

**LEAN MANAGEMENT ROLE IN EDUCATION OF THE TWENTY-FIRST CENTURY GLOBAL VILLAGE TECHNOLOGY**

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**ABSTRACT**

We live in an age that there are so much turbulence and complexity; we faced with a world, which changes constantly and rapidly. A major issue for succession in this way is keeping pace with the rapid development of "technology". It comes which seeks to management. Technology, in the twenty-first century, will play a vital role. In today's economy, industry competition in some sense, involved as the battle. But with distinct competitive advantages that make it possible to continue to participate in the competition of the weaker companies will be lost. The present study aimed to express different views of lean management in order to achieve its perspective. To this end, we seek to answer this question; what features are needed for lean management in higher education. Regarding to lean management background, concluded that a lean investigations emphasized on trust, value creation, continuous improvement, strengthening of intellectual capital, leadership quality, rooting out waste, the institutionalization of scientific and practical experiences, the establishment of a comprehensive management system, standardization of processes, investment in infrastructure, the value of the rule.

KEY WORDS: Education, Lean Management, Technology .

**INTRODUCTION**

The development of human knowledge and access to superior technology led the world of yesterday where we were born, changed to the global village in which we live. Until shortly before force was a sign of the government authority and the war was the only way to penetrate into other climate. Today, with the development of new technologies, information and knowledge is a conquest. Today, the influence of technology on traditional thinking on professional development, were drawn to capital accumulation invalidity. And the trophy after winning the bloody war changed to penetrating to the gray layer of the brain and operation. It is not surprising that in the contemporary, these are not adults who overcome the younger but who are faster overcome slower and the rate of evolution was considered as a sign of authority (Amirahmadi and Grant, 2013). The main issue to be successful in this way is keeping pace with the rapid development of "technology" that occurs by management. Technology, in the twenty-first century, will play a crucial role, as had in the twentieth century. Therefore, it is necessary to identify the issues relating to technology (Hag, 2013). This indicated the complexity of the global markets and the increasing complexity and dynamic market environment facing firms and organizations (Serfonten, 2010). The company or organization needed to maintain effective competition with other companies in the industry. On the other hand, given the complexity of the competition was not simply possible. In today's economy, industry competition in some sense, involved battle. But to gain a distinct competitive advantage, the companies allowing, to participate in the competition was weaker disclaimer. The researchers have been exploring practical approaches. In these sensitive areas created competitive advantage for firms to survive and develop (Porter, 1980).

So pure concept, were in line with these new born changes of attitude. These concepts were as encompassing not only the problem of a deal, but also organizations problems were involved in creating a product review. In addition, the pure concepts were often successful in improving outcomes, Poppendieck declared to think pure in order to find a better way. So, to address this issue was consistent with organizations' success and its objectives. Researchers agreed that the success of the meritocracy depended on the education system. The growth and development of information and technology emphasized its role in shortening the cycle of economic development, intangible property, especially knowledge and created added values. Hence, information was considered a strategic commodity, the main indicators of development among nations and societies. That is why the notion of relocation and replacement of physical and material wealth of knowledge were accepted by the next century. Rather than material wealth and physical paper were accepted by the next century. But the shift in power simply did not transmit power but it also transforms the forms (Ataran, 2002). Academic education was indispensable for the dynamism of her connection to the real world, in addition to providing specialized knowledge in the sciences to help students. Acquired knowledge and skills, in dealing with the situation and the requirements of the present era's globalization. In a world where technology changed rapidly, knowledge produced increasingly. Academic education must teach a specific set of data, education should focus on the expansion and development of human capabilities and the world growth (Ataran, 2002). Therefore, the university was considered the most important and most basic place after the education system that enables the spirit of creativity, initiative, self-esteem and confidence to flourish in the younger generation. Universities were considered as the most valuable resources for the development of the society. These centers of science and technology were deemed a lot of credit in the world and were the major causes of social transformation (Yadegar-zade and Rahimi, 2002). In the new millennium, many changes had been occurred in the academic educational system. So, in some cases even overshadowed the university's mission and goals. There were seven main challenges of the third millennium that universities must

face them, declared Weber (2001): 1) Environment changing 2) Missions 3) Students and teaching 4) Academic career 5) Investment in academic education 6) Supervision 7) Comparison between the United States and Western Europe. So, in addition to the educational activities of universities, researches indicated new responsibilities which involved more increasingly in the process of innovation and technology development. University is not only a place for learning and for research projects or economical purposes, but in addition to the above objectives are to train students with the knowledge, applied research and innovation, entrepreneurship. Many universities and researches centers are aware that they can exploit research results to new investment.

