Persepsi pengguna jalan terhadap kebijakan penggunaan artificial intelligence untuk mengurai kemacetan di DKI Jakarta = Examining road users' views on the use of artificial intelligence to address traffic congestion in DKI Jakarta

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Abstrak

Artificial intelligence mulai diimplementasikan di Jakarta sebagai solusi untuk mengurai permasalahan lalu lintas, seperti mengotomatisasi pengaturan sinyal lalu lintas dan mengurangi kemacetan. Pemasangan ini merupakan tahap awal pengintegrasian Intelligent Transportation System (ITS) sehingga tantangan operasionalisasi sangat besar. Selain itu, tantangan terkait etika dan perlindungan data pribadi masyarakat juga turut dirasakan. Penelitian ini bertujuan untuk mengetahui persepsi pengguna jalan terhadap implementasi AI pengurai kemacetan, terutama dari sisi efektivitas dan dampaknya. Persepsi publik merupakan salah satu kriteria membentuk kebijakan yang berkelanjutan. Dengan meneliti persepsi, diharapkan pemerintah akan lebih siap untuk menanggapi tuntutan masyarakat dan mengadopsi teknologi di perkotaan. Penelitian ini menggunakan pendekatan kuantitatif dengan teknik pengumpulan data mixed method melalui survei dan wawancara mendalam. Teknik analisis yang digunakan dalam penelitian ini adalah teknik analisis univariat dan metode ilustratif (case clarification). Untuk memetakan persepsi publik terhadap pengimplementasian ITCS, riset ini menggunakan lima dimensi, yaitu Sentiment to AI, Attitude Toward AI Development, Attitude Toward “Impact of AI to Human Society”, Attitude Toward AI Governance, dan Attitude Toward AI Ethics. Hasil penelitian ini menunjukkan persepsi positif pengguna jalan terhadap pengimplementasian ITCS di Jakarta. Namun, beberapa kekurangan masih ditemukan yaitu AI belum maksimal karena belum terintegrasi di seluruh jaringan jalan dan belum dilaksanakannya evaluasi terhadap pengimplementasiannya.

.....Artificial intelligence is being implemented in Jakarta as a solution to traffic problems, such as automating traffic signal settings and reducing congestion. This installation is the early stage of integrating the Intelligent Transportation System (ITS), and thus the operational challenges are substantial. In addition, there are also challenges related to ethics and the protection of people's personal data. This research aims to understand road users' perceptions of the implementation of AI to alleviate congestion, particularly in terms of its effectiveness and impact. Public perception is crucial for developing sustainable policies. By analyzing these perceptions, the government is expected to be more responsive to public needs and better equipped to adopt urban technologies. The researcher assumes that road users' perceptions of the ITCS are negative, considering the current road conditions and the initial stage of AI implementation. Furthermore, this study uses a quantitative approach with mixed-method data collection techniques through surveys and in-depth interviews. The analytical techniques used in this research are univariate analysis and the illustrative method (case clarification). To map public perception of ITCS implementation, this research employs five dimensions: Sentiment to AI, Attitude Toward AI Development, Attitude Toward "Impact of AI on Human Society," Attitude Toward AI Governance, and Attitude Toward AI Ethics. The results of this study indicate a positive perception of road users towards the use of ITCS in Jakarta. However, some shortcomings are still found, namely that AI has not been maximized due to lack of integration across the entire road network and

the absence of an evaluation of its implementation.