

International Conference

**GENERAL  
ACCOUNTING  
THEORY**

*Towards Balancing the Society*



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# **CONTRACT THEORY AND STRATEGIC MANAGEMENT: BALANCING EXPECTATIONS AND ACTIONS**

## **Abstract**

Business firms as well as each of their subunits can be thought of as a set of contracts in which participating agents seek their own goals. Participants contribute resources, expecting to receive in exchange more than the opportunity cost of their contributions. For this system to work, the expectations of each individual must be in balance with what he/she is expected to contribute. In addition, the production technology of the firm must be capable of fulfilling such expectations in aggregate. Changes in factor and product markets continually alter the expectations and actions of individuals, nudging them out of balance, and threaten the feasibility of the contract set. A strategic manager scans the relevant markets for incipient changes in environment, and redesigns and implements new contracts which balance the self-interest of individuals with their changing expectations. Redesign and renegotiation of contracts is complicated because people protect their self-interest. Many firms collapse when the managers fail to recognize and act upon the changes in business environment in a timely fashion. Some redesign efforts fail because managers do not elicit the cooperation of those who have the necessary knowledge and expertise and expect to be adversely affected by the proposed changes. The contract model of the firm provides a framework and perspective to reduce such failures.

## **1. The Problem**

A basic problem of management is identifying the sources of the firm's successes and failures. When a business is profitable and growing it is difficult to pinpoint why it is doing well. Success, as well as failure is often a joint consequence of many attributes and events. The marginal value of contribution of an agent depends on the contribution of others. Heads of businesses often credit their own brilliance and skill for successes, and

blame others and circumstances beyond their control for failures. Rhetoric and public relations are important elements of business legends.

When a business is doing well, it is easy to convince oneself that it always will. Unprofitable businesses are pressed to change, making it difficult for them to stay the course. It takes courage and discipline to argue with success. Those who do risk blame for any deterioration in performance. It is not surprising that managers are reluctant to tinker with a winning formula until they stop winning. Then, it may be too late.

Business history is replete with failures of yesterday's models of success<sup>1</sup>. Good, even great performance today does not even assure survival tomorrow. By the time the corporate performance turns weak or poor, it is often too late to change course and recover. What goes wrong with the management of corporations? What can managers do to reduce the chance of failure?

The concept of organization as a set of contracts among agents seeking their own respective goals can be used to gain perspective on this question. During the past quarter century, what the top managers are supposed to do has changed from long term-planning to business policy, and then to business strategy and strategic management. While some people view these as paradigm shifts, others view these "paradigms" as simply metaphors, myths, or lexicon created to organize our discourse<sup>2</sup>. Contract model of organizations, we shall argue, offers a convenient and easy to understand framework and language for the crucial contributions top managers must make to help organizations survive, transform, and grow. It does not matter whether we call these contributions, whether long-term planning, business policy or strategy. Since the last of these terms is currently in favor, we shall use it the following.

## 2. A Contract Model of the Firm

How managers run an organization depends on how they think about it. Everyone has a different way of thinking about work. Some think of the business as a proprietorship in which the interests of the owner – usu-

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<sup>1</sup> Daewoo Corporation in Korea, Saloman Brothers and Westinghouse Corporation in the United States and Barings Bank in United Kingdom are some examples.

<sup>2</sup> Mintzberg (1990), Meyer (1991), Beeby (1992), and Harfield (1998).

ally defined as maximization of profits or share price – are paramount over the interests of all others. Some think of business as a governing structure or hierarchy, in which the subordinates carry out the wishes and orders of their superiors. Following orders or procedural rules becomes important. Yet, others may think of a business as an employment agency maximizing the number of people employed. There are numerous other perspectives.

How we think of our work is a major determinant of what we do and how we do it. Placed in the same situation, different people react in diverse ways because they have another model of the situation. We shall discuss a contract model of the firm.

Figure 1 illustrates a contract model of the firm. It originated in the work of Barnard, Simon, Cyert and March, beginning in the late thirties, although the idea can be traced to J. J. Rousseau. It is a fruitful way of thinking about organizations, their management, and strategy. We can think about a firm as a set of contracts or alliances among people involved in it. The number of people can be large, but we simplify. Figure 1 illustrates just a few parties—shareholders, managers, customers, suppliers, employees, and government, in no particular order. We can add more people as necessary.

