

The Voice of Industry Speaks on Agility Priorities

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Two hundred industrial organizations recently ranked their high priority change-proficiency issues in a Voice-of-Industry survey. The survey is notable in that the majority of respondents were presidents, vice-presidents, and other top-level executives; and that it provides a picture of contrasting priorities among eight different industrial sectors. The picture that emerges is both instructive and useful for competitive positioning and evaluation.

That 200 top executives took the time to fill out a fairly extensive survey is testament alone to the importance of the subject. The survey was developed by industry, government, and academic representatives on the Agility Forum's Strategic Analysis Working Group; and distributed through both Forum and National Center for Manufacturing Sciences channels.

The purpose of this initial survey was experimental, to see if anything meaningful could be gleaned from a cross-industry data-base. Caution should be exercised against drawing too much significance from these rankings: an average river depth of 5 feet doesn't mean you can ford the river safely. Nevertheless, the differences between sectors is consistent with our intuitive understandings, and the priority issues unique to individual industrial sectors are illuminating. These sector priorities can be especially useful when constructing the competitive Maturity Models introduced here recently." columns. Whether a Maturity Model is used to compare change proficiency among companies, or to guide an internal improvement program, the model is custom fit to both the industry sector and the individual organization.

Building a model for a specific organization requires a comparative understanding of current sector-wide issues and trends. The previous introduction to the Maturity Model indicated a potential for differences in different industries. Here is proof; but more importantly, here is focus. The survey conclusions are of course averages and don't apply perfectly to any one company; but these profiles and contrasts do reflect common intuitive understandings of these industries. We will explore some of these contrasts and similarities and get a better feel for industry

priorities and indications of where we might find some maturing focus.

Notice that the Motor Vehicle sector ranked Culture Change as its number one priority. This ranked 9th in Aerospace and 9th overall (see Table 2), so it's clearly important to others but behind more pressing issues.

With the exception of the 3rd ranked Identification of Opportunity, all of the top priorities for Motor Vehicles are focused inward on improved operating practices and resource management. Contrasting this with Electronics we see Create New Ideas as their sole outward focus and at the bottom of the list, perhaps because they have this activity well in hand but know better than to ignore it. Aerospace, on the other hand, has four outward looking priorities: Identification of Opportunity, Correct Customer Problems, Create New Ideas, and Adding Customer Relationship Skills. This might be a reflection of the serious downsizing of the defense market and the resulting intense competition for survival. The Metal Products sector has two outward-looking priorities that might be motivated by the changing operating practices in their OEM markets.

The Motor Vehicle sector places major emphasis on internal change, with Create Strategy for Change as a unique priority among the four sectors shown. This is also seen with the unique Adaptable Process Technology and Adaptable Teams, reflecting a response to a more mercurial and shorter-run market. Evolving Organizational Learning is the fourth unique priority here and complements this theme of major internal change.

The Electronics sector generally serves both consumer and OEM markets; but respondents to this survey are skewed toward OEM markets, like autos. Nevertheless, a decidedly different picture emerges. The major theme is consistent with growth-oriented, short-cycle, fluctuating demand

Table 1: Top Nine Change-Proficiency Issues in Four Industry Sectors

(Bold italicised type shows sector-unique priority among four sectors - data from AMEF Q1-95 VOI survey)

Eight-Sector Average	Motor Vehicles	Electronics	Aerospace/Defense	Metal Products
Identify Opportunities	Evolve Culture	Improve Product Quality	Identify Opportunities	Identify Opportunities
Improve Product Quality	Improve Product Quality	Product Realization	Add New Core Competency	Improved Product Quality
Create New Ideas	Identify Opportunities	Identify Human Resource Needs	Correct Customer Problems	Create New Ideas
Product Realization	Adaptable Process Tech.	Acquire Human Resources	Identify Core Comp. Needs	Acquire Human Resources
Acquire Human Resources	Adaptable Teams	Identify Capital Needs	Product Realization	Correct Supplier Training
Improve Cycle Time	Product Realization	Real-Time Worker Variation	Adaptable Org. Structure	Improve Cycle Time
Identify Human Resource Needs	Evolve Organization Learning	Improve Cycle Time	Create New Ideas	Identify Human Resource Needs
Correct Customer Problems	Create Strategy for Change	Surge in Product Development	Identify Core Comp. Needs	Improve Product Cost
Evolve Culture	Correct Supplier Training	Create New Ideas	Add Customer Relations Skills	Continuous Learning
			Evolve Culture	

response. Identifying and Acquiring Human Resources both play an important role here, and this is the only sector concerned with Identifying Capital Needs. Real-Time Worker Variation reflects customized products and increasing job/workstation variation. Here we see the only instance of Surge in Product Development, a concern when technological innovation ceases to advance in steady, predictable cycles.

