

# Analysis of Job Management Techniques and Development of a Lean Production Methodology for Reduction of Counterproductive Content and Time in an Automobile Industry

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## ABSTRACT

*This study work provides the methodology containing the management techniques for the Managers to improve the ability to manage time effectively, and simultaneously identifying and encountering the work content which is reasons to losing the time in ineffective process and at last producing nonproductive results. Also, the thesis methodology gives the idea to grow the performance potential with more effective time utilization and will increase organizational productivity.*

**Keywords:** job management, techniques and development, production methodology, reduction of counter productive content and time, automobile vendor industry

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## INTRODUCTION

The assistance of assets as men, machine, materials and cash each association plays out its assignment. The use of labor and different assets to gives yield. As opposed to different assets are futile and can't be deliver anything if labor isn't accessible. The diverse components of generation labor have the most astounding need. It is a most critical factor of generation industry. On the off chance that, absence of regard for alternate factors those are non-living may bring about decrease of benefit to some degree. Be that as it may, overlooking the human asset can end up being awful. In a nation where human asset is bottomless, it is a pity that they stay under-used. In wording of Oliver Sheldon "No industry can be rendered effective inasmuch as the fundamental actuality stays unrecognized that is human." The general population at work includes vast and distinctive instructive or education guidelines. These people in the work put display not just comparative conduct examples and attributes to a

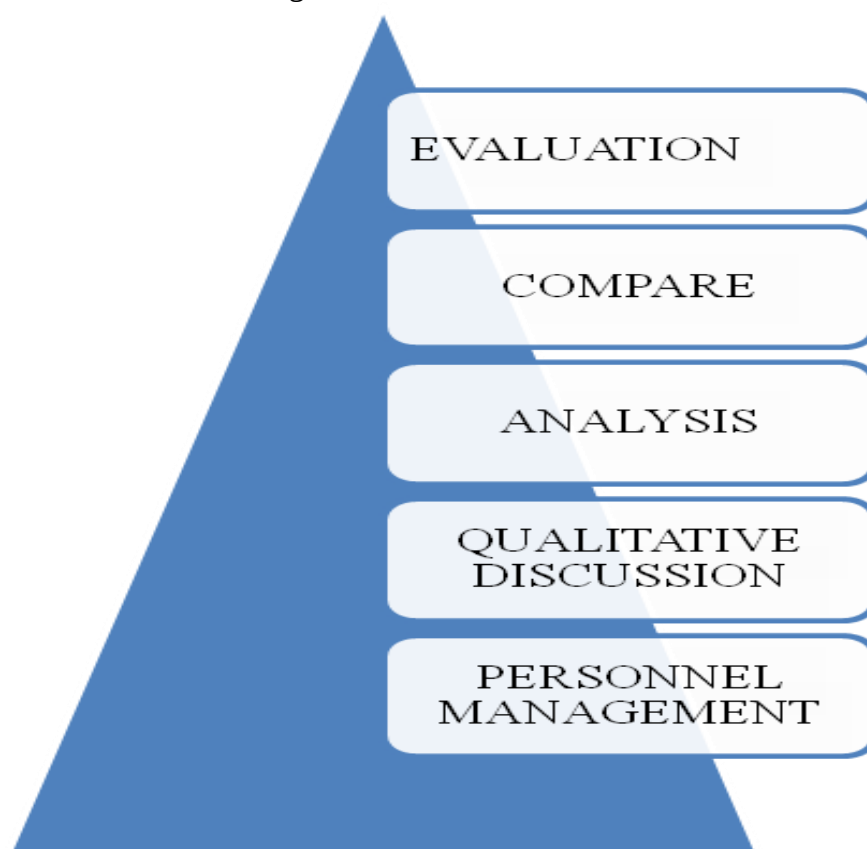
specific degree yet additionally they demonstrate much disparity. Innovation alone, nonetheless, cannot achieve wanted change in monetary execution of the nation unless human potential is completely used for creation. The part of same individual at different points of time, it is because human behavior is highly unpredictable. It differs not only from individual to individual despite biological and cultural similarities, human beings not only differ in their appearance but also in their capabilities based on their background, training and experience. Human resource or a person at work is the most important component of the undertaking.

Management cannot afford to ignore human resource at any cost. Management is the process of efficiently getting activities completed with and through other people. Qualitative discussion on the background is growingly important. Lean practices achievement of objectives whereas quantitative analyses of different

major are used for personnel management.

The different terms are labor administration, labor management,

employee-employer relations, personnel administration, labor management relations, human assets management, human resources management, etc.



