

الإدارة الرشيقة نموذج جديد لإدارة فاعلة

Lean management

- A modern form for an effective management-

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Abstract:

Lean management is one of the modern topics associated with development and quality processes, as it is a very important process for organizations looking for success and excellence in their products and their final output by reducing waste rates. Therefore, modern organizations within the framework of their industrial engineering have created new standards that contribute to the advancement of organizations and achieve their goals more within a modern system called lean management, and from this perspective this article seeks to define this new management style, by defining the concept of lean management, and its characteristics; its basic principles.

Keys words: management - lean management – waste - added value – costs – projects.

ملخص:

تعد الإدارة الرشيقة أحد الموضوعات الحديثة المرتبطة بعمليات التطوير والجودة ، حيث إنها عملية مهمة جداً للمنظمات التي تبحث عن النجاح والتميز في منتجاتها ومخرجاتها النهائية من خلال تقليل معدلات الهدر لذلك ، خلقت المنظمات الحديثة في إطار هندستها الصناعية معايير جديدة تساهم في تقدم المنظمات وتحقيق أهدافها بشكل أكبر ضمن نظام حديث يسمى الإدارة الرشيقة ، ومن هذا المنظور تسعى هذه المقالة إلى تحديد أسلوب الإدارة الجديد هذا ، من خلال تحديد مفهوم الإدارة الرشيقة وخصائصها ؛ ومبادئها الأساسية. الكلمات المفتاحية: الإدارة - الإدارة الرشيقة – الهدر- القيمة المضافة – التكاليف – المشاريع.

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1-Introduction :

Modern management is of the utmost importance, because it penetrates all aspects of human activity, and its contribution to facilitating tasks and actions to achieve the goals of organizations. To this end, the administration is working to make a good investment of the material, human and informatics capabilities to obtain the best results and outputs with the least effort and cost possible. The administration, through its administrative processes, has parts, constituents and functions that determine the administrative procedures that are implemented in the best possible way. The lean management or this type of management is considered a modern style that aims to achieve ease in carrying out business, along with speed and flexibility, through easy, simple and creative thinking that results in ease of procedures, simplification of steps, and mastery of operations in a way that achieves customer happiness.

Through this work, we will focus on defining Lean management as a modern method of managing organizations in third world countries with mentioning its history and importance to organizations, their characteristics and their most important principles, in order to arrive at a cultural model of Lean management; considering lean management and its practical applications on projects, as a pioneering and successful strategy that can achieve results at the lowest costs, and easiest ways.

2- Lean management:

In order to address the concept of lean management as a modern concept, various modern organizations, whether industrial or service, seek to use them to achieve added value and reduce costs, so it is necessary to know the concept of modern management in organizations by highlighting its foundations, characteristics and objectives.

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2-1- Management:

Management is a process that is closely related to the human being, in order to accomplish its objectives by concerting the efforts of others, in an organized manner. It is the accumulating body of thought and practice that makes organizations work. The discipline of management is new; however, is an unfolding event of our lifetime.

Management is a discipline open to all who are willing to work at it. For that management is an art; art deals with knowledge. A better definition is given by *George R. Terry* who defines management as « a process consisting of planning, organizing, actuating and controlling performed to determine and accomplish the objectives by the use of people and resources»

In view of *Josef Massie*, «management is defined as the process by which a cooperative group directs actions towards common goals». This definition also indicates that managers use people and other resources such as finance, equipment's, in attaining their goals.

Accordingly, management is an operational activity concerned with leading and directing individuals, developing them, organizing, organizing and controlling operations and administrative actions to achieve the goals of the organization in the best manner and at the lowest costs.

2-1-1- goals of management:

The objectives form the basis of the planning process, as the stages of the planning process cannot be followed until after the management has complete clarity about the desired goals to be reached. If you ask an economist, what are the goals of management, without hesitating he would reply: creating a profit or an add value. The ultimate objective of any business organization is

making profit. Therefore the goals of management are twofold one is task related and the other is maintenance related. Both these goals are interrelated.

Another perspective of viewing the goals of management is to state that they must increase productivity. According to the organizations, management aims to achieve general goals as the organization's policy, and other operational goals; which can be distinguished into two main families:

- ✓ Quantitative objectives: turnover, market share, etc.
- ✓ Qualitative objectives: the margin, the benefit, etc.
- ✓ Whatever the type of goals, they must be quantifiable and precisely defined, and raise the challenge even though they are realistic and be limited to a time period for achievement.

