INDUSTRY DETERMINANTS OF ORGANIZATIONAL CULTURE

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This article develops the argument that organizational or corporate culture is strongly influenced by the characteristics of the industry in which the company operates. Thus, companies within an industry share certain cultural elements that are required for survival. The article identifies three classes of industry variables that have the potential for creating industry-driven cultural elements: competitive environment, customer requirements, and societal expectations. The article also discusses implications of the industry influences on the potential for culture change.

During the past decade an extensive literature has been developed on the subject of corporate culture. The bulk of that literature, whether addressing the etiology, impact, or characteristics of culture, considers the subject from an intraorganizational perspective. It has been argued that this is the only valid perspective from which corporate culture can be viewed (Gregory, 1983). The thesis of this article is that although culture is unique to a company or its subunits, industries exert influences that cause cultures to develop within defined parameters. Thus, within industries, certain cultural characteristics will be widespread among organizations, and these most likely will be quite different from the characteristics found in other industries. Further, it is argued that because of this relationship, the potential for changing a company's culture is limited to actions that are neutral to, or directionally consistent with, industry demands.

CONCEPTS OF CULTURE

As Smircich (1983: 339) noted, the concept of culture has "been borrowed from anthropology, where there is no consensus on its meaning." There have been numerous approaches to the definition of organizational or corporate culture, and these have often employed different terminology. Allaire and Firsirotu (1984) identified eight major schools of thought relating to corporate culture, each with its own major theorists and research traditions. This article views culture according to the cognitive and ecological-adaptationist schools of thought, as defined by the above authors. From the

cognitive perspective, culture is viewed as "a system of knowledge, of stan-
dards for perceiving, believing, evaluating and acting," and from the eco-
logical-adaptationist perspective, culture is seen as "a system of socially
transmitted behavior patterns that serve to relate human communities to
their ecological settings" (Allaire & Firsirotu, 1984: 218–219).

Schein (1986), who embraced elements of both these traditions, further
defined three levels of cultural phenomena in organizations as follows:

1. On the surface are the overt *behaviors* and other physical manifestations (*artifacts and creations*).
2. Below this level is a sense of what "ought" to be (*values*).
3. At the very deepest level are those things that are taken for granted as "correct" ways of coping with the environment (*basic assumptions*).

He argued that even though the first two levels reflect culture, only the third
is the essence of culture. Although Schein's differentiation of levels is an
important insight, in contrast to Schein, the present author, as well as others
(Barney, 1986; Broms & Gahmberg, 1983; Tunstall, 1985b) consider each
level to be an important part of the study and understanding of corporate or
organizational culture.

Here, corporate culture is viewed as an organization-specific system of
widely shared assumptions and values that give rise to typical behavior
patterns. These systems of cognition and behavior patterns are transmitted
to organizational entrants in formal (e.g., mission statements) and informal
ways (e.g., modes of speech). Finally, although there are many character-
izations of the content of culture, it is useful to note a distinction suggested
by Davis (1984). He held that culture is based upon internally oriented be-
liefs regarding how to manage, and externally oriented beliefs regarding
how to compete. Although cultural elements outside these areas may well
exist in organizations, if they are not pertinent to a company's being able to
manage itself or compete against other companies, they will be considered
neutral in their impact on company survival and performance and will not
be considered here. Thus, this article will not attempt to encompass all
aspects of culture, but will limit its scope to the assumptions and values
pertinent to issues of managing and competing for organizational survival
and prosperity (i.e., the values relevant to running the business).

The previous definitions are not meant to imply that corporate cultures
are necessarily monolithic. To the degree that the same patterns of beliefs
are shared throughout the company, the culture may be considered a
strong one (Saffold, 1988). It is also possible that different units within a
company may develop subcultures that can be neutral toward, or even
conflict with, the dominant culture (Martin & Siehl, 1983). Indeed, it might be
inferred from the work of Lawrence and Lorsch (1967) that most large com-
panies have distinct subcultures within different functions (e.g., engineer-
ing, marketing, R&D, and manufacturing). However, these differences do
not necessarily touch on, or conflict with, the industry-driven assumptions
that are discussed here. Also, a weak culture or lack of culture may exist
where important assumptions or values are not widely shared in an orga-

nization, but rather vary from individual to individual or unit to unit (Glaser, 1983; Riley, 1983). As noted in another section, under certain conditions the degree to which subcultures from multidivisional and multi-industry firms exist may have a significant effect on the capacity of a company to change its culture. However, in order for an organization to be successful, industry-driven assumptions must be widely shared across its units, and widespread disagreement with basic assumptions is unlikely. However, it is possible for differences in values, or even assumptions, to exist within a company, as long as they do not undermine the basic assumptions on which the industry depends.

