?

Watkins: Well, we have a management by objectives system in use in this company. Every medical representative is supposed to produce a given amount of sales for each of our drugs in his district. These are the sales person's goals. We then send these computer sheets that tell the sales for each of our products in his or her

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district for each three-month period. As you can see, this report tells the medical representative how much the sales are above or below those expected in this area.

Paine: Do the salespeople set these goals themselves?

Watkins: No. This office sends them to them, but if they think the goals are not possible to attain and can convince us that they are unrealistic, we might change them.

Paine: Does the salesperson have any other goals except sales goals for different products?

Watkins: Yes, I set self-improvement goals for each of my subordinates when we have our yearly performance review interviews. For example, here is one for Bob Wills in Vermont: Increased product knowledge in the nonsteroid anti-inflammatory area

Paine: Do you pay a bonus for reaching or exceeding sales goals?

Watkins: No, we don't want our salespeople to become too pushy in dealing with physicians. You must be careful not to offend them. This company believes that sales will be the result of developing high-quality products and then providing physicians with accurate information about these products.

Paine: How well has your research and development division done in providing your sales personnel with high-quality products?

Watkins: They have done an excellent job. We have far more products coming out than any competitor. Our products are also new and significant, not just "me too" products that are copies of somebody else's.

Paine: What's your research and development unit like? You must have visited your research labs.

Watkins: Yes, I have once or twice. They are located in Pennsylvania and are pretty impressive facilities. They seem to be a very pleasant place to work

Paine: What types of management procedures do they use? Do they have a management by objectives system too?

Watkins: Oh no. They are pretty informal. It's sort of like a university atmosphere down there. They are not held accountable for reaching specific goals or told how to carry out their responsibilities.

1. What type of organization is Cole and Wiley?
2. How would its various units be structured?

**Case discussion: Cole and Wiley**

Cole and Wiley is a pharmaceutical company. It has all the characteristics of a technology-dominated mixed (TDM) organization. You can infer this from the description of the marketing unit and the R&D unit by Watkins.

The marketing unit is somewhat structured. There are programmed selling aids for the sales personnel. They have very specific instructions about what to do when calling on pharmacists or physicians. Further, even though they are selective about the sales force, one can infer that an adequate number of job candidates exists in the pool, otherwise the company could not be selective.

The compensation system and the performance evaluation system are also characteristic of the mechanistic form of the marketing unit. A quota is set by headquarters, and the pay system is designed to support the company's non-pushy philosophy by not paying a bonus when the salesperson exceeds performance quotas.

The marketing unit contrasts with the R&D segment of the organization in some interesting ways. There are no quotas in R&D. They are more flexible. It is interesting to note that the R&D unit is separated geographically from the marketing group. This will help alleviate the perceptions of inequity that could develop between the two groups as a result of the differences in their structures.