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## **KNOWLEDGE CAPITAL FOR ECONOMIC EMPOWERMENT**

**Theme: Project Management Leadership > Leveraging India's skilled population for competitive edge**

### **Abstract**

Today the world is in the midst of high socio-economic volatility and turmoil impacting every sphere of activity.

The 'Technology Revolution' involving rapid advancements and dynamic impact to society has made a larger impact on economic structures of nations, bridging the gap between developed and developing countries. The determinant factor for this revolution is the Knowledge Capital as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance that has paved the way for innovations through research and development, providing competitive edge and enhanced value and profitability to enterprises.

With innovation as the pivotal engine for economic growth, economies are increasingly driven by investment in Knowledge Capital.

From the standpoint of effective project management, this paper discusses the best practices for sustainable leadership in the context of global projects and cross cultural teams with India at the forefront of implementing Knowledge Economy through harnessing the huge talent pool of resources as nations sail through the vagaries of business complexities. The paper also evaluates the process of utilization of intellectual capital coupled with investment of financial capital for technological innovation through the Techno-Financial Empowerment Cycle and pertinent areas related to how organizations are equipped to harness knowledge capital and essential leadership for achieving this.

### **Keywords:**

Knowledge Capital, Techno-Financial Empowerment Cycle, Knowledge Economy

## Table of Contents

Introduction.....	3
Knowledge Capital .....	3
Knowledge Economy and Innovation.....	4
Techno-Financial Empowerment Cycle(Rao, 2009) .....	5
Organization Culture and Innovation.....	7
Concentric Innovation Cycle Model.....	8
India at the forefront of Knowledge Driven economy.....	10
Conclusion.....	10
References .....	11

## Introduction

With increased business complexities coupled with geo-political economic volatility impacting the international economic framework, the key determinant factor for sustainable competitive advantage among enterprises and economies worldwide is Knowledge as the intangible asset which is the key performance indicator of growth and productivity and innovation.

The 'Technology Revolution' involving rapid advancements and dynamic impact to society has made a larger impact on economic structures of nations, bridging the gap between developed and developing countries. The determinant factor for this revolution is the Knowledge Capital as the driver of productivity and economic growth, leading to a new focus on the role of information, technology and learning in economic performance that has paved the way for innovations through research and development, providing competitive edge and enhanced value and profitability(Rao, 2009).

As organizations grapple with business uncertainties, it is imperative that harnessing knowledge/intellectual capital and effectively managing the knowledge is the need of the hour aimed at providing value to enterprises.

## Knowledge Capital

As aptly pointed out by the eminent organization theorist Ikujiro Nonaka – In an economy where only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge. When markets shifts technologies proliferate, competitors multiply, and products become obsolete almost overnight, successful companies are those that consistently create new knowledge, disseminate it widely throughout the organization, and quickly embody it in new technologies and products. These activities define the "knowledge-creating" company, whose sole business is continuous innovation(Nonaka, 2007).

Knowledge or Intellectual Capital is the sum of everything everybody in a company knows that gives it a competitive edge... The purpose of measuring value of its intellectual capital is not to report the financial value, but rather to attempt to report the company's success in managing intellectual capital. Consider the quintessential manufactured product of the late 20th century: the microchip. The value of all the chips produced today exceeds the value of the steel produced. What makes them valuable? Certainly not their physical component. Chips are made mainly from silicon, that is, from sand, and not much of it. The value is mainly in the chip design and design of complex machines that make it. It is the intellectual content, not the physical, that is the major contributing factor(Kumar, 2003).

The factor to be noted is the value that the knowledge capital produces is of paramount importance. Understanding this value to an organization's benefit and the synchronicity to the needs for which organization is providing services is the pivotal aspect to be considered.

Effective Management of knowledge capital is the profound art to derive the optimum value. Although management literature offers multi dimensional approach to knowledge, the significant aspect in understanding knowledge framework is Tacit and Explicit knowledge.

