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## Knowledge Transfer - The Key To Drive Innovation For Service Organizations Excellence

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*As service organizations become increasingly aware that knowledge is among their most valuable strategic assets, they will try to develop and maintain the knowledge transfer through the organization and to make the employees understand the importance of knowledge and communication.*

*The paper highlights that advanced information and communication technologies, a dedicated knowledge sharing culture and a strong leadership based on continuous improvement and excellence models such is Lean Six Sigma are essential factors in facilitating knowledge transfer.*

*The Lean Six Sigma approach is necessary because service organizations and their employees need a methodology and a leadership approach for improving and resolving problems, which arise from organizational culture and knowledge transfer.*

**Keywords:** *Lean Six Sigma, knowledge management, business transformation, innovation*

**JEL Classification:** *M21, O32*

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## Introduction

Almost every service organization establishes itself with investments from shareholders and through the products and services that it offers. The aim is ultimately to transform the business into a successful environment that by its activities can produce the desirable results. Results that can be translated into value for the business itself and for its employees. In the knowledge economy, for an organization to maintain a competitive position for a long period of time, regardless of its strength, is not possible with the short life cycles of knowledge and ignorance of intellectual capital. An organization's ability to create value depends on its value added process, its intellectual resources, and the creativity of its workforce – its intellectual assets [1].

Both Lean Six Sigma and knowledge management (KM) share a relevant distinction in a business environment full of change initiatives and improvement philosophies and methodologies.

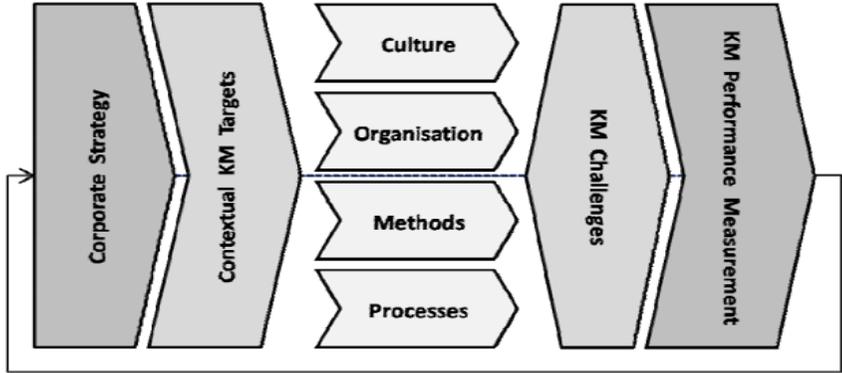
The Lean Six Sigma methodology has the power to transform an organization. Effective implementation, however, requires that the methodology become part of the culture. For a company to maximize its return on investment, the implementation needs to not only introduce a new way of doing business, but also create and sustain an environment in which results matter and employees at all levels feel empowered to drive continuous improvement [2].

In a service organization it is harder to implement an excellence model such as Lean Six Sigma because the processes are more difficult to be determined and measured and that's why it opposes a greater resistance to change.

## Knowledge management and its role in business environment

Since Handy (1996) suggested that managing the knowledge and skills of its employees was a key organizational challenge, each of the management disciplines has contributed to the concept of Knowledge Management (KM) in a rather independent way.

The extent to which an integrative approach helps an organization more effectively manage its knowledge assets was examined in depth by Minonne (2008) resulting in the identification of four complementary forms of integration. These are cultural integration, organizational integration,



methodical integration and procedural integration and they are the conduits of an assessable KM strategy [3].

**Figure 1:** Integrative approach to knowledge management adapted from C. Minonne (2010) [3]

At present it appears that organizations having a KM strategy and actively managing their organizational knowledge focus, as a first priority, on the efficiency dimension because it can be operationalized more easily than the effectiveness dimension [4].

At all times, effective performance measures have to be congruent with an organization’s strategic objectives as well as easily understood by all employees and should promote intended behavior within the organization. However, there is no unique solution to this problem [3].