The Aerospace/Defense sector is of course in total turmoil. With one dominant customer that has cut back on purchases dramatically, companies are scrambling for most-favored status and new commercial market development. In addition to the strongest roster of outward-looking priorities previously discussed, we can see a unique focus on both Identifying (current) and Adding New Core Competencies as means for accentuating preemptive capability and also developing capabilities required in new markets. Adaptable Organization Structure is the final unique priority here, and appropriate for an industry undergoing both massive downsizing and merger frenzy, not to mention the emerging short-term tactical customer focus where a long-term strategic focus prevailed in the past. It is also interesting to note that this is the only sector that doesn't rank Improve Product Quality in the top nine.

The Metal Products sector is predominantly serving OEM markets, with a healthy flow into the Motor Vehicle sector. Improved Product Cost and Continuous Learning are the unique priorities here, notable by their absence from the other three sectors. It is interesting that the cost issue is not in the top nine for the other sectors, though it is tied for 10th in all of them. Even here it is eighth; indicating perhaps an emerging broad-based threat to corporate viability tied to other more pressing issues.

This demotion of the cost improvement priority is the clearest indicator that broad-based change-proficiency is gaining importance.

Survey respondents came from small, medium, and large companies including: Acme Electric, Allied Signal, AMF, Battelle, Boeing, Caterpillar, Concurrent Technologies Corp., Dow Corning, Drexel, Eaton, Fairchild, General Tank, GM, Delphi, Goodyear, Hauser, Hughes, IBM, James River, John Deere, Johnson Controls, Kodak, Lockheed, National Machine, Otis Elevator, Pratt and Whitney, Rockwell, Tektronics, Texas Instruments, TRW, Westinghouse, Whirlpool, and many others less commonly recognized.

Table 2 contains forty-five issues that achieved priority ranking within at least one sector. A priority ranking either received a "High" priority rating by at least half of the respondents in a sector, or received a weighted average numerical rank of one through nine within a sector by those who provided the additional numerical rank (approximately half in each sector). Forty-seven additional issues appearing on the survey failed to gain this status.

Table 2: Ranks across sectors; awarding 10th place to issues designated "High" priority by at least half of the total respondents. "H" ratings are awarded within sectors if half or more sector respondents rated issue as "High" (AMEF Q1-95).										
Companies	19	26	18	63	22	25	25	14	Misc.	Average Rankings
	Motor Vehicles	Electronics	Aerospace	Metal Products	Electrical	Chemicals/Plastics	Other Mats/Chems			
Responding:										
Create New Ideas	H	9	6	3	3	6	3	H		3
Create Strategy for Change	7		H		7	3		H		
Create Buy-In / Acceptance	H									
Product Realization	6	2	4		2			H		4
Identify Opportunities	3		1	1	4	2	1	H		1
Identify Human Resource Needs	H	3		7	H	H		H		7
Identify Capital Needs		5					4			
Identify Needed Technology				H	H		7			
Identify Core Competency Needs			7		8					
Acquire Human Resources	H	4	H	4	H	5		H		5
Acquire Capital							5			
Acquire Technology					H					
Improve Cycle Time	H	6	H	6	6					6
Improve Product Quality	2	1	H	2	H	1	2	H		2
Improve Alignment of Effort/Strategy					H			H		
Improve Product Cost	H	H	H	8	H	7	8			10
Continuous Learning		H		9		H		H		
Evolve Culture	1		9		9	3				9
Evolve Organizational Learning	7						6			
Evolve Empowerment & Alignment		H			H					
Evolve Time Compression	H									
Add New Core Competencies			2	H	5		H	H		10
Add Customer Relationship Skills	H	H	7	H	H	H	9	H		10
Add Skills with Education/Training				H	H			H		
Add New System/Process/Equip			H	H		H	H			10
Add Access to New Information								H		
Add Supply-Chain Management Skills								H		
Correct Supplier Training	7	H	H	5	H			H	H	10
Correct Equipment Failure				H				H		
Correct Customer Problem	H	H	3	H	1	H		H		8
Correct Quality Problems		H	H	H	H	H	H			10
Real-Time Scheduling & Execution	H		H	H	H	H		H		10
Real-Time Material Availability		H		H						
Real-Time Process Variation								H		
Real-Time Worker Variation		7		H						
Surge in Product Development		8	H		H	8		H		
Surge in Human Resources	H							H		
Surge in Production Quantity	H							H		
Adaptable Process Technology	4	H	H	H	H	H	H	H		10
Adaptable Equipment & Process			H			H	H	H		
Adaptable Teams	5				H					
Adaptable Organizational Structures			5							
Adaptable Equipment & Process						H				
Adaptable Workers		H		H	H			H		10
Adaptable Strategies						9				