

(By UMS Group Inc.)

History and Theory

Matrix organizations gained popularity in the late 70s and early 80s as many companies began to expand globally. A need to maintain both local market responsiveness and global product/service consistency found many managers playing dual roles. Parallel reporting relationships reflected the diverse and often conflicting needs of functional, product and geographic organizational groups. The principal identifying characteristic of a matrix organization is the dual reporting structures of different managers and areas of business. In most matrix organizations there are command responsibilities assigned to both product/service departments and area/geographic-based departments. This represents a substantial change from Napoleon's unity of command principles (documented by von Clausewitz, in "On War" written in the 1830's and) utilized by most companies prior to 1980.

The matrix organization trend started in the American Aerospace industry when the US government demanded that a single company manager be assigned to each of its projects. However, the list of companies using some form of matrix organization expanded quickly. Companies such as General Electric, Citibank, Dow Chemical, Shell Oil, Texas Instruments, IBM and TRW are but a few of the companies who turned to matrix organizations as an alternative to the pyramidal functional organizations that preceded them.

In the utility industry, companies adopted the matrix organization as a tool to capture economies of scale, as they consolidated divisional overheads and support staff groups. In doing so they took a slightly different design approach to that taken by consumer products firms. Utilities focused more on overlapping accountability for budget dollars than on shared ownership of labor resources. For example, a regional general manager often has P&L accountability for all the work in his/her region. However, activities such as maintenance, new service connections, and refurbishment projects are frequently controlled by another manager, who has cross-regional accountability for their performance.

Strengths and Best Applications

There are several key advantages to the matrix organization. First, this design often enhances communication and commonality of purpose among managers; indeed, they literally force managers to discuss and agree on most strategic and operational issues. Second, it permits flexible use of an organization's human resources. Individuals within functional departments can be assigned to and held accountable for specific projects, products or services. Third, matrix designs offer companies an efficient means of responding quickly to changing, unstable environments.

Whatever the industry, companies have turned to matrix organizations when it was absolutely essential that they be simultaneously responsive to multiple sectors, such as regions and services. This provides utilities with an effective means of addressing the changing needs of different customer groups and governmental/regulatory agendas, while operating a varied set of asset types and business units across multiple territories.

The major disadvantages of the matrix design have always lain in the confusion it can create around authority and accountability, its potential to foment or unmask power struggles, and the stress it places on individuals who must respond to two bosses within the matrix. When you move away from the unity of command concept, ambiguity is ordinarily increased, resulting in operational tension, which often leads to conflict. Confusion and ambiguity also create opportunity for mischievous behavior, as managers maneuver for control of various resources, rights, and authorities. The old bureaucratic structures killed flexibility and the organization's adaptability to change, but they also reduced the potential for organizational conflict. In matrix organizations, individuals often find that the loss of bureaucracy's predictability allows insecurity and stress to creep in.

Other disadvantages or risks to the matrix organization include a tendency toward group decision-making, resulting in decision strangulation, and potentially large overheads where matrices start to develop inside of matrices. Many companies have blamed their troubles on matrix organizations, while deeper inspection reveals that the failures are the result of other factors (culture, lack of clarity around strategy or business model, managerial competency gaps, etc.), which are exacerbated under the matrix design. The utility industry is full of companies that have adopted the matrix approach, abandoned it later, and then in many cases readopted it under a different rationale. Many firms have learned that human factors, such as understanding and alignment, are huge drivers of matrix success. In fact, many believe that effective matrix management is as much a function of 'frame of mind' as it is of organization structure.

The Challenges of Entergy's Matrix Organization

Entergy operates in a number of separate and distinct regulatory jurisdictions, each of which provides a different revenue base against which Entergy must deliver appropriate profits. It is the responsibility of the state presidents to manage cost and revenue outcomes in their respective jurisdictions. This geographic (legal entity) P&L responsibility represents one dimension of the matrix organization as adopted by Entergy.