**Globalization:** Education is a regular and continuous flow which aims to contribute to the physical, cognitive, psychological, moral, social or overall personality development of education-organization in order to gain acceptance from society's norms and this notion is a process that is created through education (Sabouri-khosroshahi, 2013). Globalization simply means expanding the scale, the size of development and analyzing the impact of the current market and patterns of social interaction. Globalization implies a shift or change in the scale of human organization. Globalization implies a shift or change, in the scale of human organization which connect to remote communities together and expands the access to the power relations in the region and the world." Globalization or the world planet is a concept that refers to the compression of the world, as well as an overall intensification of consciousness of the world, the real world and the awareness of the interdependence and integration of the world in the twentieth century" (Robertson, 2001). Regarding to Robertson, the concept of globalization using today has been existed many years despite failures however, the focus on globalization, is a new topic (Robertson, 2001). Held and Mac Grove (2003) in definition of globalization emphasized the social dimension of it and considered it as the increasing levels, the scope and impact of fast growing, growing and deep currents and patterns of social interaction. Globalization refers to the change or changes in the organization which linked the human societies. Also, expand the accession of power relations across regions and continents (Held and Mac Grove, 2003). In this regard, globalization is considered as widening, deepening and speeding up the strong interaction at the global level, in all aspects of social life of both the material and spiritual dimensions. In other words, the process that causes a change in the spatial organization of social relations, interactions, trans-continental or inter-regional flows and networks of activity involving, need interaction and the exercise of power (Crocker, 1994). Globalization was a process of transformation in 1990 a common word, went beyond the boundaries of politics and economy. Science, culture and life business was the phenomenon of globalization which was applicable to various forms of social action, economic, political, legal, cultural, military, scientific and technological, as well as different areas such as the environment (Kusam, 1999). Robertson (2001) considered globalization, combined global network of free trade stoppages and integrity of financial markets that had clear boundaries and distances, which united the world as a whole. The origin of the globalization concept had been the economical context. The term was introduced in the eighties decade of the twentieth century and its implications for economic integration of human societies and also to the movement of people (jobs) and knowledge (technology) across international borders (Ataran, 2002).

Researches confirmed that in the near future using computer communication, would be expanded especially through the educational system and would cover a large part of the industrialized population. However, it would not be as pervasive mass media and would belong only to the elites.

Ataran (2002) believed that the impact of globalization on education was related to the specific domain. One focused on the concept of learning, which aimed to prepare students as global citizens and the second focused on the effect of information technology, the compression of time and space and forms of global education (Ataran, 2002).

**Academic education:** Academic education was considered as a society service. Overall service quality and service quality in academic education were totally different in particular, to the quality of industry and commerce. This difference was due to the specific nature of quality in terms of characteristics such as intangibility, simultaneity and heterogeneity. This was true as well in higher education, because of academic was not included of learning from seeing, touching (the relationship between student and teacher), separating and unique in nature (environment classrooms, students, educators and employers) (Owlia and Aspinwall, 1996). The diversity of national approaches quality in academic education due to the differences in context and political, social, cultural and economic development of each country, have formed based on the academic education institutions. Lack of understanding of specific concepts for different phenomena, changes in the nature and functions of higher education institutions in the world, and even the names of local, national and international and a variety of institutions that worked together, were active in the country in terms of quality (Kord-naajji, 2005). The most important quality indicators of a comprehensive system of quality assurance system of academic education included as follow:

Identifying the effective ways of improving teaching and research services; Identifying the standards of education and research; Studying the effects of lean management systems in educational and research institutions; Presenting the comprehensive model of quality assurance in academic education; Presenting the Quality evaluation model of universities and institutions of academic education and research.