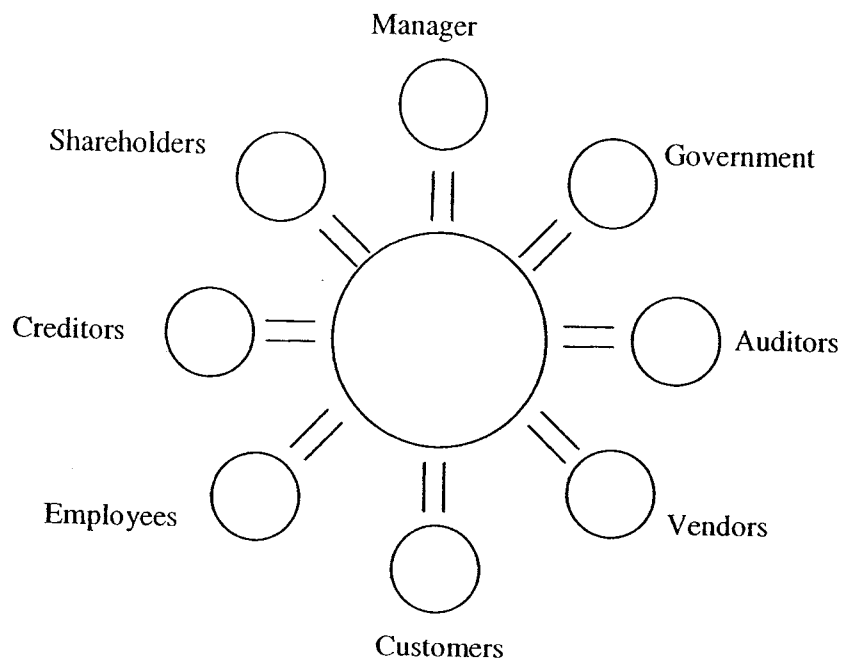


Figure 1. The Firm as a Set of Contracts

In the figure we see people linked by resource flows. Each party is expected to contribute resources to the firm. Each party expects to get resources back from the firm in exchange for its contribution. Shareholders contribute capital and get back dividends, the right to elect the board of directors, and rights to the residual resources of the firm. Managers and employees contribute their skills, and get back compensation, perquisites, and bonuses. Customers contribute money, and get back products and services they pay for. Vendors contribute products and services, and get back money from the firm. Even the government contributes in the form of public services, and gets back taxes. We could add more parties to this model, but for our purposes it is not necessary to make this illustration more complicated.

### **3. How Firms Work**

Symmetry at the most basic level is an important feature of these contractual relationships. Before we distinguish the individual relationships by their special features, we note and emphasize that everyone fundamentally has a similar relationship in the firm. Each person knows what he or she wants. Each person works and tries to get what he or she wants.

A contract is a commitment, mutual expectation, or understanding among the participants. Each participant contributes resources to the organization, and in exchange, expects to receive resources from the organization. The label contract describes the relationships that constitute the firms. It implies mutuality of rights and obligations.

We emphasize the symmetry of the contracts of all participants in organizations: everyone contributes sources and everyone gets an agreed-upon share of resources in exchange. However, resources contributed by various participants have different characteristics (Figure 2). For example, markets for various resources are not equally developed or liquid. Some resources are easier to measure than others. Some resources can be bought and sold independently, while others are bundled together. Some resources are private goods, while others are public goods. Contracts to manage the exchanges of such a variety of resources have to be designed to take these distinctions into account. These distinctions help us fill out the details of management; therefore the forms these contracts take are

also different. For our present purposes we can bypass these differences as details.

<b>Type of Agent</b>	<b>contribution</b>	<b>entitlement</b>
<b>Shareholder</b>	equity capital	dividend
<b>Manager</b>	skills	salary, bonus, benefits
<b>Employee</b>	skills	salary, wages, benefits
<b>Vendor</b>	goods, services	cash
<b>Customer</b>	cash	goods, services
<b>Lender/creditor</b>	loan capital	interest, principal
<b>Government</b>	public goods	taxes
<b>Auditor</b>	services	fees

Figure 2: Contributions and Entitlements of Various Agents

In everyday English, the term contract also carries the unnecessary baggage of a formal legal instrument. This formality is not intended here. Some contracts that constitute the firm are legally enforceable and others are not. Fortunately, even the legally enforceable contracts do not necessarily have to be written contracts. A mutual understanding and expectation is all we mean by the term contract here. All contracts are not made explicit or in writing. Our use of the term contract here draws on the concepts of social contract and social norms.

