



A Guide to Productivity Gainsharing

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CHAPTER 1

Introduction to Productivity Gainsharing

Need for Productivity Gainsharing

In today's highly competitive environment, organisations need to manage productivity well for survival and growth.

Employees play a critical role in productivity improvement. Establishing a structure to reward and motivate them is part of a good productivity management system. A portion of the wealth generated by the organisation should be distributed back to the employees as a productivity incentive.

There are various productivity incentive schemes. Productivity gainsharing is one of them. When successfully applied, productivity gainsharing reinforces teamwork. It also creates an environment for sustained and continuous improvements.

This guide introduces the basics of productivity gainsharing. It presents a step-by-step approach to designing a productivity gainsharing scheme for your organisation.

What is Productivity Gainsharing?

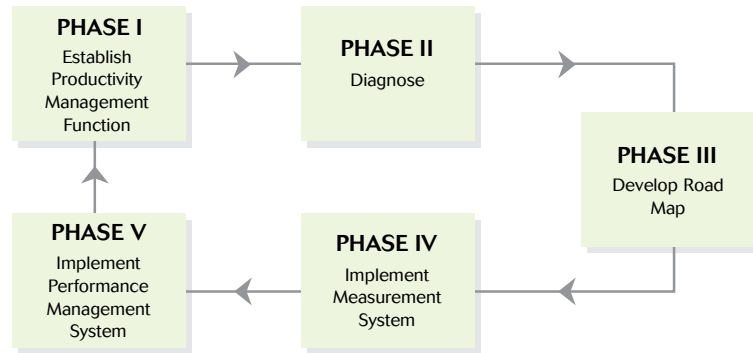
Productivity gainsharing is the distribution of the wealth generated as a result of productivity improvement between the organisation and its employees.

The distribution is based on a predetermined formula, agreed upon by both the management and employees/union. A proportion of the gains is paid out to employees in the form of a bonus or an incentive payout. The organisation retains the remaining gains. It may use these gains to fund future operations or share them with its shareholders and customers.

How Gainsharing Features in a Productivity Management Framework

Productivity gainsharing is a critical part of an organisation's productivity management framework. Figure 1 shows a generic Integrated Management of Productivity Activities (IMPACT) framework. This can be used by any organisation to manage productivity in a systematic manner. Productivity gainsharing is a core programme in Phase V of the framework. Details of the framework can be found in *A Guide to Integrated Management of Productivity Activities (IMPACT)*, published by SPRING Singapore. The guide is available on the Productivity@Work website at www.enterpriseone.gov.sg.

Figure 1: IMPACT Framework



How Gainsharing Fits into a Wage Structure

Typically, the wage structure of an organisation in Singapore comprises:

- (a) the basic wage
- (b) a variable component

The variable component (b) comprises:

- Annual Variable Component (AVC): Usually consists of the Annual Wage Supplement (AWS or the 13th month payment) and other variable bonuses given in the year
- Monthly Variable Component (MVC): The part of the monthly basic salary which can be adjusted according to business conditions

Productivity gains can be given out in the form of bonuses or incentives as part of the AVC of an employee's wages. The frequency of payment could be based on:

- How productivity is measured in your organisation
- The existing wage structure in your organisation

Why is Productivity Gainsharing Critical to Successful Productivity Management?

Successful productivity management in an organisation depends on its people. Employees should be recognised and rewarded appropriately.

A productivity gainsharing scheme establishes a clear link between rewards and achievements. It helps to align employees' objectives with those of the organisation and also motivates them to work towards common goals.

Through a productivity gainsharing scheme, an organisation can:

- Enhance teamwork among employees
- Raise employees' commitment towards their work
- Tap on the creativity of employees to improve productivity

How Productivity Gainsharing Differs from Profit Sharing

Productivity gainsharing is one of many employee incentive schemes that organisations use today. Another commonly used scheme is profit sharing.

While gainsharing and profit sharing appear similar, they are in fact different. Table 1 shows a comparison of these two schemes.

Table 1: Comparison of Productivity Gainsharing and Profit Sharing

	Productivity Gainsharing	Profit Sharing
Aim	To drive productivity improvement and overall performance. This is done by linking productivity performance to rewards.	To mainly drive the financial success of the organisation.
Basis for Incentive Payout	Payout is based on productivity-related measures. It is given out only when performance has improved from a historical standard or target. Hence, gainsharing is viewed as a pay-for-performance initiative.	Payout is based on financial indicators that measure the organisation's profitability. It is given out only when there are profits. Employees may view profit sharing as an entitlement or employee benefit.
Source of Funding	Productivity gains and payouts to employees are self-funded. The funds come from savings or increased revenue resulting from productivity improvements. Hence, employees may still receive payouts even if the organisation is not profitable.	Payouts are funded through the organisation's profits. As payouts are tied to profitability, there will be no payouts during non-profitable periods.