**Fig. 1.**

### STEPS FOR IMPROVEMENT IN JOB MANAGEMENT TECHNIQUES

Points of interest of higher employees' performance following are favorable circumstances of higher execution to the people, association, society and country all in all below figure 2:

- [1] The efficiency of individual on work increments.
- [2] Employee lands position fulfillment at work.
- [3] Psychological issues of representatives come to low level.
- [4] Involvement of representatives in their employments increments.
- [5] A feeling of responsibility and dedication among workers create.

- [6] Employees get higher compensations and motivating forces on generation premise.
- [7] Quality and amount of the aggregate creation increment.
- [8] Sales and pieces of the pie of the organization in the market moves forward.
- [9] Profit enhances and that prompts advance of the business.
- [10] Good will of the association goes high.
- [11] All these contribute in the advancement of national economy and expectation for everyday comforts of the public all in all.



**Fig. 2. Key for job management techniques**

## ADVANTAGES OF HIGHER EMPLOYEES PERFORMANCE

### Performance Management

The main objective of human resources management is to utilize the human resources in a most optimal manner so that targets can be achieved very effectively and efficiently. Performance management takes care of this function. Performance management maintains, develop and motivate the people at work to give better results. In the present competitive situation, the organization that gives better results can survive, stabilize, grow and excel in the performance.

The basic of “people management” is performance management system

[1] Execution administration is the way toward “guiding and supporting representatives to function as

successfully and proficiently as conceivable in accordance with the requirements of the association” (Walters).

- [2] To perform to the best of their abilities performance management is the process of creating a work environment in which people are enabled to perform whole work system that begins when a job is needed, and it ends when an employee leaves organization.
- [3] In most often people interact, in the workplace but applies - churches, schools, sports teams, community meetings, health setting, even political settings and governmental agencies, wherever in the world people interact PM principles are needed.
- [4] A key and coordinated way to deal with Increasing the viability of associations by enhancing the execution of the general population

who work in them and by building up the capacities of groups and individual benefactors.

### Literature Review

ANM Rose, MFF Ab Rashid (2017) stated that leave management can be connected effectively in all businesses giving a full understanding of lean fixings, i.e., idea, standards, and practices. There is a considerable measure of practices which are important to be actualized to increase full advantages of LM. One of the advantages of case study research can examine how and why to the key personnel that involves in the research area [1]. Svetlana V. Sibatrova, Konstantin, O. Vishnevskiy (2016) state that the present paper depicts a consolidated way to deal with corporate Foresight and lean administration. At the point when organizations actualize lean administration, they are regularly looked with an expansive scope of hindrances, for example, top-administration opposition, ease back reaction to showcase change, and so on [2]. Banduka NA, Veža IA, Bilic BA (2016) state that industry. According to this standard of process failure mode and effect analysis (PFMEA) is obligatory [3]. James Huxtablea and Dirk Schaefera (2016) state that for a number of years, an increase in manufacturing-related service activities being provided by third parties rather than “in-house” departments have been observed [6]. Sri. Hartinia, U disubakti Ciptomulyonob (2015) state that the aim of this paper is to explore and evaluate previous work focusing on the relationship and links between Lean and sustainable manufacturing [7]. Jafri Mohd Rohania, Seyed Mojib Zahraeea (2015) state that the goal of this paper was to develop a value stream map for a color industry to determine and eliminate the wastes that did not add value to the final product [8]. The benefits an organization will reap in future depend on what the hospital does with their time now. The basic element of time is event and key to

effective time management is event control [10]. Leena Toppo and Twinkle Prusty (2012) state that execution examination and execution administration were one of the developing issues since a decade ago [11]. Francesca D. Aurai, Cecile Denis, and Karel Havike (2010) state that the concepts of potential growth and the output gap form a crucial part of the toolkit for assessing the cyclical position of the economy and its productive capacity. The preference for an economic, as opposed to a statistical, approach was driven by several considerations [14].

### PROPOSED METHODOLOGY

For the reduction of excess work content following factors could be identifying to encounter the excess work content:

- [1] Work content added by defects in design or specification of product—bad design of product prevents use of most economic processes.
- [2] Bad design demands removal of excess material.
- [3] Standardization supports fast production processes.
- [4] Un-necessary quality standards of pro-methods and inefficient layout causing unnecessary movements
- [5] Wrong toots used
- [6] Worker's wrong working methods
- [7] Process not operated correctly
- [8] Ineffective time due to short coming of the management
- [9] Lack of raw materials and Instructions add to idle work force and machines
- [10] Excess product variety adds idle time.
- [11] Intends to reduce or finished the above problems, it is suggested to follow below provided management techniques to reduce the work content of the process.
- [12] Development of modern management techniques to reduce the work content due to the excess process or method efforts.
- [13] *Process planning*: Specifies the correct machines on which the

product and its components shall be made, the type of tools is adequate with exact speeds, feeds and other conditions under which the machines shall be run.

