

ABSTRACT

The process of decision – making in an educational institution requires support and continuous accurate data. The data warehouse is required as one of the solutions to provide a summary of the information that decision makers need. This research focuses on the design of the data warehouse to support the school's policy in BOPKRI 1 Senior High School Yogyakarta in the admission of new students (PPDB) which is closely related to promotion. In addition, the online information system, which is called Paket Aplikasi Sekolah (PAS) has been used and need to be developed to support the PPDB process in private schools. Data warehouse are designed to integrate with existing PAS system.

The data warehouse design that integrates with the PAS system use Nine-Step Methodology Kimball for making it. PPDB module in the PAS system is developed with linear sequential model. PAS using MySQL database and the development follows on the same database. The integration data warehouse to the PAS system is designed with three stages, first is the integration of student registration number (NIS), second is data integration from students and parents, and third is viewing the data in PAS.

On this study, the data warehouse design which is integrated by PAS on new student admission module is able to provide enhanced output data in the form of statistical data, such as the promotion type, the UN score, the home province, the parents revenue, the parents education background, and the former and accreditation school status. As a result, the analysis shows that the promotion trend for the last 3 years was observed, the majority of new student's academic skill was segmented, and the financing segment is able to be analyzed by the decision from each parents based on their education background and the alumnus promotion. As a conclusion, the development of PAS for private school needs in term of the strategic promotion plan have been conducted and produced an enhanced output data which supports the school strategic promotion plan.

Keywords --*data warehouse, paket aplikasi sekolah, information system, database, strategic promotion.*

INTISARI

Pengambilan kebijakan dalam sebuah institusi pendidikan memerlukan dukungan data yang akurat dan berkesinambungan. *Data warehouse* diperlukan sebagai salah satu solusi untuk dapat menampilkan ringkasan informasi yang diperlukan lingkungan pengambil keputusan. Penelitian ini berfokus pada perancangan *data warehouse* untuk mendukung kebijakan sekolah dalam hal ini SMA BOPKRI 1 Yogyakarta dalam proses penerimaan peserta didik baru (PPDB) yang berkaitan erat salah satunya dengan strategi promosi. Selain itu sistem pendataan online pendidikan menengah yang berupa sistem Paket Aplikasi Sekolah (PAS) sudah digunakan dan perlu dikembangkan untuk mendukung proses PPDB bagi sekolah swasta. *Data warehouse* yang dirancang diharapkan mampu terintegrasi dengan sistem PAS yang sudah ada.

Perancangan *data warehouse* yang terintegrasi dengan sistem PAS dilakukan dengan *Nine-Step Methodology Kimball*. Pengembangan modul PPDB pada sistem PAS dilakukan dengan pendekatan model sekuensial linier. Basis data PAS menggunakan MySQL dan pengembangan sistem ini mengikuti pada perangkat basis data yang sama. Integrasi *data warehouse* ke sistem PAS dirancang dengan 3 tahap yaitu integrasi nomer induk siswa (NIS) peserta didik, integrasi data peserta didik dan orangtua serta melihat tampilan data di PAS.

Perancangan *data warehouse* ini mampu memberikan output data berupa tampilan data statistik, antara lain data promosi, data nilai UN, data asal propinsi, data penghasilan dan pendidikan orangtua, data status dan akreditasi sekolah, serta data pembiayaan pendidikan. Hasil analisis mampu menunjukkan tren bentuk promosi selama 3 tahun, segmen kemampuan akademik peserta didik baru dan segmen pembiayaan peserta didik baru berdasarkan pertimbangan orang tua terhadap bentuk promosi yang diberikan.

Kata kunci --*data warehouse, paket aplikasi sekolah, sistem informasi, basis data, strategi promosi.*