

Strategic Knowledge Management and its effects on Cost Management in projects

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Abstract_ In the information age, organizations face a dynamic environment, where they have to be on the lookout for avenues to sustain their competitive advantage. The growth of Internet and globalization, to name a few factors, have resulted in information interchange and availability, bringing down the period for which organizations can hold on to their competitive advantage. One of the ways in which organizations can sustain and improve their competitive advantage, in the current environment, is to reduce cost and thereby maximize value. Organizations have realized that this could be achieved by implementing a knowledge management system and leverage on the benefits of this system to reduce costs. In this paper, some Strategic Management fields in Knowledge Management has been introduced and presented with the main focus on Cost Management in projects.

Key Words: *Knowledge Management; Cost Management; Strategic Cost planning; value engineering; cost reduction*

1. Introduction

Business exists to create and render VALUE. Ultimately, that is the one buzz word that encompasses and integrates all streams of study, be it, Finance, Marketing, Human Resource, Information Technology, Strategy, Supply chain and so on.

This study focuses on how organizations can leverage on knowledge management practices to reduce costs and thereby increase value. The application of the theory is illustrated through a couple cases on HP and Infosys. It details how these companies have developed knowledge management systems and used them for strategic cost management.

Customer intimacy is cultivating relationships to gain customer insights and expanding client base of 'desirable' targets. Employee capability is achieved by reducing attrition, sharing of best practices, setting goals for associates, developing and tracking of performance measurements. Product or Service leadership is obtained by delivering the best products and services that push performance boundaries. Also, new offerings are to be created depending on the demand of the clients. Leadership is also by bringing the products to market quicker. Operational excellence is

delivering products and services at the best price and with least cost. The pedestal on which each of these elements lies is KNOWLEDGE[1-4].

2. Knowledge Management Perspective and Mission

2.1. Why Knowledge management?

Some of the reasons why knowledge management has gained currency in recent times are:

Productivity and Opportunity Loss

This is due to lack of knowledge where and when it is needed.

Information overload

Too much unsorted and non-targeted information results in information overload.

Knowledge attrition

Knowledge is lost because of early retirements and increasing mobility of workforce.

Mergers and Acquisitions

Organizations are growing in scope and complexity as a result of disparate cultures and technology coming together.

Reinventing the Wheel

No standard processes for capturing best practices or lessons learned.

Growing Virtual Needs

This is because of dispersed customers and resources.

Because of the above-mentioned reasons, which are the result of the following factors, the time demands efficient knowledge management[2,4].

- (i) Speed to change the market place has become so rapid, that the time available for organizations to gain experience and acquire knowledge has diminished.
- (ii) Competition on the market place has forced organizations to reduce costs.
- (iii) Failure of financial models to represent the dynamics of knowledge.
- (iv) Failure of information technology by itself to achieve substantial benefits.
- (v) Unintended consequences of universal information access.

2.1.1 Importance of Knowledge Management

The importance of knowledge management is also evident from various surveys and research conducted by management consultants and the expenditure incurred by many corporates on developing knowledge management systems. Some cases in point are [5-7]:

- (i) A survey conducted jointly by Price Water House Coopers and World Economic Forum; found that 95% of CEO's saw KM as an essential ingredient for the success of their company.
- (ii) According to the International Data Corporation, companies worldwide are expected to dramatically increase their knowledge management expenditure from \$2 million in 1999 to \$12 million in 2003.
- (iii) British Petroleum (BP) managers attributed around \$260 million of added value as a direct result of KM approach. Various refineries of BP, due to KM approach saved between \$1 million to \$10 million in 2000.

- (iv) British Telecom offered significant incentives for the contributors of knowledge. 10% of additional income generated was due to new idea or contribution.
- (vi) Realizing the need to provide an atmosphere for innovation to give birth and emphasizing knowledge culture in the organization, 3M allowed 15% of the week's working time for creative work and new ideas and as a result they had about 60,000 new products.
- (vii) SAP, the software company, in the first quarter of 2001 reported a book value of \$3.16 million compared with its market value of \$4.2 billion at 21st march 2001 (SAP 2001)

Knowledge management being at early stages of conception and implementation has given way to varied misconceptions. A knowledge management system cannot be bought off the shelf, like a word processing package. It is something intimately linked to a particular organization to its employees, management, culture and environment. It is just an enabler for it.

