THE LANGUAGE PROCESS AND BUILDING THE HORIZONTAL CORPORATION

by
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To survive in 2000 and beyond, organizations must evolve from a tightly defined, tightly controlled, functionally centered organization that optimizes tasks to one that is organized around and focused upon the customer centric business processes that cut across traditional functions. A major component of this "Reengineering" is the identification and redesign of the problematic work that requires cooperation and coordination of several different departments within a company. A major stumbling block to this process is that a commonly understood method of organizing and classifying, and therefore understanding, these cross functional activities is not broadly available. A common cross-functional language does not exist within a firm to identify what gets done to satisfy the customer and therefore inhibits cooperation across functions. This paper explores how the language development process can be utilized to develop a process-oriented language that enhances the application of process-oriented improvements and therefore results in improved business performance.

Introduction

Organizations of today and tomorrow are faced with massive global competition, demanding customers with rapidly changing desires, shrinking response times, shrinking product lifecycles and demanding employees. E-commerce forces, the broad availability of and access to information through the Internet, are also demanding dramatically improved performance. The response to these forces by many firms is to become fast, flexible, participative and focused on customers, competition, teams, time and process. In 2001 and beyond, successful business performance is greatly dependent upon the coordination and optimization of this system of interdependent linkages within the value chain of a firm (Porter 1985). The horizontal or process centered organization has been described as an organization structure and philosophy that addresses these forces and issues (Byrne 1993, Brooks 1995, Buxbaum 1995, Hammer 1996 and 1999).

This "Horizontal Corporation" must be created through the reengineering of the current model developed in the last century, which has changed very little since. A major component of reengineering is the identification and redesign of the problematic work that requires cooperation and coordination of several different departments within a company (Hammer 1993, 1996, 1999).

A major stumbling block to this process of identification, redesign and optimization is that a commonly understood method of organizing and classifying, and therefore understanding, these cross functional activities is not broadly available. A common cross-functional language does not exist within a firm to identify what gets done to satisfy the customer and therefore inhibits

cooperation across functions. Functional tasks are usually understood and identified but the processes that cross the traditional functional interfaces remain unidentified and therefore, not understood and optimized. The optimized parts do not equal an optimized whole. This lack of a common language to describe the cross-functional processes presents a major barrier to identification, measurement, redesign and improvement of these processes and therefore a barrier to the next plateau of business performance needed in the Internet enabled economy.

This paper proposes that the identification, classification, redesign and optimization can be accomplished using the process-oriented structure widely used in operations management (Melan 1985, Tenner 1992) combined with the language development process of Pei (1965). This approach, used across the many functions in an organization, can be used to develop a "system of agreements" or language (Hayakawa 1978). The cross functional, process oriented classifying and organizing of the related activities performed in a chain to understand and satisfy the customer could provide a framework for the application of "process oriented" tools and organizational techniques that have been effective within the manufacturing processes in the U.S. and Japan. This development of a cross-functional process language provides an organization the "ability to cooperate" (Hayakawa 1978) and enables the reengineering, creation and continuous improvement of a high performance horizontal corporation.

Problem Explanation

Background

Adam Smith, in 1776, described the concept that industrial work should be broken into its simplest task. This became the basic model of business for almost two hundred years. The modern business enterprise has gone through only two major evolutions since the Civil War in the United States. Around the turn of the century, management became to be viewed as work in its own right. Up until that time, management was indistinguishable from ownership. J.P. Morgan, Andrew Carnegie and J.D. Rockefeller began the restructuring of the railroads and American industry using the basic principles of Adam Smith and the new concept of management work or hierarchy. Twenty years later, Pierre S. duPont began the second evolution by restructuring the family business into the modern corporation. Alfred Sloan also began to redesign General Motors and further defined the business model. This institutionalized command and control, decentralization, central staffs, the concept of personnel management, budgets and controls. This model is our tightly defined, tightly controlled, functionally centered organization of today.

Business performance, as defined by Return on Assets (ROA), was attained with this model through the leverages of size and division of labor. This allowed organizations to maintain highly paid, scarce skills as well as effectively gather and deploy natural resources and labor, the two major factors in the success of enterprises of the time. The hierarchy of skilled managers was necessary to coordinate the functional activities, manage the information flow and interface with the other functions in the organization. The better the focus and coordination of the company resources, the more profitable the business.

Current Trends

What's changed? Why isn't this organizational business model the "right way" to business performance? Several major changes have taken place that has made this model obsolete.

