

Executive Summary

Question

How can we introduce the most effective and efficient incentive plan to motivate non-exempt employees and to drive improvement of the organization's overall performance?

Introduction

ⁱA parallel set of literature in the management field has considered the appropriate design of incentives to motivate workers and increase group output in different production environments, including assembly lines and teams. Thus, we analyze which type of incentive plans is better to motivate workers and to achieve the organization's objectives. Also, we will show methods and examples of the incentive plans.

What is the best incentive plan to motivate employees in manufacturing?

We examined production environments to maximize output and assessed what the best incentive plan is in different production environments.

1) Production Environments

ⁱⁱWhile many different types of production environments have been examined, the most common forms are assembly lines and teams

- ⁱⁱⁱ**Conventional Assembly Lines** maximize productivity through standardization of the production process and prohibition on interaction among workers, but tend to be most appropriate for long production runs of relatively standardized products.
 - ^{iv}**Teams** allow for flexibility (product, volume, and mix), some degree of worker autonomy, cross-training of team members, and information sharing within the team.
- The choice of those production environments then depends on several factors, including the nature of the underlying product, patterns of customer demand, degree of flexibility required, and skill of the work force.

2) Individual and Team Incentive

While the amount of research on this topic is scarce, a limited number of studies have shown that individual incentives best motivate effort for traditional assembly line. ^vIn contrast, group incentives may best motivate effort in modern manufacturing settings that rely upon team production.

- **Individual Incentive:** ^{vi}If there is no potential benefit from promoting cooperation among group members in a particular production environment, then individual incentive, which motivate group members to work harder on their own assigned task, will be more effective than team incentives in motivating overall group performance.
- **Team Incentive:** ^{vii}When benefits to cooperation and information sharing among group members exist in a particular production environment, team incentives that motivate interaction among group members may result in higher levels of group performance.

^{viii}**The methods and best practices of each incentive plan**

We will analyze some incentive plans based on individual and team perspectives, and show best practices.

1-1) Individual Incentive Plans

In general, the jobs in manufacturing are too complex to implement an individual incentive plan. Even a repetitive job like working on an assembly line isn't well-suited to individual incentives. Despite this constraint, a number of different individual incentive plans exist. (Appendix. Table 1.)

- **Straight piece-work system** is the most frequently implemented incentive system. The major advantages of this type of system are that it is easily understood by workers and is more readily accepted than some of the other systems.
- **Standard hour plans** is a generic term for plans setting the incentive rate based on completion of a task in some expected time period. ^{ix}Standard hour plans are more practical than straight piecework plans for long-cycle operations and jobs that are nonrepetitive and require numerous skills for completion.
- **Taylor plan and Merrick plan** provide for variable incentives as a function of units of production per time period.
- **In Halsey 50-50 method**, the savings from completion of a task in less than the standard time are shared by 50-50(most frequent division) between the worker and the company.

1-2) Best Practice in Individual Incentive: Lincoln Electric's Compensation System

- In appendix table 2, the compensation package for factory jobs at Lincoln Electric is described. Lincoln Electric's success is so striking that it's the subject of many case analyses because^xAll the pieces of the compensation and reward package fit together,
- The company gives employees bonus (short term) and incentive (long term) based on performance review.

2-1) Team Incentive Plans

Although there is much pessimism about team-based compensation, many companies still seek way to reward groups of employees for their interdependent work efforts. Companies that do use team incentives typically need to set team performance standards and decide which type of group incentive plan best fits the objectives. ^{xi}There are several group incentive plans in business field.

- **Cash Profit Sharing** is an award based on organizational profitability and sharing a percentage of profits. This is simple and easily understood. However, the profits are influenced by many factors beyond employee control.
- **Stock Ownership or option** is an award of stock shares or options. This option awards have minimal impact on the financial statements of the company at the time they are granted but

the link between pay and performance is indirect and employees may be required to put up money to exercise grants.

- **Productivity/gain sharing** is awards that share economic benefits of improved productivity, quality, or other measurable results and focuses on group, plant, department, or division results.
- **Team/group incentives** is awards based on team/group performance goals or objectives and payout can be more frequent than annual. This reinforces teamwork and team identity/results and is effective in stimulating ideas and problems while it may be difficult to isolate impact of the team performance and to set equitable targets for all teams.

2-2) **Best Practice in Team Incentive : Kraft Foods**

- ^{xiii}Kraft Foods uses a combination of financial measures (e.g., income from operations and cash flow) with other measures designed to gauge success in developing managers, building diversity, and adding to market share. (Appendix. Table 3)

Conclusion

Things like the type of task, the organization commitment to teams, and the type of work environment may preclude one or the other type of incentive plan. Also, the company should choose the particular type of incentive plans in consideration of performance measurement, organizational adaptability and union status.

Appendix. (Source: Compensation / George T. Milkovich, Jerry M. Newman, ,Barry Gerhart.-10th ed).

Table1. Individual Incentive plans

Relationship Between Production Level and Pay	Method of Rate Determination	
	Units of production Per time period	Time period per unit of Production
Pay constant function of production level	Straight Piecework Plan	Standard Hour Plan
Pay varies as function of production level	Taylor differential piece-rate system Merrick multiple piece rate system	Halsey 50-50 Method Rowan plan Gantt plan

Table2. Lincoln Electric’s Compensation System

Description of culture	Reservoir of trust. Long history of employment stability even during severe economic downturns. Employees with 3 + years’ seniority are guaranteed (on 1 year renewable basis) at least 75 percent full-time work for that year. In exchange, employees agree to flexible assignment across jobs.
Base wages	Market rate determined. Time study department sets piece rate so that average worker can earn market rate.
Bonus (Short term)	Board of directors sets year-end bonus pool as function of company performance. Employee’s share in pool is function of semiannual performance review (see below)
Incentive (Long term)	Employees share in long-term company successes/failures in form of employee stock ownership plan(ESOP). Employees now own 28 percent of outstanding stock shares.
Performance review	Employees rated on four factors: (1) dependability, (2) quality, (3) output, (4) ideas and cooperation in comparison to other in department. To ensure against rating inflation, the average score in department cannot exceed 100

Table 3. A sampling of performance measures

Customer-Focused Measures	Financially Focused Measured
<p>Time-to-Market Measures</p> <ul style="list-style-type: none"> • On-time delivery • Cycle time • New product introductions <p>Customer Satisfaction Measures</p> <ul style="list-style-type: none"> • Market share • Customer satisfaction • Customer growth and retention • Account penetration <p>Capability-Focused Measures</p>	<p>Value Creation</p> <ul style="list-style-type: none"> • Revenue growth • Resource yields • Profit margins • Economic value added <p>Shareholder Return</p> <ul style="list-style-type: none"> • Return on invested capital • Return on sales/earnings • Earnings per share • Growth in profitability <p>Internal Process-Focused Measures</p>
<p>Human Resource Capabilities</p> <ul style="list-style-type: none"> • Employee satisfaction • Turnover rates • Total recruitment costs • Rate of progress on developmental plans • Promotability index • Staffing mix/head-count ratio <p>Other Asset Capabilities</p> <ul style="list-style-type: none"> • Patents/copyrights/regulations • Distribution system • Technological capabilities 	<p>Resource Utilization</p> <ul style="list-style-type: none"> • Budget-to-actual expenses • Cost-allocation ratios • Reliability/rework • Accuracy/error rates • Safety rates <p>Change Effectiveness</p> <ul style="list-style-type: none"> • Program implementation • Teamwork effectiveness • Service/quality index

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