# APPENDIX BB ADOPTION PROPOSAL FORM

**CPR183/F15**

**KENYA BUREAU OF STANDARDS**

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| **Document Type:** | **Adoption proposal** | |
| **Dates:** | Circulation date | Closing date |
| **17th January 2025** | **16th February 2025** |
| **TC Secretary** | **This form shall be filled, signed and returned to Kenya Bureau of Standards for the attention of Jacob Mutungi** [**mutungij@kebs.org**](mailto:mutungij@kebs.org) | |

The Kenya Bureau of Standards intends to adopt the International Standards as detailed here below.

1. **Number: KS ISO/TR 12845:2010**

**Title:** Selected illustrations of fractional factorial screening experiments.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:12845:ed-1:v1:en:1)

This Technical Report describes the steps necessary to use and to analyse two-level fractional factorial designs through illustration with six distinct applications of this methodology.

NOTE 1 Each of these six illustrations is similar in that resource constraints precluded the possibility of naively running full factorial designs. Other commonalities among the six examples are noted [e.g. study objective, two levels for factors, response variable(s), factors affecting the response]. On the other hand, the individual illustrations have some salient features that are distinct.

NOTE 2 The examples suggest the spectrum of possibilities both in application area and in choice of fractional factorial designs. Fractional factorial designs can be used to identify important factors for subsequent investigation (screening design) and can in some cases provide a viable understanding of the process under study. Fractional factorial designs include screening designs and designs that have been popularized by Genichi Taguchi.

NOTE 3 Fractional factorial experiments are sometimes employed by individuals (so-called “black belts” or “green belts”) associated with Six Sigma methods. Six Sigma methods are concerned with problem solving and continuous improvement. A fractional factorial experiment can be a cost-effective tool for obtaining timely improvements of processes and products. Detailed discussions and treatment of other tools employed by Six Sigma practitioners can be identified in various ISO/TC 69/SC 7 documents.

1. **Number: KS ISO/TR 12888:2011,**

**Title:** Selected illustrations of gauge repeatability and reproducibility studies.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:12888:ed-1:v1:en)

This Technical Report describes the measurement process where the characteristic(s) being measured is a continuous variable. Measurement processes where the characteristic(s) of interest is an attribute (i.e. pass/fail) are not treated in this document.

This Technical Report provides examples of simple measurement systems and gives usable results as used in industry where there are two major factors contributing to the variation of the measurement results, such as variation between operators or appraisers and within operators or appraisers.

1. **Number KS ISO 13053-1:2011,**

**Title** Quantitative methods in process improvement — Six Sigma — Part 1: DMAIC methodology.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:13053:-1:ed-1:v1:en)

This part of ISO 13053 describes a methodology for the business improvement methodology known as Six Sigma. The methodology typically comprises five phases: define, measure, analyse, improve and control (DMAIC).

This part of ISO 13053 recommends the preferred or best practice for each of the phases of the DMAIC methodology used during the execution of a Six Sigma project. It also recommends how Six Sigma projects should be managed and describes the roles, expertise and training of the personnel involved in such projects. It is applicable to organizations using manufacturing processes as well as service and transactional processes.

1. **Number KS ISO 13053-2:2011,**

**Title** Quantitative methods in process improvement — Six Sigma — Part 2: Tools and techniques.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:13053:-2:ed-1:v1:en)

This part of ISO 13053 describes the tools and techniques, illustrated by factsheets, to be used at each phase of the DMAIC approach.

The methodology set out in Part 1 of ISO 13053 is generic and remains independent of any individual industrial or economic sector. This makes the tools and techniques described in this part applicable to any sector of activity and any size business seeking to gain a competitive advantage.

1. **Number KS ISO/TR 16705:2016,**

**Title** Statistical methods for implementation of Six Sigma — Selected illustrations of contingency table analysis.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:16705:ed-1:v1:en)

This document describes the necessary steps for contingency table analysis and the method to analyse the relation between categorical variables (including nominal variables and ordinal variables).

This document provides examples of contingency table analysis. Several illustrations from different fields with different emphasis suggest the procedures of contingency table analysis using different software applications.

In this document, only two-dimensional contingency tables are considered.

1. **Number KS ISO/TR 20693:2019,**

**Title** Statistical methods for implementation of Six Sigma — Selected illustrations of distribution identification studies.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:20693:ed-1:v1:en)

This document provides guidelines for the identification of distributions related to the implementation of Six Sigma. Examples are given to illustrate the related graphical and numerical procedures.

It only considers one dimensional distribution with one mode. The underlying distribution is either continuous or discrete.

1. **Number KS ISO/TR 22914:2020,**

**Title** Statistical methods for implementation of Six Sigma — Selected illustration of analysis of variance.

**Scope:** [**Read sample**](https://www.iso.org/obp/ui/en/#iso:std:iso:tr:22914:ed-1:v1:en)

This document describes the necessary steps of the one-way and two-way analyses of variance (ANOVA) for fixed effect models in balanced design. Unbalanced design, random effects and nested design patterns are not included in this document.

This document provides examples to analyse the differences among group means by splitting the overall observed variance into different parts. Several illustrations from different fields with different emphasis suggest the procedure of the analysis of variance.

We are therefore seeking views from potential users in respect of the same. The Standard is available at the Kenya Bureau of Standards Information Centre. Please tick and fill your preference of the listed option. (If the spaces provided are not enough, please attach a separate sheet of paper).

Adoption acceptable as presented

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Adoption proposal not acceptable because of the reason(s) below

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Our Recommendations are as follows

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Name and Signature (of respondent): ................................................

Position (of respondent): .....................................

On behalf of ......................................................................................... (Name of organization)

Date .........................................................................

**NOTE:** Absence of any reply or comments shall be deemed to be an acceptance of the proposal for adoption and **shall constitute an approval vote**.