Diploma Thesis Evaluation

Title: DETECTION OF MANIPULATION IN ECONOMIC DATA USING DATA MINING TECHNIQUES
Author: Ahmed Samir Mohamed, Alashrafy
Reviewer: Ing. Karel Mls, Ph.D.

Evaluative criteria	Mark			
	1	2	3	4
Goal and its definition	☒	☐	☐	☐
Theoretical seriousness	☒	☐	☐	☐
Demand on practical skills and time requirement	☒	☒	☐	☐
Methodical adequacy and its application	☒	☐	☐	☐
Logical structuring	☒	☐	☐	☐
Formal setting and requisites	☒	☐	☐	☐
Language and terminological level	☒	☒	☐	☐
Utilization of sources, citation, bibliography setting	☒	☒	☐	☐
Student´s contribution	☐	☒	☐	☐
Results utility in theory or in practice	☐	☒	☐	☐

Partial comments and suggestions:

The thesis is well structured, it contains comprehensive and relevant theoretical part and two cases based on two real data sets. There are only few minor formal imperfections - different formating of figure captions (fig 2 - 2, p. 18), figure 7 caption on different page (pp. 37-38), split table 2 (pp. 46-47), formatting of References and spelling mistakes.

Questions:

1) In Case 1, data from 1995-1999 were used. Is it possible to use the model, based on 15-20 years old records into the recent context?

2) How the obtained models' reliability and validity can be proved?

Overall assessment and classification reasoning:

Author deals with one of the negative phenomenon in the competition - bid rigging in the public procurement procedures and its common forms. The goal of the work were to develop a module for fraud detection using data mining techniques. Theoretical part is well introduced, but the proposed application is still under the development (as the author himself states in the Conclusion). The main contribution of the thesis is the detailed description of the data mining methods and their feasible implementation in the specific domain.

Suggested classification: excellent - very good

Hradec Králové, 19.5.2015

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Signature