CHAPTER 2

What Does a Productivity Gainsharing Scheme Cover?

Elements of a Productivity Gainsharing Scheme

The ultimate aim of a productivity gainsharing scheme is to drive the organisation's performance through productivity improvements. A good gainsharing scheme should recognise and reward productivity improvements. It should also help to sustain or enhance performance in the long run.

i. Objectives

The objectives of the scheme must be clearly defined from the start. They should be aligned to the organisation's goals. The goals could include:

- Productivity improvement
- Quality enhancement
- Promotion of teamwork and creativity

ii. Definitions for eligibility

Employees who are eligible for productivity gainsharing should be defined. This should be based on the organisation's operating structure. It should also depend on what the scheme aims to achieve. For example, an organisation employing ad-hoc part-time workers may restrict the eligibility to full-time employees only. However, in another organisation, regular part-time workers may be eligible since they contribute to the organisation's productivity performance.

iii. Productivity measures

Productivity measures are pivotal to a productivity gainsharing scheme. They determine the total funds available for sharing. Some examples of productivity measures are:

- Value added per worker
- Labour hours
- Cost per unit produced
- Transactions processed per hour
- Total cost per full-time employee
- Labour cost per sales dollar

	Productivity Gainsharing	Profit Sharing
Scheme Design and Development	Employees are typically involved in designing the gainsharing scheme.	There is limited employee involvement in the design process.
Impact on Attitudes and Behaviour	Gainsharing promotes teamwork and improves performance.	There is limited impact on behaviours. Many factors that affect the organisation's profitability may not be within the employees' control.

Gainsharing provides various opportunities for the employees. They can participate in and contribute to organisational improvements. Employees are appropriately rewarded when the organisation achieves better performance. Over time, gainsharing builds a common sense of ownership among the employees. It also drives cultural change within the organisation.

iv. Funding formula

The funding formula translates productivity improvements into actual dollars to be shared. For example, we can use the total labour hours as a productivity performance measure. The formula will convert these hours into dollar savings for the gainsharing fund.

The formula also defines the portion of the gainsharing fund to be distributed to the employees, and the portion to be retained by the organisation.

The formula may also set aside a reserve fund. This fund can be distributed during periods of weaker performance, keeping the employees motivated and engaged during challenging times.

v. Size and frequency of payment

Gainsharing should provide incentives to attract the employees' interest. It should also focus their behaviour on productivity improvement.

The frequency of payment sets the employees' expectations on when they may receive bonuses. Both the frequency and the size of the payment should be appropriately determined and clearly defined.

vi. Form of payment

Payouts are usually given in cash. Other forms of payment are common stock or deferred cash.

vii. Monitoring mechanisms

The implementation of a gainsharing scheme should be regularly monitored. This is to ensure that it is effective and meets the organisation's objectives. The scheme should define how its performance is to be tracked, and the roles and responsibilities of those designated to monitor and review the scheme.

Other Success Factors

A productivity gainsharing scheme needs to effectively engage employees to improve the organisation's productivity. It should reward them appropriately for the improvements made.

The success of productivity gainsharing often depends on the organisation's culture and system of doing things. Critical success factors of the scheme include:

- i. Participative management
- ii. Employee/union participation
- iii. Robust productivity measurement system

i. Participative management

Participative management facilitates engagement with the employees. It encourages the employees to contribute ideas. It also empowers them to act on ideas that benefit the organisation.

Managers need to learn how to discover and evaluate employee ideas quickly and effectively. They should give guidance in a non-authoritative style, and provide the necessary resources to implement good ideas.

ii. Employee/union participation

Employee/union participation is key to the success of a productivity gainsharing scheme. The employees/union should have an active interest in the management of the organisation. They should feel comfortable in contributing ideas, and be willing to provide the necessary support to help improve productivity.

iii. Robust productivity measurement system

A successful productivity gainsharing scheme is based on a strong productivity measurement system. This system should:

- Track measures or indicators that are representative of the organisation's productivity performance
- Capture data in a consistent manner at regular intervals
- Provide historical baselines for future performance comparisons
- Facilitate target setting

Details on how to design a productivity measurement system are found in *A Guide to Productivity Measurement*, published by SPRING Singapore.