The demographic shift from manual worker to knowledge worker, from uneducated to

educated, from worker to professional is driving or being driven by many factors. Technology has significantly reduced the need for manual labor and increased the need for the highly educated and skilled. Education has been broadcast as a major route to success in most of the world for the past century. Public policy has also directed significant resources at education. All of this has resulted in a general shift of the education level in the world as well as a major change in work and how it is viewed (Drucker 1988, Economist 1999).

Customers and employees have changed significantly. Customers and employee needs and desires are demanding that products, markets, services and organizations change. Labor and natural resources were the inputs managed by the educated hierarchy of the old organization model. The new inputs are knowledge, technology, information and, in a very subordinated role, labor and natural resources. The organizational strategies that effectively managed and coordinated the inputs of the old model are woefully inadequate, and in fact resisted, in the new model (CIO 1994, Drucker 2000).

Technology, and specifically Internet related information technology, has made the strategies of the old model not only obsolete but also foolish. The old model gained leverage, in one way, by the coordination of activities across the business (Fortune 1993). Communication and information was transmitted by paper or verbal reports up and down the hierarchy. Command and Control was the priority. The information access time was measured in days or weeks. Waiting for the information needed for a decision was a prudent management strategy firmly embedded in the organizational best practices. In order to gather the information needed for decisions, armies of clerks and managers were employed. Customers were provided with information only by the selling firm and therefore were at a distinct disadvantage. Affordable, instantaneous access to information has become a reality through inexpensive, powerful Internet enabled computing and communications. Time and information have become a major strategic weapon increasingly being used to beat the competition at making the right decision (Gates 1999). Coordinating the application of resources is still the source of competitive advantage but the resources are becoming information, knowledge and time (Economist 1999).

Technology, both communication and transport, has formed a global marketplace. There is no such thing as a regional competitor. If you are in business, you are competing with the world. The labor market is now global. Comparative advantages between countries and societies are driving major shifts in strategies. When firms are freed from the chains of resource and transport location, the competitive advantages and organizational strategies change dramatically. Location near navigable waterways was a major factor with firms and strategies formed in the early twentieth century. How relevant is that today? Location near a navigable global communication system is now essential for effective product delivery. Logistics takes on a new meaning with transport times of microseconds rather than weeks (Brown 1999).

All of these factors accumulate to dramatically change the markets and competition. The definition of customers, competition, markets, channels, products and strategic levers have no relation to the factors used to build the old organization model (Hamel 1999). Trying to fly the space shuttle using organization strategies of the British Navy of the seventeen hundreds would surely be an obvious disconnect. Trying to organize the e-firms (Internet enabled) of today and tomorrow around the same principles of Adam Smith should be just as obvious.

Imperatives

The environment, market, competition, customers and employees are demanding a new organizational model and a new way of doing business that is reflective of these demands and leverages the new strengths of the organizational and information technologies. Society and competitive pressures are demanding the efficient utilization of the resources of today. Educated employees, educated consumers, globalization, information availability and competition have shifted the power from business to the customer and knowledge worker. The shift of power to the consumer demands that firms add value as defined by the customer. The shift of power to the knowledge worker demands an organization of firms that fulfill the needs of the new worker and effectively utilizes this valuable human capital to the mutual benefit of the firm and society (Drucker 1988, 2000).

In a presentation to Wall Street analysts, Lou Gerstner of IBM described the new "dot-com" companies as "fireflies before the storm—all stirred up, throwing off sparks". But he continued: "The storm that's arriving—the real disturbance in the force—is when the thousands and thousands of institutions that exist today seize the power of this global computing and communications infrastructure and use it to transform themselves. That's the real revolution" (Economist 1999).

What is the New Organizational Model?

Several models have emerged during the last few years that are offered as the high performance organization needed in today and tomorrow's world. Deming, Porter, Davenport, Hammer, Kohli and Jaworski and Drucker have all defined what they view as the new model of the organization. Several common critical success factors emerge when reviewing these proposed models. Each model requires:

1. A cross-functional business process vocabulary (a verbal language).

2. A visual "map" of the business processes (a symbolic language).

3. Acceptance and understanding of these processes across the organization.

4. Measurement of process performance with a clear definition of outcome.

5. Assigned process responsi-bilities.

6. Interoperability and coordina-tion of linkages across existing functions.

7. Cross-functional process teams as a structure.

8. A flattened hierarchy and therefore an empowered, self-policing workforce.

9. "Process thinking" defined as a cross-functional, continuous improvement and outcome oriented mind-set.

According to each model's proponent, the "building" of this model requires a new approach and will result in dramatic business performance improvements. Dr. Michael Hammer describes this as reengineering (Hammer 1993, 1995, 1996, 1999).

