



BANGLADESH
COST ACCOUNTING
STANDARDS
BCAS - 12

Kaizen Costing

BCAS 12: Kaizen Costing

12.1 Introduction

Kaizen costing is a system of cost reduction via continuous improvement. It tries to maintain present cost levels for products currently being manufactured via systematic efforts to achieve the desired cost level. The word kaizen is a Japanese word meaning continuous improvement. It has two dimensions. One dimension considers product (narrow perspective) and another dimension covers asset and organization (broader perspective). Asset and organization specific kaizen costing activities planned according to the exigencies of each deal. However, product model specific costing activities carried out in special projects with added emphasis on value analysis. It is applied to products that are already in production phase. Prior to kaizen costing, when the products are under development phase, target costing is applied. After targets have been set, they are continuously updated to display past improvements, and projected (expected) improvements. Adopting Kaizen costing requires a change in the method of setting standards. Kaizen costing focuses on "cost reduction" rather than "cost control".

12.2 Objectives

The objective of this standard is to provide guidance to the practitioners regarding the scope and methodology of applying kaizen costing for establishing an environment of continuous improvement. It also tries to differentiate kaizen costing from life cycle costing, target costing and standard costing so that practitioners can use it keeping its original essence and zeal. It is important to get the maximum output from using kaizen costing.

12.3 Scope

- 12.3.1 This standard is applicable to such companies who want to deploy cost reduction efforts as a part of its continuous policy during manufacturing stage.
- 12.3.2 Particularly, this standard provides specific guideline who wants to apply kaizen costing as a method of continuous improvement through waste management and cost reduction (or control).
- 12.3.3 This standard may be followed by companies and other business or non-business organizations where cost and management accounting is in practice either as a statutory obligation or to support management decision making process.

12.4 Key Features

The key features of this standard are pointed below -

- a) Explain the applicability of kaizen costing;
- b) Provides the basic principles of kaizen costing;
- c) Provide a comparative presentation on kaizen, life cycle, target and standard costing;
- d) Explain the steps and principles of applying kaizen costing; and
- e) List the potential benefit of using kaizen costing.

12.5 Definitions

The following terms are used in this standard with the meanings specified -

- 12.5.1 Kaizen: Kaizen is the Japanese word for continuous improvement.

- 12.5.2 Kaizen Costing: It is a costing technique to reflect continuous efforts to reduce product costs, improve product quality, and/or improve the production process after manufacturing activities have begun. Kaizen costing involves making continual, incremental improvements to the production process during the manufacturing phase of the product/service lifecycle, typically involving setting targets for cost reduction.
- 12.5.3 Current Cost: Under target costing concepts, this is the cost that would be applied to a new product design if no additional steps were taken to reduce costs, such as through value engineering or kaizen costing. Under traditional costing concepts, this is the cost of manufacturing a product with work methods, materials, and specifications currently in use.
- 12.6.4 Continuous Improvement: Continuous improvement is the continual examination and improvement of existing processes and is very different from approaches such as business process re-engineering (BPR), which seeks to make radical one-off changes to improve an organization's operations and processes. The concepts underlying continuous improvement are:
 - a) The organization should always seek perfection. Since perfection is never achieved, there must always be scope for improving on the current methods.
 - b) The search for perfection should be ingrained into the culture and mindset of all employees. Improvements should be sought all the time.
 - c) Individual improvements identified by the work force will be small rather than far-reaching.

12.6 Standards

- 12.6.1 Kaizen Costing is an ongoing process that strives to reduce costs by making improvements and removing waste. Successful continuous improvement requires full commitment from senior managers, along with effective, well-documented policies and procedures designed to log, examine and develop all new ideas.
- 12.6.2 The process of continual cost reduction that occurs after a product design has been completed and is now in production. Cost reduction techniques can include working with suppliers to reduce the costs in their processes, implementing less costly re-designs of the product, or reducing waste costs.
- 12.6.3 Once the design has been approved, production can begin, which is where Kaizen costing starts. The method can be defined as a focus on obtaining small, incremental cost reductions (rather than big changes at longer intervals) during the production phase of the product's life cycle. Kaizen costing is based on the belief that nothing is ever perfect, so improvements and reductions in the variable costs are always possible.
- 12.6.4 Like TQM, it becomes part of the culture, involving all members of the organization. Everyone is encouraged to offer ideas that, however small, could lead to a reduction in variable costs, which could in turn lead to a reduction in the selling price and, hopefully, a growth in sales. Alternatively, the price could be maintained and the resulting increase in profits could be used to reward the shareholders or be reinvested in other projects. It is easy to see how Kaizen costing is aligned closely with lean manufacturing, whose main aim is to cut waste through continuous improvement. This is achieved by identifying the best resources and most efficient processes to remove waste from production.