The second dimension is functional responsibility for the major activities necessary within a vertically integrated utility, including: generation (both nuclear and fossil), transmission, distribution, customer service and the overhead functions (such as finance, human resources, etc). Functional excellence, as measured by equipment performance, reliability, customer satisfaction and cost, is a key driver of any utility's overall success. Functional excellence requires specific management and technical expertise in each functional discipline. Adopting a functional organization provides economies of scale, allows the efficient pooling of expertise and helps ensure that best practices identified in one jurisdiction are readily transported to others.

Entergy has structured its matrix model by adopting a functionally based delivery organization, but placing accountability for earnings with the state presidents. The state presidents are tasked with managing the local external environment and achieving appropriate financial outcomes, whereas the functional organizations are responsible for delivering the necessary operational outcomes. As in all matrix organizations, this creates two competing forces that, in theory, should result in an optimum balance between cost and operational performance. Of course, practice rarely matches theory, and such balance as is achieved is usually the product of organizational tensions rather than of harmonies.

Entergy's organization model has effectively defined accountabilities for both financial and operational performance. It has also ensured that Entergy's strong operational capabilities and unit cost performance have remained intact, if not further improved. Given Entergy's environment, we would agree that a matrix organization is appropriate, and could be a highly effective model.

However, there are a number of signs that suggest further effort is needed to refine the model and the way in which the organization has adopted it:

- Functional spending has grown at a high rate, and although the state presidents suggest this is not financially sustainable, the functional groups have generally indicated that it will be difficult to reduce spending in the future.
- State presidents have expressed concern about their ability to manage (or control) operational spending levels to meet their specific earnings requirements. We have been told that some state presidents believe they do not have sufficient power within the company to adequately influence functional budgets. Other Senior Managers have suggested that the state presidents lack appropriate financial skills or are not sufficiently proactive to influence the functional decision makers.
- The Functional managers and executives are concerned about being subjected to budget constraints that would jeopardize their ability to deliver operational outcomes, which they feel responsible to produce.

We see several underlying issues that we believe have contributed to the current situation:

1. Insufficient Alignment On The New Business Model

Before the transition, the Functional managers each saw themselves as managers of a stand-alone business, with an associated set of accountabilities, authorities, influence and prestige. These are all generally executives with many years of experience. Each of them has operated within a clearly defined set of standards for how that type of business should be managed and what its primary outcomes should be. Such standards typically reflect industry common practice, as well as the executive's own personal values as to the

Proposed Organization Shift	
Past Functional Accountabilities	Matrix Functional Accountabilities
• Identify System-wide Customer Needs • Set Capacity and Availability Standards • Define Operating Policy and Targets • Establish and Manage Costs To Budgets • Make Investment Decisions • Identify, Analyze and Define Target Levels of Risk • Deliver Optimum Service Levels For The Approved Budget	• Solicit Needs of State Presidents • Understand Financial, Service Level and Risk Constraints for Each Jurisdiction • Analyze Varying State Political and Economic Requirements and Define Optimum Potential Solutions • Make proposals to State Presidents and Negotiate Dynamic Operating Plans • Define Long-term strategies for sustainable System-wide Operation

boundaries within which prudence and good judgment required them to operate. Until the transition, their position afforded them the authority to balance all these competing demands and to make what they believed to be the appropriate financial, operational and risk tradeoffs (typically those within the budgetary constraints imposed on them by the corporate planning and budgeting processes).

The introduction of a matrix organization was a dramatic shift to a new business or enterprise model for the functional units. Where previously, good operating practice was a primary driver of functional plans and strategies, now factors such as impact on this year's earnings and regulatory do-ability became critical drivers of these decisions. And, whereas the state presidents were previously considered to be senior external affairs relationship managers, they now have full P & L accountability for the regulated utility business in their jurisdiction.

It is likely that at the time the change was made, the full implications of this shift were not understood by either the state presidents or by the functional leaders. Our interviews with Functional leaders suggest that some of them have personalized this shift in power, producing frustration and concern about loss of influence and prestige. And, while Entergy is a unique company with many differentiating drivers and circumstances, we have seen this phenomenon at many other utilities where, during the adoption of a new business model, managers are moved from a "functional decision making" role to a "service provider role" and go through a period of resistance and deep resentment because of perceived loss of power and stature.