- [14] *Method study*: Before starting a new method or to continue a traditional method, it must be think for result which can make works easier and less time consuming. Method study also includes the operator training which can reduce work content by improving methods of the operations.
- [15] *Product development and value analysis*: Always prepared such a design and raw material requirement which allow to reduce work content due to excess material.
- [16] *Fixing of design defects*: Reduce (excess) work content due to product development involves design/redesign and fabrication of new or modified product in order to meet efficiency, product quality, reduced cost, etc.
- [17] *Products can be developed by imitation adaptations and invention*: The product concern research, consumer and market-based standards should be prepared which can ensure for correct quality.
- [18] The management must be sure about predictive requirements of the market and of the technical requirements of the product and customer.
- [19] *Efficient layout*: Reduces work content by improving upon the existing layout of the factory.
- [20] *Job evaluation*: There should not be any inequality salaries of the persons working on the same job in same or in different organizations differ for different jobs, job evaluation deals with jobs only and is in no way concerned with the persons doing these jobs. For evaluating the

merit of the person (say a worker), there is another method known as merit rating the aim is to provide equal pay for all jobs of equal value.

- [21] The salary should be proportional to the job difficulty and provides a basis for recruitment, selection, training, improve relationships.
- [22] Using lower capital and resource-intensive machines to drive down costs optimized equipment (capital equipment utilized for direct production and support purposes).
- [23] By driving down the space required for product production, reduced need for factory facilities (physical infrastructure primarily in the form of buildings and associated material demands).
- [24] By eliminating process movement, steps, downtime, and wait times, increased production velocity (the time required to process a product from initial raw material to delivery to a consumer).

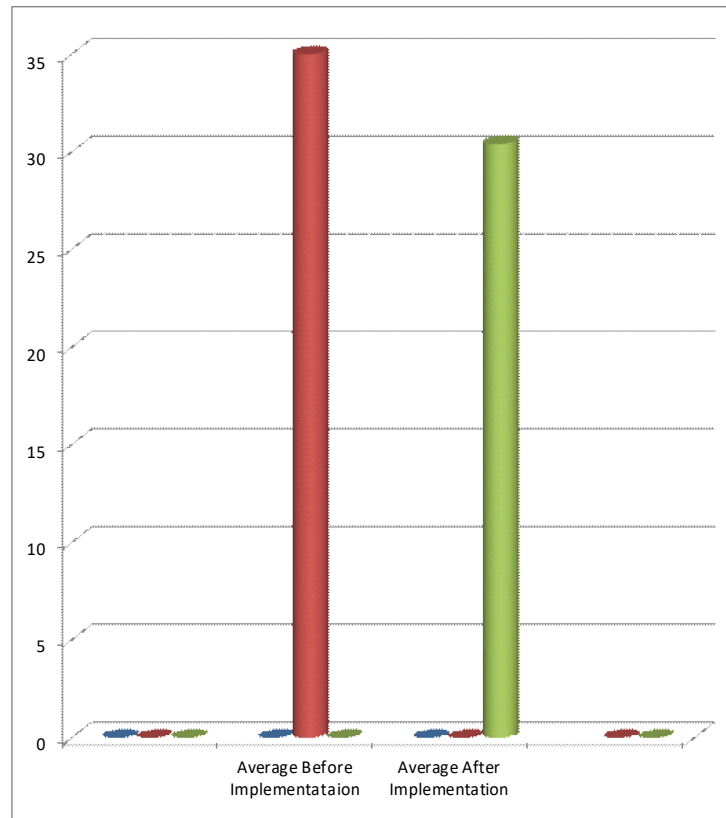
## RESULT AND DISCUSSION

There is increase in the productivity of automobile as per proposed methodology, the result stats that by transforming job management techniques with addition of lean production system the methodology reduces for cycle time for unit job time in minutes. The analysis provides following results in table 1, 2 &3:

**Table 1: Average time**

| Average Time          |                      |
|-----------------------|----------------------|
| Before Implementation | After Implementation |
| 35 minutes            | 30.4 minutes         |

