

PENGEMBANGAN DASHBOARD ANALISIS INSTAGRAM BERBASIS PYTHON FLASK UNTUK MONITORING PERFORMA DIGITAL MARKETING (STUDI KASUS: DESIGNBISNISKITA)

Bara Falah Adikaputra¹, Aris Wahyu Murdiyanto², Kharisma³

INTISARI

Latar Belakang: Instagram merupakan platform media sosial yang banyak digunakan oleh pelaku Usaha Mikro, Kecil, dan Menengah (UMKM) untuk melakukan promosi dan membangun interaksi dengan *audiens*. Namun, proses evaluasi performa konten dan iklan sering dilakukan secara manual, sehingga kurang efisien dan rawan bias. DesignBisnisKita sebagai penyedia jasa desain grafis mengalami kesulitan dalam melakukan analisis performa pemasaran digital secara terstruktur.

Tujuan: Penelitian ini bertujuan untuk mengembangkan sebuah sistem dashboard analisis berbasis Python Flask yang mampu menampilkan performa konten dan iklan secara visual dan menghasilkan *insight* otomatis guna mendukung strategi *digital marketing* DesignBisnisKita..

Metode Penelitian: Penelitian menggunakan pendekatan kuantitatif dan model pengembangan sistem *prototyping*. Data dikumpulkan dari Instagram *Insights* dan Meta Ads selama periode April–Juni. Data kemudian diolah menggunakan Python, disimpan di MongoDB, dan divisualisasikan melalui Chart.js. Analisis dilakukan dengan metode *time series* dan *rule-based* untuk menghasilkan insight otomatis.

Hasil: Dashboard berhasil dikembangkan dalam tiga modul utama: Dashboard Utama, Halaman Konten, dan Halaman Iklan. Sistem menampilkan metrik seperti *reach*, *impression*, *engagement rate*, *CTR*, *CPL*, dan *ROAS*. *Insight* otomatis dihasilkan berdasarkan aturan logika tertentu dan divisualisasikan dalam bentuk narasi deskriptif. Evaluasi *usability* menunjukkan skor rata-rata di atas 4 dari 5 poin pada sebagian besar aspek, menandakan dashboard mudah digunakan dan bermanfaat.

Kesimpulan: Dashboard yang dikembangkan telah memenuhi kebutuhan monitoring performa digital marketing bagi UMKM. Dengan visualisasi interaktif dan *insight* berbasis *rule*, sistem ini dapat membantu pengambilan keputusan pemasaran yang lebih tepat sasaran dan berbasis data.

Kata-kunci: *Dashboard*, *Digital Marketing*, *Instagram Insight*, *Python Flask*, *UMKM*, *Visualisasi Data*, *Engagement Rate*, *ROAS*, *CTR*, *CPL*.

¹ Mahasiswa Sistem Informasi (S-1) Universitas Jenderal Achmad Yani Yogyakarta

² Dosen Sistem Informasi (S-1) Universitas Jenderal Achmad Yani Yogyakarta

³ Dosen Sistem Informasi (S-1) Universitas Jenderal Achmad Yani Yogyakarta

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Abstract

Background: Instagram is a social media platform widely used by Micro, Small, and Medium Enterprises (MSMEs) for promotion and audience engagement. However, evaluating the performance of content and ads is often done manually, making it inefficient and prone to bias. DesignBisnisKita, as a graphic design service provider, faces challenges in conducting structured digital marketing performance analysis.

Objective: This study aims to develop a Python Flask-based analytical dashboard system capable of visually presenting the performance of content and ads, while also generating automated insights to support DesignBisnisKita's digital marketing strategy.

Method: The study applies a quantitative approach and a prototyping system development model. Data were collected from Instagram Insights and Meta Ads during the April–June period. The data were processed using Python, stored in MongoDB, and visualized through Chart.js. Analysis was conducted using time-series and rule-based methods to generate automated insights.

Result: The dashboard was successfully developed into three main modules: Main Dashboard, Content Page, and Ads Page. The system displays metrics such as reach, impression, engagement rate, CTR, CPL, and ROAS. Automated insights are generated based on specific logical rules and visualized in descriptive narratives. Usability evaluation showed an average score above 4 out of 5 in most aspects, indicating that the dashboard is user-friendly and beneficial.

Conclusion: The developed dashboard meets the needs for monitoring digital marketing performance in MSMEs. With interactive visualizations and rule-based insights, the system can assist in making more targeted and data-driven marketing decisions.

Keywords: Dashboard, Digital Marketing, Instagram Insight, Python Flask, MSMEs, Data Visualization, Engagement Rate, ROAS, CTR, CPL.

¹ Student of Information Systems (S-1) Universitas Jenderal Achmad Yani Yogyakarta

² Lecturer of Information Systems (S-1) Universitas Jenderal Achmad Yani Yogyakarta

³ Lecturer of Information Systems (S-1) Universitas Jenderal Achmad Yani Yogyakarta