ORGANIZATION-ENVIRONMENT RELATIONSHIPS

That environments affect organization cultures is obviously related to the claim that organizations, in general, are affected by their environments. Such relationships are central, for example, to the open-systems perspective advanced by Katz and Kahn (1966). Accordingly, Hannan and Freeman proposed a population ecology model that Aldrich (1979: 55) characterized as focusing "on the nature and distribution of resources in organizations' environments as the central force in change, rather than on internal leadership or participation in decision making." Pfeffer and Salancik (1978) also presented a strong argument for the proposition that companies depend on the resources allotted to them by their environments for their survival and effectiveness. These authors suggested a model of how the environment affects the distribution of power and control within an organization, which, in turn, affects the selection and removal of officers and, finally, the organizational actions and structures. However, the ties between organization and environment are far from perfect, and, indeed, they have been described as loosely coupled (Weick, 1979). Pfeffer and Salancik (1978: 13) further elaborated that:

> Loose-coupling is an important safety device for organizational survival. If organizations were completely determined by every changing event, organizations would constantly confront potential disaster and need to monitor every change while continually modifying themselves.

This article takes the position that culture serves a similar function. Industry-driven assumptions lead to value systems that are consistent with these assumptions, and these value systems prevent the company from developing strategies, structures, or processes that would conflict with these assumptions and be "antagonistic" to the culture (Gagliardi, 1986). However, within the context of the industry assumptions, various compatible strategies, structures, or processes are available. Thus, the culture is not deterministic of specific forms, but exerts an influence upon the *nature* of the forms that will be developed. It is suggested that between the concepts of external environment and the internal distribution of power and control in

Pfeffer and Salancik's (1978) model, culture intervenes in the form of necessary assumptions and related values. The distribution of power and control is then limited not only by the environment but also by the culture that has evolved as a result of that environment. Again, however, these are loosely coupled relationships, and they leave considerable room for management choice and alternative strategies, structures, and processes.

As an illustration of the relationships among culture, strategy, and structure, consider an electric utility where a basic assumption (drawn from and reflecting the particular history of the utility and the legislation regulating it) is that customers need continuous, uninterrupted service. Within that assumption and the values it produces there might be variations. For example, a utility might focus its developmental efforts on either industrial or residential businesses because either strategy would not conflict with the basic assumption of continuous service. In contrast, a strategy of selling power at higher prices outside the service area, which might result in periodic service interruptions within the service area, would conflict with the basic beliefs regarding continuous service and, therefore, would not be considered an acceptable direction for the company to pursue. It should be noted that in the case of the regulated utility industry, such a strategy would not be tolerated by the regulating authority and, thus, would be directly affected by societal expectations as well.

In addition to differences in strategies, organizations may choose different principles of structuring (e.g., functionally or regionally). However, strategies and structures must be compatible with or neutral to the culture and not in conflict with it. This point is consistent with the considerable evidence marshalled by both the population ecology and resource dependency models that management does not scan the horizon and choose a path that returns the greatest rewards to the company, but rather that management can only pursue the very restricted alternatives of strategy and structure allowed by the environment. (See discussions of this literature by Aldrich, 1979; Pfeffer & Salancik, 1978.)

The central argument of this article is diagramed in Figure 1, and takes the following form: Organizations are founded on industry-based assumptions about customers, competitors, and society, which form the basis of the company culture. From these assumptions, certain values develop concerning the "right things to do," and consistent with these values, management develops the strategies, structures, and processes (hereafter, for ease of communication, referred to as *forms*) necessary for the company to conduct its business. Other values, which are unrelated to the basic assumptions, may also develop during the founding period as a result of the founder's background or at a later time as a reaction to either the environment or company outcomes. In order for a new company to survive, both the culture and the forms that it develops must be appropriate to the industry imperatives, and under these conditions the company's survival and prosperity are limited only by that of the industry's.

