

Center for the Study of Innovation Management

Antecedents

The Top 100 R&D spenders along with the top 50 companies in each of the three highest-spending industries: auto, health care, and computing and electronics in the world spent more than \$350 billion on R&D in 2007. This amount represents 71% of the total spends of the global innovation 1000 firms (source: Global Innovation report, Booz & Company, 2008). Fifty-five percent of these companies' total R&D spending occurs outside their home countries. These firms search economic environments that allow lower costs, access to talent and skilled professionals, technology bases, innovation management knowledge, and market proximity and insights.

In today's demanding global marketplace, firms must innovate to survive and flourish. These firms put innovation on the front burner and approach innovation as a systematic, enterprise-wide process. More important, developing innovation management capabilities and having the right resources devoted to technology, product, and processes are cornerstones of high performing businesses. Successful entrepreneurship innovation requires rigorous process to harvest and manage ideas, allocate resources, devise metrics, and the use of cross-functionality. There is not executive task more vital and demanding than the sustained management of innovation and change. Without doubt, the development of innovation capabilities and innovation management should preclude solid growth, strategic, and financial performance as firms build their domestic and international competitiveness.

The State of Delaware is not immune to these trends as these demands impact its competitive structure and economic technology base. It is known that world-class universities attract the business interest as well as their capital. Businesses partner with universities and research centers to develop new technologies, commercialize and market these technologies and derivatives, and recruit talented and well-trained workers and professionals. Moreover, these businesses prefer to locate closer to centers of new knowledge, innovation, and research. It is a strategic goal of the state of Delaware to strengthen its capacities for innovation, intellectual leadership and management, and technology commercialization as it guarantees jobs in emerging high-tech and high-wage industries (Markell, Jack: Plan for Broadening the Reach of Higher Education, 2008). As such, the Center for the Study of Innovation Management, CSIM at Delaware State University will significantly contribute to build these relationships with industry, state officials, and other Delaware-based stakeholders. More important, this center will provide innovation knowledge and leading management insights to support the nurturing of an innovation culture and the management of innovation initiatives at the regional, national, and international levels.

Purpose

The Center for the Study of Innovation Management, CSIM housed in the Department of Management, College of Business at Delaware State University is a research unit focused on the study of innovation management in organizations. Innovation management is defined as the activities, processes, routines, systems that foster knowledge creation, transformation, dissemination, and sharing as it moves organization towards change and adaptation in their pursuit of value creation and competitiveness. Entrepreneurship is intrinsic to this concept of innovation. The CSIM has a multi-disciplinary orientation in its programs and activities and embraces academic research from colleagues with expertise in psychology, sociology, human behavior, cognitive science, organizational behavior, management, marketing, information systems, economics, accounting, finance, and other disciplines applicable to the study of innovation management.

Mission

The Center for the Study of Innovation Management, CSIM is a research unit within the College of Business focused on bringing the advances of theories, methods, and applications in the area of innovation management to the academic and curriculum endeavors and the regional industrial, commercial, and organizational communities to promote development, growth, and firms'

competitiveness at the state, national and international levels.

Its Values

The Center for the Study of Innovation Management is committed to:

- i. Academic excellence and the highest standards of quality research.
- ii. Professional integrity and upmost sense of honesty, transparency, and ethical behavior.
- iii. World-class efficiency and productivity in its research and programming activities.
- iv. Enhancement, nurturing, and development of the human capital associated with the center to its fullest.

Functions

- i. Generate, promote, and disseminate research projects and news advances in the intersection of innovation, technology, product development, entrepreneurship, and knowledge management.
- ii. Build relationships and act as liaison with local, regional, national industries and international organizations to assist these in their efforts to incorporate center's study findings and promote applied innovation in their markets.
- iii. Work in partnership with other international research centers in joint research programs in innovation management, faculty research collaboration and exchange, international consortium research projects, and other activities consistent with the mission of the center.
- iv. Assist and collaborate primarily with the local government and official units in the State of Delaware in the creation, design, promotion, and support of efforts to increase the innovation output and capabilities of critical small and large enterprises within a diverse manufacture, commercial, and service industries in the region.
- v. Provide advice as to incorporate new developments and content into the curriculum structure mainly of the academic programs in the Department of Management and College of Business, and secondly in other research programs at Delaware State University.
- vi. Promote and economically support interested faculty and students' involvement to pursue new academic initiatives and new learning in the area of innovation management in the Department of Management, College of Business, and Delaware State University.

Research Sustainability

As a research center, the following metrics are used to assess the CSIM performance:

- i. Contribute to the research publication profile of the Department of Management and College of Business. As such, provide evidence of research productivity conducive to maintain the qualifications of faculty members as required by the AACSB accreditation body.
- ii. Generate, promote, and support Delaware State University students' pursue of advanced degree research studies in management and related disciplines.

