Whose "9-BOX" is it?
System / Sub-system / Super-system

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Last month we discussed how using TRIZ in management and organizational problem solving can be a bit more complicated because the definition of the "ideal" result can become complicated by the views of different people and their motives and incentives. In TRIZ, in addition to the concept of the Ideal Final Result, we also consider the concept of sub-system and super-system related to our problem. TRIZ principles teach us that super-systems absorb their sub-systems over time. Let's consider these concepts in a management and organizational context, again using a medical system as our model:

PAST	PRESENT	FUTURE
SUPER-SYSTEM		
HOME SURGERY OR ELIXIRS	THE SURGICAL ROOM OR THE HOSPITAL BED	REMOTE SURGERY VIA VIDEO
SYSTEM		
GENERAL POPULATION	THE INDIVUDAL PATIENT	CUSTOMIZED INDIVIDUAL TREATMENT
SUB-SYSTEM		
GENERAL NON-SPECIFIC TREATMENT	THE PATIENT'S "ORGANS" OR BLOOD	BIOLOGICAL COMPONENT TREATMENT

As was the case with views of ideality, this TRIZ 9-Box would tell us that, over time, medical treatment will move toward individual, customized, remote treatment. But that's if we look at it from an overall viewpoint. What if a doctor is looking at this diagram? Will this professional make as much money advising people at a distance? Possibly to do some of their own injury care? Will this professional be able to cope with the introduction of individualized prescriptions designed to head off disease? What might the medical profession do? Support legislation to not allow remote surgery without special oversight? How many medical problems are now treated on an outpatient basis, eliminating overnight stays at hospitals? How does the hospital administrator use this 9-Box for strategic planning? Most hospitals today have numerous specialized outpatient facilities for specific purposes. Many patients never see the inside of a "normal" hospital anymore. Business magazines are full of descriptions of rejuvenation of the old "house call" doctor, again eliminating the infrastructure, and moving up the "9-Box" to give more timely and individual treatment. My point here is that the tool we often use to analyze technical problems can also be used to think strategically about business and management issues much more so than typically done. It will suggest areas for new product development, new areas for legislative concern and regulation, and new ways to interact with customers.

As a start, here's a diagram for this situation as potentially viewed by the medial insurance company:

PAST	PRESENT	FUTURE
SUPER-SYSTEM		
YES OR NO ADMISSION AND COVERAGE	STATISTICAL ANALYSIS OF PROVIDERS FOR CONTROLLED ADMISSION	SPECIFIED TEATMENT AND PROVIDER BSED ON SPECIFIC INDIVIDUAL DATA
SYSTEM		
NO SCREENING FOR COVERAGE	PRE-ADMITTANCE FOR ALLOWED PROCEDURES	COVERAGE BASED ON INDIVIDUAL DNA ANALYSIS AND HEALTH HISTORY
SUB-SYSTEM		
FIRST COME, FIRST SERVED	SCHEDULING AND ADMITTANCE PROCESS	PRE-PLANNED SCREENINGS AND OPERATIONS

So, in addition to your own system or problem 9-Box, fill in the one for a competitor, potential competitor, your supplier, a parallel technology, as well as your customer. If it doesn't look exactly like yours, then do some thinking about what they will do vs. what you will do. Use this information to shape your strategic thinking, product planning, and competitive intelligence.

Homework assignment for next month:

Situation 1: You are the newly hired strategic planner for the Xerox Corporation. Complete a TRIZ 9-Box for your business (making copying equipment), the more general issue of communication, and the one for electronic mail.

Situation 2: You are the product manager for a Fortune 500 company with a long standing supplier contract with a reputable company with whom you have had excellent relationships for decades. The supplier wants to raise their price to a degree that you feel is unwarranted by current inflation standards. Describe how you could use a 9-Box approach to discuss this issue without potentially destroying a long term relationship.

Let's look at these two situations from last month.

Situation 1: You are the new Chief Engineer with the copier division of Cannon. You are capable of including more and more features into your machine. Yet many of your users have no idea how to use or access these many features (not too dissimilar from many software products!). Consider yourself as the chief engineer, the customer office manager, the office secretary, the casual user who makes a copy now and then. What is each of your visions of the ideal final result?

Suggestions: The casual user wants to walk up to the copy machine and automatically be recognized (via finger impression or ID card?) as a casual user and only be presented with simple options such as "how many B/W copies do you want?" The office secretary probably wants an ideal system that will not allow a casual user to screw up the pre-set settings and make a future more complicated job more time consuming. The chief engineer of the copier company probably

wants to include every feature know to mankind and sell this value add by showing how "easy" it is for the machine to do all these things. The office manager's ideal vision may to know who is using the machine to allocate costs. Some of these differences are achievable with a few design ideas, but maybe not all. Has anyone seen a copier that meets all of these "ideal" needs?

Situation 2: You are the human resources manager of a Fortune 500 company which is about to institute a new performance appraisal system, reducing the number of classifications and varying the time between raises. Before you do this, who are ALL the different people and groups affected and what is their view of an "ideal" pay for performance system? What issues will result? What contradictions will result?

Suggestions: The individual performer probably wants MORE classifications that can designate higher degrees of specialization and recognition, both within and outside his or her company. They will need to be convinced that this is not an attempt to limit pay raises for outstanding technical achievement. The variation in timing will have to explained well---we end to respond to regular reinforcement if that's what we've had all our lives and making this variable can cause confusion. W. L. Gore at one time had an interesting approach to resolving part of this contradiction-an individual could put on their business card whatever they wanted, independent of the internal job classification used by the company. This is separation in time, space, AND condition! The human resources department wants a less complicated computer system for distributing pay raises, accounting for performance reviews, etc. and may push for more "fill in the blank" computerized forms. How does an individual feel about this? Each section manager might have different desires for timing of performance reviews. Some want them to be at the same time every year (as does the human resources department!), but some want to spread them out so that they are not spending their entire days over a short time doing nothing but performance appraisals. This short term focus might make them lower quality. There may be business reasons having to do with product cyclicality that would reinforce varying the time of the year. This might be in sync with the desire to vary the time of raises, but only to some extent.

The point of these examples is that there is no right or wrong, but different views of ideality. They will all have to be considered if the "people" side of an organization is to improve alongside its technical successes.

NEXT MONTH: Looking for Resources in the Real World of People