2-1-2-principles of management:

There are many foundations on which organized management is based, including:

- Professionalism
- Decision-making power
- Assigning tasks and responsibilities
- Relationships with workers and employees
- Personnel awareness management
- Empathy
- Managing feedbacks

2-1-3- characteristics of management:

Following are the nature and characteristics of management:

- 1- Management is an activity: Management is a specialized activity that requires the availability of administrative capabilities in addition to technical capabilities.
- 2- Management is a purposeful activity: As it is a purposeful human activity that draws its concepts from different sciences and works to achieve results efficiently and effectively by using certain resources and under external surrounding conditions, the administration seeks to achieve effectiveness and efficiency, in the right ways and at the lowest cost.
- 3- Management concerned with the efforts of a group: Management can be viewed as a group effort towards a common goal.
- 4- Management applies economic principles: Managerial Economics applies the principles and methods of Economics to analyze problems faced by the management of a business or other types of organizations and helps to find solutions that advance the best interests of such organizations.
- 5- Management is getting things done: Through operational roles in directing and shaping the work force, the laws and regulations, and the dynamics of administrative leadership
- 6- For management to become dynamic and energetic, it must be characterized by lean and flexibility, in order to achieve goals more effectively. But what is lean management, which can be the best modern way to achieve this? By reducing waste rates and providing an added benefit, then what are its historical origins; its characteristics and its principles? Is there a cultural model for contemporary lean management?

3- Lean management:

Modern administration no longer works according to the principle: do or you will be punished but with a good vision: succeed and we will all succeed.

Lean management is a science applied in all developed countries of the world and implemented by most large companies in the world. It is a methodology for building and developing a thought to be reflected in work and production in an effective environment at all levels of management, and this program is based on the request of major institutions that seek to develop their human resources and develop the capabilities of employees. Thus, the implementation of its objectives at the best and least costly.

3-1- Definition of lean management:

Lean management is a management model that administrators and supervisors resort to in order to reduce costs and increase productivity unlike the heavy and flabby management, which has its roots in the negative bureaucracy. Because the administration has transformed from an administration of orders and control to an administration facing complexity and overcoming difficulties, and then it evolved into lean management through agile software engineering, individual motivation, team, project management and job description.

Lean reviews the description of the work method, but seeks to instill in the mind a culture of optimal use of all the organization's resources, and thus get rid of all the sources of surplus or wasted costs, which include excess production or Excess inventory, unnecessary operations, frequent errors and waiting ... etc. So that, it ensures the worker's participation in decisions and the customer's satisfaction by distinguishing him and fully understanding his requirements, and at the same time he guarantees the company a fast and very high profitable capital cycle by eliminating losses or waste; by focusing on five foundations: VVFPP (Value, Voice of Customer, flow, Pule System, Perfection). Lean management is also based on fluidity, polarization, and the pursuit of

perfection through the work of one team, as it focuses on regular and harmonious teamwork. Therefore, the key to lean management is to maintain or increase value with less effort. Whereas, any operation that does not add value to the customer should be considered an opportunity for waste, and every effort should be made to avoid this waste.

So, lean is a tool that facilitates the elimination of waste. Lean is not focused on making anyone work harder, rather is focused on reducing the amount of time spent on non value- added.

This is the same trend in which Hobbes defined lean management as a model, where he said that: the lean management model is the optimum way to operate any organization facility; administrators that remain dependent on their existing planning models to improve response time, reduce working capital costs, and improve quality risk .it is an entirely different operating system; because in the lean environment activities do not add value to the product and are considered a wastes ⁵

Through all of the above, we find that the issue of loss or waste is considered one of the central topics and basic goals in lean management. Where a differentiation is made between three basic types: Mura, Muri and the last one Muda.