We believe this suggests a lack of true alignment across the management ranks as to the need for, and implications of, the organizational change to the new business model.

2. Conflicting Missions

It appears that the missions adopted by some of the functional business units, such as "keep the lights on" (almost regardless of costs?) are not well aligned with the corporation's mission to "maximize shareholder value". This may reflect a lack of clarity regarding how performance will be measured, inconsistencies between the current performance measurement framework and the corporate mission, or in some cases the perception that corporate priorities (as reflected in executive incentives and disincentives) strongly favor reliability over efficiency and cost performance. Reportedly, the 1998-99 experience of supply shortages is still having a significant impact on the priorities and decisions of some groups.

Functional missions do not have to be perfectly aligned with geographic missions to have a workable model. But, the mission of each group (and associated measures) should require it to make appropriate tradeoffs within a balanced goals framework that drives optimum outcomes. One challenge in establishing such self-balancing measures for the regulated functions is that none of them (except the Utility) are true P&L centers. Without accountability for impact on profits, it is difficult to avoid conflicting decisions and stress across business units.

3. Decoupled Accountabilities

There are three (3) basic accountabilities that must be managed in any business, but in particular by utilities operating in a regulated environment:

- **Financial outcomes** (costs and profitability)
- **Service levels** (delivered to customers)
- **Risk** (variability of outcomes produced)

These accountabilities are highly interdependent and changes to one will almost always have implications on the others. They must be managed in an integrated manner with the objective of optimizing medium and longer-term shareholder value. In many cases, optimizing shareholder value will yield decisions that do not maximize short-term earnings, maximize service levels, or minimize risk, but requires an appropriately

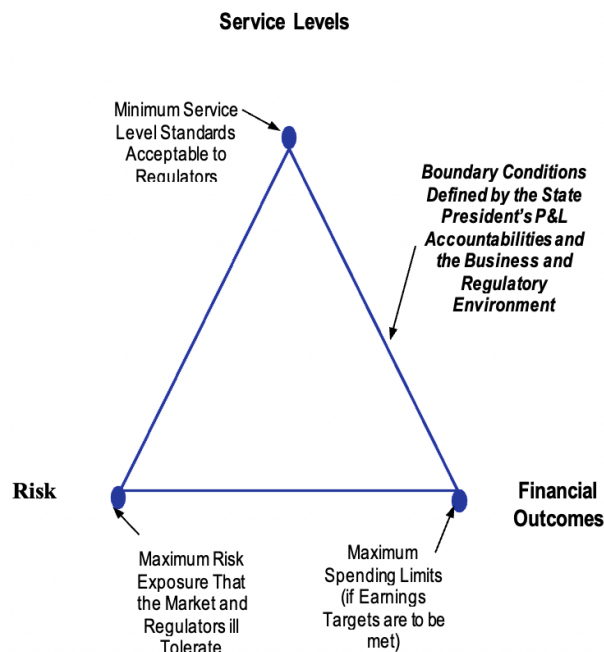
balanced set of all three outcomes. Not recognizing this truth was likely a significant contributor to the difficulties that Entergy faced in the mid-1990's as a result of spending cuts in areas that had large service level and risk implications (e.g., fossil plant maintenance & refurbishment, tree trimming, etc).

Entergy's functional groups currently manage the standards for generation and transmission service levels and risk, without direct accountability for the profit impacts of those decisions. It is not surprising that they have significant influence over the cost and profit elements of financial performance. (G & T spending is more than 50% of total spend in regulated non-fuel/non-purchased power O & M and Capital). We foresee that the state presidents' management of financial outcomes cannot be successful if it continues to be done in isolation of decisions affecting Generation and Transmission service levels and risk.

