

## INTISARI

Penentuan kompleksitas tugas akhir dilakukan agar dapat menjadi gambaran bagi mahasiswa, khususnya bagi mahasiswa yang akan mengerjakan proyek tugas akhir dalam mengelola tugas akhirnya. *Hindsight bias* pada evaluasi kompleksitas tugas akhir adalah perbedaan estimasi kompleksitas tugas akhir saat sebelum dan sesudah tugas akhir selesai dikerjakan. *Hindsight bias* pada kompleksitas tugas akhir dapat menimbulkan sikap pesimis mahasiswa ketika akan mengerjakan tugas akhir. Setelah mengetahui terdapatnya *hindsight bias*, mahasiswa diharapkan dapat menghadapi permasalahan pada tugas akhir dengan *problem focused coping*. Kinerja proyek dapat dipengaruhi oleh kompleksitas proyek. Oleh karena itu, penelitian ini bertujuan untuk menguji pengaruh kompleksitas proyek terhadap kinerja proyek dan untuk menguji *hindsight bias* pada evaluasi kompleksitas tugas akhir.

Penelitian ini menggunakan dua jenis kuesioner, yaitu kuesioner kompleksitas dan kuesioner kinerja proyek tugas akhir. Kuesioner kompleksitas diedarkan saat sebelum dan setelah responden selesai mengerjakan tugas akhirnya. Kuesioner kinerja diedarkan setelah responden selesai mengerjakan tugas akhirnya. Responden penelitian ini adalah mahasiswa yang telah selesai mengerjakan tugas akhir dan telah terlibat dalam mengisi kuesioner kompleksitas tugas akhir saat responden sedang mengerjakan tugas akhir. Kuesioner diberikan kepada 90 orang mahasiswa program sarjana teknik industri dan mendapatkan tanggapan sebanyak 56 orang (62,22 %). Kuesioner juga diberikan kepada 24 orang mahasiswa program pascasarjana teknik industri dan mendapatkan tanggapan sebanyak 20 orang (83,33 %). Analisis pada penelitian ini berdasarkan data keseluruhan dari 76 responden.

Faktor kompleksitas terdiri dari kompleksitas emosional, struktural, sosiopolitikal dan *emergent*. Uji validitas dan reliabilitas dilakukan pada kuesioner kompleksitas proyek. Analisis faktor dilakukan untuk mengelompokkan *item* kompleksitas ke dalam subfaktor kompleksitas. Analisis *hindsight bias* menggunakan Wilcoxon *Sign Test* karena datanya ordinal dan tidak normal. Model PLS-SEM digunakan untuk menganalisis pengaruh kompleksitas terhadap kinerja proyek tugas akhir.

Hasil penelitian menunjukkan terdapat *hindsight bias* pada evaluasi kompleksitas tugas akhir. Menurut mahasiswa, kompleksitas setelah mahasiswa selesai mengerjakan tugas akhir lebih rendah daripada saat sedang mengerjakan tugas akhir. Berdasarkan hasil penelitian, faktor kompleksitas emosional, struktural, sosiopolitikal dan *emergent* tidak berpengaruh terhadap kinerja tugas akhir. Hasil penelitian menunjukkan subfaktor pada kompleksitas emosional, yaitu kesulitan menurunkan kinerja tugas akhir. Oleh karena itu, mahasiswa sebaiknya banyak membaca referensi agar mahasiswa dapat mengatasi kesulitan dalam mengerjakan tugas akhir. Dengan demikian mahasiswa dapat memperoleh kinerja yang tinggi.

**Kata kunci** : Kompleksitas Proyek, Kinerja Proyek, Tugas Akhir Mahasiswa, *Hindsight Bias*, PLS-SEM.

## ABSTRACT

The determination of the complexity of the final projects useful for students, especially for students who will perform their final project in order to manage their final projects. Hindsight bias on evaluating the complexity of the final project is the difference in the estimation of the complexity of the final project before and after the respondent completed their final projects. Hindsight bias on the complexity of the final project can lead to a pessimistic attitude of students prior to working on the final project. After knowing the existence of hindsight bias, students are expected to address it by means of problem-focused coping. Project performance can be influenced by project complexity. Therefore, this study aims to examine the influence of project complexity on project performance and to find out whether there is a hindsight bias in evaluating the complexity of the final project.

This study was using two types of questionnaires, namely the complexity questionnaire and the final project performance questionnaire. The complexity questionnaire was distributed before and after the respondent has completed his or her final project. The final project performance questionnaire was distributed after the respondent completed their final projects. The respondents of this study were students who had finished the final project and had answered the questions on the final project complexity questionnaire while the respondent was working on the final project. The questionnaires were distributed to 90 undergraduate students from an industrial engineering major and 56 respondents had responded (62.22% response rate). The questionnaires were also distributed to 24 postgraduate students from an industrial engineering major and 20 respondents had responded (83.33% response rate). This research analysis based on overall data from 76 respondents.

The complexity factor consists of emotional, structural, sociopolitical, and emergent complexity. Validity and reliability tests were carried out on the project complexity questionnaire. Factor analysis was carried out to group items of complexity into complexity sub-factors. Wilcoxon Sign Test was used for hindsight bias analysis because the data were ordinal and non normally distributed data. The PLS-SEM model was used to analyze the effect of complexity on the performance of the final project.

The results showed there was a hindsight bias in evaluating the complexity of the final project. According to students, the complexity after the students completed their final project is lower than when they were performing their final project. Based on the results of this study, emotional complexity, structural complexity, sociopolitical complexity, and emergent complexity do not affect the performance of the student final project. The results showed a subfactor of emotional complexity namely, the difficulty decreases the performance of the final project. Therefore, students should read a lot of references to overcome the difficulty of their final projects. Thus students can get high performance.

**Keywords: Project Complexity, Project Performance, Student Final Project, Hindsight Bias, PLS-SEM.**