This concept of organization focuses on the goal seeking behavior of the participants rather than on the goal seeking behavior of the organization itself. The organization is viewed merely as an arena in which the individuals play by mutually agreed-upon rules and seek their goals. Organization goals, to the extent they are necessary, are seen simply as a combination of the goals of the participating individuals. This approach may, at first, seem to be a surprising choice of a model for business strategy. However, we shall argue and demonstrate that shifting attention away from the idea of organizational goals is a key to building a model of management and strategy. Although the theory is applicable to organizations in general, we focus here on the structure, management, and strategy of business organizations.

#### **4. Role of Controls**

Inducements from, and contributions to, participating agents take many forms. Controls include a system of measuring the contributions from each agent, determining the amount of inducement due them, and monitoring the distribution of inducements so that each agent receives his/her due, no more and no less. Agents who do not receive what is due them may leave and agents who receive more than their contractual due will reduce the share of others which may induce them to leave. In either case, a failure to perform this basic control function leads to the collapse of an organization.

Controls help implement and enforce the set of contracts. These include: (1) measuring contributions from each participant to the organization; (2) measuring the inducement received by each participant; (3) comparing the contributions made and the inducements received by each participant to the respective contractual quantities and distributing this information to various participants. In addition, (4) the contracts help reduce the cost of transacting in various factor markets by providing potential participants with information, and (5) providing some information in the form of common knowledge to help renegotiate contracts. We shall focus our present discussion on the first three functions.

#### **5. Necessary Conditions for Firm to Work**

For an organization to be feasible and to survive, the contract set must meet two necessary conditions. The first condition applies to each individual participant, and the second applies to the contract set or organization as a whole.

The individual feasibility condition requires that the contract set be such that each participant must expect to gain his/her goals from participation in the organization. More precisely, what each participant expects to receive from the organization must exceed the opportunity cost of the resource contribution he has to make to the organization. In a world of goal seeking participants, anyone who does not see the gain from participation to exceed the opportunity cost of participation will refuse to participate and quit the organization. If the opportunity cost is higher than what he/she will receive, he/she can utilize his/her resources in that alter-



native use and gain a higher level of satisfaction. This means that the contract set can have only those participants who expect to gain, not lose, from their participation. In a world of uncertainty, these expectations may not always be fulfilled. However, if they remained unfulfilled always, or systematically, people will learn to modify their expectations. You cannot fool all of the people all of the time.

The second condition applies to the organization as a whole. The firm's production function should be able to produce enough output from the resources contributed by the participants to satisfy the expectations of all the participants. If the total output falls short of the sum of expectations, at least some participants will be disappointed in the results, and will quit the firm. If the participation of those who quit is necessary for the contract set to function, their departure will result in collapse of the firm. Thus both individual and aggregate conditions are necessary for the firm to function.

The contract model suggests that the management must continually ask the following questions for every decision and event, whether actual or prospective:

- Will it make any individual's contract infeasible from his/her point of view (in the sense that the opportunity cost of the resources contributed by the individual exceeds the rewards expected by the individual from the firm)?

- Will it make the collection of contracts as a whole infeasible (in the sense that total resources available for sharing among the participants are insufficient to fulfill their expectations)?

The value of asking such questions can be seen by investigating the failure and bankruptcy of firms, even great corporations such as Penn Central Railroad, Pan American World Airways, Enron, and WorldCom in the United States. There are similar examples available everywhere. A common element in all business failures is that the firm's contract set is no longer economically feasible by the individual and the aggregate criteria listed above. Let us consider a simple example in Exhibit 3.

The example has a firm with six contracting parties: shareholder, manager, employee, creditor, vendor, and customer. Each contributes resources whose opportunity cost to them is 10 units of currency for a total of 50 units. The firm has devised a production and marketing plan so the customer would be willing to pay up to 60 units for receiving the output

produced from the resource contributions of the first five participants. Thus the value of resources that can be made available for distribution to the first five participants could be as high as 60, but we have to have only a total 50 units available. Because the plan makes it feasible to make a positive net surplus of 10 units available to the contracting parties, the production technology of the firm fulfils the aggregate feasibility condition.