Porter suggests that the coordination and optimization of the system of interdependent linkages could have a major impact on a firm's performance (Porter 1985). Hammer states that the identification and redesign of the problematic work that requires cooperation and coordination of several different departments within a firm will lead to business performance improvements (Hammer 1993, 1995, 1996, 1999).
The relationship between interdepartmental dynamics as defined by the organization

measures of *conflict* and *connectedness*, and business performance was clearly established by Kohli and Jaworski through a series of several studies. (Kohli 1990, 1993). Conflict was defined as the extent to which the goals of the different departments were incompatible and tension prevailed in interdepartmental interactions and connectedness was defined as the extent to which individuals were networked to various levels of the hierarchy in other departments (Jaworski 1993). Less conflict and more connectedness was shown to positively influence business performance.

Each model fundamentally relies upon a process orientation, a verbal and visual process oriented language and the end results of the language development process. These end results (common understanding, a network of cooperation and a system of agreements) enables effective interoperability in building, maintaining and improving the model. This defines the need for a common business process oriented "language" in order to improve cross-functional performance in a firm.

The Problem

The models proposed all demand significant cross-functional cooperation in order to build and operate them. They also clearly state that a process orientation or a common process view is essential to the models performance and continuous improvement through the application of "process oriented tools". One of the several issues in creating and maintaining this new organization is that the people involved are all operating under a functional model that has created several barriers to cross functional cooperation, not the least of which is the lack of a common view on what gets done. Each function has developed their own internal set of words or expressions commonly know as a group language. "There is no occupation that doesn't have its own special terminology, which baffles outsiders" (Pei 1954). People who do not work in this group barely understand, if at all, when they happen to be placed in this group. Mario Pei, in The Story of Language, describes this experience as similar to finding yourself in a foreign speaking community. A persons bafflement and helplessness are engendered by the lack of a "common denominator of understanding" (Pei 1965). International symbols, such as the "stop" sign, have been adopted in order to help cross community communication but what about cross-functional communication. The organization chart does not describe the cross-functional process work that is done and is therefore useless as a "cross functional symbol" or communication tool (Brache 1990).

Total Quality Management techniques have attempted to bridge this gap of understanding and cooperation by building internal customer - supplier relationships. This technique maintained the functional separation and attempted to optimize the transfer between functions. Redundant functions were not eliminated and neither were the time consuming and error causing hand-offs. This focused on optimizing the tasks within a function and optimizing the hand-off but not on optimizing the process broadly across the functions. With the technology and environment of today, the sum of the optimized parts is no longer an optimized whole that can be competitive.

"Without language, there is no understanding, and without understanding there is no chance of being able to work together" (Pei 1954). Using the logic of social construction theory, language, and the process of developing a language, helps create a "province of meaning" that enables cooperation across functions (Zbaracki 1998). Language permits the intelligent, full-fledged cooperation between two or more human beings, which is the very wellspring of all human progress and the main differentiator between the activities of man and those of the animal world (Pei 1965).

All present day activity, according to Pei, is carried on by the grace of and with the help of spoken, written, gestural or symbolic language. Given a group of individuals, from different backgrounds, working in different functions, without a set of words or symbols to use for communication, what is the chance of success in building this new organization requiring cross functional understanding and cooperation? We pay little attention to that which is not included or described by our language even when we are capable of conceiving of it (Hagege 1986). Each model proponent outlines an overall plan for implementing their model but few address that fact that "Sales is from Mars and Manufacturing is from Venus".

Proposed Solution

The definition of language is "that which serves to convey meaning" (Pei 1965). An important characteristic of language is that it is based on mutual agreement and requisite general acceptance. Language has been called the vehicle of human knowledge and the basic foundation of all human cooperation. A firm or an organized business activity (business process) is an elaborate act of cooperation in which every individual contributes. A person's function in a business process is to contribute at the right time and place to that innumerable series of cooperative acts that eventually result in things getting done to serve the customer. This network of cooperation rests profoundly upon human agreement and is of necessity achieved by language or else it is not achieved at all (Hayakawa 1978, Hagege 1986). Again, using the logic of social construction theory, a new province of meaning must be constructed in order to shift organizational members out of their ordinary interpretation of reality (Zbaracki 1998).

If the new organization model is to be built and maintained, it becomes apparent that a new, cross-functional, business process oriented language needs to be "built" to describe this new reality. This language must describe the cross-functional processes that are active in the firm and the agreed upon terms to be used when building, measuring or improving these processes.

How is a language built? Pei, one of the leading language theorists, suggests that the common acceptance of a symbol, a component of language, takes place through a process of individual innovation and piecemeal acceptance rather than through mass creation (Pei 1965). He also states that "gesturing" or symbolic language must be based on a previous understanding achieved by linguistic means.