Surely draw the attention of documents upstream qualitative indicators of academic can affect the education in order to achieve material exposure more effectively. Hence, in order to reach to the quality as a goal, set of policies and strategies should be organized as well as the recognition and realization model based on the organization's productivity (Foruzandeh-dehkordi, 2013).

Educational content and globalization: the educational content to the present form cannot be consistent with the phenomenon of globalization and bring us to the destination. Given the breadth and depth of content and other manifestations of the phenomenon of globalization, the future of education content would be different with the current situation (Majidi, 2001). In the book "Superior system" this context was "the future of learning content based on threads formed this can be either the same conditions in the course of a formal and conventional combined or a new, independent study that can be defined by learners. It simply comes to define interdisciplinary courses. Thematic structure based on ontology graph, provided the guidance to inform the overall dimensions of the subjects and courses offered. This structure provided the subject matter of searching and also the most important thing was possible due to the structure of matter, revelation was a comprehensive study of a predetermined scenario to get an education. Hence, it is necessary to restructure the educational system according to the following points:

- Using a general approach to detailed approaches: Many of today's teaching and learning environments are separated to distinct scientific topics. This emphasize on the individual units. Although, the emergence of social and economic data requires a comprehensive understanding of the global business environment. Thus, interdisciplinary approach to achieve a comprehensive understanding of the complex realities of the world faced with is essential.
- Development of flexible and agile organization: As command and control systems destroyed throughout the world, Educational institutions must reduce their rigor and flexibility in dealing with the real needs of learners and the global economy. This flexibility should cover the diversity of time, location, approach and curriculum. As new issues, the implications of the global economy, scientific courses offered by reflecting new knowledge should be consistent with education.
- Decentralized learning to adapt the curriculum and requirements.
- Interdisciplinary integration and reform of the curriculum.
- Coping with changes in the curriculum of teacher education.
- Adapting the curriculum and challenges of ICT capacity.
- Formal and informal collaboration between educational institutions and scientific resources and school.
- Require professional curriculum (Maroufi, 2004).

New technologies and modern communications networks and the spaces in between the different parts of the world have been built closer together. Escape from the grasp of globalization was escape from reality, regarding to philosophers, "Those who deny the reality arises, in fact, also denies themselves, because it, is part of reality itself (Kharazi, 1999). Educational system needs to reflect the impact of globalization on society and education institutions, because schools are one of the guiding centers of the country and shapes the theories, ideas and innovations and with a critical examination, increased the individual and collective ability to select, recruit and ideas in all areas of economic activity, cultural and social and were the determinants of success in meeting the challenges and opportunities posed by globalization. International organizations such as the "UNESCO" are also responsible for strengthening the effectiveness of educational systems. The educational system of the country should be required to transition from traditional approaches to education, which is a new approach.

Educational system should be able to transit from traditional approach to new approach. The transition from an industrial society led to an information society. The knowledge society is the key to the learning process because each person can learn from the knowledge and its production (Mashayekh, 2003).