Explicit knowledge is knowledge which has the ability to be codified or stored in such a way that it can be easily transferred without knowing any specific context to which it relates. Most commonly explicit knowledge can be found in standard operating procedures, manuals, human resource documentation, etc. Alternatively, tacit knowledge lacks the characteristics necessary to be properly codified into a common language or formalized so that it can be easily transferred. Typically, tacit knowledge is derived from the personal experiences and through interaction with others, which makes it highly context specific (Teece, 1998).

The Organization for Economic Co-operation and Development (OECD) economies are more strongly dependent on the production, distribution and use of knowledge than ever before. Sustained competitive advantage is increasingly based on innovation, which in turn is driven in large part by investments in different forms of knowledge-based capital (KBC). For instance, it is estimated that between 1995 and 2007 investments in KBC have accounted on average for 23% of labour productivity growth (Corrado et al, 2012).

## **Knowledge Economy and Innovation**

A knowledge-based economy is defined as an economy directly based on the production, distribution and use of knowledge ... In the knowledge-driven economy, innovation has become central to achievement in the business world. With this growth in importance, organisations large and small have begun to re-evaluate their products, their services, even their corporate culture in the attempt to maintain their competitiveness in the global markets of today. The more forward-thinking companies have recognized that only through such root and branch reform can they hope to survive in the face of increasing competition. At the same time, organisations in both the public and private sector have launched initiatives to develop the methodologies and tools to support entrepreneurship and the management of innovation in business. Higher education establishments, business schools and consulting companies are developing appropriate methodologies and tools, while public authorities are designing and setting up education and training schemes aimed to disseminate best practice among businesses of all kinds. Yet innovation takes many forms. In addition to traditional technological innovation, there is innovation through new business models, new ways of organizing work, and innovation in design or marketing. Managing and exploiting to best effect all these different kinds of innovation represents a major challenge to businesses today (European Commission, 2004).

As pointed out by noted management expert Peter Drucker, Innovation as the Austro-American economist Joseph Schumpeter said, is “creative destruction”. It must be organized for systematic abandonment of the established, the familiar, the customary, the comfortable- whether products, services and processes, human and social relationships, skills or organizations themselves. It is the very nature of knowledge that it changes fast and that today’s certainties will be tomorrow’s absurdities (Drucker, 1993).

