

**THE APPLICATION OF ANALYTIC NETWORK PROCESS TO
REVIEW THE CAUSES OF CONSTRUCTION DISPUTES**

Final Project Report
in fulfillment of the requirement for the degree
Bachelor of Civil Engineering

by:

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**INTERNATIONAL CIVIL ENGINEERING PROGRAM
DEPARTMENT OF CIVIL ENGINEERING
FACULTY OF ENGINEERING
UNIVERSITAS ATMA JAYA YOGYAKARTA
YOGYAKARTA
2018**

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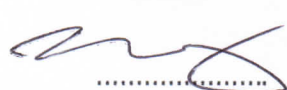
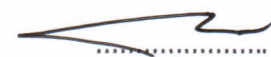
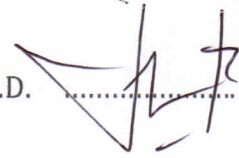


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ACKNOWLEDGEMENTS

I dedicate this page to express my sincere gratitude to all people who have helped throughout the process of completing this final project report. The purpose of this final project with the title “The Application of Analytic Network Process (ANP) to Review the Causes of Construction Disputes” is to complete the requirement of undergraduate program (S-1) in International Civil Engineering Program Universitas Atma Jaya Yogyakarta. I would like to say thanks especially to:

1. A. Koesmargono, Ir., MCM, Ph.D. as my final project supervisor for the valuable advice and thanks for being such a supportive person throughout the discussions we had during the counseling time.
2. All the lectures and staffs in the International Civil Engineering Program. Mr. Drajat who has helped so much throughout my 4 year study in the University.
3. My parents and brothers for their unconditional love and support.
4. Agus, Bagoes, Anju, Thea, Dede, Vareskyu, Patrick, Vivi, Aris, Santi, Evi and domi who have been the best companions during my study. I will miss these people so much.
5. Elvina, Lena and Nindita for always supporting me. Thanks for always giving me the best advice and thanks for always staying by my side.

6. Stefanny Sandy who is just like a sister from a different mother to me, thank you for always being kind to all people around you. You have been a very supportive sister.
7. Last but not least, I Putu Dede Sugiarta who has accompanied me day and night to complete this report. Thanks for your endless support and love.

Finally, as the writer of this report, I realized that this report has weaknesses. For that, any suggestion and critics are welcomed. I hope anyone who reads, finds this report helpful. Thank you.