FIGURE 1
A Model of Industry-Driven Culture Formation
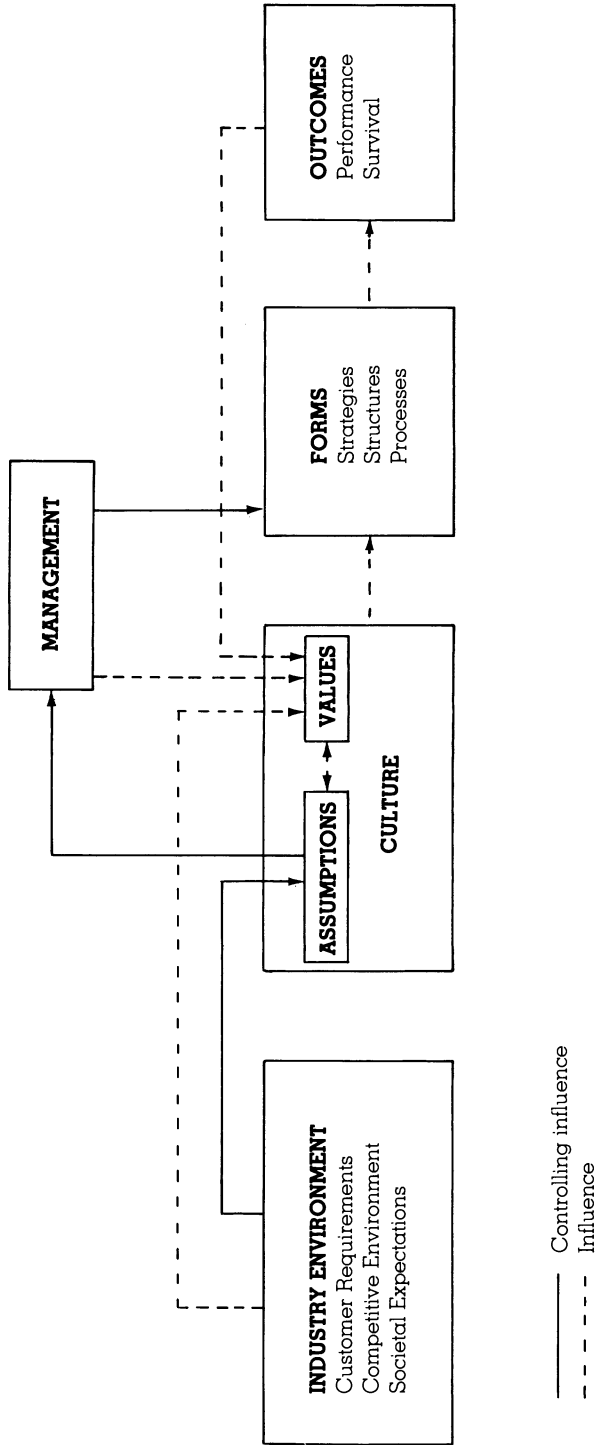
Later, however, company outcomes or changes in the environment may result in changes in assumptions and related values and, therefore, changes in forms. But management may make appropriate changes in the forms without giving sufficient attention to equally important changes in the culture. If, however, the new forms conflict with the culture, the implementation of the new forms may undermine morale or cause confusion among employees, and it is likely that they will meet with resistance. Changes in the culture can also result from new management (Dyer, 1985; Lorsch, 1985), consultants (Gagliardi, 1986), or fortuitous actions of individuals who are a part of countercultures inside the organization (Martin & Siehl, 1983), and these changes may bring the new forms and the culture back into compatibility. If, in contrast, the new forms required by the environment are antagonistic to the original industry-driven assumptions, the organization actually faces a danger of extinction through maladaptiveness. In such a case, employees at all levels most likely will have developed a repertoire of values and behaviors that will be inconsistent with the new environment and the new forms it calls for. In the terminology of Wilkins and Dyer (1988), no *alternative frames* will exist within the company. Such conflicts arise, however, only in the relatively rare situations where very significant changes in the environment make the assumptions no longer valid. Under such circumstances, cultural change involving changes in assumptions is required, and this can be accomplished only with great difficulty and probably through monumental changes in people. The following sections elaborate on the model.

INDUSTRY-DRIVEN ASSUMPTIONS

When a business is established, basic assumptions that are necessary for its long-term survival are adopted by the owners and employees, and these assumptions become part of the company's culture. This view of certain assumptions being inherent in an industry contrasts with Schein's (1986: 16) explanation of how successful behaviors become institutionalized into values and, ultimately, into unconscious assumptions.

> If the solution works, and the group has a shared perception of
> that success, the value gradually starts a process of *cognitive*
> *transformation* into a belief and, ultimately, an assumption.

Though this sequence makes sense in some cases, an opposite sequence may also occur in the developmental stages of a business. This article proposes that if an organization is to survive, it will be built on certain assumptions required by the industry, and it is from these assumptions that certain values emerge, which, in turn, help define useful forms. Other forms that neither support nor conflict with basic industry-driven assumptions also may be implemented and may result in successful outcomes. When this occurs, values and assumptions will eventually be extracted from the successful forms as described by Schein above. Thus, the developmental pro-

cess may proceed from two different directions, which one depending on whether industry-driven or nonindustry-driven assumptions are involved.

If a particular company's industry-driven assumptions and resultant values were not widely shared, many of its actions would conflict with the most basic requirements of the markets it serves, a situation that would seriously affect its ability to survive. Industry-driven assumptions are stable, shared by management and labor alike, and productive because they insulate a company from taking inappropriate actions as a reaction to short-term crisis situations. Such beliefs are also likely to be shared by a new top management, if that top management is experienced in the industry or chosen by those who are.

For instance, as previously indicated, no matter when or by whom an electric utility is founded, a widely shared assumption is that the customer needs continuous, uninterrupted service. Based on this assumption, a high value is placed on reliable delivery of the product, which manifests itself in forms designed to avoid either strategic or operational decisions that involve radical departures from known ways of doing things. Thus, the industry predisposes all the companies within it to develop cultures that encompass certain assumptions and values stemming from the nature of what the industry does or produces. In turn, the culture affects the forms implemented by management in the sense that they must be either consistent with it or neutral to it.