4. Conservative Functional Standards

The service level standards and risk management philosophy adopted by the functional groups do not all appear to be optimal, especially when the additional dimension of cost is considered. The *de facto* service level strategy appears to be to drive towards industry top quartile service levels, without first clearly understanding the value to customers, community or regulators that such improvements from current performance would provide, nor clearly defining the likely impact of related expenditures on profits, returns or shareholder value.

We believe that improvement must be made to how the functional groups view risk. These groups appear to be acting very conservatively, viewing risk as a negative element of the business to be avoided, rather than as an inherent element of all businesses, requiring intelligent (and cost-effective) mitigation and ongoing management. Furthermore, these managers may see their ability to apply their own standards (often deeply held convictions) for business priorities and outcomes, as seriously compromised by the matrix model. Some may even feel they are being forced to violate their principles and core values of safety and security for the assets and employees under their charge.



If the accountability model was working as intended, the functional groups would by now have been forced by budget pressure from the state presidents to analyze and understand the costs and value of these various standards and would have been better positioned to (and likely more willing to) refine and optimize their proposed plans to deliver both adequate service levels and appropriate costs in line with Jurisdictional financial constraints.

Issues For Entergy On The Path Forward

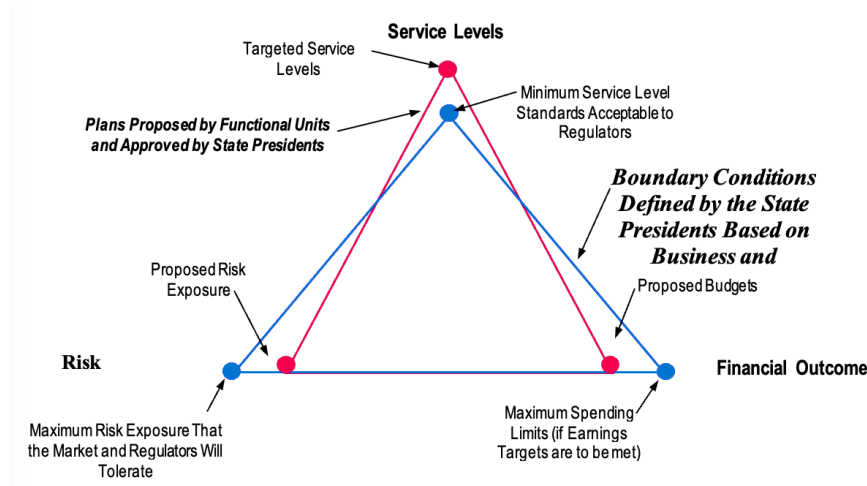
Business Strategy

Any discussion about organization design must begin with the principle that “form follows function”. This may pose a challenge for Entergy, as its business strategy appears to be evolving, with market conditions and regulatory pressures taking new directions. And, with deregulation slowing to a crawl in some jurisdictions, flexibility and adaptability will be critically important for the foreseeable future.

The matrix organization model is well suited to this current situation. Its multiple information channels permit the organization to identify and understand external complexity, and its overlapping responsibilities tend to reduce parochialism and ensure flexibility in the company's response to change. With both jurisdictional and functional managers focused on and responding to pressures from the market, business strategy will continuously evolve. *The linkages between target business outcomes and organizational accountabilities will also need to evolve.*

Organizational Accountabilities & Authorities

Three discrete but interdependent dimensions of company performance must be managed carefully by all utilities: Cost, Service Level, and Risk. Company performance must be managed within the boundaries imposed by the business and regulatory environment of each jurisdiction and the P&L targets of the state presidents. The P&L accountability of the state presidents should be viewed as optimizing a three-way tradeoff, involving these dimensions. To the extent that revenues can be accurately forecast, earnings targets will define maximum spending limits. And, to the extent that customer and regulatory requirements or expectations for service levels can be defined, minimum acceptable performance levels can be prescribed there as well. Finally, the level of risk in the business (likelihood that earnings or service levels will fall below expected values) must be understood and managed.