## **Techno-Financial Empowerment Cycle(Rao, 2009)**

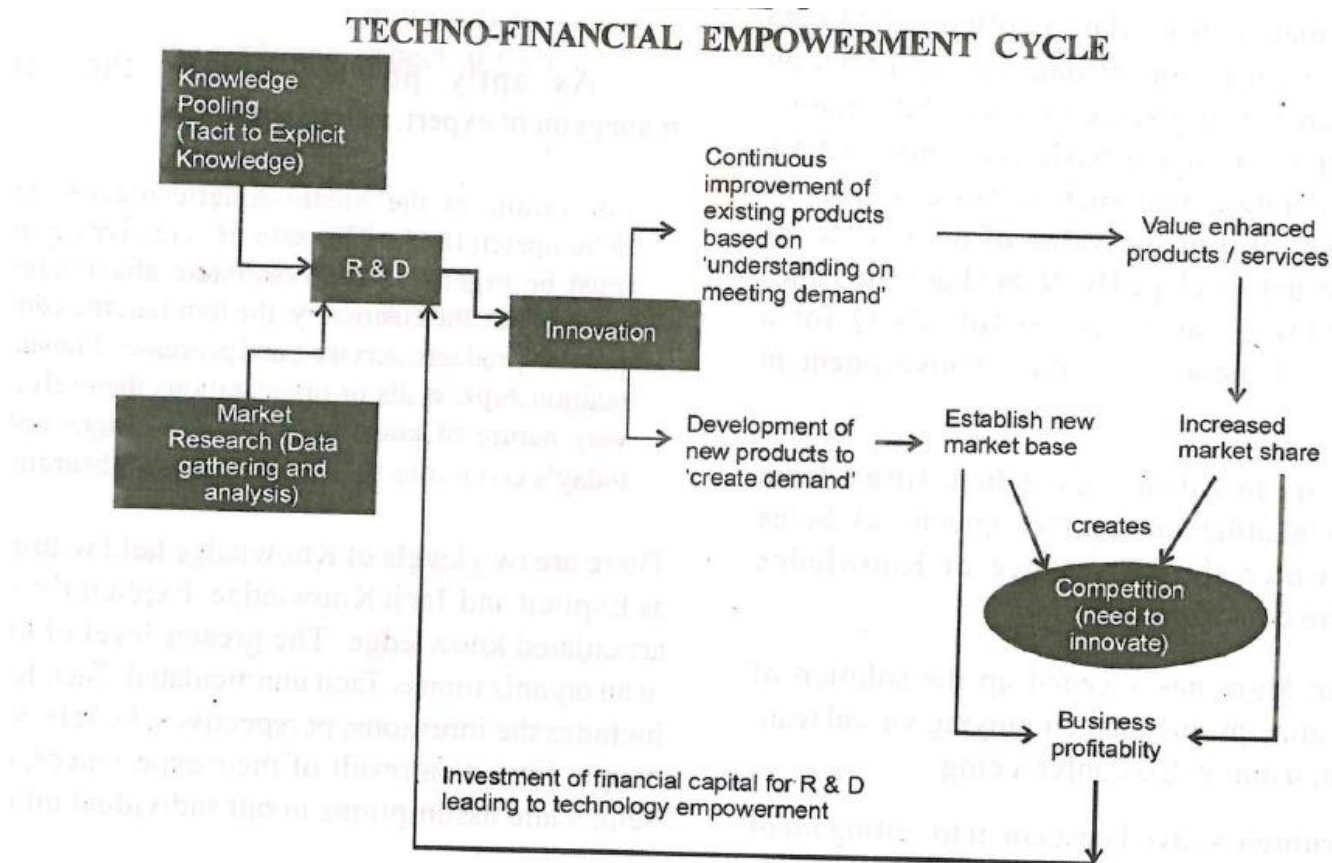
The Techno-Financial Empowerment Cycle in Figure 1 explains the empowerment of technological innovation through investment of financial capital and intellectual capital- The approach to development should not be just to ‘understand and meet demand’ but also to ‘create demand’. For both these approaches, innovation is necessary. In Knowledge Pooling, Tacit Knowledge is collected and transformed to Explicit Knowledge which is the input for R&D activities. Data gathered and analyzed through market research, to understand the market requirement is the other input to R&D activities.

Both the inputs for R&D activities are intellectual capital. R&D activities leads to Innovation, which has a 2-pronged strategy –

- (1) Continuous improvement of goods and services based on the goal of ‘understanding and meeting demand’.
- (2) Development of new goods and services to ‘create demand’. In other words, this can also be called ‘innovation from technological revolution’.

The offshoot of (1) is value enhanced goods/services which leads to increased market share and business profitability. The offshoot of (2) is establishment of new market which results in Monopoly. Over a period of time, Monopoly leads to Competition. The output of (1) and (2) is generation of financial capital which is further invested in R&D activities, which makes a smooth flow of the Cycle leading to techno-economic development.

Figure 1 (Rao, 2009)



Innovation is a key to business success, but where innovation comes from is changing. Today's firms are looking beyond research and development (R&D) to drive innovation. They invest in a wider range of intangible assets, such as data, software, patents, designs, new organisational processes and firm-specific skills. Together these non-physical assets make up knowledge-based capital (KBC). Business investment in KBC has been increasing faster than investment in physical capital such as machinery and buildings for a number of years in many OECD countries. Indeed, in some countries business investment



in KBC now significantly exceeds investment in physical capital and overall investment in KBC has been relatively resilient during the global crisis(OECD, 2013).