1. Mura: exists where there is a variation in production workflow, leading to unbalanced situation, most commonly where workflow steps are inconsistent, unbalanced, or without standard procedures.
2. Muri (Overburden): exists where management expects unreasonable effort from personnel, material or equipment, most commonly resulting from unrealistic expectations and poor planning.
3. Muda (Waste): Muda is any step in the production workflow that does not add direct value to the Customer. The original seven wastes, as defined by Toyota Production System (TPS), were transport, inventory, motion, waiting, overproduction, over

processing, defects. And new wastes are not meeting customer demand, and unused human talent

3-2.The origin of lean management:

Originally, the Egyptians used an assembly line (flow) practice and divided labor to enhance productivity and speed in building of the pyramids. It is estimated that as early as 1104, the arsenal of Venice utilized a vertically integrated flow process consisting of dedicated work stations to assemble standardized part into gallery ships. The practice of vertically integrated flow approach combined with standardized parts enhanced productivity in ship assembly. The foundation of lean ergonomics appears in ancient Greece in the design of their tools, jobs and workplaces in the 5th century BC.

Lean as a management methodology that goes back to production processes with the main aim to increase output by reducing input. The Lean philosophy has its origin in the Japanese manufacturing industry and is strongly bound to the Toyota Production System. Toyota introduced this system in 1990s with the intention to become one of the largest car manufactories. Toyota aimed to improve the efficiency of production by relying on several major practices. These practices are based on improving the management of flows and stocks, often with the application of zero stock to avoid waste and adapt the offer to sales results, but also on zero defects and zero lead times; by producing almost on demand, promoting just-in-time flow.

The second great idea of Toyota organization is continuous improvement, with the involvement of all staff, in the optimization of deadlines, organization and quality. The idea is to maintain irreproachable quality throughout the production chain, while considering the opinions of the operators who participate in the diagnosis of problems and their resolution to enhance efficiency. Toyota is moving more towards "lean manufacturing". From productivity perspective, lean seems to correspond to the model of an efficient business organization, even if it took a long

time to set up in Japan. Some multinationals have taken up these concepts such as just-in-time, machine empowerment, kaizen, kanban or the quality circle by prioritizing skills and human resources and thus opposing Taylorism.

3-3-Methodology of lean management:

Lean management concentrates on waste and value. Therefore, managers must primarily be able to identify and understand the different natures of waste that appear in organization, only this proper knowledge provides the basis for successful implementation of lean tools. Actually, there are two main tools to managing waste: Kanban and Kaizen. Both concepts have their roots of continuous improvement. Though, Kanban is about managing objects and production units whereas Kaizen concentrates more on streamlining processes and business activities⁹

3-4- The principles of lean management:

Utilizing lean principles provides an environment that is more efficient and more responsive to the customer and, therefore, more competitive overall. Lean management theorists have developed a list of fourteen fundamental principles, themselves grouped into four broad categories:

3-4-1. adopting a long-term strategy: a Lean organization must avoid too short-term considerations. Effective implementation typically takes several years.

3-4-2. Process optimization: an essential step to optimize productivity. This includes the fluidity of the work chain, constant and smooth production, a culture of just-in-time flow in inventory management, by cultivating leaders by training leaders who know the work perfectly, live the philosophy and teach it to others.

3-4-3. Human development: constitutes a cornerstone of the system. He instills this culture in company executives, who will have to create a movement of internal adhesion and ensure the

promotion of the most motivated employees. By use of long-proven technologies that serve people and processes.

3-4-4.The principle of continuous improvement: Lean promotes certain good practices such as the constant movement of managers in the field and consensus decision-making, plus the standardization of tasks which marks continuous improvement and employee empowerment, with the use of visual control so that no problem remains hidden.

3-5- characteristic of Lean management: Lean management is actually sophisticated practice built around several key conceptual and physical tools. It is about looking at the company in an entirely different way, describing its processes with a new vocabulary¹⁰ it is an anti-crisis method, because each crisis is an opportunity to develop the company and increase its share in the market, with an improvement in social relations within the company.

Lean means fast, restless, flexible and slender by involving the development of each employee by giving them the means to succeed so that they can increase their skills and autonomy in their work. Among its characteristics such as that it is administrative processes such as total quality management and ergonomic of the workplace, and continuous evaluation, which aims to reduce the waste of the production process and maximize the value of the product or service to the customer, without sacrificing quality, with a focus on providing value to customers, where a number of tools are published through the system. Lean management connects customer value to process and people. The basis of lean management is not techniques and procedures, but rather making knowledge productive.