The following sections describe the nature of the industry characteristics that influence the formation of corporate cultures. These characteristics—competitors, customers, and society—are derived in part from the strategy literature. For example, Porter (1980) proposed a model of five forces that define the nature of competition within an industry: competitors at the core, suppliers, potential entrants, substitutes, and buyers. Duncan (1972) developed a similar set of components in studying the effect of the industry environment on management uncertainty: customer, supplier, competitor, sociopolitical, and technological. The influences of potential entrants and substitutes are considered as variations on competitors, and technology is in many ways a factor that defines both the competition and the customer base. Suppliers are not dealt with here because of the dearth of information available on the influence suppliers may have on values and assumptions. Thus, the following sections deal with the competitive environment, customer requirements, and societal expectations.

Assumptions about the Competitive Environment

The competitive framework in which a company operates is an important dimension on which core assumptions in the company culture are developed. Competition can range from no competitors, as in the case of a legislated monopoly, to many competitors in different industries, as in the case of the office copier business. Various studies have explored the dimensionality of the competitive environment (Aldrich, 1979; Dess & Beard, 1984;

Duncan, 1972; Kaufman, Hodson, & Fligstein, 1981; Tolbert, Horan, & Beck, 1980), and three dimensions have been consistent through much of this work:

1. Complexity or product market concentration (the number and variability of firms in the competitive environment).
2. Stability or dynamism (the rate of environmental change).
3. Munificence (the extent to which the environment can sustain growth).

Duncan (1972) studied the extent to which environmental complexity and dynamism cause uncertainty in management decision making. His study indicated that both dimensions have a significant effect on uncertainty, but the static-dynamic dimension was more important. Regarding the likely effect of this dimension on culture, it is reasonable to anticipate that the more complex and dynamic the competitive environment, the more likely the culture will be geared toward dealing with the uncertainty produced by the variety of competitors and the high degree of change in products, technology, distribution, packaging, or consumer tastes. Thus, in highly dynamic and complex competitive environments, a person should find that behaviors that contribute to the firms' adaptability will be supported by the culture. In more predictable competitive environments, a person should find assumptions and derivative values that relate to institutionalizing the ways in which the companies conduct their business. Such a cultural development is consistent with both Levins's (1968) argument that in stable environments specialized structures are most appropriate and Chandler's (1962) and Rumelt's (1974) findings that increasing diversification leads to decentralized structures. Specialized structures suggest known ways of doing things, and this, in turn, suggests reliability-oriented cultures. Decentralized structures suggest delegation as a way of being closer to the marketplace and more responsive to changes in it; therefore, these structures imply a need for adaptability-oriented cultures.

Pfeffer and Salancik (1978: 285), however, argued the opposite position, that greater uncertainty leads to efforts to eliminate uncertainty through greater centralization and coordination; this, in turn, leads to "the creation of larger organizations operating in environments that are increasingly regulated and politically controlled." Yet, as the authors indicated, this argument would be true only in the case of resource scarcity (low munificence).

It may well be that in situations where resources are scarce and the competitive environment is becoming more complex, executives face deteriorating results. Under such conditions, the most likely personal reaction may be to gain more control over the situation by centralizing decision making. However, if the culture has developed around assumptions of adaptiveness, and the environment continues to reinforce that need, the model proposed here would predict that attempts at centralization will not be successful. This aspect of the Pfeffer and Salancik (1978) argument also ignores the development of niche businesses designed to reduce uncertainty by reducing the scope of the market in which a company operates. This latter strategy would create a more specialized organization to operate

in a simpler environment, which, again, would suggest the need for a reliability-oriented culture.

The final competitive factor, munificence, may also have a direct influence on culture. For example, industries that can support considerable growth usually develop values around risk taking and innovation in order to try to take advantage of the growth opportunities. A basic assumption of the computer industry is that better technologies will continue to be developed and will supplant older ones. If, however, there were few buyers for computers of any type, that assumption would be less true, because companies would not be able to invest heavily in R&D efforts. Thus, munificence also may have a direct effect on industry-driven assumptions.

Assumptions about Customer Requirements

Gordon (1985) suggested that customer requirements can be categorized into demands for reliability or novelty, which bear a strong relationship to the stability-dynamism aspect of competition. That work contrasted company cultures in high technology manufacturers and utilities, representing two ends of a continuum, ranging from highly dynamic (novel) to very static (reliable) marketplaces. In the former, products, technologies, and buyer preferences changed frequently, whereas in the latter, the products, technologies, and consumer preferences changed very slowly, if at all. Surveys of management beliefs in 32 companies (18 high technology manufacturers and 14 utilities) produced sharp differences between the two industry sectors. The high technology manufacturers, which operated in dynamic marketplaces, developed behavioral norms that involved striving for achievement, encouraging individuals to use their initiative, and taking action rather than studying problems. In contrast, the utilities, which operated in very stable marketplaces, developed behavioral norms involving interdependence of people and organizational units and concentration on the development and retention of people.

