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Abstract

INTERNET TENDERING SERVICE WITH DECISION SUPPORT

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With continuous growth of acceptance of E-Commerce, the tendering and procurement process is tremendously transformed by new Internet technologies as a key part of electronic government strategies. Government procurement typically represents 10-15% of GDP. With electronic procurement and tendering, governments can be a big driving force for the adoption of E-Commerce to their domestic economies, and can achieve the best value of money.

Building an Internet web service requires totally different technologies, techniques and approaches. The system presented in this thesis is designed and modeled following the Model-View-Controller object-oriented design pattern and is partially implemented with advanced Java development tools and techniques.

Another key point of the thesis is focused on the study and application of MCDA (Multi-Criteria Decision Analysis) to help buyers to select the best tender offers because tender evaluation is a very difficult task. MCDA is a feasible approach to resolve this kind of complex problem. Two MCDA methods, AHP and MACBETH, are studied. AHP is the most well-known and fundamental MCDA method. MACBETH is another sophisticated method considered better than AHP. Therefore MACBETH is selected and applied as the decision support tool in the thesis work and giving satisfactory result.