## Organization Culture and Innovation

The key dimensions of organization culture called “**Organization Culture Continuum**” required to foster effective knowledge management and ensure continued innovation is in place are:

- **Reverence:** Noted management consultant, Dr. Jack Hawley in the masterpiece ‘Reawakening The Spirit in Work: The Power of Dharmic Management’ points out the importance of Reverence as a key component of excellent management and goes on to state that organizations develop a Reverence for Mission, Products, Customers and Employees which would carry commitment and dedication to lofty elevation of devotion(Hawley, 1993).

From the perspective of organizational efficiency, the foremost aspect is all stakeholders feel a sense of belongingness about contributing their efforts for meeting organization goals.

- **Growth orientation:** Organization culture should demonstrate the orientation towards growth and achievement in all spheres of activities undertaken by aiming to be market leaders. This gives the stakeholders a feeling of working with a dynamic entity poised for success.
- **Expansive “Openness” Culture:** Organizations must be open to inculcate new ideas from employees and discuss the feasibility in line with the strategic goals.
- **Involving People:** One of the most important areas of sound organization culture is people involvement and have employee engagement models for decision making in place and conduct sessions to understand the “internal perception” which would help management allay any misunderstandings.
- **Strategic Goals:** Organizations need to be explicit in getting the strategic goals clear across all levels of the organization and all stakeholders and this should be periodically demonstrated so employees align their thoughts towards these goals in order for their contributions to be effective.
- **Communication and Building Trust:** Regular communication across the organization structure on the progress and strategy is the pivotal element that helps build trust and enforce discipline and builds the bridge between stakeholders providing platform for committed approach to development initiatives.

From Project Management Leadership perspective, three significant areas organizations need to hone are:

- **Effective Stakeholder Management:** When new ideas are gathered and organizations need to understand their feasibility, it is important to understand the stakeholders and strategizing on how they can be effectively managed especially when multiple stakeholders are involved.
  
- **Benefits Realization Management Framework(ref):** Benefits realization management (BRM) provides organizations with a way to measure how projects and programs add true value to the enterprise with following goals:
  - IDENTIFY BENEFITS to determine whether projects, programs, and portfolios can produce the intended business results.
  - EXECUTE BENEFITS management to minimize risks to future benefits and maximize the opportunity to gain additional benefits.
  - SUSTAIN BENEFITS to ensure that whatever the project or program produces continues to create value.
  
- **Organization Process Assets:** A storehouse of knowledge, organizations need to have a methodology to keep the organization process assets updated for all projects executed to understand how risks were managed and lesson learned. These become useful sources of reference and provide key insights when managing new projects.