**Lean management:** Lean word that was common in the 1980s and 1990s included a number of approaches to the management of companies that focused on the production system and exactly meet what the customers wanted, the lowest cost without wasting (Waste) (McCarron, 2006). Most senior managers of companies considered lean as a set of tools and regarding to them being lean meant to add tools to traditional systems under their leadership. Indicating lean as a philosophy rather than a set of tools and systems and the necessity of manage it, led the researchers to create the lean system management (Convis, 2001). Dr Jackson, one of the most famous consoler of Praktiviti institute in 1996, based on the principles and methodology of the leading managers and consultants, made lean management system based on principles and methodologies leading executives and consultants, and extract the prestigious awards worldwide production and quality standards after many years of serious studies and implementation in companies. The main features of this system were the overall system and the removal of administrative methodology. Vumak and Jones, two leading industrial analysts believed that the world changed from the mass production to co lean manufacturing, Companies and countries which could not be lean had to left the social-economic era for the competitors which is to work inclusive and universal navigation solution by lean thinking and working smarter and value creation, and eliminate all forms of waste (Vumak and Jones, 2001). The principles of lean thinking as polar star was reliable for managers who stubbornly in order to go beyond the chaos of everyday mass production process, but most lean managers, only considered a set of tools, but the company's success was in getting lean and employing a comprehensive management system and the use of a special group of tools. Lean management system was a management system that was part of the lean principles and tools. In order to improve the quality of products and services, their managers, increased the market share, profitability, productivity, customer focus and quickly respond to market changes and employ more efficient equipment. Hence, Jackson, for the first time, organized the principles of thinking, concepts and tools of lean management system within an organization that had implemented metallurgy and included of two basic pillars. A strong sense of style, yet flexible and other tools in a way that form together, an integrated model. Style concept included the development

and revitalization process improvement cycle strategy which developed by programs and organizational development to lean management. In a dynamic organization, facilitated the prospect of moving to a lean through the synergy of all employees in understanding of future direction of the organization. Perspectives which were chosen based on the emphasis on usability and acceptance on the whole body, would united the staff's thought, in relation to the competitive challenges of integration and rapid response to sudden changes in the underlying environment. Some activities must do to analyze, review and develop the prospects: analysis and policy review, development of the vision and mission of the organization. An organization was able to reach the goals, which current processes were efficient in it. Organizations can put forward a model of lean thinking to the productivity of their processes (Vumak and Jones, 2001).

**Lean and investment in infrastructure:** development of organizational culture and organizational concepts of lean thinking to become a genuine economic unit, suitable substrates should be provided for the establishment of lean thinking at all levels. Institutionalization of thinking associated with the attitudes and values of the organization and its staff. Lean thinking must become a culture in the organization and appreciate any commitment to the core values and core members of the organization (such as Lean Thinking). And members were more likely to value the culture and values that was stronger and had more impact on the behavior of organizational members. In a strong culture there were more consistent with the mission of the organization and the unity of purpose led to virtue of solidarity, loyalty, organizational commitment and reduced turnover. In a strong culture, management needs less formal rules to control the staff, because when employees accepted the guidelines of the organization's culture led to internalize their behaviors, in order to accept these values, they should understand them. Hence the first step to internalize the lean though in an organization and teach these concepts to staff, reaching to this point that changing the results means: We need to change our behavior in order to do this, we must change our thought, And because everything did not derive from human thinking and knowledge of technology, the new mode of production in the system, gave meanings to human soul.

**Lean and quality leadership:** The first prerequisite for getting lean, management commitment from the top management of the organization. Without this commitment, we cannot create change in any material. If management fails to implement lean manufacturing to accept, may sabotage intentionally or unintentionally. Management must not only show its commitment and leadership, but also the need to implement lean production in staff to create interest. Management should be actively involved in the activities of lean manufacturing, if employees felt that their efforts were not important for executive team, unwillingness to improve, increased in them and lean product would fail to produce. Although there was always a tendency to change the factory begins but it was also important to move towards a genuine, motivated by the executive management of the organization's top management support.

**Lean and strengthening of intellectual capital:** it was one of the most important factors of economic and social development of intellectual capital and human societies. Educating lifelong learners and training students and professors of the elites were one of the most important points that establish its presence in the growth centers of academic generative companies succeed.

**Lean and new structures of knowledge management:** if we think of universities as a factory or an increase in revenue from the sale of the production of knowledge in the fields of Science and Technology we would need knowledge of management. Hence, the development of staff training and the protection of intellectual property developed by managers were emphasized.

**Pure and value creation in organizations:** pursuit of perfection, reached when organizations determine the true value, recognition of the value-creating steps to create value for the continuous movement of certain products and allowed the customer to take the values out from economic institutes and dealt with the fifth principle of lean thinking; the pursuit of perfection and perfection was the complete elimination of items so that all the activities were performed during the current value. Timely, processing techniques allowed the organizations to pull out the values from the manufacturer.

