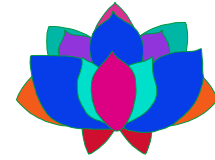


The Innovation Superhighway[©]



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The world is experiencing unprecedented change in applications of knowledge in every dimension of development, growth, revitalization and organization. The demands and opportunities of an interdependent global economy have implications for private and public decision making by enterprises and communities, whether local, national, regional or global. Most nations have launched major initiatives to harness their inherent capability within a transnational context. All has been done in the name of international competitiveness. Economies have been transformed, communities revitalized, emerging territories supported and industrialized nations repositioned. We have much to learn from one another.

Only with this level of cross-fertilization will it be possible to build a truly global infrastructure

The original National Information Infrastructure - NII (renamed the GII during a G7 discussion) - was never intended to be an 'information' infrastructure at all. Rather, the design was one of 'innovation' - to move ideas from the point of origin to the point of opportunity (e.g., global business) or the point of need (e.g., to eradicate world poverty). Progressive managers and leaders are already seeing the benefits of a Knowledge Economy. The Innovation Infrastructure (GKII) is designed to bring together leading thinkers and practitioners from around the world, from different industry sectors and types of enterprise, from governments and public policy agencies, and from professional organizations. Only with this level of cross-fertilization will it be possible to build a truly global infrastructure from which all sectors, functions and regions of the world can benefit.

Three underlying themes are fundamental to the new infrastructure needed to create prosperity in this new economy:

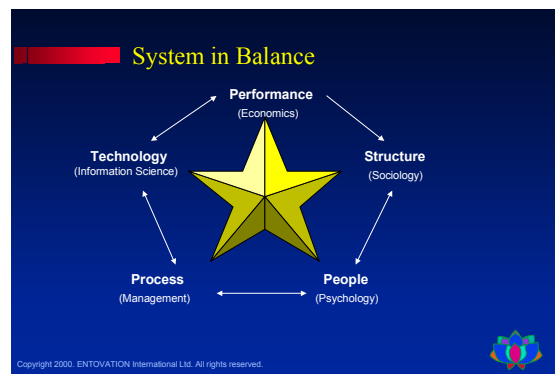
- Knowledge is the new, expandable source of economic wealth. There is an emerging recognition that the inherent intellectual assets – effectively exploited through innovation – are the most valuable resource of any country.
- Innovation that encompasses the full spectrum from creative idea generation through full commercialization. Successful innovation depends on converting knowledge flows into goods and services.
- Collaboration, replaces the competitive (win/lose) paradigm, which is prevalent in many businesses today, with win/win benefits based on pooling competencies - knowledge, know-how and skills.

The rate and magnitude of change require new modes of enterprise management with benefits in the workplace, educational and health systems and governance of our cities and nations. The paper provides a new framework for understanding, cross-fertilizing and nurturing regional and organizational capabilities.

Architecting a Future

Of course, we are seeing kaleidoscopic change in every aspect of our lives - industrialized and developing nations alike. Communities of Practice, International Dialogues, and electronic conferencing are providing a learning platform never before imagined. To take advantage of the activity and optimize what might result, architecture is useful to identify key elements of a management foundation. Below are 5 that are detailed in the book, Innovation Strategy for the Knowledge Economy - <http://www.entovation.com/backgrnd/art.htm>.

