amounts owed to others. Although smaller than the accounts-receivable ledger, it is usually large enough to require the work of several -- full-time clerks.

CHAPTER V

FINANCE

Theory of Financial Management

Finance is not unique from other aspects of - business operations in that it has a role, as do other management functions, in the optimization efforts of the firm. Goals are set, - decisions are made, and models are used to -- help reach optimal decisions in terms of atta ining these goals. In the language of the be havioral theory of the firm, financial management involves goals, choices, and models. A positive statement of the goals of the firm in modern financial literature has been expre ssed in terms of either the maximization of - value (or wealth) or the maximization of expected utility. Consider the following three elements:

1. Alternative policies or decisions are related to alternative streams of earnings over some projected period.
2. An appropriate procedure for handling differences in timing of cash flows must be determined.
3. Investor attitudes toward risk must be determined, and ways of measuring risk and bringing it into the analysis must be developed.

We can recognize from this list that goals -- other than wealth or utility maximization - have been set forth and that goals for different participants-stockholders, labor, customers, management, and so on-have been emphasized. Our judgment, however, is that the most relevant theories can be built on the principle of stockholder wealth maximization, and - that the other goals should be taken as constraints limiting stockholder wealth maximization. In other words, corporate managers have their own personal goals as well as stockholder wealth maximization in mind when they -- make decisions. The managers of a firm may, for example, prefer to emphasize risk avoidance, the prestige that is attached to public - service (as opposed to concentrating on running the business), and so on. Recognizing this, executive compensation plans emphasize incentives-bonuses, stock option plans, and so on- designed to stimulate management to operate - in the stockholders' best long-run interests. At the same time, proxy fights, tender offers, and the like, present serious threats to a -- management that is not operating in the best interests of its stockholders. These pressures, we believe, serve to make stockholder - wealth maximization a realistic, operational assumption in most situations.

Financial Policy Decision Models

Financial decisions affect both the size of -

the earnings stream, or profitability, and -- the riskiness of the firm. Policy decisions affect risk and profitability, and these two factors jointly determine the value of the - firm.

The primary policy decision is that of choosing the industry in which to operate the product-market mix of the firm. When this choice has been made, both profitability and risk are determined by decisions relating to the - size of the firm, the types of equipment that are used, the extent to which debt is employed, the firm's liquidity position, and so on.

These decisions generally affect both risk - and profitability. An increase in the cash - position, for instance, reduces risk; but since cash is not an earning asset, it also reduces profitability. Similarly, the use of -- additional debt will raise the rate of return or the profitability of the stockholders' net worth; at the same time, more debt means more risk. Financial analysis seeks to strike the particular balance between risk and profitability that will maximize the wealth of the -- firm's stockholders.

Business decision models have been designed - to help solve various types of problems, including wealth maximization. Models are symbolic representations of some aspects of the world, and they consist of sets of variables and the relationships among them. In the --

most general terms, a model relates control -- variables and uncontrolled variables to out-- put or performance. The solution to the model consists of determining the values of controlla ble variables that maximize performance. -- (including minimizing cost).

When a decision rule is introduced into the - optimizing value of the control variables, we have a decision-making model, or decision mo-- del, from which decision rules may be develo-- ped. For example, one decision model we shall discuss is the slection of the omptimum quan-- tity of inventory to carry. The model is sol- ved to minimize inventory carrying costs. From this solution, we derive a decision rule for - placing order.

CHAPTER VI

PRODUCTION

The Production and Operations Function

Wealth comes only from production. Those who agree with this position do so after first -- having defined wealth and production in a cer tain way. To begin with, wealth would be con sidered to be the aggregate amount of goods - and services that had been generated during - some given time period. Goods would include such things as automobiles, clothing, houses, food, furniture, roads, ships, books, radios, television sets, airplanes, schools, dams, -- paintings, sculptures, pencils, and medicines. Services would be represented by the end re- sult of activities engaged in by such indivi- duals as physicians, salespeople, lawyers, - teachers, barbers, clergymen, entertainers, - repairmen, computer programmers, reporters, - economists, waitresses, accountants, adminis- trators, pilots, truck drivers, cooks, and po licemen.

The meaning of production follows from the - foregoing definition of wealth. With referen- ce to goods, we should say that production is the fabrication of a physical object through the use of men, materials, and equipment; -- whereas, with reference to services, we shou- ld say that production is the discharge of a function which has some utility. Admittedly, this interpretation of the production activity