Given the aggregate feasibility of the contracts, the management can try to negotiate the individual contracts with the participants. Suppose the management is able to negotiate the resource shares for each participant as shown in the second column. It sells the product to the customer for 56 units (allowing the customer an economic rent of 4 units from participation in the contracts). These 56 units of revenue are distributed among the first five participants as shown in Column 2, giving a rent of 1 to the shareholder, 2 to the manager, 1 to the creditor, 2 to the employee, and 0 to the vendor (shown in Column 3). Since every participant receives at least the opportunity cost of the resources contributed, the contract set is individually feasible. Note that the sum of the rents to all participants is 10 units, which equals the net surplus available under the firm's production technology.

Two considerations complicate this simple picture of managing the firm – privacy of agents' opportunity costs and non-simultaneous negotiation of contracts. The preceding discussion assumes that the manager knows the opportunity costs of all agents in negotiating the firm's contracts. This is not the case unless the goods or services the agent has to offer are homogenous, and the market for this factor is perfect. Due to heterogeneity and other imperfections of the market, opportunity costs are private to agents, and they have reasons to keep them private. The degree of imperfection in the market determines the imprecision in the manager's estimate of agents' opportunity costs. The agents, on the other hand, have only an imprecise estimate of how much total surplus the manager has on hand to distribute among various agents, including the managerial bonus and the residual for the shareholders. The bargaining between the manager and each agent occurs in presence of this veil of mutual uncertainty.

From experimental literature on bargaining (e.g., Lin and Sunder, 2001) we know that when the agents know each other's reservation values, they are most likely to split the surplus equally between them. Uncer-

tainty about the reservation values renders the outcome less predictable. Depending on the individual perceptions of their bargaining power and bargaining abilities, some agents come away from the table with larger chunks of the surplus than others. A tendency to boast or complain about the “deal” leaks private information about opportunity costs, and influences bargaining in the subsequent periods.

	Old Opp. Cost	Old Share	Old rent	New Opp. Cost	Min/Max New Share	A Feasible Revised Contract
	(1)	(2)	(3)	(4)	(5)	(6)
Shareowner	10	11	1	11	11/17	12
Manager	10	12	2	9	9/15	10
Creditor	10	11	1	12	12/18	13
Employee	10	12	2	9	9/15	10
Vendor	10	10	0	8	8/14	9
Subtotal	50	56	6	49	49/55	54
Customer	60	56	4	55	55/49	54
Net Surplus	10	0		6		

Figure 3. Feasibility of the Contract Set Under Changing Conditions

The manager faces another kind of uncertainty arising from the non-simultaneous nature of bargaining or resource commitments to various agents. The manager builds plants on the basis of estimated cost of production, marketing, demand, and price well before negotiating the contracts with the customers, plant workers, sales people, and the short-term lenders. As the plant nears completion, and the manager begins to hire and train workers, the plant cost may exceed the estimates, shrinking the available surplus. The estimated surplus available for distribution changes with the passage of time, and with each deal the manager concludes. The distribution of surplus illustrated in Figure 3 is, at best, a snapshot of continually changing point estimates.

## 6. Changing the Feasibility of Contracts

A contract set which is feasible today may not remain feasible tomorrow. Events that make existing contract sets infeasible are a major threat to the continued viability of the firm. After discussing the nature of these threats, I argue that anticipating these threats and adjusting the contract set to reestablish its feasibility in the changed circumstances will prevail in the future and is the essence of what senior management must do. It does not matter whether we can call it long-term planning, business policy, or strategic management.

Changes in opportunity costs arising from changes in conditions that prevail in various factor markets, and changes in technology are the main sources of threats to the firm. Due to changes in the capital market, equity, or loan capital may become more or less costly. Owing to changes in the labor market, labor may become more or less costly. The same could be said of all the other factors of production.

Due to changes in product markets, the price at which a given volume of output can be sold, or the volume which can be sold at a given price, may change. These changes could take place either due to changes in customer preferences (e.g., fashion products), or due to competition. New product introductions, or entirely new technologies, that may make an entire product line obsolete, are a major threat. Computer-based word processors played a major role in making the century-old product lines of Smith Corona obsolete within a short period of time. In addition, new production and distribution technologies (Internet commerce, for example) may become both a major threat, as well as a major opportunity, for a firm.