12.6.5 Kaizen costing takes into consideration costs related to manufacturing stage, which include:

- a) Costs of supply chain;
- b) Costs of product redesign;
- c) Legal costs;
- d) Manufacturing costs;
- e) Waste;
- f) Recruitment costs;
- g) Marketing, sales and distribution; and
- h) Product disposal.

12.6.6 The major difference between target and kaizen costing is that target costing is applied during the design stage whereas Kaizen costing is applied during the manufacturing stage of a product's life. So, while target costing relates to planning and Kaizen costing covers manufacturing, total life-cycle costing is relevant to all stages of a product's life.

12.6.7 Kaizen cost targets are usually set monthly (see Appendix 12A). However, under standard costing, standards are usually set before the year to which they relate and do not change for the whole period, unless a major cost or change in circumstances renders them obsolete.

12.6.8 One of the main criticisms of standard costing is that, as long as adverse variances are avoided, no attempt is made to seek further cost savings. Kaizen costing is a more proactive approach that assumes improvements can always be made; it promotes a culture in which all employees are constantly seeking to reduce production costs.

12.6.9 The objective of kaizen costing is to reduce actual costs to manufacture a product below the standard cost. Standard cost system generally aim to achieve the cost standards set by management while kaizen costing systems are more concerned with reducing actual costs below standard costs. The potential cost reductions are smaller with kaizen costing because the products are already in the manufacturing stage of their life cycles and a significant portion of costs will have become locked-in.

12.6.10 So, if the standard cost of a product is set at, say, BDT 10 and its actual cost is found to be BDT 9, no cost-cutting action is even considered under the standard costing approach, because there is a favorable variance. But a Kaizen user will examine ways of cutting this figure to BDT 8.90, BDT 8.80 and so on.

12.6.11 Kaizen costing tracks the cost reduction plans on a monthly basis. Variance analysis is carried out at the end of each period to compare the target cost reduction with the actual cost. The kaizen costing targets are expressed in the physical resources terms. If the head of a group fails to achieve the kaizen costing target by 1 percent, it should be reviewed by senior.

12.6.12 Kaizen costing has been developed to support the continued cost reduction of existing components and products. One of the main ways to reduce costs is through the elimination of the seven main types of waste:

- a) Over-production - produce more than customers have ordered.
- b) Inventory - holding or purchasing unnecessary inventory.
- c) Waiting - production delays/idle time when value is not added to the product.
- d) Defective units - production of a part that is scrapped or requires rework.
- e) Motion - actions of people/equipment that do not add value.

- f) □ Transportation - poor planning or factory layout results in unnecessary transportation □ □
- □ of materials/work-in-progress.
- g) □ Over-processing - unnecessary steps that do not add value.

12.6.13 Kaizen costing efforts may be directed to any one or both of the following two approaches to kaizen costing at the discretion of management where management may confirm reasonable assurance of the success of applying kaizen costing.

- a) □ Asset specific - all improvement activities are related to reduction of use of chosen □ □
- □ asset or resource
- b) □ Product specific - improvement activities are related to different resources related to □ □
- □ one product

12.6.14 While implementing the concept of kaizen, following few rules are to be observed:

- a) □ Identify your own problems.
- b) □ Grade your problem like minor, difficult and major.
- c) □ Select the smallest minor problem and start with it. After tackling this, move on to next □ □
- □ graded problem and so on.
- d) □ Always ensure that improvement is a part of daily routine.
- e) □ Never accept status quo.
- f) □ Never reject any idea before trying it.
- g) □ Share the experiments with colleagues
- h) □ Eliminate already tried but failed experiments, while sharing the problems with your □ □
- □ colleagues.
- i) □ Never hide problems, always highlight them.