CHAPTER 3

Productivity Gainsharing Models

The concept of productivity gainsharing dates back to the early 20th century. Through the years, various gainsharing models have been developed and used by organisations. Among the oldest and most well known models are the Scanlon and Rucker plans.

Today, most organisations that apply gainsharing use a model that is customised to meet their needs. Nevertheless, the Scanlon and Rucker plans provide a good basis for the development of specific gainsharing schemes.

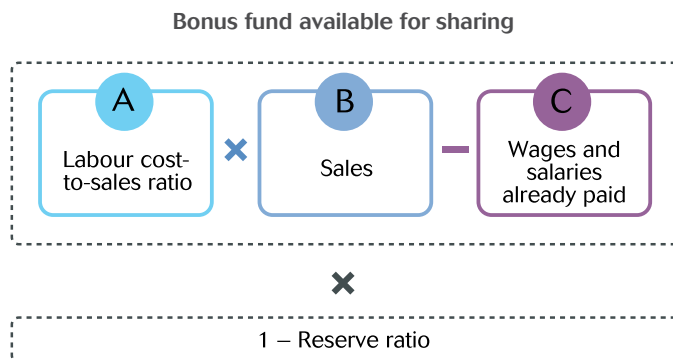
Scanlon Plan

According to the Scanlon Plan, any increase in the sales turnover of an organisation is due to joint labour-management efforts. Hence, a portion of that increased sales turnover should be paid to the employees as a bonus.

Calculation Formula

Figure 2 shows the standard Scanlon Plan formula. It calculates the bonus fund available for distribution.

Figure 2: Formula for Determining the Bonus Fund in a Scanlon Plan



- Step 1:** Determine an average labour cost-to-sales ratio (A) based on historical data.
- Step 2:** Multiply (A) by the value of sales earned in the current year (B) to give the theoretical amount of wages and salaries that should be paid.
- Step 3:** Subtract the actual amount of wages and salaries paid (C) from the theoretical amount that should be paid. This will determine the amount of labour costs saved as a result of higher productivity. The amount saved will form the bonus fund available for distribution.
- Step 4:** Determine the “reserve ratio” - the percentage of the bonus fund to set aside as a reserve – so that some bonus could still be paid out even in a recession.
- Step 5:** Multiply the amount of bonus fund computed under Step 3 by “1 – Reserve ratio”, to arrive at the amount to be distributed between the organisation and the employees. The amount that each will receive is then calculated based on a proportion agreed between the management and the employees.

Illustrative Example of a Scanlon Plan

Company X has generated \$900,000 of sales in the year. \$300,000 of wages and salaries are paid to the employees. The company sets aside 25% of the bonus fund as reserves. 70% of the remaining balance will be distributed to the employees, and 30% retained by the organisation.

Table 2: Illustrative Example of Scanlon Plan

	Formula	
Labour cost-to-sales ratio (A)		40%
Net sales (B)		\$900,000
Amount of theoretical wages and salaries to be paid (D)	A x B	\$360,000
Wages and salaries already paid (C)		\$300,000
Bonus fund (E)	D - C	\$60,000
Balance of bonus fund after setting aside 25% of it as reserves (F)	E x 75%	\$45,000
Amount to be distributed to the employees	F x 70%	\$31,500
Amount to be retained by the organisation	F x 30%	\$13,500

A labour cost-to-sales ratio is computed based on historical data

A reserve fund of 25% of the total bonus fund is set aside for use during a recession.

The balance is distributed between the employees and the organisation based on a predetermined 70 - 30 ratio.

Rucker Plan

The objective of the Rucker Plan is to increase value added. When there is an increase in value added, a fixed percentage of that increase is paid out as a bonus. This bonus is given to the employees, since they contributed to that increase.