There are a lot of difficulties in managing the customer-performer interface since both of them participate intensively in the process. Therefore, effective communication is a prerequisite for the successful completion of the process and the avoidance of uncertainty. The service effectiveness is directly depended on the server customer communication, and, by extension, on the degree of intangibility of the service. Thus,

uncertainty as regard to intangibility is contingent upon the ambiguity in the relationship between the service provider and the customer [5].

It is well accepted that, by definition, service performances cannot be guaranteed since they are generally delivered by human beings who are known to be less predictable than machines. Hart (1988) argued that while this may be true, it does not mean that customer satisfaction cannot be guaranteed. Hart developed the criteria for a good service guarantee. That is, the guarantee is: (1) unconditional; (2) easy to understand and communicate; (3) meaningful; (4) easy (and painless) to invoke; (5) easy and quick to collect on. He claimed that a service guarantee is a powerful tool because it: (1) forces the entire company to focus on the customer's definition of good service; (2) sets clear performance standards for employees; (3) generates reliable dates when performance is poor; (4) forces the company to examine its entire service delivery system for possible failure points; (5) builds customer loyalty, sales and market share [6].

## **Linking Lean Six Sigma with business processes improvement through knowledge transfer**

A fusion of Lean and Six Sigma methods enable organizations to reduce lead time in processes, cost and effort in processes and attain excellence in organizational process quality and consistency. Lean philosophy is focused in: increase efficiency, eliminate waste, focus on the important steps in the process and streamline workflows, while the Six Sigma methodology acting on: increase consistency, reduce process variability and eliminate defects.

Knowledge management is a framework which may be central to organizations whose primary functions are innovation, ideation, finding solutions using data and in organizations where knowledge about products, processes and resources are available widely and leveraged by executives from easy-to-access systems. At a fundamental level, both KM and Lean Six Sigma methods rely on collecting and categorizing information. Consider the example of a product structure management tool that may be used in manufacturing organizations. This tool will essentially collect data from different products and processes and come up with ontologies which help store product knowledge. This product knowledge will also be collected in

the course of a Lean Six Sigma project which aims to make either the manufacturing costs of this product lower or improve the consistency of the processes that create this product [7].

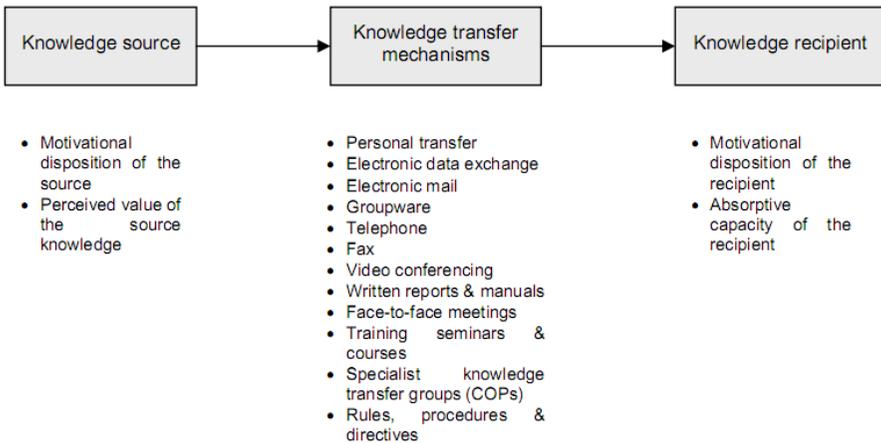
Organizations have to find a means of engaging in a meaningful manner with the knowledge workers. This is not an area in which technology alone can provide the answers: the third dimension, namely management, must inform the manner in which the engagement is approached. Technological solutions must be embedded not simply with the systems infrastructure but also with the organizational and individual's cultural dynamic: the change and knowledge transfer must be managed in an integrated and inclusive manner [8]. Technology has freed the knowledge worker and enabled employers to utilize their services from remote locations – the alignment is no longer based on a need for physical proximity [9]:

- Knowledge workers often operate from home or remote (out in the supply chain network) locations, but no matter their location they must be fully engaged in the design of support systems;
- Client relationships are crucial: so often the knowledge worker is embedded with the clients network and may identify, over time, with the client more than the employer;
- Knowledge workers can be expensive and their services non-standard: they are often employed on contract and are remote from core activities;
- Knowledge workers no longer stay with their employers for life: careers are made by moving not staying so how does one attract, retain and manage knowledge if it doesn't stand still;
- Knowledge is security, power and freedom: is it always in ones interests to share?