Lean management is increasingly important in project management and the market reflects this importance, as project management practitioners are increasingly adopting it as a method for managing successful projects, by enhancing the experience of project owners or executives in using flexible practices in their projects, while increasing the multiplicity of professional skills with

tools by granting the team full powers to project managers as well as organizations in organizing and directing themselves to achieve the required work, with clear roles distribution and close cooperation from the client depending on the concept of servant-leader, where the role of the leader is to serve this team and overcome the difficulties they face while helping them understand and implement lean way, so that they can get the job done.

3-6- Education of Lean management:

Higher education institutions in the last millennium relied on teaching lean management as an approach that can help specialists in order to focus on creating value and efficiency, because it is waste-free management and a global tool to provide value and improve business processes by achieving the primary goal of lean management theory, which is to maximize customer value while minimizing Waste, by reinforcing the two pillars of thought are continuous improvement or "kaizen", whereby processes can always be improved, becoming more efficient over time. Respecting the customer, and taking into account the human elements in all operations, as they influence this continuous improvement process. For this purpose, higher education institutions across some countries of the world are designing these two basic ideas to guide business and spark innovation to achieve efficient operations and improve it, as the work of higher education pioneers such as *Robinson* and *Yorkstone* from the University of St Andrews is a pioneer in the field of modernizing the concept of lean management for the higher education industry. Because lean management is constantly searching for the right people by searching for the simplest and smoothest operations in order to ideally meet the needs of the customers and their application in the context of higher education.

Lean management is a fertile field of study of Industrial Engineering which included in curriculum at many universities in almost every continent. In Europe best known is international graduate program at Aalborg University in Copenhagen, Denmark. In Asia, the University of Moratuwa of Sri Lanka includes Industrial Engineering in its curriculum. The best is the Georgia

institute of Technology in the US. In common, the best teaching is based on principle Learn/Do ¹¹ via following five basic steps that form a cycle, starting where it ends and so on to guide the implementation of Lean management in organization.

3-7- Steps to guide the implementation of Lean management:

The five-step thought process for guiding the implementation of lean techniques is easy to remember, but not always easy to achieve:

- 1- Define value: The first principle of lean management involves defining exactly what “value” means to the end “customer.” In this context, the phrase “customer” is used generally, as defining who the customer is forms a key part of this process.
- 2- Map value stream: Once you’ve defined value, the logical next step is to figure out the specific steps that are required to deliver that value, the process or “value” stream. According to LeanKit, value stream mapping allows teams to visualize how value flows through the organization, whether by looking at organization itself or also the various processes within. During this stage, it is an opportunity to highlight any gaps and inefficiencies in the process.
- 3- Create flow: After determining the above, a clear view should be formed on the state of operations, or that chosen process, which increases the likelihood that the organization will have ideas about how to improve the current processes. By searching in a smart and simplified way to minimize the steps needed to provide the most value and then searching for potential deficiencies or steps that might appear too complex while discovering “waste” that could be removed from the value stream.
- 4- Establish flow: In this step, attraction is created that includes influencing demand-driven production rather than simply “pushing” the value out, focusing on what the “customer” actually wants, by implementing new processes and performing them with correct and specific measures. No more waste should be presented to the customer

than is actually required, which makes him unhappy. In other words, the right product or service must be provided, in the right quantity and quality, at the right time and place.

- 5- Pursuit perfection: As value is specified, value streams are identified, wasted steps are removed, and flow and pull are introduced, begin the process again and continue it until a state of perfection is reached in which perfect value is created with no waste.

Conclusion:

Lean management is a modern management characterized by the continuous improvement of the organization and the employees, it is a management without all the negatives that stop the workflow and reduce its quality. It seeks to reduce waste, reduce costs, improve service and respond to customer requirements, work to improve the psychological work environment, implement teamwork systems, encourage creativity and innovation, enhance the values of transparency and clarity, absorb new variables, and maximize competitiveness and profitability. It seeks to re-examine the entire course of the production process, and to get rid of every activity that does not add value to customers, and it has become the most prominent way that entrepreneurs and organizations adopt in order to achieve creativity and innovation. Accordingly, the principles of lean management can be applied to all operations of organizations in all their fields; management, inventory, customer service, reduce waste, save budget, purchase equipment, train employees, and most importantly increase profits and sales. The essence of lean management is not only techniques and procedures, but also making knowledge productive.

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