

# Henry gantt scientific management

Business, Management



Gantt believed that it was only the application of scientific analysis to every aspect of work which could produce industrial efficiency, and that improvements in management came from eliminating chance and accidents. Gantt made four individual and notable contributions: Introduction of the Gantt chart, the concept of the 'scientific management' system, the development of the 'Gantt chart' for scheduling, and the development of the 'Gantt chart' for scheduling. Gantt made many contributions to modern scientific management. Together with such thinkers like Frederick Taylor and Douglas McGregor, Elton Mayo and Abraham Maslow they helped to shape modern scientific management. The principles of scientific management are: Develop a science for each operation to place an opinion.

Determine precisely from the signs that would have been developed, the correct time and method of each job. Set up a suitable organization to take all responsibility from the workers except that of actual job performance. Select and train workers. Give workers arbitrary power over operations, for example involve them. Scientific management is based upon the concept that workflow can be arranged in such a manner as to optimize throughput and efficiency. Gantt's Theory Gantt revolutionized management by advocating for scheduling where by the worker is given the order of work for each day.

Gantt himself described two types of balance: Man's record shows what each worker should do and what they actually did. Daily balance of work shows the amount of work to be done and the amount that is done. The above was done to coordinate these activities to avoid interference. Relating the theory to modern day management the theory works well in production industry to reconcile budgeted work against completed work. In doing so there

monitoring of workflow and any variance between budgeted and outcome is investigated and measures taken to rectify.

Gannet's task and bonus wage system was introduced in 1901 and the employee received a bonus in addition to his regular day rate if he accomplished the task for the day; he would still receive the day rate even if the task was not completed. As a result of introducing Gannet's system, which enabled workers to earn a living while learning to increase their efficiency, production often more than doubled. This convinced Giant that concern for the worker and employee morale was one of the most important factors in management.

A case in study is Liquid Telecoms Zanzibar one of the leading Independent Internet Access providers. The main goal for Liquid Telecoms Zanzibar is to connect as many customers onto their fiber network . In order to increase the number of customers connected per week Liquid Telecoms Zanzibar introduced Direct Sales Agents who are paid on commission. The more number of customers one brings onboard the more money they will be paid. This also applies to the project implementation teams who ensure that fiber projects are completed within the stipulated 6 weeks.

The ability to complete the fiber trenching and installation of customer equipment means that the project team will be awarded a bonus every quarter for each task completed. There are also rewards for those engineers and technicians who are able to resolve customer connectivity queries within the stipulated Service Level agreement timeshares. This has increased service quality to customers and has managed to boost profits every year

since most employees in all departments are motivated to complete their tasks within the set time to get rewards in terms of bonuses. 2. The perspective of the worker

Giant realized that his system offered little incentive to do more than just meet the standard. He subsequently modified it to pay according to time allowed, plus a percentage of that time if the task were completed in that time or less. Hence a worker could receive three hours pay for doing a two-hour job in two hours or less. But here Giant brought in an innovation, by paying the foreman a bonus if all the workers met the required standard. This constituted one of the earliest recorded attempts to reward the foreman for teaching workers to improve the way they worked.

Whatever we do must be in accord with human nature. We cannot drive people; we must direct their development.... The general policy of the past has been to drive; but the era of force must give way to that of knowledge, and the policy of the future will be to teach and lead, to the advantage of all concerned'. Giant was interested in an aspect of industrial education which he called the 'habits of industry' - habits of industriousness and cooperation, doing work to the best of one's ability, and pride in the quality as well as the quantity of work.

From his experience as a cheer, Giant hoped that his bonus system would help to convert the foreman from an overseer and driver of workers to a helper and teacher of subordinates. Liquid Telecoms applies a quarterly bonus system where employees who will have managed to meet the set departmental targets are rewarded generously. Different line managers are

also rewarded for motivating their subordinates to work extra harder to surpass the targeted number of customer connections. This ranges from all departments starting from Sales and Marketing, Projects, Network Operations and connection is 200.

Departments work hard to surpass this target so that they will get higher bonuses which may even be higher than 100%. 3. The chart Gannet's Bar advocated for scheduling of work on the basis of time and not on quantities. His solution was a bar chart which showed how work was scheduled over time through to its completion. This enabled management to see, in graphic form, how well work was progressing, and indicated when and where action would be necessary to keep on time. Giant Charts have been applied to all kinds of projects to illustrate how scheduling may be best achieved.

To illustrate a Giant Chart we take the mint-project of redecorating an office with the steps of: a) Establishing the terms of reference and standards of quality, cost and time. B) Informing all appropriate personnel and customers. C) Arranging alternative accommodation. D) Preparing the office. E) Redecorating. Giant chart A Giant chart, commonly used in project management, is one of the most popular and useful ways of showing activities (tasks or events) displayed against time. On the left of the chart is a list of the activities and along the top is a suitable time scale.

Each activity is represented by a bar; the position and length of the bar reflects the start date, duration and end date of the activity. This allows you to see at a glance: What the various activities are When each activity begins and ends How long each activity is scheduled to last Where activities overlap

with other activities, and by how much The start and end date of the whole project To summarize, a Giant chart shows you what has to be done (the activities) and when (the schedule).

An example of a Giant chart used by Liquid Telecoms Zanzibar: To provide by 1 PM Today, Giant charts are most commonly used for tracking project schedules. For this it is useful to be able to show additional information about the various tasks or phases of the project, for example how the tasks relate to each other, how far each task has progressed, what resources are being used for each task and so on.