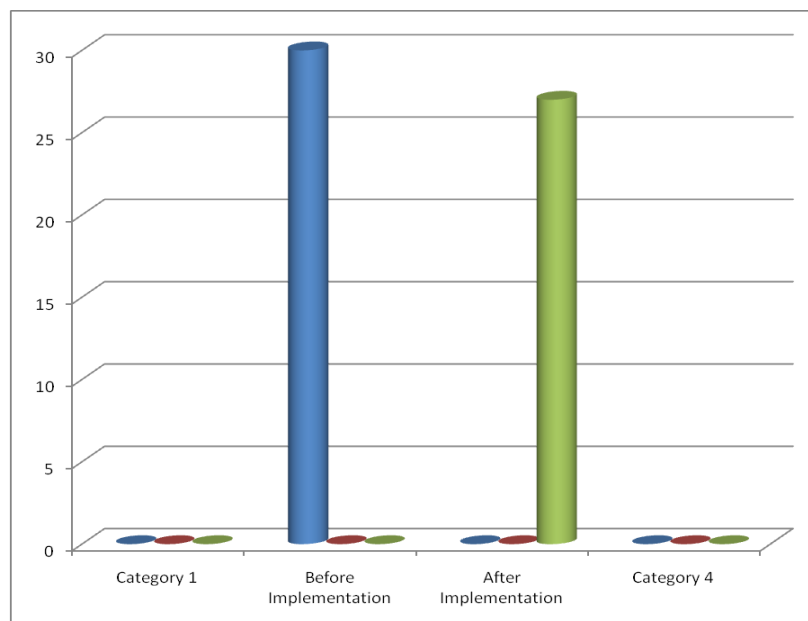
Figure 1,2 and 3 showing time samples before and after implementation of proposed methodology.



**Fig. 1:** Representing Average Time Before and After Implementation of Proposed Methodology.

**Table 2: Normal Time**

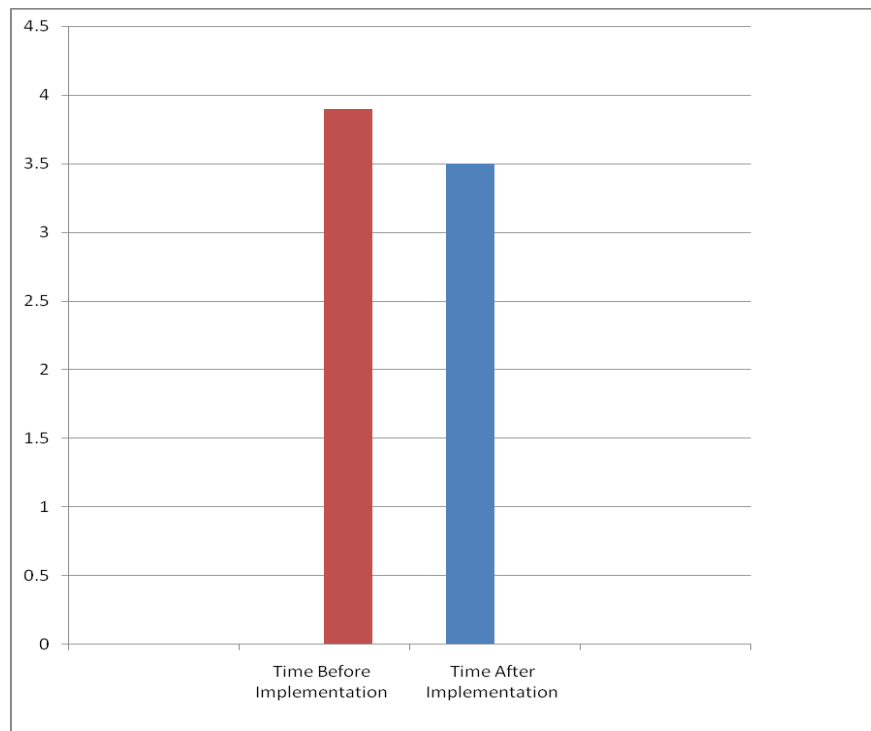
| Normal Time           |                      |
|-----------------------|----------------------|
| Before Implementation | After Implementation |
| 30 Minutes            | 27 Minutes           |



**Fig. 2:** Representing Normal Time Before and after implementation of Proposed Methodology.

**Table 3: Standard time**

| Standard time                |                                     |
|------------------------------|-------------------------------------|
| <i>Before Implementation</i> | <i>After Implementation Minutes</i> |
| 3.9 Minutes                  | 3.5 Minutes                         |



**Fig. 3: Representing Standard Time Before and After Implementation of Proposed Methodology.**

## CONCLUSION

Checking of current performance is referenced over predetermined standards being followed in the plans. The lean control system is with a view to ensuring adequate progress. Through interviews, process data and cultural evidence, the analysis will find the key barriers throughout product development. Nineteen interviews were conducted both formally and informally and included individuals at various levels of the company ranging from executive leadership to working level engineers. Interview data resulted from direct questioning and offerings of opinions and assessments of the current state of the process and culture. Nowadays job management is just like a backbone of the modern automobile industry, it came to know after various studies that assembly

lines can produce better lead time and customer satisfaction. This thesis objective is to increase the efficiency of the automobile sector assembly line.

Currently, companies tend to work in conditions of expansion of economic processes and increased international competition. At the same time, risk factors of external and internal environments have significantly impact on the operational results.

The purpose of this project was the idea of basic functioning of real industry. There are various techniques in production units but also has added the dimension to vision of knowledge has not only given an exposure.

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