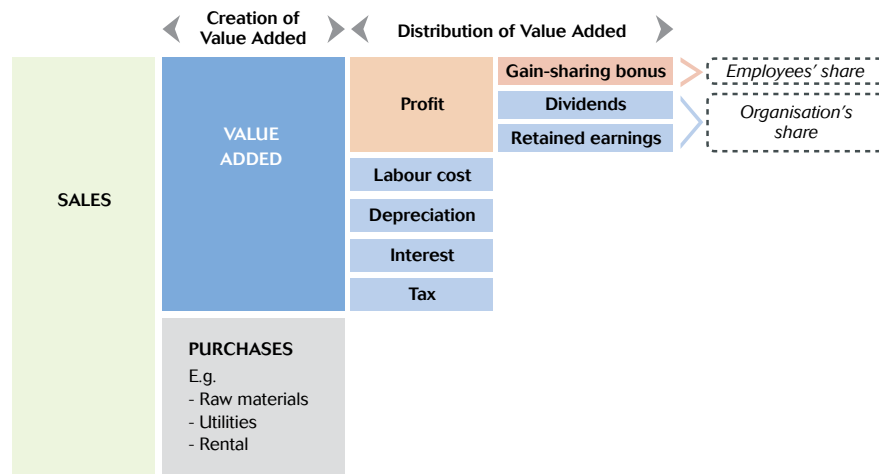
Concept of Value Added

Value added is commonly used in measures of an organisation's productivity. It represents the wealth created through its production process or provision of services.

Wealth is generated by the combined efforts of those who work in the organisation (employees) and those who provide capital (employers and investors). It must therefore be distributed among them.

Figure 3 shows the creation and distribution of value added.

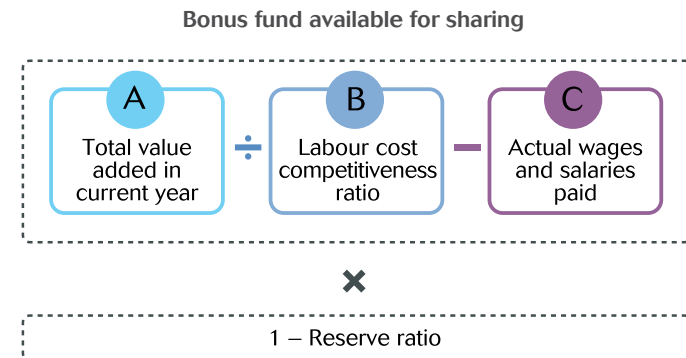
Figure 3: Creation and Distribution of Value Added



Calculation Formula

Figure 4 shows the standard Rucker Plan formula to calculate the bonus fund available for distribution.

Figure 4: Calculation Formula for the Bonus Fund in the Rucker Plan



- Step 1:** Divide the total value added generated in the current year (A) by the historical labour cost competitiveness ratio (value added per dollar of labour cost) (B). Value added can be computed easily from the organisation's current year profit and loss statement. This gives the theoretical amount of wages and salaries that should be paid to the employees in the current year.
- Step 2:** Subtract the actual amount of wages and salaries paid (C) from the theoretical amount that should be paid. This will determine the amount of labour costs saved as a result of higher productivity. This amount saved will form the bonus fund available for distribution.
- Step 3:** Determine the "reserve ratio". Similar to the Scanlon Plan, the organisation may set aside reserves so that some bonus could still be paid out during a recession.
- Step 4:** Multiply the amount of bonus fund computed under Step 2 by "1 - Reserve ratio", to arrive at the amount to be distributed between the organisation and the employees. The amount that each will receive is then calculated based on a proportion agreed between the management and the employees.

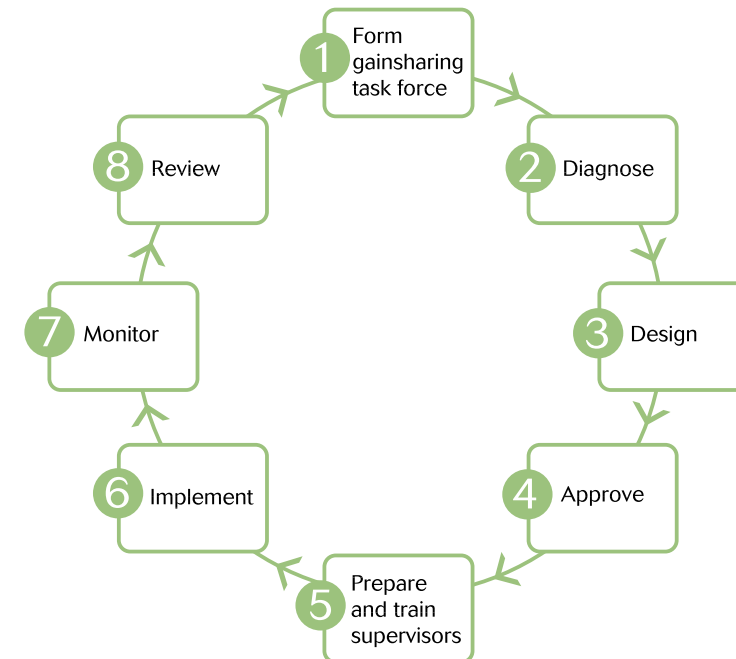
CHAPTER 4

How to Design a Productivity Gainsharing Scheme

No two organisations are totally alike. Each must design its gainsharing scheme based on its unique objectives and needs.