The Symbolic Language

Rummler and Brache (1990), in their book Improving Performance: How to Manage the White Space on the Organization Chart, recommend the development of a "visual" language though a horizontal mapping technique. This technique suggest the creation of a visual model of the activities performed within each function and the depiction of the cross functional interfaces that must occur in order to successfully complete the process chain and deliver to the customer. This is proposed as the starting point, the foundation, for designing and managing a "horizontal organization". This technique, though, does not stress the process of organizational involvement in building this map that is crucial to the acceptance of this symbol by the organization. Rummler and Brache also neglect the power of the process that could be used in building this map. The language process could be used in building this map and thus result in more than a picture. This process could result in the building of *common agreement* and *understanding*, the outcome of the language process and a prerequisite of cooperation according to Pei. This can not happen unless each member of the organization is involved

in the process of *innovation* and *acceptance* (Pei 1965).

The Language Structure

Every language needs rules (sentence structure, punctuation, etc.). This paper proposes, as a structure for a process oriented language, the use of the principles of process management used successfully in manufacturing (Melan 1985). These rules and structure are:

1. Well-defined boundary conditions within processes and between processes. The interface between processes, not between functions.

2. Clearly assigned responsibilities for the processes and outcomes. This is critical for cross-functional processes where process and end product responsibilities are not clear and processes cross many functions.

3. A prescribed flow of the item being manufactured. This is usually a visual and descriptional model of the process steps and their precedence (the Rummler - Brache model?).

4. A documented set of work tasks or operations that are contained in the process steps.

5. One or more control or measurement points capturing the key process performance factors.
6. Known cycle times of the processes, both individual and the entire chain.

7. Formalized change procedures and documentation that maintain the visual and descriptional model.

7. A tangible end product of added value that is a result of the process steps.

9. Clear criteria for measuring process "goodness". This is critical for improvement efforts.

This is a comprehensive list of "what" but does not describe "how" it is implemented? This is the structure for a process language but this language must be built. According to Pei (1965), before this becomes a language, the process of innovation, acceptance and understanding must be completed with each person that will have to use this vocabulary to communicate and cooperate across the business functions. Melan does not explain the "how" although he does state that the implementation of Process Management has the potential to yield operational improvements and should not be underestimated.

The Building of a Process Oriented Language

Many of the model proponents list a step-wise procedure for building their model but none of them provide the critical ingredients for building cross-functional understanding and cooperation. The language process, as outlined by Pei (1965), results in the building of common understanding, a system of agreements, and therefore the ability to cooperate, cross functionally, in the building and operation of the new model.

A verbal, written and symbolic cross functional language can only be built by a systematic process of *invention*, *definition*, *presentation*, *innovation*, and *acceptance* (Pei 1965). Figure 1 outlines the iterative process steps and the outcomes of this process.

The overall strategy for building a cross-functional, process oriented language will involve a cross-functional core team that is knowledgeable in the business processes. This team will develop the "language" and then take the entire organization through the

language process in order to accomplish the final outcome of a language process as shown in Figure 1. This outcome is a *network of cooperation* based on a *common understanding* and a *system of agreements*.

The following describes the activities in each step of the proposed process.

Step 1: Invention and Definition

The invention and definition process is the first step in beginning this journey of building a process oriented language and should involve a core cross functional group that is knowledgeable in the business processes. In this step, this team "invents" names and definitions for the activities contained in the cross-functional processes that, in most organizations, are currently not identified and not understood. This group is faced with the daunting task of making visual the invisible and defining the undefined and will go through the entire language process several times within the group before they move to present their findings outside the group to begin the next step. This group should develop a tentative, but agreed upon within the group, symbolic (visual) representation of the business processes as well as a dictionary of process terms. Melan's process management components combined with Hammer's or Rummler-Braches' mapping techniques appear to be an excellent combination of techniques to accomplish step 1.

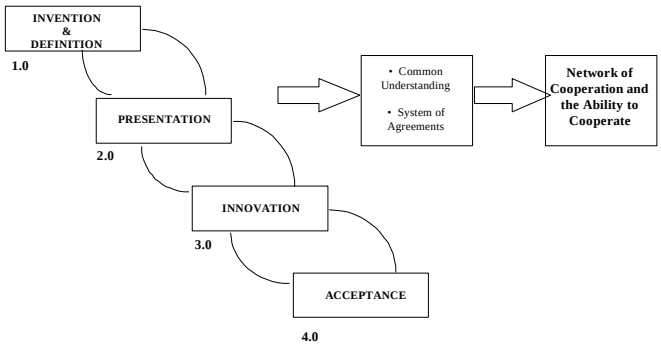

Figure 1. The language building process proposed by Pei.

