

**UBAH SUIAIAN GRED PENCAPAIAN PELAJAR DALAM
PEMERINGKATAN SEKOLAH MENGGUNAKAN PENDEKATAN VIKOR**
(Modified Student Achievement Grade in School Ranking Using VIKOR approach)

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ABSTRAK

Pemeringkatan merupakan satu proses penyusunan beberapa alternatif mengikut tertib keutamaan. Ianya berdasarkan kepada kriterium atau atribut yang ditentukan bagi setiap alternatif yang terlibat. Penilaian terhadap kriterium tersebut dilakukan dan kemudiannya suatu indeks komposit digubah bagi setiap alternatif untuk tujuan menyusun alternatif mengikut urutan keutamaan. Amalan ini dikenali sebagai pmutusan pelbagai kriterium (PPK). Terdapat beberapa pendekatan yang diamalkan dalam PPK, di antaranya dikenali sebagai VIKOR (Pengoptimuman Pelbagai Kriterium dan Penyelesaian Kompromi). Kajian ini bertujuan memerihalkan penggunaan VIKOR dalam pembinaan indeks komposit PPK bagi menyusun sekolah mengikut tahap pencapaian peperiksaan Sijil Peperiksaan Malaysia (SPM). Sekolah mewakili alternatif manakala kursus sebagai kriterium. Keputusan peperiksaan bagi sesuatu kursus diberi dalam bilangan pelajar mengikut gred. Setiap kursus ini dinilai berdasarkan sembilan skala gred, iaitu dari gred terbaik sehingga gred gagal sebagai gambaran tahap pencapaian setiap kursus yang kemudiannya diubah suai menggunakan skor merit.

Kata kunci: VIKOR; indeks komposit; pmutusan pelbagai kriterium; skor merit

ABSTRACT

Ranking is the process of structuring alternatives in order of priority. It is based on the criterion or attribute determined for each alternative involved. Evaluation of criteria are performed and then a composite index is composed for each of the alternatives for the purpose of ranking the alternatives according to preference. This practice is known as multiple criteria decision making (MCDM). There are several common approaches to MCDM, one of the practice is known as VIKOR (Multi-criteria Optimization and Compromise Solution). This study describes the use of VIKOR to construct MCDM composite index for organising schools according to the level of achievement of the Sijil Peperiksaan Malaysia (SPM) examination. The school represents an alternative while the course as the criterion. The result of the examination for a course is given in terms of the number of students by grade. Each course is evaluated on a nine grade scale, from excellent to fail grades as level of achievement and then modified using merit scores.

Keywords: VIKOR; composite index; multiple criteria decision making; merit scores

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