**Lean and continuous improvement:** The main focus was to promote continuous improvement, by lean activities. Delay in lean continuity of each stage, led to lose the fruits of past efforts. For example, one of the early stages of the implementation process was using Kanban method. Kanban successful implementation required training, discipline and obligations. Production line stoppages led to quality problems or failure of machinery in a pull system in the organization imposes high costs and if it does not solve the root defects may challenge the production management. Therefore, the use of appropriate and timely made, for teamwork and Kayzen process should reorganize the work force during the payment process. Implementation techniques such as 5S, TQM, QC provided the basis for expanding the scope of activities, each person in the system should seek to develop their capabilities and thinking about the structure and work processes to improve them. If further noted the continued progress of the group may cause a grassroots movement. Waste removal needed recognition that the only way to eradicating waste of everyone within the organization was seeking to improve their understanding of the organization. Development of organizational capabilities can occur when there is a spirit of idealism in the individual, and the mentality of the team and the team to be extended to the entire organization. In this case, the shared vision and continuous organizational improvement is guaranteed.

## DISCUSSION AND CONCLUSION

We live in an age that there is so much turbulence and complexity and we are facing a world that accepts change constantly and rapidly. In other words, globalization is the obvious characteristic of our age, which is the observer of further development of human communication in the global area. Many experts believed that in this area, human resources, ethics and values, were the principal's weapon in creating the competitive advantage. On the other hand, in today's world, organizations have to face the challenges and should be aware of the crucial role of training and development for their survival and growth. Organizations which formed the motivation and initiative capacity in their human resources and reinforce with the diverse and efficient tools would have the best performance in international competition (Pourmohamadi-pasikhani and Arab, 2014). Therefore, managers were faced with the challenges of large scale. The trend toward globalization, increasing the changes and developments in technology, customer satisfaction, reducing product life and the intensity and diversity have increased the competition between organizations. Dramatic changes which dominated today's organizations were explosive changes of technology. Communications and information have created globalization. Constant rate of change was such that organizations were providing quality services, these situations were required strategic planning and selection of an appropriate management organization as a means of dealing with these challenges (Shams, 2003). And find a way for managers to be considered as permanent intellectual concerns. They should try to do more of other goods or services which were provided for the customer and with all the desired features. Hence the current world was called post-modernist or postmodern, Environment was not stable. Educational organizations to adapt or cope with this phenomenon, needed the model to fit in its shadow, paid more attention to cooperation in the horizontal plane. That's why most managers, considered pure and genuine of the set of tools and to them, it meant adding lean tools to traditional systems under their leadership, the thought that emphasized on trust, value creation, social responsibility, ethics, rationality, justice, independence, streamline processes, organization, Servicing, creativity, relationships, social order, promotion of quality, rooting out waste, the institutionalization of scientific and practical experience, and the establishment of a comprehensive management system, Standardization of processes, beliefs, symbols, attitudes and symbols in actions (Kazemian *et al.*, 2014).

It provided a way of thinking which could achieve to maximum output by less time and less equipment and by providing the customer's requirement and their needs became closer to them. This attitude can be organized through the pure thoughts and the organizational thoughts. Using this approach led to significant performance in the production process and flexibility. Hence the university, as an institutional culture and civilization, played roles in the cultivation of human resources and social, sensitive and decisive in the economic, social and cultural responsibility. In order to reach to these items, pleasant and efficient leaders and managers were needed. Such managers and leaders increased and promoted the lean thinking and provided greater efficiency in universities. One of the simplest and most common methods of program evaluation was to measure progress toward their goals. In development policy, some goals were indicated to ensure the realization of the policy. Knowledge based management system through the best indicator for the level of efficiency. Applying the principles of Lean Management should define objectives and review it carefully, how much of this policy objective has been achieved. In order to achieve this policy there were required many indicators. Since the purpose of the expectations and demands of the policy has been determined, evaluation of their realization was a direct way to measure the success of policies.

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