Many firms rely on their history and experience to make their plans and define their contracts. While history and experience can be invaluable in a stable business environment, they can, in changing environments, lead managers to false confidence and incorrect conclusions and the wrong kind of commitments.

Returning to our simple numerical illustration in Figure 3, suppose the market conditions change, or are expected to change, in such a way that the opportunity costs of the existing participants change from the numbers given in Column 1 to Column 4. The opportunity cost of equity capital increased by 1, and the loan capital by 2; the opportunity costs of the manager and employee decreased by 1 and decreased for the vendor by 2.

Given his new opportunities, the most the customer is willing to pay for the product is 55, which is 5 less than before. What can the management do?

The creditors, whose opportunity cost 12 now exceeds their allocation of 11 under the existing contract, will no longer be willing to participate in the firm on the existing terms. The customers, who can get a comparable product at 55, would no longer be willing to pay 56. The total surplus available for distribution among the existing agents has shrunk from 10 to 6; therefore the manager must either renegotiate the contracts among the existing agents, or design a net contract set among a non-identical set of agents. The last column of Figure 3 shows a revised contract that is feasible individually as well as in aggregate.

## 7. Strategic Management

From a contract theoretic viewpoint, strategic management consists of anticipating changes in the business environment of the firm, and revising and renegotiating its contract set. The revision must ensure that it will remain feasible and attractive (in the sense of generating economic rents) from the point of view of all whose participation is necessary in the revised contract set. We can list five elements of strategic management.

### *Anticipating change*

This is the most difficult part of management. It can be verified by revisiting expert predictions made years ago. The more successful a business is, the easier it is for the managers to think that the success will continue, and the less vigilant they are likely to become in looking for new threats to their existing contract set. It is easy to make projections from the past, but it is more difficult to anticipate how the future may differ from the past. Those who anticipate change, earn the precious few months, even weeks, to revise the contract set and get a jump ahead of their competition. Those who wait, and do not recognize changes in the environment until things begin to fall apart, lose out.

Given the inherent unpredictability of the future, managers use several methods to predict as best as they can. Statistical forecasting techniques try to use all the information in the past data for making future projections (Makridakis and Wheelwright, 1997). The Delphi technique, developed

by Rand Corporation aggregates the observations, experience, and insights of many people to form a consensus with the hope of improving upon what an individual can do. Scenario analysis, developed by Pierre Wack of Royal Dutch/Shell, gives up on point forecasts in favor of considering the range of probable futures with the aim of preparing the organization to be ready for them all. As the examples in Figure 5 illustrate, even the best-informed forecasts can often be wrong. Good managers cannot be always right, they only try to keep the error rate low, and have the agility to adjust quickly when their predictions go wrong.

SWOT (strengths, weaknesses, opportunities, and threats) analysis is a well-known analytical aid to help managers think through the existing state of their environment and the potentials for change. Porter's five forces of competitive strategy (1980) are taken from two of the markets firms operate in. One of these-vendors-is from the market for purchased goods and services. All the other four are from product markets. Customers count as one force, existing and potential competing sellers of the product count as two more, and the substitution of existing products by new ones (whether introduced by existing or new competitors) count as a separate force. Thus Porter's model focuses attention on the uncertainties associated with the product markets and outlines a method for managers to anticipate and prepare for future events. Uncertainties associated with other markets play lesser roles.

### *Redesigning the contract set*

Adjustments to change mean redesigning the contract set for the new environment. It takes imagination, creativity, and in Gary Hamil's words, "lucky insight." Under the changed environment of our simple numerical example in Figure 3, there is no unique revision of the contract set. Column 5 shows the range of possible contracts for each of the six agents. Of course, the choice of individual contracts cannot be made independent of others because the aggregate constraint of distributing the surplus of 6 must be met under all conditions. Column 6 shows one feasible solution. It requires an understanding of the whole picture of the business. It is not sufficient to have a thorough understanding of one or more of its parts.

