Effective human resources management requires an accurate assessment and representation. Therefore, competency mapping is required for particular occupation and position. That case can be done by identifying the gap between individual competency and the competency demanded in an organization. To obtain the information, it is necessary to identify organizational competence and to evaluate individual competence. The evaluation process is complicated and complex, since this process will adjust the individual's competence for occupation or position required in organization. By utilizing technological advances and competency standard model proposed, to evaluate, to assess and to analyze individual competence use an expert system. In this study, it can implement in developing an expert system, statistical methods using Scott-Knott algorithm technique and rule-based system approach by backward chaining technique. To evaluate, analyze and classify individual competence into their best qualification group use the Scott-Knott algorithm. Whilst, the rule-based system with backward chaining technique can detect individual who is qualify to the competence of a position. By combining those two methods in the expert system of human resource competency obtained the result of
the individual group with the best competence and individual who qualify competency to occupy a position. Compared to conventional methods, expert system of web-based competency assessment is more efficient, and it can manage individual competence profile hence created a good management competency in organization.

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Index Terms

Computer Science        Algorithms

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