

Efficient Industrial Engineering Management Process – A Review

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Abstract— This paper discuss about the industrial engineering management as some of the new trends and innovative development are applied in this paper where this would bring the industries as the top most development and the paper mainly focus the energy saving, resource minimizing and lean thinking are going to be discussed in this paper. Also now a day's industries are combined with the technologies because take to the advanced level of the industries. The technology most widely used for the data storage and adding backup files for a later recovery.

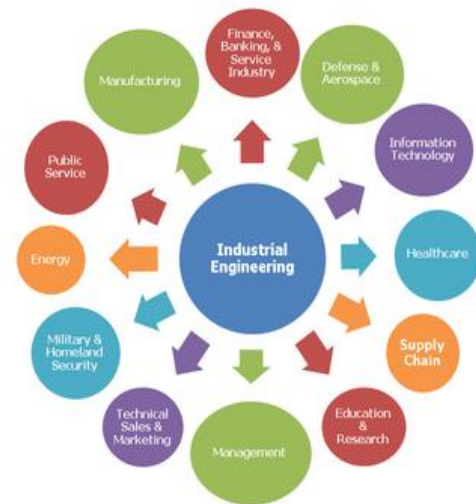
Keywords: Technology, Energy Saving, Resources Minimization, Lean Management.

I.INTRODUCTION:

Industrial Engineering plays the important role in the environment, where there are different categories of industries but in this paper states about the common new approach based management oriented innovating ideas and this would follow some certain principles in the industrial engineering management. As some of the new processes are applied for the peoples and equipments belong to the organization. In the industry's most of the work are done by the machines and robotic technology where this would reduce the burden of the human workforce. The industrial engineering can be applied to the various fields such that supply chain, public service energy and manufacturing etc.

II.DIVISIONS OF IE:

The industrial engineering is the system which has to be solving the complex problem solving and handing the most technical in any kind of field respectively. Knowledge, Analyses, Technology, Information, Equipment and Material are the important key factor or integration systems of industrial engineering system. Also IE consists of various sub divisions such as public service, healthcare, management, defence sector, information technology and energy etc. Where this could be the separate organization or the entire is too concluded in the IE system.



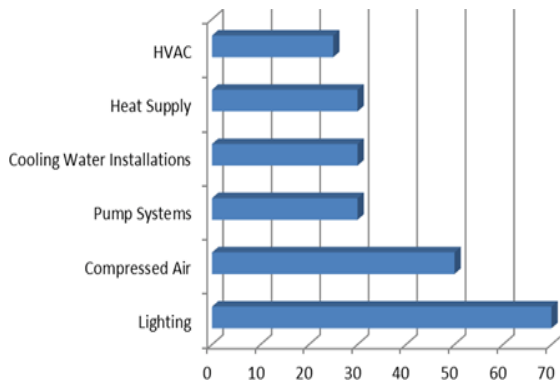
1. IE in various divisions

An above figure 1 shows that the all the divisions of IE system where this could handle at the areas of different sector in the different manner for an efficient management.

III.ENERGY SAVING METHODOLOGY:

The energy saving methodology is the important scheme of the industrial engineering where the energy resources have to be restored or it should have to be minimized for example incandescent light of the industries have to be removed and the CLF has to be placed which would reduce the electrical energy source. Motors in the industry should not carry heavy load current and more power will be consumed, so that the motor have to chosen which carry low load.

Compressor is the important equipment in the industry where it consumes 10% of the energy where this has to be reduced by checking of the compressor regularly and to prevent the damage and leakage of the compressor also heating, air conditioner and ventilation has to be reduced according to the needs of the system.



2. Energy Saving Chart

IV. COLLABORATE WITH INTERNAL AND EXTERNAL:

The industries have to be collaborating with both the internal and external team it would be produce the good output among the team members. Where internal represents that the teams inside the industry have to communicate with each other and they have to share their knowledge and ideas in improving of the company. Sometimes in a industry the expert may be in few or not so we have to get connection with the external expert so it leads to increase the team into the strong formation.

Mostly external team or expert has different ideas and suggestions that might be suitable for the industries or may not be, some of the external will support from outside of the industries such as media and integration support and other activities such as promotion advertising etc. This kind of implementation will reach the industries to the top most level for better performance.

V. TECHNOLOGY DEPENDED:

Many of the industries are depended on the IT based so it is very important to that industries that have to be might integrated with the technologies where it should be very useful to the industries. For example industries have to done the marketing process in a IT based technology that the industries have to create the websites which would useful to the company where all the content and detailed description of the company has to be published and it would reach most of the regions.



3. Robotics in Industries

Many of the industries usually use the robotic technology which reduces the burden of human workforce and this robotic are designed with the embed chips as it will accord to the programmed into the chip such that it will work quickly and effectively. But the robotic technology is not able to implement in the small scale industry, so the software tools and other integrated systems are used in the small level industries like websites marketing on social network etc.

VI. TOOLS & TRENDS:

The new tools and trends are to be discovered at every occasion so it could be improve the industries. This tools and trends are developed for the industries which could be matched for all the situations which could create perfect management. There are different tools and trends are involved in the industrial engineering. They are,

- Strategies Planning
- Customer Relationship
- Change Management
- Supply Chain Management
- Outsourcing
- Core Competencies

A. Strategies Planning:

A strategy planning is the tool which would describe the vision and mission of the companies' goal and it would remove all the threats occurred in the system. It should require an advantageous business model and monitor control to the system. Management have to prepare programs, policies and plan for each stage.

B. Customer Relationship:

It is the most important in all industries where customer has to get satisfied by producing the product in the good and quality manner. Some of the industries get information about the product with the respective way such as feedback form filling and getting comments or suggestions from the customer to be better product.

C. Change Management:

The management should focus on the result to reach the goal, Identify the errors and barriers of the previous management and it should be solved. Repeated communications & changing of the leaders will make better management and also there should be continuous monitor process.

D. Supply Chain Management:

It deals with the partners that the industries should keep with preferred persons as a partner and to increase the utilization, production in between the two systems and there should be a regular communication processes.

E. Outsourcing:

Outsourcing will sometimes lead to the unique advantageous, usually the utilization and productivity will increase in these processes. Always when ready for the outsourcing process choose the best when comparing other industries and make a strong relationship.

F. Core Competencies:

Isolate the key abilities to the organization which could perform better also have to compare

with the other same sector oriented companies. Employees and other team members must have the knowledge of the management properties and the company also have to innovative new ideas then only it would reach stronger and better.

VII.FOCUS ON MANUFACTURING:

Manufacturing is the important term in the industrial engineering where this would have to create the new ideas and manufacture new products to the different environment and the manufacturing should be the centralized systems and sustainability are also the important factor of the system they could be able to solve all kinds of the complexity problems which are to be occurred.

VIII.IT SECURITY:

Most of the industries preferred with the IT security which is the cloud based technology so that the data will be secure and it has to be maintained by the separate team where it is to be IT service oriented. And also this would have to be managed by the IT related team. Various software solutions are also involved in the industries based are available in an enlarged manner.

IX.CONCLUSION:

Thus the industrial engineering management requires the many following activities such that it should have to be following the recent methodologies in which it can be able to improve the industrial engineering manner in the effective and efficient ways. There are also some of the tools and trends which could make good. While in the recent industrial engineering the technologies plays the important role and make the human work to reduce completely in the system.

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