### **Concentric Innovation Cycle Model**

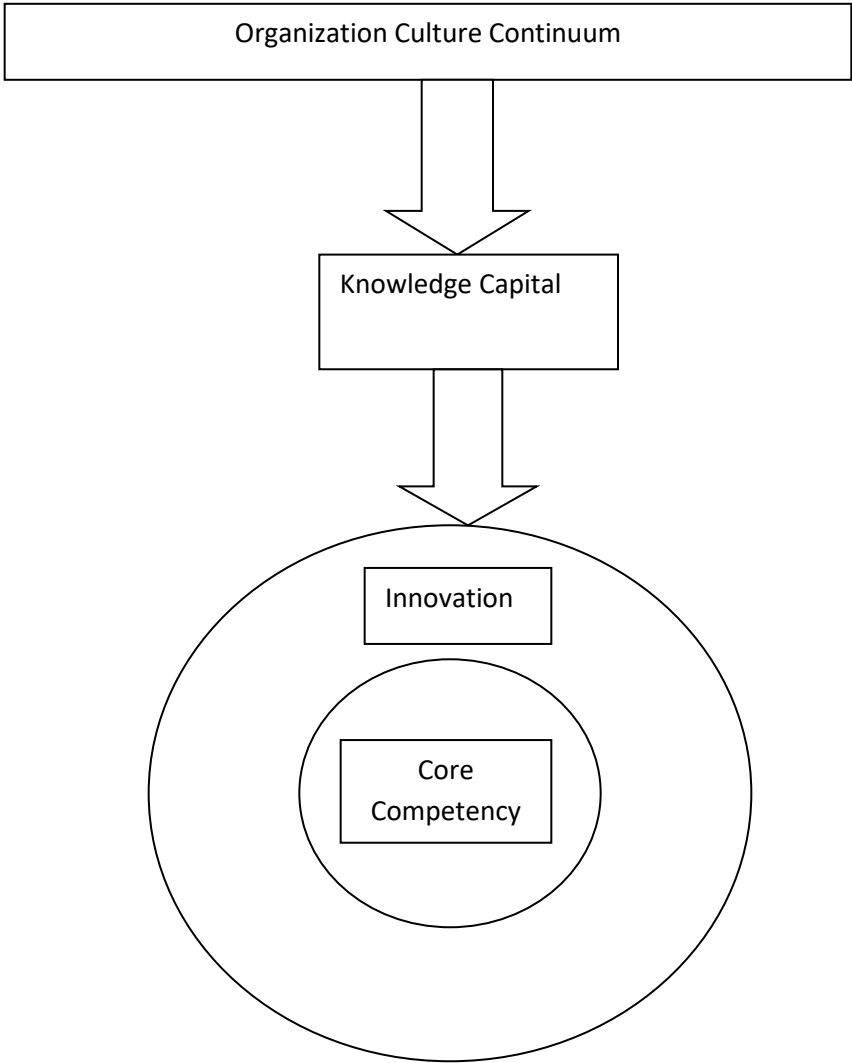
Relationship between Organization Culture Continuum and Innovation is defined in the Concentric Innovation Model in Figure 2.

The fundamental aspect here is organizations must channel the knowledge capital towards innovation around core competency which would be concentric.

The Organization Culture Continuum needs to be effective in order to harness Knowledge Capital and keep the Innovation cycle continually running.



Figure 2



## India at the forefront of Knowledge Driven economy

One of the key factors of India emerging as a Knowledge Driven economy is the huge talent pool which can be harnessed effectively. This talent pool comprises a confluence of people with profound tacit knowledge and organizations having explicit knowledge already established. Tapping this enormous knowledge pool and converting the tacit knowledge into explicit knowledge which in turn is used to enhance the existing explicit knowledge is one of the key roads to achieving this vision.

The Government of India has launched the dynamic and pioneering initiative of “Digital India” which is a step in the right direction towards our goal of sustained economic growth.

The “Digital India” programme is centred on 3 key vision areas to transform India into a digitally empowered society and knowledge economy (Ministry of Electronics & Information Technology Government of India, 2014):

- Digital Infrastructure as Core utility to every citizen
- Governance and Services on demand
- Digital Empowerment of Citizens

The economy progresses once organizations flourish and to achieve this it is essential that sound organization culture fosters harnessing knowledge capital leading to continued innovation with successful project management leadership in place to ensure projects are implemented as planned.

## Conclusion

Although globalization has brought the world together from an economic and trade standpoint, the world is witnessing huge economic volatilities impacting nations at large due to various geo-political factors. Under such circumstances, economic prosperity of nations is indicated to a large extent by the flourishing of the businesses which is possible through harnessing knowledge capital leading to continual innovation for sustained growth which not only is a massive risk mitigation factor in times of economic upheavals but also a catalyst for competitive advantage.

From this standpoint, the world is moving from Globalization into a phase of “Nationalism in a Globalized Society” as a panacea for long term economic growth in this scenario, with India at the forefront to realize this successfully considering our great culture, resources and dynamic initiatives by the Government.

Organization culture and leadership has a huge role to play in this arena to enable tapping intellectual capital to spur innovation coupled with adopting effective program management strategies for successful execution of projects leading to an empowered national economic structure.

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