# APPENDIX B: SURVEY QUESTIONAIRE

**Dear Sir/Madam,**

This questionnaire has prepared for creating the rule base to evaluate the usability of Component Based Software System with the help of proposed usability model. **Reusability is the process to use existing components to develop a new software rather than creating it from scratch to save time, effort and money.**

**Reusability Sub-Factors:**

1. **Interface Complexity (IC)**

Components can interact with each other using well-defined interfaces. The component interface complexity is the estimate of the complexity due to interfaces between components. It is inversely proportional to the reusability.

1. **Understandability (Un)**

It can be defined as the capability of the component to enable the user to understand whether it is suitable and how it can be used for tasks. It depends on the functional description and the documentation of the component. It is directly proportional to reusability**.**

1. **Customizability (Co)**

Customizability is directly proportional to reusability. It is the ability of the component to be customized. It is required for the component to be customizable for adjusting itself into specific requirements during integration process.

1. **Reliability (Re)**

The reliability is the ability of a component to perform its required functions under stated conditions for a specified period. It is the probability that the system will perform as intended over a specified time interval. The high reliability of a component increases the chances of high reusability of software components.

**Guidelines to fill the Questionnaire:**

To create the rule base three values are given to the reusability sub-factors: Low (L), Medium (M) and High (H). Based on these input values reusability can have five values: Very\_Low (VL), Low (L), Medium (M), High (H) and Very\_High (VH). As we have total 4 input variables, each having 3 different values, so we will have total 34 =81 rules. One example for filling the table is given for your reference:

Table B.1: Rule Base

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S.No | Interface Complexity | Understandability | Customizability | Reliability | Reusability |
| 1. | H | L | L | L | VL |
| . | . | . | . | . | . |
| . | . | . | . | . | . |
| . | . | . | . | . | . |
| . | . | . | . | . | . |

***Note:*** *The provided data is a part of survey. It will be used in the research and will remain confidential. The details of any participating respondent will not be directly published anywhere without prior permission.*