In the Figure 3 example, the changes the firm faced made some individual contracts infeasible, but the contracts remained feasible in aggregate. Figure 4 presents a numerical example in which both the individual

as well as the aggregate feasibility of contracts is threatened by the change. Insisting on continuing the existing contract will mean losing the manager (whose new opportunity cost exceeds his share by 3); creditors (due to higher interest rates, their new opportunity cost exceeds their share by 1); vendors (whose opportunity cost exceeds their share by 1) and the customers who, after new products have been introduced by other firms in the market, can now buy a comparable product at a price of 45, which is 11 less than what they pay now. Only the opportunity cost of labor has dropped, although wages remain unchanged. Implementing the existing contract set requires a total resource outflow of 57 units and makes merely 45 units available to meet these expectations, yielding a shortfall of 12 units. What should the management do?

	Old Opp. Cost (1)	Old Share (2)	Old rent (3)	New Opp. Cost (4)
Shareowner	10	11	1	10
Manager	10	12	2	15
Creditor	10	11	1	12
Employee	10	12	2	9
Vendor	10	10	0	11
Subtotal	50	56	6	57
Customer	60	56	4	45
Net Surplus	10	0		-12

Figure 4. Feasibility of the Contract Set Under Changing Conditions

The first step is to check the aggregate and individual feasibility of the existing contract set. Under the changed circumstances, the contract set is not even feasible in aggregate. This also means that at least one or more of the individual feasibility conditions will be violated, and some of the participants in the existing contract set would not want to continue their participation on the current terms. The manager, the vendor, the creditor, and customers belong to this category. If they quit, and their participation is necessary for the enterprise, the firm will collapse. Hence, the contract

set must be redesigned (i.e., excluding some agents and possibly bringing in some others) and renegotiated.

There is no obvious algorithm for taking the data in Column 4 of Figure 4 and changing it to produce a feasible contract set. Redesigning the contract set involves searching for alternative production technologies, and juggling most, if not all of the pieces to find another aggregate and individually feasible solution. Redesign cannot assume that all the existing participants will continue to participate in the future. The contract may need to exclude some participants and bring in new ones. Since it is based on estimated opportunity costs, which are private to agents, the redesign must have enough slack to survive errors and adjustments. This redesign must be completed before negotiations begin, and then adjusted continually to the results of negotiations and any new information that becomes available with the passage of time.

New technologies, products, markets, management methods, organizational forms, and images, play an important role in the design of firm's contracts. The development and foresight of new technologies create new products, customers, industries, ways of living, and doing things. Even with familiar technology, creative firms can develop improved or new products. While many technologies and products are developed to meet pre-existing or recognized demand, others create new customers and markets of their own. Better methods of organizing and managing change the economics of the firm and require new contract designs. How a firm is viewed by participants in various markets affects its negotiations with agents and the design of its contracts. Most firms are not atomistic price takers in markets they operate in; they often have significant market power to influence the behavior of markets through their own decisions. The creation and maintenance of market power is essential to a firm's ability to earn economic profits for its participants.

### *Renegotiating with continuing participants*

In the Figure 3 example, renegotiation with the existing participants is both necessary and sufficient for the continuation of the firm, although the manager may also want to redesign the contract set at any time. In the Figure 4 example, the management must decide which participants are needed in the revised contract set and then renegotiate new contracts with them, in light of their revised opportunity costs. Obviously those whose



opportunity costs increase will demand more, while those whose opportunity costs drop will be reluctant to give up their share of resources. Opportunity costs are not common knowledge, and this may lead to difficult negotiations in revision of contracts.

The effect of estimation errors in this environment is not symmetric. When the manager overestimates the opportunity cost of an agent, the agent is able to negotiate a better deal with a larger share of the surplus, leaving less for other agents. On the other hand, any underestimate of the agent's opportunity cost confronts the manager with demands that appear to be unreasonable and aggressive. If the manager refuses, negotiations break down, and he must go back to search for another agent or redesign the contract set. If the manager yields to the demand of the agent, he may encourage other agents to take a tougher negotiating stance. In either case, more of the surplus gets used up in the process.

#### *Negotiating termination of contracts*

In a redesigned contract set, some of the participants of the older set may not be able to participate. The manager anticipates which participants are likely to have to be terminated in the near future, and choose the term and conditions of their contracts appropriately to minimize friction at the time of termination. Unhappy agents can impose additional costs on the firm. Those who must be terminated unexpectedly have to be compensated in the form of severance pay and benefits. Improved foresight about the changes in markets, prospective changes in contracts, and participants, lowers termination costs. Long-term planning or strategic management help lower these costs.