- **Knowledge Economics** - The shift in orientation to intangible assets will revolutionize the way enterprises are measured. Whether dealing on the level of the enterprise, the nation or society-as-a-whole, there is an entire new way to value economic wealth. For many of today's executives, 'if it cannot be measured, it is not of value.' And yet, as we now understand the 'productivity paradox,' we realize that these factors - a new Knowledge Value Proposition - must be defined, monitored and evaluated as an essential foundation of the knowledge economy. Intangible assets are now recognized as integral to the functioning of any organization. With the new global knowledge economy and the removal of trade barriers, cross-cultural knowledge - simply because of economies of scale and scope - becomes a competence of a major firm to leverage. Even the smallest performance entity - the factor of one - may be the individual entrepreneur; and 'economies of learning' becomes the universal measurement.
- **Knowledge Structures** - Some progressive managers have realized that there is strength in interdependence (i.e., the value of the whole in addition to the operations of individual parts). In fact, the whole has expanded to include suppliers, alliances, partners, customers and even competitors. As organizations develop a deeper commitment to cross-functional teaming, real-time learning, communities of practice, symbiotic partnering relationships with customers and other stakeholders, the value of human networking will be obvious.
- **Knowledge Workers** - When people originally referred to knowledge workers, they were describing the skills necessary for high technology industries. Others described Knowledge Industry as the Services sector. People have realized that all industries - and, indeed, professions - are knowledge-intensive. If they aren't now, they soon will be. A true knowledge-intensive organization is comprised of self-motivating, empowered workers who know that their knowledge is important to the performance of their organizations. They understand that their knowledge and expertise can be applied along multiple dimensions. In fact, their motivation to contribute to



the enterprise may be based upon how the knowledge and skill base is utilized, recognized and rewarded.

- **Knowledge Process** – Perhaps the greatest contribution of the quality community to business management has been the focus on process. The nature of the process-to-date has been linear/service delivery models. The systems dynamic constructs of the future are complex and multi-directional. Not only does the ability to listen (and hear) become important, the ability to learn and share those learnings becomes paramount in an organization that leverages intellectual capital. In the postwar era of cooperation, it is more essential that nations realize the potential value of regional collaboration.
- **Knowledge Processing Technology** - There has been a significant shift - predicted only a few years ago – from information processing to knowledge processing, which includes the concepts of learning tools, intelligent electronic coaching, decision-making systems and more. Artificial intelligence tools, which only two decades ago were shunned, have been embraced as integral to the successful knowledge-intensive business. As the marketplace becomes hyper-competitive, the performance metrics become more complex and intangible, the organization becomes more networked, people become more empowered and energized, and processes become boundaryless, enterprises will become more reliant upon the technology. Competitive positioning becomes a function of the worldwide web.

Creating an Innovation Culture

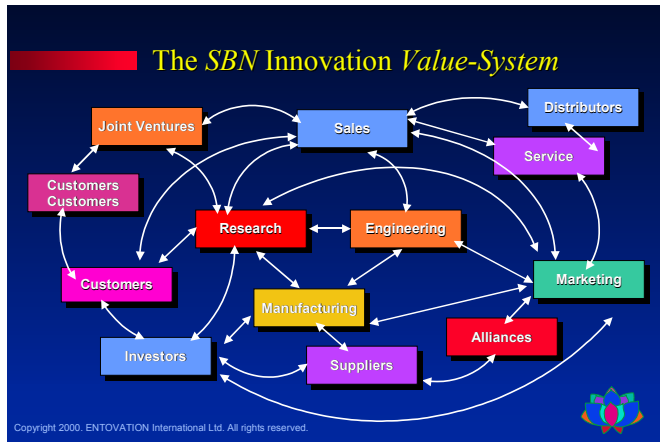
Creating the culture where knowledge is valued and shared effectively is one of the most difficult challenges faced in practice. One of the primed influences may actually be the competitive environment that has been developed over time and begins with a child's birth. Competition is healthy when describing sports, and it was appropriate for an economic climate where resources were plentiful. Once global competition became a reality, available resources shrank rapidly overnight. However, the knowledge economy promises an abundance of resources if the metrics and measurement systems can be properly defined.

Of primary importance is the innovation language – a language that transcends the paradigm and biases of one function or another.

Of primary importance is the innovation language – a language that transcends the paradigm and biases of one function or another. Ideally, such a language would also encompass industries, sectors and regions of the world, and therefore be universal in scope. There are several attempts to define the language with a glossary of terms. Of course, the language must be adapted to the heritage, purpose, mission and strategy of a particular entity. It is important that the language be established and pervade all operations and planning efforts. The intent of this paper is to suggest that the language can best be created under the rubric of innovation strategy – redefined, of course, according to the flow of ideas.