The performance of each individual functional group, as well as that of the overall company, must be managed within these boundaries. Ideally, in the matrix organization model, the state presidents develop a set of goals and targets that define the boundaries within which the functional units must operate. The functional units must identify operational constraints and provide optimized alternative plans for the state presidents to consider and decide upon. The process of establishing a final operating plan would be iterative and would allow each party to fully understand the business and operational implications of the agreed plan. For risk mitigation, proposed functional plans (and targets) will presumably be built on somewhat lower costs and higher service levels than the state presidents are committed to delivering.

Reporting Relationships and Resources

Centralized functional business units can provide Entergy significant advantages in the evolving markets ahead:

- Efficiency gains from economies of scale,
- Effectiveness gains from specialization and clarity of focus, and
- Greater competitive and commercial awareness from the arm's length nature of the new relationship with the state presidents and from the shift to a service provider role.

The Functional Units will need to seek an effective balance between customer and regulatory focus (the needs of the state presidents) and operational efficiency, by harvesting scale wherever possible. Basically, they will need to learn how to organize themselves in a way that gets the best economies of scale from the functional work specialties and still is able to provide customized services to the standards of each state president. They need to answer questions about which services need to be held /delivered separately to serve the unique needs of each Jurisdiction, and which can be pooled for best scale, and which standards can be held in common (at the Entergy Corporate level) so that state organization diversity does not drive the functional managers into the asylum. The basic strategy should be organizing to manage the assets over the long term in the most effective way possible.

The presidents, for their part, will really need to learn how to become strong customers *and at the same time*, demonstrate meaningful commitment to the success of the service organizations.

The matrix organization, with its revised accountabilities and authorities, (and likely perceived loss of stature) will force some difficult personal transitions for certain members of the executive team, but is likely to be a highly effective strategy for Entergy.

Processes and Tools

There are several processes and tools that will need to be developed in order to adopt this accountability model. These include:

- Tools that allow the inter-relationship between spending, service levels and risk to be modeled and optimized
- Revised budgetary processes
- Revised performance management processes and tools

Changes in structure or accountabilities will need to be reinforced by processes that are either newly developed or retrofitted to support people in their actions across organization boundaries. This will apply to both the 'customer' and 'service provider' organizations.

First, the major shift of accountability and authority to the "customer" organizations will require significant strengthening of performance management processes. People and departments will see significant changes to the outcomes they are being called on to produce and the visibility of results will increase. This will be a substantial challenge, given the current state of the Performance Management Group.

A second area where shifting accountability will imply shifting process, is the way that budgets are designed, developed, and approved. Decision makers in each of the customer organizations will need to be given clear roles and authority in a new budget process, and people in the services organization will need to have some method for having their view of budget requirements meaningfully included in the final version.

Finally, work processes of all types that cross organizational boundaries will likely need to be redefined, at a minimum, so that people within the structure understand what is required from them and are not confused by changes in roles.

Culture

The accountability model that accompanies the matrix organization will drive significant change in the perceptions of executives and managers that live within it:

- How the state presidents and the functional unit managers perceive their role in the company,
- Perceived power and stature within the organization (and accompanying pride and identity),
- Clarity around the rules of the game
- Confidence that individual executives can win this game (what's in this for me?)

Redesigning organization structure is a blunt and often brutal tool for change. New, more effective relationships and better decision making often take months or years to emerge. Entergy's matrix organization is likely, without successful interventions, to result in: conflict, frustration, misalignment, and ultimately even the possible loss of several key executives. The greatest risk, based on the recent experience of other electric utilities around the world adopting similar organizational changes, is the emergence of a "Master/Slave" relationship between the state and functional organizations. Such a master/slave relationship can kill the matrix organization by creating subordinate and subservient service organizations. Each functional service provider would serve a number of customer groups, and would be expected to jump at the command of the jurisdictional presidents, who would in turn control the cost, service level and level of acceptable risk, by controlling the budget \$'s.

