

THE NEED FOR STRATEGIC STANDARDIZATION MANAGEMENT

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The following editorial reports on the findings of a dissertation study on Strategic Standardization Management™ and Competitive Advantage recently conducted by Company Member Council Member Richard Forselius, with the assistance of representatives from a number of ANSI member companies.

Overview

Several of the most successful U.S. businesses credit the strategic adoption of standards in processes and products, or *strategic standardization*, with helping them achieve industry leadership. Strategic standardization is how business leaders leverage standards to build and sustain a competitive advantage.

Strategic Standardization Management™ (SSM™) is a macroprocess and management leadership discipline that investigates, defines, recommends and implements standardization strategies and policies by which an organization can gain competitive advantage. It is a process by which key managers judge the organization's influence in the standards committees of U.S. standards developing organizations (SDOs), specifically by organizational representatives who aim to initiate or modify standards that reflect the optimum business, technology and product plans for the organization. This is achieved through continuous processes of gaining information, benchmarking, assigning metrics to key processes and goal management, in which progress is charted toward end-of-period goals.

SSM™ Activities

SSM™ is a fulltime activity in which an organization creates structures and designates personnel as Subject Matter Experts (SMEs) to complete needed tasks. The following are dominant activities in an organization's SSM™ activities:

- Identifying standardization opportunities that will increase organizational advantages in the global marketplace in concert with business and strategic plans;
- Developing appropriate SSM™ assessment and implementation models;

- Assuring active, integrated and efficient participation in leadership positions of standardization and conformity assessment activities worldwide;
- Providing a continuing assessment of the organization's SSM™ activities and their impact on organizational businesses and products;
- Coordinating design, manufacturing, environmental and quality planning and practices internally;
- Investigating the approaches of competing and recognized organizations to identify best practices (benchmarking);
- Recognizing and monitor emerging management systems standards worldwide; and
- Promoting SSM™ as a key business strategy.

These activities impact almost all parts of a company or an organization. This requires a system of management to ensure that these activities are adequately performed. Because SSM™ tends to be diffused within the organization which focuses on its core competencies, it requires continuous monitoring and can not be left to chance. A level of organizational commitment beyond just "hiring better engineers" is warranted.

By practicing SSM™, an organization manages its influence in SDO committees through its representatives in order to modify or initiate standards that reflect the optimum business and product plans of the organization.

There is also growing awareness that the term *standards* connotes much more than just the documents that prescribe technical requirements and specialized test methods that demonstrate compliance. Standards are one of the best marketing tools ever conceived and standards technology is critical to U.S. global competitiveness and to the American economy overall.

We found that many of the most successful U.S. businesses
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now recognize SSM™ and credit it as one element in helping them achieve industry leadership. Through this business leadership process of leveraging standards, they have built and sustained a competitive advantage.

SSM™ Model and Survey Process

A model of competitive advantage based on organizational recognition of standardization issues was developed by this researcher. This model was tested to assess an organization's strategies toward standardization and standards issues in relation to the market leadership position of the company's principal products.

Organizations were further analyzed to determine if any differences by industry classification were apparent. Also, the nature of respondent organizations' products, through the use of a high-technology classification, was assessed against their degree of strategic engagement in standardization activities.

Corporate executives were surveyed by written questionnaires and telephone follow-ups. Questionnaires were mailed to 443 U.S. companies. Of these, responses were received by 74 ANSI members and 6 non-members. A subsequent telephone survey of an additional 41 firms (20 ANSI and 21 non-ANSI members) was conducted. Overall, 121 organizations provided data, including 94 ANSI member companies, and 27 non-members.

Overall Findings

Organizations responding tended to be leaders in their fields; thus a contrast between successful and unsuccessful companies was impossible to measure (or determine). A proxy variable for organizations having a high degree of technology was created. A very high level of integration of standardization issues included in strategic plans and ISO 9000 quality management system standards into the overall business plans of these organizations was found.

Corporate Leaders in SSM™

Several companies are perceived by their peers as being leaders in their utilization of standardization as a competitiveness strategy and received more than ten responses each. These include: AMP, American Telephone and Telegraph, Hewlett Packard, Intel, International Business Machines and Motorola. These organizations are all involved with telecommunications

or computers. Viable standardization policies and engagement in standardization activities are appropriate for companies in these industry classifications.

Specific Research Findings

The results provide primarily qualitative evidence that standardization strategies produce competitive results. In fact, it is certain that organizations that are engaged in standardization initiatives tend to be better performers than those that are not. The following findings were convincing:

- 87% of respondent organizations totally agree or agree somewhat that standardization is recognized by their organization as a strategic business process;
- 66% include standardization issues in strategic plans;
- 78% include standardization issues in business plans;
- 82% include standardization issues in policies; and
- 90% include standardization issues in procedures.

Other relevant responses:

- 70% totally agree or agree somewhat that respondent organizations assess their representation on SDO committees;
- 69% totally agree or agree somewhat that respondent organizations provide a continuing assessment of the impact of standardization on major businesses.

In the category of social responsibility, the findings revealed that respondents believe that the voluntary system of standards clearly enhances value to consumers. Only 2 respondents disagreed. According to the majority of respondents, abiding by recognized standards also enhances consumer confidence in respondent organizations' products. Only 3 respondents disagreed.

Internal coordination of standardization activities varies in the respondent organizations; however, the findings showed that coordination takes place most frequently within the organization's Engineering Department, (49%), followed by, in ranked order: Operations, Corporate Office, Standardization Department, Marketing, Other Location (not tabulated) and Business Planning. Only 2 of the respondents

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Standards Enable...*(continued from page 5)*

"Businesses throughout the world know all too well the importance of eliminating non-tariff barriers to trade to preserving not just jobs, but their very survival."