Two of the common misconceptions have been explained below:

- (i) Organizations, label information technology solutions like groupware products, implemented in their organisations to be knowledge management systems. Information technology solutions address only the knowledge sharing and retrieving elements of the knowledge management process and cannot be construed to the actual implementation of the knowledge management system in the organization.
- (ii) Organizations develop data marts and data warehouse and declare them as knowledge management systems. Data warehouse is structured data for querying and reporting rather than analysis. A KM system does not stop with capturing knowledge objects from various individuals in the organization to codify and store them in central repositories but also consist of inferences made on the information gathered from

varied perspectives for the benefit of whole organization.

Past is a history. Future is a mystery. But still it cannot be denied that the decisions are taken with the known past for an unknown future, where change is the changeless law of the world. But, the constraints are faced by all the businesses. Smart are those companies that render value to increase the corporate performance in the competitive environment! Improved corporate performance depends on competitive advantage enjoyed or created by the organizations, either by Product differentiation strategy or (low) Cost leadership strategy. Cost leadership is achieved through strategic cost management and how knowledge management accelerates the efficiency and effectiveness of the same is the intended area of research and study.

a. Knowledge Management and Creativity

Creativity is the ability to bring in new appropriate and relevant ideas through imagination and intuition. Innovation is the process of operationalizing the new idea.

There are various processes associated with the process of creating new ideas, like, brainstorming, lateral thinking etc. The ideas created by these methodologies can be harnessed through proper and appropriate knowledge management systems.

Nonaka [3] suggested that successful companies are those that consistently create new knowledge as solutions to unfamiliar problems, disseminate widely throughout the organization and quickly embody it in new technologies and products, which implies that a proper knowledge base is a source of creation of new knowledge in the organization. The creation of new knowledge is through creative ways of combining existing knowledge units available in the organization.

Donald Schon, an American writer has argued that creativity comes out of displacement of ideas, using concepts in one field in another field. This statement highlights the importance of a

knowledge base since the concepts of one field to be used in another field can be effective if the ideas and concepts are stored in a knowledge base. Organizational innovation requires exploring new ways of combining existing ideas in a new way.

3. Strategic Cost management

Cost management is important to organizations because it is a philosophy, an attitude and a set of techniques to create more value at a lower cost. Cost management looks into the long-term competitive success of the firm. The critical success factors for cost management not only encompass financial factors, costs and revenues but also non financial factors like new product development, product quality, customer satisfaction and the like. Therefore, the role of cost management is to identify, measure, collect, analyze and report information on these critical success factors reliably and in timely manner[2-6].

Cost management information is needed for all four management functions.

- Strategic management by which the companies choose their line of products, manufacturing methods, marketing techniques, and other long term issues. Also it supports management decisions by identifying and measuring the impacts of alternative decisions that potentially affect operations in all parts of the organisation.
- Planning and decision-making in operational and recurring issues like managing cash flow, budgeting, purchase of raw materials, production scheduling and pricing.
- Management and operational control to increase customer value by identifying opportunities to eliminate non-value adding practices and processes but reward and support effective managers
- Preparation of financial statements for accurate purposes and also to comply with reporting requirements. These financial statements are mainly used by other three management functions.

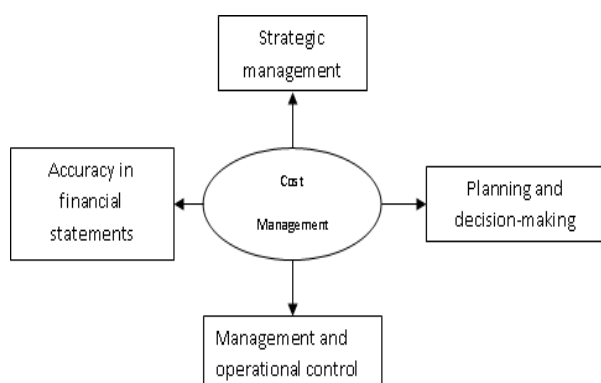


Figure 1. Cost Management aspects and evaluation

As it is said by Ronald W Hilton, Michael W Maher, Frank H Selto in their book, Cost management – Strategies for business decisions, “Cost management rejects the notion that “costs happen” and embraces the perspective that all costs can and should be managed to meet organizational goals”. It is an accountants’ philosophy that ‘costs happen’ and it has to be measured accurately. But, it is a fact that cost results from management’s decisions to meet global business conditions. An overarching theme is ‘best cost management practices’ which is the result of external competition among companies and internal threats from alternative sources of information. Cost management has therefore assumed the role of a management facilitator than a mere steward.