12.7 Recording and Reporting

12.7.1 Organization should have a kaizen costing team consisting of members from every division who will be involved in planning, monitoring and appraisal process.

12.7.2 Organization should have a mechanism of setting target cost with reference to particular assets, products or both which should be recorded in particular form as prescribed by the kaizen costing team and reported internally for using by respective authority.

12.7.3 Kaizen costing variances should be reported and analyzed by competent authority for further action.

12.7.4 Organization should have a formal communication process of preparing and dissemination kaizen costing related information.

12.7.5 At the end of the year, the achievement of kaizen costing and its impact on bottom line should be analyzed internally and management must have a formal appraisal process in any form due to such achievement if commendable.

12.8 Effective Date

This standard will be effective from January 1, 2017 onwards.

Appendix 12A

Kaizen cost targets

In order to achieve cost reduction, variable as well as fixed costs are considered. However, since fixed costs are needed to maintain continuous growth, Kaizen cost is achieved mainly by reduction in the variable costs, direct material and direct labor costs. In non-manufacturing departments, reduction is achieved through fixed cost items. Targets for kaizen costs are set monthly based on following procedure:

1. Per product actual cost in the previous year = Total actual cost of last year ÷ Actual production in last year
2. Estimated amount of total current year actual cost = Per product actual cost in the previous year x Estimated production for the current year
3. Kaizen cost target for the current year = Estimated amount of total current year actual cost x Ratio of cost reduction target
4. Assignment cost to each plant (assignment ratio) = Cost directly controlled in single plant ÷ cost directly controlled in all plants
5. Kaizen cost target for each plant = Kaizen cost target for the current year x Assignment ratio

The Kaizen costing can use **Hoshin kanri** approach of bottom-up path, where lower managers propose reduction levels. This however requires highly engaged staff. **Hoshin kanri** is a system approach to planning that fosters continuous improvement. It involves every employee into processes of strategic management. It is a Japanese version of management by objectives (MBO). Hoshin kanri begins with a strategic plan developed by top management. Then mid-level managers develop tactical objectives on departmental level that allow achieving strategic objectives. On the floor level, team leaders and managers work out the operational objectives and details. The important method is "catchball" - extensive communication between management levels in order to keep high level of compatibility between objectives. Results are being monitored weekly or monthly and appropriate adjustments are made if necessary.

Appendix 12B

Kaizen costing principles

Successful application of Kaizen Costing requires careful planning and monitoring of target cost setting and its implementation. Following principles may be of significant use to target costing practitioners:

- a) It lays no emphasis on the present existing situation, by disregarding all ideas implemented in the production process.
- b) The system does not strive for perfection, rather seeking gradual improvements in the existing situation, at an acceptable cost.
- c) It allows managers to exercise discretion in the application of their knowledge and personal skills.
- d) It encourages collective decision making, i.e., the ideas of many are better than that of one single person.
- e) There are no limits to the level of improvements that can be implemented.
- f) Kaizen involves setting standards and then continually improving these standards to achieve long-term sustainable improvements.
- g) The focus is on eliminating waste, improving processes and systems and improving productivity.
- h) Involves all employees and all areas of the business.

Appendix 12C

Kaizen Costing becomes part of the Package

At the start of 2002 a UK company called Kappa Packaging (now part of the Smurfit Kappa Group) had a factory in Greater Manchester that made, among other products, cartons to hold bottles of drink. That year the firm introduced a new approach to cutting the amount of waste paper and cardboard it was producing, which stood at 14.6 per cent of the raw materials consumed. The new approach included the following initiatives:

- a) Making employees more aware of how much waste was being produced.
- b) Requiring them to monitor the amount of waste for which they were individually responsible.
- c) Establishing a Kaizen team to find ways of reducing waste.

As a result, Kappa was able to reduce waste from 14.6 per cent to 13.1 per cent of raw materials used by the end of 2002 and down to 11 per cent in 2003. Each percentage-point saving was worth an estimated £110,000 a year.

Source: "Accurate measurement of process waste leads to reduced costs", www.envirowise.gov.uk, 2003.

Appendix 12D

Kaizen Costing Implementation Stages