Companies in the two different industries developed cultures that were adaptive to the forces acting within those industries. On the one hand, the cultures of the high technology companies, whose greatest needs were invention and rapid exploitation, allowed them to maximize their responsiveness by encouraging initiative and action over study and reflection. On the other hand, the dominant values in the utility companies ensured that many employees with long company tenure would be heard regarding any decision, therefore reducing the probability of the organization making any radical changes. Sacrificing speed and flexibility for consistency allowed these utilities to best position themselves to meet their primary mission, which was reliability of service. This study suggests that culture formation is neither a random event nor an action dependent solely on the personalities of founders or current leaders, but it is, to a significant degree, an internal reaction to external imperatives. The study further suggests that a dimension of external demand is the degree to which the industry's customers emphasize the need for reliability or novelty in the industry's offerings.

Reliability. Reliability refers to the quality of the service or product; that is, the service will be performed or the product will perform as promised, without fail. An example of how such a requirement can lead to basic assumptions can be found in the life insurance industry, where there is a need for fiscal responsibility represented by the ability to pay claims. This requirement leads to a central business assumption within a company in that industry that it must be able to pay the face value of policies upon the death of policyholders. Clearly, assumptions of this nature have an important impact on the involved industry and are not likely to change over time. Also, they give rise to values such as a strong respect for experience and the institutionalization of protection against undue risks.

In other cases, reliability may be a desirable feature, but not the basis on which the business is built. For instance, most consumers would appreciate furnaces that work continuously without breaking down, but this is not a reasonable expectation, and when their furnaces do not work properly, they have them repaired. The requirement for products that never fail is not a basic assumption of the furnace industry.

Novelty. Novelty, or the differentiation of product and service offerings, also can have the effect of creating industrywide cultural elements. Novelty includes the availability of new technologies, the existence of desired features, the convenience of packaging, and the delivery and provision of desirable financing arrangements. The assumptions here relate to the extent to which companies must adapt to either differences in customer needs or changes in customer needs across time. An obvious example is the widely held assumption in the garment industry that styles will change each season. A very different example comes from the computer industry where it is assumed that superior new technologies will supplant older ones. Also, in many consumer goods industries, a basic assumption is that segments of the population have different patterns of preferences. The industry-driven assumptions cause such companies to adopt value systems that help them cope with change and diversity.

Assumptions about Societal Expectations

The third dimension is the extent to which society holds industry expectations that have specific influences on the values likely to be adopted by the industry. This is one area in which the bases for assumptions have been most likely to change in recent decades. Prior to the 1960s, most companies could adopt the assumption that society's primary demands of them were to provide both services/products and jobs while operating within a relatively unrestricted framework. A shift in societal values from the preeminence of property rights to the preeminence of human rights has produced radical changes in these expectations, which, in many cases, have taken on the force of law. For instance, health and safety demands for people and the environment have had different, but very profound effects on the chemical, petroleum, food, and cigarette industries. Thus, society can change the

rules by which businesses operate, and, in doing so, it can affect the validity of the basic assumptions on which the industry or firm was founded.

A classic example of such a change is represented by the effects that deregulation and divestiture have had on AT&T. For over 100 years, AT&T had been a regulated monopoly from which the government expected reliable, universal service, and for which it allowed a reasonable level of profit. Tunstall (1985a) described *universal service* as a basic belief upon which the company was founded and from which more operationally oriented beliefs (values) developed. These values included "dedication to customer service, lifelong careers, up-from-the-ranks management succession, operational skills, consensus management, level consciousness, and a strong focus on regulatory matters" (Tunstall, 1985b: 49). When long-distance service was opened to competition and AT&T was subjected to market competition, not only were some of the operationally oriented values no longer valid, but also the basic assumption that the company was in business to provide universal service was no longer valid. The company was forced to differentiate markets in terms of profit potential and different levels of required service, but as Pennings and Gresov (1986) pointed out, such learning does not occur easily.

Thus, the industry environment (in terms of the competitive environment, customer requirements, and societal expectations) is the driving force behind industry-based assumptions, and it is these assumptions that cause companies within an industry to have common elements to their cultures. The influence on the assumptions is direct and affects all levels and functions in a company. It is these assumptions that form the basis for a company's initial reason for being.

IMPLICATIONS FOR CULTURAL CHANGE

The concept of industry-driven cultural characteristics also has significant implications for cultural change. When a company's industry environment changes in terms of the competitive environment, customer requirements, or societal expectations, behaviors based on past assumptions and values are likely to be ineffective; thus, the company is likely to experience negative results. Such a condition creates pressure for change, but the culture, based upon successful lessons from the past, resists change.

Fortunately, environmental changes rarely require cultural changes *at the level of assumptions*, because these would involve a total restructuring of an industry. Such changes can be brought about, for example, by changes in societal expectations (including regulation or deregulation), the addition of significant new technologies or substitutes, the entrance of different types of competitors, or, possibly, the maturation of an industry. Even with such powerful influences as these, however, cultural change at the level of assumptions may not be possible unless many of the people, or their positions, change (Dyer, 1985; Gordon, 1983).