#### *Finding new participants and negotiating their contracts*

If the revised contract set requires the participation of new people, the management must find these individuals in the appropriate factor markets and negotiate their contracts. Interested agents face an information asymmetry because the managers are likely to know more about the agents' future prospects from occupying a contractual slot. In capital markets, firms publish audited financial statements to eliminate information asymmetry between existing and potential shareholders. Advertising in product and labor markets includes the distribution of free information to

potential customers and employees in the hope of attracting their participation.

Even as the managers implement a revised set of contracts, they know that this cycle of anticipation, revision, negotiation, and implementation, will be repeated endlessly in response to changes induced by their external environment and their own initiative and innovation. Doing it well once is good management; doing it well repeatedly is strategic management.

"I think there is a world market for maybe five computers."

--Thomas Watson, chairman of IBM, 1943

"I have traveled the length and breadth of this country and talked with the best people, and I can assure you that data processing is a fad that won't last out the year."

--The editor in charge of business books for Prentice Hall, 1957.

"But what . . . is it good for?"

--Engineer at the Advanced Computing Systems Division of IBM, 1968, commenting on the microchip.

"There is no reason anyone would want a computer in their home."

--Ken Olson, president, chairman and founder of Digital Equipment Corp., 1977

"This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us."

--Western Union internal memo, 1876.

"The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular?"

--David Sarnoff's associates in response to his urgings for investment in the radio in the 1920s.

"The concept is interesting and well-formed, but in order to earn better than a 'C,' the idea must be feasible."

--A Yale University management professor in response to Fred Smith's paper proposing reliable overnight delivery service. (Smith went on to found Federal Express Corp.)

"Who the hell wants to hear actors talk?"

--H.M. Warner, Warner Brothers, 1927.

"I'm just glad it'll be Clark Gable who's falling on his face and not Gary Cooper."

--Gary Cooper on his decision not to take the leading role in "Gone With The Wind."

"A cookie store is a bad idea. Besides, the market research reports say America likes crispy cookies, not soft and chewy cookies like you make."

--Response to Debbi Fields' idea of starting Mrs. Fields' Cookies.

"We don't like their sound, and guitar music is on the way out."  
--Decca Recording Co. rejecting the Beatles, 1962.

"Heavier-than-air flying machines are impossible."  
--Lord Kelvin, president, Royal Society, 1895.

"Professor Goddard does not know the relation between action and reaction and the need to have something better than a vacuum against which to react. He seems to lack the basic knowledge ladled out daily in high schools."  
--1921 New York Times editorial about Robert Goddard's revolutionary rocket work.

"Drill for oil? You mean drill into the ground to try and find oil? You're crazy."  
--Drillers who Edwin L. Drake tried to enlist to his project to drill for oil in 1859.

"Stocks have reached what looks like a permanently high plateau."  
--Irving Fisher, Professor of Economics, Yale University, 1929.

"Airplanes are interesting toys but of no military value."  
--Marechal Ferdinand Foch, Professor of Strategy, Ecole Superieure de Guerre.

"Everything that can be invented has been invented."  
--Charles H. Duell, Commissioner, U.S. Office of Patents, 1899.

"Louis Pasteur's theory of germs is ridiculous fiction".  
--Pierre Pachet, Professor of Physiology at Toulouse, 1872

"The abdomen, the chest, and the brain will forever be shut from the intrusion of the wise and humane surgeon".  
--Sir John Eric Ericksen, British surgeon, appointed Surgeon-Extraordinary to Queen Victoria 1873.

"640K ought to be enough for anybody."  
--Bill Gates, 1981

"Based on extensive financial and market analysis, it's projected that no more than five thousand of the new Haloid machines will sell."  
--Consulting firm Arthur D. Little's 1959 report to IBM, when Haloid offered its product to IBM. Haloid later changed its name to "Xerox."

### Figure 5. Expert Predictions<sup>3</sup>

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<sup>3</sup> Sources: <http://www.thecommittedsardine.net/infosavvy/laughs/FamousPredictions.pdf>, and <http://my.athenet.net/~jlindsay/SkepticQuotes.html>.