Step 2: Presentation

This visual and definitional description of the business, the beginnings of a symbolic and written process oriented language, should be presented to the process participants in the organization for validation. In this step, the team presents and explains the visual process map, the interfaces and the definitions. This is only an information step and should be done as efficiently as possible. The construction of a "pocket dictionary" is a good technique to use to physically ask each participant to take possession of the language in order to begin the personal involvement needed to successfully complete Pei's language process.

Step 3: Innovation

This iterative process must eventually involve all the people that will be using the "language" in the building of the new business model and should involve a series of working meetings with small groups. This process, according to Pei, is done on an individual basis. Large groups lose the individual participation necessary in this process. The team must attempt to gather the ideas as efficiently as possible without losing the personal involvement factor crucial in this process. This is a process of "word - smithing" that is important and difficult to control. It is at this point that most organizations lose the commitment to the language process and jump to the final step of asking for acceptance without enough involvement in the process innovation.

Active acceptance involves an act of contribution that cannot be short-circuited.

Step 4: Acceptance

This step can be so quick as to be unrecognized or it can be an unachievable goal. This step depends upon the foundation laid by the previous steps and is very difficult to measure. Usage of the symbols and terms is one clear sign of acceptance that can be measured. Another is a formal meeting where acceptance or rejection is requested by the core team. How much acceptance is enough? How damaging is silent rejection? These are issues that differ with each situation and organization and depend upon how much is needed to accomplish the objectives. The 80/20 rule should be used in most circumstances in order to request acceptance on the majority (80%) of the language and allow the other 20% to remain. This breaks the logjam of 100% acceptance, which is impossible to reach in any situation.

Overall Process

On the surface, this process seems simple. Due to the absolutely critical individual participation in all steps of the process and the iterative nature of the process, it becomes very time consuming and tedious. Skipping of steps or individuals will only risk the loss of the network of cooperation, common understanding and system of agreements that is built during this process and is critical to the implementation and operation of the new model. This is the crucial "how" to developing the foundation needed for successful Reengineering or the utilization of process oriented techniques outside of the manufacturing process.

Conclusions

It is now generally accepted that the new business models will lead to improved business performance. In order to successfully build and maintain the new models, cross-functional communication, cooperation and agreement is required. This can be accomplished by building a common cross-functional language using the Pei's language process.

The resulting improved performance in each model is also dependent upon a process orientation, process thinking and a process framework for analysis and improvement. Several techniques and frameworks have been offered in regards to "what" must be defined, created and built but none offer a "how". The different mapping techniques all have positives and negatives but are all impotent without the organizational understanding and acceptance that results by successfully using a language building process. A network of cooperation must be built before large scale, coordinated joint effort takes place. The process management framework by Melan combined with the visual mapping techniques of Rummler-Brache seem to be the best combination of techniques to design the model components but the effectiveness of these techniques could be significantly enhanced when used in the context of the language process.

The Rummler-Brache mapping process can be coupled with the language process to directly build the first three components of the model. These components are the cross-functional business process vocabulary, the visual map of business processes and the acceptance / understanding of the processes across the organization. This is the critical foundation needing to be in place before the process oriented operations management tools can be deployed broadly across the firm.

The coupling of the language process with the process management techniques of Melan can help build the other six components of the model. The process management techniques of Melan provide the process

oriented framework and the language process helps build systems of agreements, understanding, and a network of cooperation. These outcomes of the language process glue the organization together and develop the ongoing ingredients of coordination and cooperation. If the cooperation and coordination are not maintained though the network of cooperation, system of agreements and the common denominator of understanding, then the process framework breaks down and business performance is negatively impacted through increased conflict and a lack of interoperability. This leads to a decrease in business performance (Jaworski 1993).

In conclusion, this paper proposes that the incorporation of the language building process will increase the likelihood of successful construction of the new organization models needed for 2000 and beyond and will result in improved business performance.

Dr. Kevin McCormack has over 25 years of business leadership and consulting experience in business strategy, business process engineering, change management, organizational design, supply chain management and information technology. He holds degrees from Purdue University, an M.B.A. from the University of Houston, and a D.B.A. from Nova Southeastern University. He can be reached at Kmccorm241@ aol.com. He is also the co-author of the new book, ***Business Process Orientation: Gaining the E-Business Competitive Advantage*** *written to help business practitioners and academics understand the impact of well-defined and carefully integrated processes have on organizational performance.*

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