Environmental changes that require cultural change *at the level of*

values are less encompassing and are likely to occur more often. The cul-
tural changes required in these situations typically occur through experi-
mentation and learning. Such change requires a readjustment with the
direction of environmental pressures, but it does not involve change in basic
assumptions. Experimentation and change will normally be initiated by
those who are not a product of the dominant culture (i.e., those who are not
committed to the existing value system). Such facilitators of cultural change
can include new management (Dyer, 1985; Lorsch, 1985), members of coun-
tercultures (Martin & Siehl, 1983), consultants (Gagliardi, 1986), or even
"advantageous activities that are happened upon in the normal course of
variation in their performance over time" (Aldrich, 1979: 45). For example,
John Sculley was recruited from Pepsico as President of Apple Computer
because of his orientation to marketing and big-company management.
These orientations represented fundamental value shifts for Apple, but they
did not conflict with the basic assumptions underlying the computer indus-
try.

Thus, there are at least two levels of potential change in the industry
environment that will most likely require changes in the culture of organi-
zations within a given industry: the level of basic assumptions and the level
of values. Clearly, change at the assumption level is more dramatic and
problematic. It also involves an overturning or undermining of often uncon-
scious assumptions about how people act and think in the business world.
To be successful, at least without a sustained period of disruption and un-
certainty, change at this level will most likely require the addition of new
people, who have not been deeply committed to the old ways of doing
things. Change at the level of values is also difficult to accomplish, but it is
more feasible with the same people, who, however, must undergo a pro-
cess of relearning.

Organizational learning leading to a change in values takes place
because actions that are in conflict with established values (but consonant
with the current environment) are successful and are considered successful
by others in the organization. As Quinn and McGrath (1985: 325) pointed
out, "Just as individuals process information, so also do groups and units of
people. In doing so they develop collective belief systems." The develop-
ment of collective beliefs and values will be especially true if the initial
success is celebrated in the rites or rituals that reinforce the culture in the
organization (Trice & Beyer, 1984). Aldrich (1979) also described the process
whereby successful experiences are selectively retained through mecha-
nisms such as records or long-tenured individuals.

This process, of course, is a very traditional view of learning (Skinner,
1953) applied to organizations, and it has a great deal of appeal. There is,
however, an alternative view whereby organizational learning would not
take place as suggested. For instance, Staw and others (Staw & Fox, 1977;
Staw & Ross, 1978) found that in the face of negative feedback from the
environment, individuals will increase their commitment to a decision
rather than reduce it. Staw and Fox (1977) also determined that the escala-

tion of commitment was not stable over time and that after the initial neg-
ative feedback, participants who had high responsibility for the decisions
dramatically decreased their investments. As Staw and Ross (1978: 60) con-
cluded:

> It appears from the present findings that individuals do not *nec-
> essarily* become locked into escalating cycles of commitment,
> and that a tendency to escalate can be broken by clear-cut
> negative results attributed to an endogenous cause. The present
> data, however, also show that individuals can continue to in-
> vest large amounts of resources when provided an external jus-
> tification for failure.

When environmental changes necessitate changes in organizational cul-
tures, it is usually because members of the organization, over some period
of time, find that previously successful actions are no longer successful. In
such a circumstance, researchers would not expect the members to escalate
their commitment, but rather to escalate a search for improved methods.
Thus, value changes through organizational learning should be possible.

As noted previously, the rarer environmental changes that are in con-
flict with the basic assumptions extant in an industry are more likely to
require considerable replacement of people in order for cultural change to
be successful. Pennings and Gresov (1986) used AT&T as an example of the
difficulties an organization faces when environmental changes call for
change in basic assumptions. In this case, the company had been founded
on a belief in universal service (Tunstall, 1985a) and had been granted a
monopoly position to support this mission. The deregulation of the industry,
however, made AT&T simply one of many competitors in long-distance
service, invalidating the original assumption that universal service was the
company's reason for being and requiring it to develop a more profit-
oriented culture. Thus:

> To cope with new marketing challenges, the firm replaced the
> centralized functional structure for [sic] a decentralized, profit-
> centre-based divisional structure. Relations with residential and
> business customers changed drastically. However, its "service"
> culture lagged behind and remained largely disjointed from the
> technoeconomics and structure. This disjointedness persisted,
> even after the organization had attracted senior marketing ex-
> ecutives from firms such as IBM which are believed to have a
> "marketing" culture. (Pennings & Gresov, 1986: 325)

In this case, neither a change in structure nor the infusion of a few senior
people in an organization of over 100,000 employees was sufficient to
change the culture that had developed from industry-driven assumptions.

Thus, cultural change under any condition is difficult, but it is hypoth-
esized that if cultural change is to occur at all, it will occur:

1. More readily at the level of values than at the level of assumptions.

    2. More readily in directions that are compatible with the changes in the industry environment than in directions against them.