Yogyakarta, July 2018

The Author

Elsya Patresia

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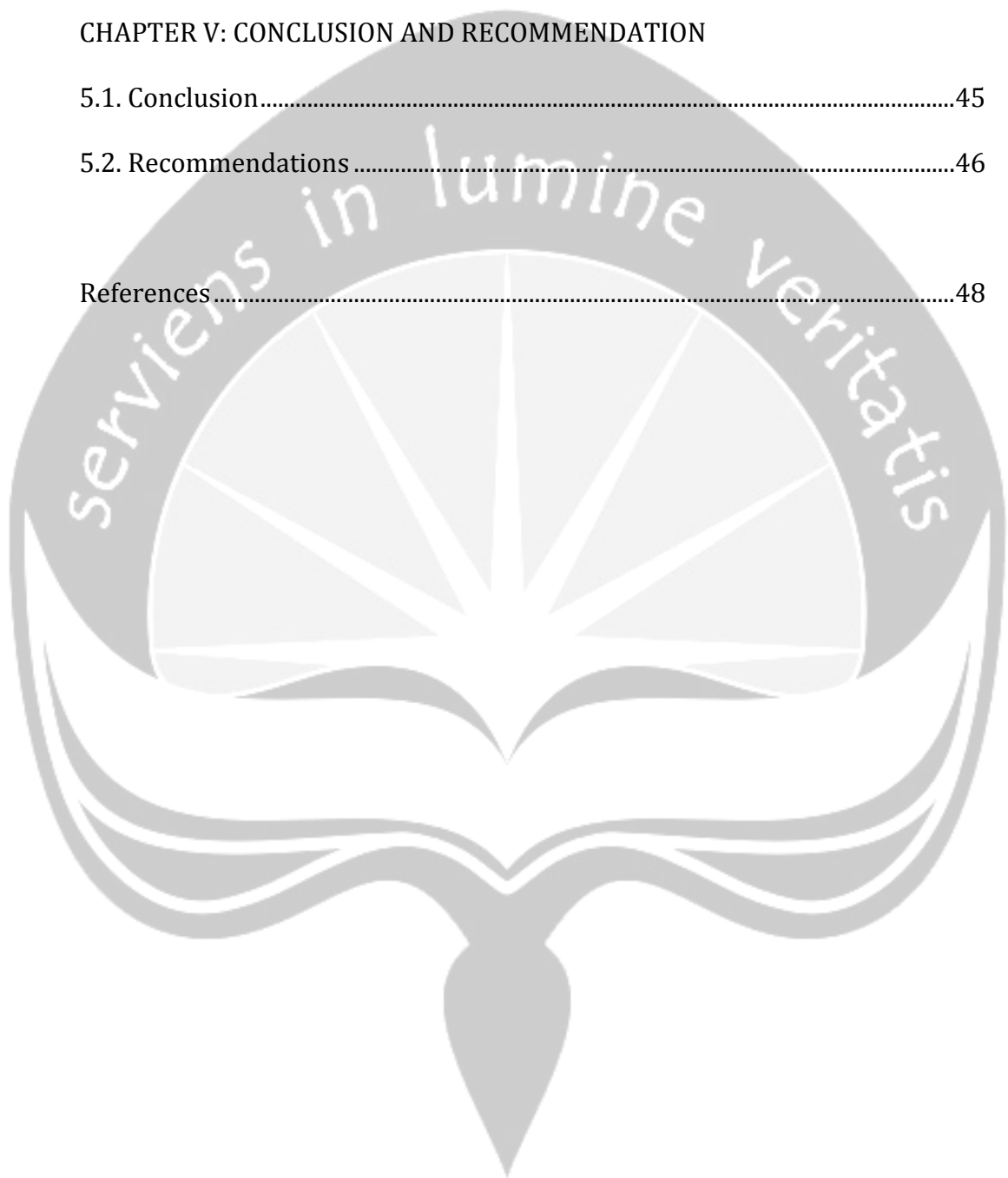
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ABSTRACT

THE APPLICATION OF ANALYTIC NETWORK PROCESS TO REVIEW THE CAUSES OF CONSTRUCTION DISPUTES, Elsy Patresia, Student ID Number 14.13.15560, year of 2018, Construction Management, International Civil Engineering Program, Department of Civil Engineering, Universitas Atma Jaya Yogyakarta.

Disputes in construction are not avoidable. A construction project involves many parties working together. The parties come from various background and culture, working together as a team. The team must deal with a lot of differences. This makes disputes are prevalent in construction projects. Conflict and disputes, if neglected, can cause loss to the project. If disputes are not handled sensibly, it might result project delays, confound team engagement and, furthermore, destroy business relationships.

The objective of this study is to analyze the dominant causes of disputes in construction projects in Yogyakarta. To achieve the study objective, a deep literature review was deeply done to identify the existing dispute causes in construction industry. The analysis of the study is carried out using the Analytic Network Process (ANP) by the means of Super Decision software. There are 16 disputes variables examined in this study. To obtain data, this study uses two kinds of questionnaire. First questionnaire is aimed to determine dependencies among the 16 variables, and the second questionnaire is pairwise questionnaire to obtain variables' priorities.

The analysis found three top variables that have received high priorities. These variables are *variation initiated by owner* (0.1633), *change of scope* (0.1587) and *late giving of possessions* (0.0911). All of these variables are classified as owner related disputes variables. The result of the study also shows that *tendering* is the less preferred dispute causes with priority 0.0022. This study concludes that the main cause of construction disputes in Yogyakarta comes from the owner of the projects.

Keywords: Construction disputes; Analytic Network Process, Super Decision software.