It is important to design and develop the scheme using a structured approach. Figure 5 shows an eight-step approach for designing a gainsharing scheme.

Figure 5: Eight-step Approach for Designing a Gainsharing Scheme



Illustrative Example of a Rucker Plan

Historically, Company Y generates \$4 of value added per dollar of labour cost, giving a labour cost competitiveness ratio of 4. The company sets aside 25% of the bonus fund as reserves. 70% of the remaining balance will be distributed to the employees, and 30% retained by the organisation.

Table 3: Illustrative Example of Rucker Plan

	Formula	
Total value added (A)		\$800,000
Historical value added per dollar of labour cost (B)		4
Theoretical wages and salaries to be paid (D)	$A \div B$	\$200,000
Actual wages and salaries paid (C)		\$100,000
Bonus fund (E)	$D - C$	\$100,000
Balance of bonus fund after setting aside 25% of it as reserves (F)	$E \times 75\%$	\$75,000
Amount to be distributed to the employees	$F \times 70\%$	\$52,500
Amount to be retained by the organisation	$F \times 30\%$	\$22,500

A labour cost competitiveness ratio is computed based on historical data.

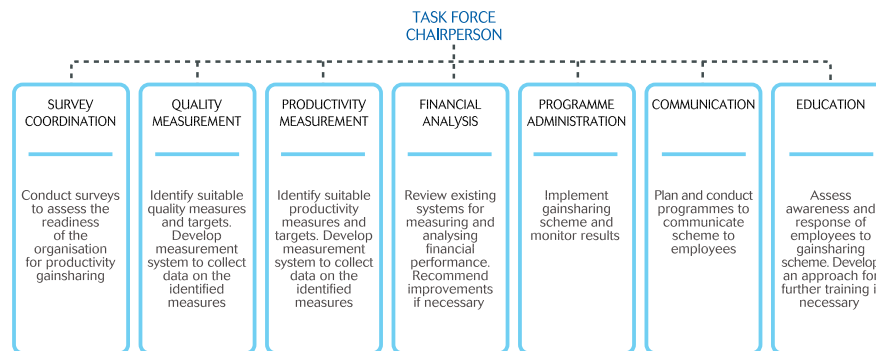
A reserve fund of 25% of the total bonus fund is set aside for use during a recession.

The balance is distributed between the employees and the organisation based on a predetermined 70 – 30 ratio.

1 Form Gainsharing Task Force

The first step is the appointment of a task force. The task force will design and develop the scheme. To ensure that the various needs of the organisation are met, the task force should involve employees from various departments. Figure 6 shows the typical roles of a gainsharing task force.

Figure 6: Typical Roles of a Productivity Gainsharing Task Force



The task force chairperson is key to the ultimate success of the gainsharing scheme. The chairperson should be a committed, action-oriented and well regarded individual in the organisation. Since gainsharing is part of productivity management, the chairperson should be well versed in the organisation's operations. Someone like the Productivity Manager or a General Manager may undertake this role. The task force should also include department managers and executives.

2 Diagnose

An initial diagnostic assessment is necessary to help your organisation answer these questions:

- How suitable is productivity gainsharing for your organisation?
- How ready is your organisation to implement productivity gainsharing?

The assessment will identify your organisation's strengths. It will also highlight areas that need special attention when designing a gainsharing scheme. This will help your organisation to chart the plan to develop the scheme.

Typically, a diagnostic assessment reviews and examines various functions and systems within the organisation. It assesses the organisation's readiness for productivity gainsharing.

The areas that need to be assessed include:

- Organisation's objectives
- Management commitment
- Organisation culture and employee attitudes
- Human resource management policy
- Compensation and wage structure
- Productivity measurement system
- Financial measurement system
- Quality management system
- Employee involvement system

External consultants could be engaged to conduct the diagnostic assessment as they will be able to give an objective assessment of the organisation. The information needed may be collected via:

- A questionnaire or survey to be answered by the relevant departments
- A third-party audit
- Employee focus group discussions

3 Design

The next step is to work out the details of the gainsharing scheme. The critical elements in a gainsharing scheme are described in Chapter 2. In this step, the gainsharing task force needs to collect and analyse the available information. This information will then contribute to the development of an appropriate scheme for the organisation.