As Bhagwati indicates, the WTO has become, for governments, the key international institution for setting the "rules" on public and private practices that affect competition among nations. I believe, however, that much of the success of the WTO, as highlighted by the language contained in its Technical Barriers to Trade Code of Good Practice, and similar provisions in the North American Free Trade Agreement (NAFTA), Asian Pacific Economic Cooperation (APEC), Transatlantic Business Dialogue (TABD), and other agreements, will owe to the fact that they embrace many of the positions advanced by the global standards development systems. Among these are such things as the need for harmonized standards, requirements that permit a product to be tested once and accepted globally, support for the suppliers declaration of conformity, and the need for both regulatory cooperation and political commitment to these objectives by the governments of the world. The dramatic growth and support by global business for the recently established Industry Committee on Standards and Conformity Assessment, predicated on just these principles, suggest that Bhagwati will realize his objectives even if governments stumble in *their* efforts to liberalize trade.

I agree with Bhagwati's observation that because developed economies such as the European Union and Japan have seen how U.S. companies have become more competitive once regulation and other trade barriers have fallen, they have been moving steadily toward openness and competition.

Businesses throughout the world know all too well the importance of eliminating non-tariff barriers to trade to preserving not just jobs, but their very survival. They are finding global voluntary standardization a most useful tool for achieving these crucial objectives. U.S. leadership in this area will be important to maintaining the trend toward free trade.

Henry Line is Vice-President, Global Product Standards, AMP Incorporated and Chairman of ANSI's International Committee (IC). He is a member of the Institute's Company Member Council Executive Committee and served as its Chairman from 1995-1997.

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stated there is no specific area of coordination.

The questionnaire assessed respondent organizations' commitment to management systems standards. 72% totally agree or agree somewhat that their organization has a strategic global approach in implementing ISO 9000 series of quality management standards. 51% have an interest in the ISO 14000 global environmental standards initiatives.

Respondent organizations took the following positions regarding the voluntary U.S. national standards system to assure U.S. standards are adopted by other countries and jurisdictions (these questions were marked by a high level of missing data as organizations were not asked to respond in the telephone survey):

- Only 13 out of 65 respondents indicated no involvement with conformity assessment activities;

- 24 out of 74 respondents said their organizations had no direct participation in ISO committees;
- 17 out of 76 are not participating in U.S. Technical Advisory Groups to ISO committees;
- Only 7 out of 76 have no involvement in U.S. standards developing committees; and
- 6 out of 75 are not participating in industry consortia or informal committees.

As far as categorization of the respondent organizations:

- 55 out of 121 respondent organizations were publicly

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held, 17 private, and 3 non-U.S. For the remaining 46 respondents, this information is missing;

- Of those responding to this question, all but 2 are independently managed;
- Of the 121 respondents, the 4 "highest" industry sectors represented (in descending order) were: electronic/electrical equipment (22); electric, gas and sanitary services (20); manufacturing industries (18); and machinery and computer equipment (13);
- Respondent titles were: President (2), Chief Technical Officer (6), Vice-President (16), Director (18), Manager (49), and other (30);
- All assessed organizations had more than \$100 million in annual revenues.

Opportunities for Further Related Research

Opportunities exist for further study. It is possible to

gather more data about the relevant variables as stated in this research. We could also repeat the questionnaire instruments to gather trend data over time.

Summary

Regardless of the context of standardization, key business standardization policies and strategies are developed by many international organizations, implicitly or explicitly, communicated as such, or kept as confidential business information. Strategic standardization should be considered as an enterprise-wide, systemic competitiveness strategy.

Dr. Richard J. Forselius is manager, engineering standards and procedures, at Hamilton Standard, division of United Technologies Corporation. He is a member of ANSI's Company Member Council Executive Committee and chairs the Council's Resolutions, Training, and Policies and Procedures Committees. In 1997, ANSI presented Forselius with its Meritorious Service Award for his exemplary contributions to ANSI.

NEW EC FRAMEWORK FOR INFO SUPERHIGHWAY UNNECESSARY, U.S. PANEL SAYS

The Information Infrastructure Standards Panel (IISP) has informed the European Commission (EC) that members of the panel strongly disagree with the EC proposal to establish an "international charter" to harmonize global legal and regulatory frameworks for electronic commerce on the information superhighway, calling the charter unnecessary because it adds another layer of potential governmental intervention to the process.

The paper, which was signed by Oliver Smoot, IISP chair and executive vice-president of the Information Technology Industry Council (ITI), stated, "while IISP focuses on standardization issues, we disagree with the Commission's conclusion of the need for 'a framework.'" The paper also states that "multiple frameworks for standardization exist today, and while the amount of communication increases steadily, our view is that communication, not coordinated, top-down decision making, is the optimal approach for standardization."

The IISP paper further notes that "within the context of standardization, IISP does not understand how the consultative process described by the Commission would add value to the resolution of standardization issues, as standardization has already a well-developed international framework...". Smoot also made reference in the paper to an EC-hosted GIS Standards Conference in 1997, in which an Electronic Commerce Workshop Report urged that a new framework not be created.

IISP is a U.S.-based organization, sponsored by ANSI, whose mission is to identify standards critical to the implementation of the Global Information Infrastructure (GII) / Global Information Society (GIS).

Additional information, including the IISP paper referenced above, may be obtained by logging on to the IISP World Wide Web site (<http://www.ansi.org/iisp/>); or by contacting Michelle Maas, (212) 642-4884, mmaas@ansi.org, or R.M. "Chick" Hayden, (603) 964-6349, chayden@ansi.org.