One example of an industry-compatible change is the financial services industry, where deregulation has created a much more competitive environment, necessitating cultures that are oriented more to adaptability than to stability. This example also points out that environmental change through governmental action does not always result in the intended outcomes. Edwards (1983: 12) traced the history of how internal bank cultures had grown to be "inner directed, with practices and procedures designed to satisfy internal needs for safety, order and the next visit of the [bank] examiner." The deregulated environment put enormous pressure on the entire industry to adapt behaviors that in many ways were counter to the culture described above. Although studies are not yet available on how bank cultures have changed, such change is clearly signaled by the aggressive marketing and customer orientation that is becoming characteristic of the industry. This industry's search for people from consumer goods companies with the correct marketing backgrounds (Deutsch, 1990) and Citicorp's advertising of 15-minute mortgages (*Money*, 1989) suggest a change in the beliefs about how banks ought to be managed.

    However, the rash of failures in the banking industry also suggests that even though old frames of reference (Wilkins & Dyer, 1988) are being discarded, the new ones may not be appropriate for the requirements of the industry. In terms of the model presented here, an industry-based assumption involving the primacy of safety has been weakened by a change in societal expectations (deregulation), and new people with different business values have, of necessity, been brought into the industry to create new forms. The behavior of the banks suggests that some cultural change has taken place, but the extent is still unknown. Finally, there is some suggestion that the change in societal expectation has not been a productive one because the behaviors that were encouraged by the changes have led to widespread failures. It is possible that these failures are the result of either the people in the industry possessing neither the skills nor the value systems necessary to operate within the new industry environment or value systems introduced by new employees that were not appropriate for the industry.

CULTURAL VARIATIONS WITHIN INDUSTRIES

    Because not all assumptions and values are driven by industry imperatives, researchers can expect to find significant variations in cultures within industries. For instance, Pepsico has been associated with a strong "succeed or out culture" (Dumaine, 1989), a characteristic that has not been associated with Coca Cola. Two companies in the same industry can encompass very different elements in their corporate cultures, as long as those elements are not driven by basic industry assumptions. Besides variations that may stem from founders' convictions, successful happenstances, or changes in management, there is another reason why theorists might find differences in cultures among firms in similar industries.

When an industry environment changes in terms of the competitive environment, customer requirements, or societal expectations, it is likely that some of the successful past behaviors that have evolved from industry-shared cultural elements will no longer be effective. In this situation, companies will feel pressure to search for new actions that will be more effective in the marketplace. However, because the competing firms will have had little, if any, experience with such actions (i.e., the previous industry context did not call for them) it is likely that a variety of alternative actions will be attempted by the various companies. Some of these actions will be successful and will lead to new values (as suggested by Schein, 1986) that are compatible with the new environmental influences, thereby creating further cultural diversity within the industry. Thus, to some extent, cultural diversity within an industry may be a function of the dynamism of that industry.

SUMMARY AND IMPLICATIONS FOR FURTHER RESEARCH

Corporate cultures, consisting of widely shared assumptions and values, are, in part, molded by the requirements of the industry in which they operate. Three dimensions, the competitive environment, customer requirements, and societal expectations are identified as elements around which industry-driven assumptions are developed. These assumptions are common across companies in an industry and give rise to values that serve the purpose of translating assumptions into compatible strategies, structures, and processes. Further, a corporate culture, as a product of the company's successful adaptation to its environment, will resist change, but change in its environment may necessitate a cultural change in order for the company to survive and prosper. Sometimes this cultural change involves new learning, and sometimes it involves new people.

These arguments suggest a number of directions for research regarding both theory development and practical application. First, the concept that companies "share" certain aspects of culture is an important and necessary starting point for understanding why and how cultures develop. Many of the concepts developed here to describe the relationship among an industry and the cultures of companies within it have been taken from the strategy literature and not the culture literature. The strategy literature has focused mainly on industry influences, whereas the culture literature has placed more emphasis on the influences of company founders. Future research might be directed toward identifying the relative impact that founders versus industry characteristics have upon initial culture formation as well as the later impact of environmental change and change in management. Finally, the required congruence between the culture and the environment clearly points out the special problems that are inherent for firms operating in multiple industry environments.

Verification and Extension

If this type of research is to continue, it is evident that a relevant industry classification system must be developed. Past work in the classification of

industries and industry characteristics has been focused primarily on financial, employment, and production data (Dess & Beard, 1984; Kaufman, Hodson, & Fligstein, 1981). This article, however, suggests the need for data that is oriented to characteristics such as the employment of technology, change in customer preferences, and the range of competitor products in order to determine potential industry characteristics that will be more likely to affect beliefs about how to conduct the business.

It is also necessary for researchers to develop a taxonomy or classification system that will capture the range of cultural elements and enable differentiation among them. Initial steps in the direction of identifying cultural elements have been taken (Deal & Kennedy, 1982; Gordon, 1985; Harrison, 1972; Quinn & McGrath, 1985; Reynierse & Harker, 1986; Reynolds, 1986), but, for the most part, these efforts were not theory-driven and their primary focus was on beliefs about how to manage, not on beliefs about how to compete (Davis, 1984). Thus, there are still large gaps in the knowledge about (and the organization of) the nature of the assumptions and values that form corporate cultures.