Such problems do not usually emanate from the personal relationships of senior management (the state presidents and the functional executives). At that level, sufficient discussion and work has usually been done to clarify the rationale for the shift and to show each individual their own success path. But in the levels below, relationships are typically less strong and the communication challenges of producing real understanding among all individuals involved are much greater.

The only way to avoid this problem is to design the organization so that relationships are based on *clear mutual commitment* and *clear mutual value*. A one-sided relationship (favoring *either*

side) cannot work over the long term. Giving the state presidents total budget authority without a complementary obligation to protect the sustainability of the functional service organizations would likely produce short term functional cost reductions, but long term burnout and service failures. Similarly, giving the Functional groups complete budget autonomy would likely protect long-term service levels, but render the state presidents impotent to manage their P&L accountability. We believe that the current organization model would benefit from an effectively balanced set of accountabilities.

Accountabilities, goals, targets, and rewards must therefore be redefined for both groups (state and functional) in ways that de-emphasize power in the relationship and favor mutual support and commercial success in the marketplace.

Change Management

People, more than structures, are the key to managing complex strategies and organizations. And people, especially Americans, like to play to win. One problem with the change suggested by matrix accountabilities is that it represents a fundamental redefinition of the game being played by the Functional groups. Simply redefining the rules of the old game will leave some of the players feeling diminished and devalued. *It will be important to demonstrate that this is in fact, a significantly different game, and one equally worth playing and winning.*

A substantial change management program will be required to align the organization at all levels with the changes proposed. Such a program must begin with the leadership team and focus on building the readiness and willingness of each leader to authentically speak in support of the change, even if the new structure is not precisely what that leader may have wished. The program must equip and prepare these leaders to create a context for this change that helps employees see the change as critical to taking care of their future at the same time as it takes care of the company's future. This context should form the basis for a comprehensive formal and informal communication effort, designed to influence the thinking of all key stakeholder groups. In the end, leaders must be ready to personally take a position with their own people that these changes are required for their organization to win the game.

The change management program will need to be systematic and managed with the same rigor and outcome-focus as any engineering project would require. Some of the program's outcomes will be easily tracked and measured; installed changes in organization charts, for example. Other aspects will be less easily measured. Quality of relationships across organization boundaries, and morale are two examples. It is important that Entergy not avoid taking on these more elusive outcomes, as, in the end, these will contribute more to 'dollarizing' the changes in which Entergy is investing.

Other Issues:

Organizational Inconsistencies

One potential future issue is that some elements of Distribution and Customer Service are not organized functionally, instead reporting to the state presidents. Clearly, this has been done to provide the state presidents with more direct control over the resources necessary to manage customer satisfaction and reliability of electric service, which have been problematic in some areas in the past. Technically, this is inconsistent with the matrix philosophy adopted for Generation and Transmission, but it seems likely that the large centralized portions of this business (Call Centers, Billing, Meter Reading, Design, Construction, Tree Trimming, etc.) have captured the lion's

share of the available scale advantage. Therefore, the tradeoffs for better customer responsiveness and reliability are likely to have been modest.

It is possible that in the future (especially as Distribution reliability improves to, or above target levels) questions may be raised by management (although regulators are likely to push the other way) about additional potential economies of scale and the value of being open to competitive outsourcing market forces. These issues should be continually reviewed over time to identify any new opportunities that are consistent with service level commitments to regulators.

Other Accountabilities

For the matrix strategy to work effectively, there are also other important organizational accountabilities that must be exercised by the OCE or clearly delegated to one of the business units:

- The OCE should be accountable to make declarations about which businesses we will remain in and which we will exit.
- The OCE should be accountable to define and/or approve the business strategy overall, including strategies for each functional business unit and for each of the jurisdictions.
- The Functional Organizations should be accountable for establishing and maintaining standards that support the ongoing capacity of the organization to remain in production
- We have assumed that the HR organization will be accountable for assuring the overall capacity of people, tools, and processes (flexibility) to assure successful transition to the future state of the organization.
- It is unclear at this time which organization(s) is/are accountable to invent and bring forth new offers in the marketplace, but this is likely to be an important role for the future.