Considering the ephemeral differentiation strategy, the companies should focus on cost leadership for long-term competitiveness. Cost reduction can be achieved either by reducing capacity or drive savings by improving efficiency. Only the latter can make permanent changes in cost structure. Companies that reduce capacity will soon find itself washed out from the arena of competition, for ‘volume’ is the name of the game in the years to come.

Cost management system should provide information that identifies various sources of competitive advantage. Competitive advantage is achieved when the organization is:

- More efficient than its competitors
- A first-mover in making new technology that offers cost or productivity advantage.
- Rendering more valuable services.
- Possessing superior knowledge and capability of employees to come up with new products and services
- Harnessing organizational resources to improve financial and non-financial outcomes.

All these need to be a continual process which takes place iteratively rather than one time occurrence.

4. Knowledge management and Strategic Cost Management

Organizations, in the present day scenario, have realized the difficulty in sustaining competitive advantage over an extended period of time. An organization gains competitive advantage by creating more value for its customers than its competitors, because customers demand enhanced value at reduced cost. Organizations have now felt the need to look for avenues by which they could reduce costs to survive and succeed and have realized that cost management as one of ways by which they could enhance value for its customers. Strategic Cost Management is an integrated approach to value management, which results in improvement of price performance ratio[5,7].

Creativity is another key requirement for value management. Creativity is not to be looked as any isolated function but as an integral part of organizational functions. Knowledge management is one of the important catalyst for creativity and this is succinctly emphasized by Prusak in this quote - “A firm’s competitive advantage depends upon what it knows, how it uses what it knows and how fast it can create something new” Knowledge management provides context for creativity, for without a context creativity has no meaning. It is the relevance and feasibility of implementation of an idea that makes it more meaningful. Creativity can help in discovering new product or new process and could also be instrumental in streamlining existing processes[1-4] .

Cost reduction could be brought about by streamlining existing processes or by introducing new processes, which are more efficient than the existing processes. Creativity plays an important role in bringing in new thinking to streamline existing processes or in creating new processes. Creativity requires exploring new ideas, combining existing ideas in new ways and experimenting with them to create ideas, which are operational. The base for creativity is the knowledge base of existing practices. Together, knowledge management and creativity lead to improvements in the existing processes and creation of new processes.

Process streamlining involves simplification of existing processes and elimination of non-value adding steps in the process. Non-value time could be due to rework and errors in process execution and elimination of such non-value time results in benefits like reduced cycle time, increased quality thus leading to increased economic value. Organizations therefore have more time for creative thinking which plays an important role in generating ideas, to reduce the non-value adding time and thereby enhance value.

Cost Management can be achieved by:

- Ensuring accurate, appropriate decisions taken on time
- Improving process efficiency
- Improving service capability

In all the above focused areas, knowledge management plays a crucial role in reducing costs and hence we could reasonably conclude that proper knowledge management can lead to cost reduction.

Since, in the present era, cost is one of the main drivers for organizations to achieve competitive advantage, cost management is looked at more

from a strategic dimension rather than a functional dimension[8].

5. Knowledge Management and cost reduction

The above-mentioned sub-systems are contained in an overall centralized knowledge management system. This system is accessible to all at Infosys from any part of the world, thus ensuring transparency leading to the development of a sharing culture across the organization. The system also has several control points, which are accessible at various levels in the organization. This ensures that all functions and operations are regularly monitored and early warning signals are tracked and captured on occurrence. The correction and improvement mechanisms are put in place almost instantly, resulting in enormous cost reduction on various fronts and achieving cost leadership even while trying to maximize value[6].

6. Conclusion and future Directions

In this paper, relations between Strategic Knowledge Management and Cost Management introduced and presented. By using these methodologies and relations and effective management on its procedures, all of requirements for implementing an optimized cost service in projects will be prepared and all of its benefits and advantages have positive effects on projects and organization plans.

The most important matter and subject in this issue is how to improving and optimizing these relations and transactions between Strategic Management and Cost Management. Implementing an useful strategy for strategic management using knowledge management base is one of the most application for doing it as described in this paper.

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