Programs

The center carries out professional activities to support the following initiatives:

- i. Research Program

This program emphasizes the generation of knowledge, application, and practice of new advances in the area of innovation

management and entrepreneurship.

ii. Industry Liaison Program

Support and assist regional organizations in achieving national and international competitiveness through the design and implementation of innovation initiatives and capabilities. Assist the commercial and industrial regional community in the training of employees and development of new skills and competencies at the managerial level.

iii. Academic Curriculum Design Program

Generate transfer mechanisms to bring the results of the Center's research program to the development and enrichment of the Department of Management's curriculum, executive training, and high-level senior management programs.

iv. Cooperative Transferability Program

Collaborate with other research centers from diverse institutions, i.e. universities, firm based research centers, colleges, universities, and technical centers in the State of Delaware and internationally in the creation and transferability of new knowledge and research in the field of innovation management.

Research Themes

The CSIM conducts research categorized into the following themes:

- i. Technology Innovation and Valuation
- ii. New Product Innovation and Development
- iii. Innovation Management and Organizational Performance
- iv. Models of Innovation and Internationalization Patterns
- v. Innovation and Entrepreneurship

Organization Structure

The strategic growth and management of the center is supported by the following structure and staffing:

Director of the Center for the Study of Innovation Management

Responsible for the strategic development and research programs carried out in the center.

Administrative Assistant of the Center for the Study of Innovation Management

Responsible for the operation and management of day to day activities and personnel, fiscal accountability, managing of communications and marketing, support of programs and scholarly projects, collaboration with external entities, and compliance with procedures and norms as requested by the College of Business, University, and funding entities.

Faculty Research Associates

Faculty from the Department of Management and other colleges at Delaware State University interested in carry out research programs and projects. Other faculty members from educational and research institutions at the national and international level will qualify under this association.

Industry Associates

Professionals and practitioners from organizations, firms, businesses, and corporate research centers from the State of Delaware interested in being members of research teams and task forces.

Research Assistants

Students that have demonstrated serious and intrinsic motivation to carry out research projects. Only students that have demonstrated a higher level of maturity, excellence, and professionalism will be invited to be associated with the center.

Industry Advisory Board

The center has a board of industry professionals selected from the business community in the local, region, and national areas.

These members support the center's mission and are consulted on the academic, research, industry liaison, and programming endeavors. They are active in their disciplines and reflect a strong industry composition (technology, health, electronics, manufacturing, services, etc.).

The advisory board is expected to recommend and review general guidelines for programs and activities of the center in consultation with the Director of the CSIM. These recommendations should benefit the center, university, community, and other constituents.

Facilities

The Center for the Study of Innovation Management is housed in the College of Business at Delaware State University.

Center Services

The following are the areas in which the center may offer its services to the academic, industry, and government communities:

Identification of strategic industrial sectors and subsectors that may adopt new technologies such as nanotechnology, biotechnology, and other derivatives.

1. Determine the domestic and exporting potential markets for intermediate and finished products within specific industrial sectors.
2. Diagnostics and evaluation of production and manufacturing capabilities.
3. Potential impact of advanced technologies in the production process. Identify value generators of activation and assimilation.
4. Evaluation of potential use of materials and raw materials and the use of different technologies for particular production processes and technologies.
5. Use impact of technologies in:
 - a. Production and manufacturing evaluation.
 - b. Operation analysis of robust manufacturing and components assembly.
 - c. Evaluation of aggregate production variations from period to period.
 - d. Capacity analysis for production volume and manufacturing processes.
 - e. Impact of different technologies in the manufacturing output.
 - f. Design capabilities for products and demand satisfaction.

Analysis and Diagnostic of Market Expansion Capabilities

6. Analysis of the use of specific technologies by area of application. E.g. Bioanalysis, pharmaceuticals, therapy and bio medicine, biosensors, magnetic resonance, engineering of biological textiles, aerospace, information technology, consumer products, etc.
7. Product analysis at the B2B and B2C markets.
8. Aggregate value analysis and contribution of different technologies from the following perspectives: economics, markets expansion, technology integration, development of innovation capacities and development of product portfolios.

Analysis and Diagnostic of Innovation Capabilities

9. Evaluation of capabilities to adopt new and improve technologies and existing methods. Determine which technologies can be adopted.
10. Identification of technology platforms and determination of resistances to the adoption of technologies.

11. Technology development and strategic network analysis.
12. Customer value model and profitability.
13. Diagnostic of existent and details of new product development models and processes and analysis of adaptation capabilities.
14. Analysis of capabilities to develop commercial prototypes.

Market Estimation for Intermediate and Finished Products.

15. Estimation of potential markets for existing and new products offered by manufacturing firms (continuous innovation and penetration).
16. Estimation of potential markets for existing products with differential advantages. (market extension).
17. Market potential for innovative products (radical innovation).
18. Market potential for radically new concepts and application of Kano methodologies.

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