Knowledge economies, societies and enterprises represent the future [10]. Maintaining a knowledge advantage promotes economic leadership by ensuring that emerging ideas, innovations and viable 'new' product and services reach the market place [11]. At their core, Western economies are based on services (creation, development and management) and innovation (knowledge acquisition, development and exploitation).

The subject of innovation within services sector industries appears to have, in relation to product driven research and development, been somewhat neglected [12].

Technology is one of the infrastructures that an organization can provide to facilitate the knowledge transfer process. A variety of information systems and technologies supports knowledge management processes such as creation, storage, transfer, and application of knowledge. For example, data mining techniques such as neural networks find new patterns in data and enhance knowledge creation; knowledge repositories store and retrieve knowledge; electronic bulletin boards, discussion forums, knowledge directories, and other knowledge networks enable efficient and accurate transfer of knowledge [13].



**Figure 2:** A knowledge transfer model source: adapted from Abou-Zeid (2002) [14]

Both KM and Six Sigma are quickly infiltrating business management systems with problem-solving and process-optimization methodologies. Six Sigma should not be viewed as a quality program that is commissioned to reduce defects but as a methodology that helps service organizations better meet the needs of their business. KM shares this goal. Bill Baker, a knowledge transfer and benchmarking champion at Raytheon,

discussed that company's Six Sigma process and how it intersects with KM. Its efforts began in 1997, when Dan Burnham of Allied Signal became Raytheon's chairman. Burnham brought his experience with Six Sigma to Raytheon and then benchmarked best-practice examples such as GE (as it shows the figure 3). Involving Lean enterprise tools, the strategy is focused on the customer, tools, and culture through five principles [15]:

1. Specify value in the eyes of the customer.
2. Identify value stream and eliminate waste and variation.
3. Make value flow at pull of the customer.
4. Involve and empower employees.
5. Continuously improve knowledge in pursuit of perfection.

Lean's strength lies in providing a set of standard solutions to common problems and its customer focus. Suboptimisation is prevented by the use of the value stream map that ensures a focus on the entire value chain. However, Lean is short on the organizational infrastructures for managing the innovation efforts, deployment plans, analytical tools and quality control [16].



**Figure 3:** The resulting Raytheon Six Sigma, or R6s, process improvement strategy applied to the entire company Source: [15]

The least thought of and yet most important element may be the transfer of knowledge from the few experts to the organization as a whole. The philosophy is to create self-reliance and organic growth of the Lean Six Sigma program. The goal is to have knowledge transfer occur throughout the organization and include the company culture, leadership and the individual participants.

There are two types of knowledge transfer. The first is very specific job training often delivered in a classroom with supportive on-the-job coaching. The second type of knowledge transfer is less weighted toward classroom training and more towards shadowing and on-the-job coaching. This method relies on trained change managers who use a variety of training and communication events to support the organization through a culture shift resulting in a work environment that is continually improving. Most likely, an organization will require both job training for new or revised jobs and a cultural revolution influencing a mind-shift and eventually a behavior-shift for all employees across the organization [17].

## **Conclusions**

Lean Six Sigma is a leadership approach for improving management processes and reduces errors which can help both the organization and its employees to do things better and faster through quality principles which can be better and more efficiency applied through a good knowledge transfer that can be useful in improving the communication in all service organization levels.

Throughout Lean Six Sigma, knowledge management focused on three important issues: the competitive service environment, leveraging knowledge in a business environment always in a continuing change and eliminate the unnecessary efforts.

## **Accomplishment**

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