

previous research [11] also applied the two-stage status model in the requirements gathering and specification process.

4. Research Methods

To evaluate our motivation, this section describes the experimental design. The experiment is started from selecting cognitive bias types, and setting research hypothesis, defining target samples unit and surveying using questionnaire. Then, the collected information is analyzed using regression and correlation analysis. Finally, the result found is presented.

4.1. Cognitive Bias Selection

This research is a continue research from the previous one [11]. We use the same cognitive bias types. They are adjustment bias, availability bias, and confirmation bias since all are usually find in software engineering [3].

4.2. Setting the Hypothesis

The hypothesis of the research based on multiple regressions and correlation analysis methods is present as following:

H0: Independent variables are the cognitive biases factors that have no effect on the software damage rate in terms of software design process.

H1: Independent variables are the cognitive biases factors that influence on the software damage rate in terms of software design process.

If H1 is accepted, we will analyze the result that there is the relationship of anchoring bias and adjustment bias or not.

4.3. Sample and Survey

Our research conducts by using 30 samples from graduated students in computer or management field who have experience more than one year in computer field related to software design process.

The survey method using set of ques-

tion was used to collect the information about the quantity of occurrences of bias, by taking the keyword properties of various biases in the situation of the software design process. Also the sample unit would identify a quantity of software damage rate after the software product has been launched according to each type of the focus biases.

The sample of keyword of each type of biases; anchoring, adjustment, availability and confirmation are "experience", "customization", "modernity" and "confidence" respectively [11].

5. Results

This section discusses the statistical computing results are the resulting from the number of errors that occur in the software product. To define Y is the software damage rate from occurrence of cognitive bias in software design process. To defines X is occurrence of cognitive bias situation in software design process by using multiple regressions and correlation analysis and stepwise.

5.1. Define X and yAVG1 variables

The dependent variable or yAVG1 is defined by using the average values of software damage rate from each bias situation (anchoring, adjustment, availability, and confirmation bias) as y1, y2, y3, and y4 are shown in table I.

The X value is an independent variable that gathering from a survey. Value of X means the value number of situations that has biased in 10 times of the working process: anchoring, adjustment, availability, and confirmation as x1, x2, x3, and x4 respectively.