## 8. Concluding Remarks

In summary, we can think of each business unit – firms, their divisions, plans, and sections – as a set of contracts. Each agent seeks personal goals through participation in the contracts. To this end, each participant contributes resources, and expects to receive more than the opportunity cost of these contributions in exchange. A workable contract set must be feasible for each individual, and in aggregate.

Changes in the business environment – externally or internally induced factor and product market conditions – alter the feasibility of contract sets. What is feasible today may not be feasible tomorrow. The failure to reengineer the contract sets to changes in environment is the frequent cause of business failures.

In spite of its early popularity in the U.S., business process reengineering has yielded mixed results, and for many, it has become a worn out management buzzword. In a survey, over half of the business process reengineering projects in U.S. corporations were judged by the management as failures. The contract model perspective suggests that such projects fail when the redesign effort is focused too narrowly to save costs in a section of business. A tight focus ignores the interests of many people whose cooperation is necessary for success. Not surprisingly, such people see reengineering efforts as a threat to their jobs, refuse to cooperate by sharing their knowledge and ideas, and even sabotage the reengineering projects. Contract theory suggests a broader perspective. Reengineering projects are more likely to succeed if the interests of the existing participants are included in the redesign calculation.

A strategic manager must continually scan the business environment (all relevant markets) for incipient changes, and act to bring about changes that will permit an increase in the surplus distributable to the participants. The contract sets must be reengineered to retain their individual and aggregate feasibility, and balance self-interest with changing expectations. Such redesign and renegotiation of contracts is complicated because people tend to act to protect their own interests. Many firms fail because the managers fail to recognize and act upon the incipient changes in business environment. When they do act, their redesign efforts may fail because they may not elicit the cooperation of those who have the necessary knowledge and expertise, but expect to be adversely affected by the

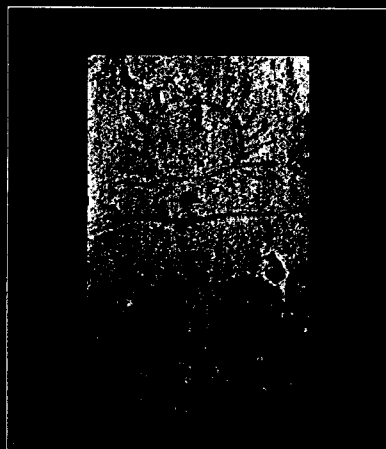
changes. The contract model of the firm gives us a framework to think, and minimize both kinds of failures.

### References

- [1] Barnard, Chester I., 1938, *The Functions of the Executive*, 30th anniversary ed. Cambridge, Mass.: Harvard University Press, 1968.
- [2] Beeby, C. E., 1992, *The Biography of an Idea: Beeby on Education*, Wellington: New Zealand Council for Educational Research.
- [3] Cyert, Richard M. and James G. March, 1963, *A Behavioral Theory of the Firm*, Englewood Cliffs, N.J.: Prentice-Hall.
- [4] Harfield, Toby, 1998, *Strategic Management and Michael Porter: a postmodern reading*, Electronic Journal of Radical Organization Theory IV.1 (August). <http://www.mngt.waikato.ac.nz/depts/sml/journal/special/harfield.htm>.
- [5] Lin, Haijin, and Shyam Sunder, 2001, *Using Experimental Data to Model Bargaining Behavior*, in Amnon Rappaport and Rami Zwick, eds. Title.
- [6] Makridakis, Spyros G., ed. And Steven C. Wheelwright, 1997, *Forecasting: Methods and Applications*, New York: John Wiley.
- [7] Meyer, A., 1991, *What is strategy's distinctive competence?*, Journal of Management, 17(4): 821–33.
- [8] Mintzberg, H., 1990, *Strategy formation: schools of thought*, in JW Fredrickson, ed. Perspectives on Strategic Management, New York: Harper Business, pp. 105–236.
- [9] Porter, Michael E., 1980, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*, New York: Free Press.
- [10] Rousseau, J. J., *The Social Contract*, New York: Hafner Publishing Co., 1947.
- [11] Simon, Herbert A., 1947, *Administrative Behavior*, New York: Macmillan.
- [12] Sunder, Shyam, 1997, *Theory of Accounting and Control*, Cincinnati, OH: Southwestern College Publishing.



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