4 Approve

The preliminary design is submitted to the management for approval. Before finalising the scheme, the management and the gainsharing task force could seek additional feedback from the employees.

5 Prepare and Train Supervisors

To ensure that gainsharing fulfils its objectives, supervisors must acquire certain skills and behaviours. This will enable them to thrive in the new environment that gainsharing creates. Examples of these skills and behaviours are:

- Openness to change
- Willingness to admit errors
- Confidence in the abilities of employees
- Willingness to share information

Case Story: SIA Engineering Company*

Productivity gainsharing at SIA Engineering Company (SIAEC) boosts employees' morale towards improving productivity.

Up to two years ago, it was common for an aircraft engineer at SIAEC to plough through thick printed manuals for aircraft troubleshooting instructions.

For a typical assignment, he first assessed the aircraft at the arrival/departure bay, travelled back to his office to gather the required technical information from the manuals, and then returned to the arrival/departure bay to resolve the issue.

Gone are the days of shuttling between the arrival/departure bay and the office. Today, the engineer only has to power up his netbook to access an electronic version of the technical manuals, thanks to a recent move by the company to equip its staff with netbooks to improve productivity.

Through this and a series of other productivity initiatives, the company aims to save \$10 million a year.

SIAEC recognises that efforts must start with the individual for this target to be achieved. In the fast-paced aerospace engineering industry where quick response is critical, every little contribution, including those from the rank-and-file workers, is valuable. "The ability of our staff to embrace and adapt to changes, and to innovate and thrive in changing environments is a differentiating factor," says SIAEC's Chairman, Mr Stephen Lee.

To encourage positive attitudes and boost morale among employees, the company distributes to them a part of its savings resulting from higher productivity. A quarter to a third of the savings, also known as 'productivity gains', is given out in quarterly payments if the productivity targets set by the operational divisions are met.

Currently, productivity gainsharing benefits about 4,000 engineers and technicians in the line maintenance, base maintenance, workshop and fleet management divisions.

"Gainsharing is about sharing ownership in the productivity projects, and maintaining staff's excitement and commitment for productivity improvements. With the gainsharing framework to track progress and rally staff on, it has helped us reach this level of success in our Cheaper, Better, Faster (CBF) journey." – Senior Vice President (Human Resources), Zarina Piperdi.

The National Trades Union Congress (NTUC) is highly supportive of SIAEC's initiative to share productivity gains with employees. Mr Lim Swee Say, Secretary-General of NTUC, says: "Workers need to accept new workflow and working hours. It's good for management to recognise the contributions of workers through a benefit sharing scheme such as productivity gainsharing."

* We express our appreciation to SIA Engineering Company for the assistance rendered in producing the case story for this publication.

Approaches that may be used to improve the supervisors' skills and behaviours include:

- Training supervisors in participatory management
- Encouraging supervisors with the correct skills to train others
- Engaging third-party facilitators to conduct training to enhance supervisory skills

6 Implement

Starting the new scheme well is critical to its eventual success. The scheme needs to be properly communicated to all employees by the management and the gainsharing task force. This will help the management garner buy-in from the employees and allay any fears that they may have.

Communication should go beyond just detailing the mechanics of the scheme. It should emphasise that employees can contribute significantly to the productivity and success of the organisation. It should also motivate them towards action.

Employees should be kept updated on the organisation's progress in productivity. This could be done through frequently updated posters and charts on productivity. Progress can also be shared at regular information sharing sessions.

7 Monitor

Once in place, performance and results of the gainsharing scheme must be monitored. Monitoring mechanisms should be defined in the Design Phase (Phase 3). The mechanisms should be established prior to the implementation of the scheme.

If the scheme is not performing as expected, the cause should be identified and reported to the management. The management will then have to take action.

8 Review

After implementation, the gainsharing scheme will need to be reviewed regularly. Possible revisions may be needed for continuous improvements. The gainsharing task force may find it useful to meet regularly during the post-implementation phase to discuss any necessary improvements.

Gainsharing schemes must be flexible enough to respond to changing market conditions. Maintenance roles and responsibilities must be defined in the design stage. These could be documented in the gainsharing policy. The policy should describe circumstances under which the scheme may be revised. It should also include a decision flow for any revision of the processes.



For more information on productivity and gainsharing,
visit the Productivity@Work website at www.enterpriseone.gov.sg