Culture extends beyond the enterprise. When the stakeholders in the process are considered (e.g. suppliers, alliance partners, distributors, customers, competitors and even the customer's customer), the view of the knowledge base from which

organizations might learn is expansive. The Strategic Business Network (SBN) as model is in direct contrast to Alfred Sloan's multi-divisional structure for organizations, which was well suited to the Tayloristic industrial paradigm. Dividing the large enterprise into independent strategic business units was considered the optimal way to measure performance.



However, the dynamic economic climate demands a networked, fluid organizational structure that balances accountability with responsible risk taking. It is not the parts themselves that add value, but the synergistic nature of the whole, the value of which is greater than the sum of the parts. This is the nature of fusion and the result of symbiotic learning networks, both human and technical. Demonstrated value resides in the interfaces between the

boxes, sometimes described as the white space, which must be the object of our performance management systems.

Shared purpose is essential for an enterprise to thrive in the dynamic global economy. Amidst the turmoil and chaos of the past decade, throughout downsizing and re-engineering processes, many organizations have lost their sense of direction. Initiatives have become fragmented and, worse still, internally competitive. Interestingly enough, it may not be the financial resources that are scarce today as much as the mind-set and available commitment time of the enterprise leaders. Too often managers operating in the traditional, competitive work climate are managing initiatives with unnecessary duplication of effort and sub-optimal allocation of resources. In many instances organizations must find a way to coalesce, rededicate themselves to a common agenda, and respect the complementary competencies that can be brought to bear. Creating the community of innovation practice may be one way to begin the process.

Conclusion

The foundation for a new economic order has been laid. This does not mean the answers are known, but there exists a better understanding of the elements of the infrastructure and the right questions to be addressed. This is a very different paradigm from previous agricultural, industrial or service economies. It is one that truly rests on the value of human potential and how it might be systematically leveraged for the benefit of mankind. The challenge is to determine the integral linkage between human potential and economic performance.

The knowledge economy only affords an unprecedented opportunity for creating the future. This is a climate in which ideas will be valued, but only as they are applied to advance society, however that may be defined. The answers lie in an effective innovation strategy, redefined according to the flow of knowledge: ideas to prosperity.

Increasingly management responsibilities will be viewed as facilitating the learning process, which includes external stakeholders (e.g., suppliers, distributors, alliance partners, customers, and even competitors). How these relationships are managed is far more a matter of collaborative expertise than the competitive skill with which most are familiar.

Values, valuation and valuing will gain prominence as executives search for what to measure, and how and when to evaluate performance. Only when we have a common language across borders – functions, industries and countries alike – can we begin to explore the prospects for collective prosperity.



The identified trends (established, emerging and over the horizon) provide a glimpse of the fundamentals of the future. Implementation will vary (company to company, industry to industry, nation to nation), but coming to a common understanding of a mutual mission could enable better utilization of financial, technical and human resources.

With the emerging community of innovation practice, it is understood that various practitioners throughout the value system can contribute. How they are engaged in a common mission determines how they are able to leverage their complementary competencies. Rather than competing for resources and spheres of influence, individuals, groups, organizations and nations can realize what they have to gain through collaborative versus competitive strategy.

The core premise of the future is collaboration. This does not mean that organizations do not compete; competition is inevitable. It does mean that that their orientation shifts to one of sharing and leveraging one another for mutual success. In national and global terms, this is described as creating the common good from which all benefit. Previous eras have experienced reliance upon resources that are depleted. Perhaps the era based upon the bountiful resource of knowledge provides an opportunity for true global symbiosis.

Organizations must create the integral connection between the value of human capital and economic prosperity. What is obvious is that this cannot be done in a vacuum. Creating the knowledge innovation language, culture and shared vision is by definition a collaborative process. History will document how well this transition toward an 'Innovation SuperHighway' is led.

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