If researchers identify the relevant characteristics of both environments and cultures, they would be in a position to investigate which cultural elements are subject to change and what environmental changes are likely to trigger changes in these elements. For example, the maturing of the technology in an industry is likely to cause a shift toward reliability-oriented standards and beliefs. In contrast, world competition and the explosion in technological innovation has caused numerous firms to question assumptions they have operated under for many years (e.g., implied mutual loyalty agreements). What other changes in observable environmental characteristics can be identified as triggering predictable culture change?

Dynamics of Change

Previous research has suggested that change follows crises, particularly those involving a performance shortfall (Dyer, 1985; Lorsch, 1985). A severe or prolonged performance shortfall represents a crisis for a company, but not necessarily one that results in cultural change. The playing out of the life cycle of a mine or an adverse fluctuation of the rate of exchange are problems whose solutions are not cultural. In fact, the culture is one force that protects the company from overreacting to short-term market or competitive fluctuations. However, it is important to recognize those environmental changes that do affect the goodness of fit between a culture and the environmental requirements. Research on industry-driven assumptions would provide guidance on what type of cultural change is feasible and necessary and what type is not.

Research could be directed toward determining the relationship between environmental dynamism and intraindustry cultural diversity. As indicated in the previous section, there is reason to believe that environmental change may increase the amount of cultural diversity within an industry. Thus, it could be hypothesized that greater variations in cultural

elements will be found in industries that have been subjected to substantial changes in the competitive environment, customer requirements, or societal expectations as compared to more stable industries.

The preceding discussions imply that cultures can be changed or "managed," but the question of how much change in culture can be planned for and implemented by an existing or new management is still unanswered. Although many authors have described processes for managing culture (Allen, 1985; Davis, 1984; Kilmann, 1985; Schein, 1986), there is little empirical evidence on just how effective such processes are. Certainly, top management, with the greatest leverage at its disposal, is in the best position to initiate cultural change when its own relearning is successful. Otherwise, cultural change will first require a change in management.

Senior management can affect the perceptions and behavior of lower-level managers (Baird, Baker, Gordon, Smoker, & Whitney, 1981; Vancil, 1978) and, therefore, probably their values as well. Management may act on the systems, structures, or processes, for example, changing the merit reward program in an attempt to develop a culture that values innovation. Management may also act on a more symbolic level, for instance, by making heroes out of individuals who are widely known for their excellent customer service, as a means of establishing or reinforcing the belief that customer service is important to the company. However, this article suggests that management can experience success in promulgating cultural change only when that change is in the direction of greater congruence with the demands of the industry and when it is not in conflict with basic industry-driven assumptions. Indeed, it is hypothesized that when the environment changes to make such assumptions no longer valid, long-tenured management in the industry may neither recognize nor be capable of responding to the necessary changes and, in many cases, may be forced to step aside.

Multiple Environments

The propositions in this paper also lead to some interesting speculations about companies that operate in multiple environments. If each of the industries within which a company operates is consistent with the others in its pertinent demands, the situation would be little different from a single-industry company. If, however, different industry environments in which a company operates make significantly different demands on the various business units, the propositions presented here would lead to a number of expectations, such as:

1. Such companies would develop strong and different subcultures rather than a single dominant culture.

2. If such companies do not develop strong and differentiated subcultures, they will perform poorly in those industries where the cultures are not aligned with the industry demands.

Furthermore, in the case of one company acquiring another in an industry that makes different demands on their cultures, if the acquiring company

attempts to impose its culture on the acquired company, the result will be to reduce the performance level of the acquired company.

These possibilities suggest the need for further research into the area of strategic diversity, culture strength, and company performance. It may be true that diverse companies can perform better when they do not have strong cultures, but rather have different and distinct subcultures for each of their businesses. However, is it possible for a company to encompass a series of very different subcultures and still have some dominant beliefs and values that permeate the organization? If the existence of strong and differentiated subcultures is not possible for one organization, then it could be concluded that companies operating in multiple industries that have different demands will not have as strong culture/environment fits, and all else being equal, will perform less well than companies that operate in homogeneous industries. Such a possibility is consistent with Nathanson and Cassano's (1982) finding that strategically diverse companies perform less well than more focused companies. Therefore, the present article clearly emphasizes the need for research regarding the role of cultures and subcultures in diversified as well as focused companies.

CONCLUSIONS

To date, the researchers of culture have paid far too little attention to the influence of the industry on the process of culture development and change. This article has pointed to the nature of the industry as a major influence on corporate culture. It has further indicated that although other theorists have identified performance problems as the forerunners of cultural change, in some instances, the performance problems that bring about cultural change actually arise as a result of a change in industry environments that causes a dysfunction between the culture and the industry demands. The article further suggests a number of lines of research that flow from this conceptualization.

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