Journal Homepage: http://readersinsight.net/APSS



# Understanding Behavior-Based City Congestion: The Importance of Education towards Inter-Driver Cooperation

# Beata Maria De Ocampo\*

Bs Information Technology/Bs Computer Engg Polytechnic University of the Philippines (Parañaque Campus) Phillipines bmfdeocampo@pup.edu.ph

# **Manuel Tanpoco**

Bs Information Technology/Bs Computer Engg Polytechnic University of the Philippines (Parañaque Campus) Phillipines manuel.tanpoco@dlsu.edu.ph

### Catherine Llave

Bs Information Technology/Bs Computer Engg Polytechnic University of the Philippines (Parañaque Campus) Phillipines crllave@pup.edu.ph

\*Corresponding Author email: <u>bmfdeocampo@pup.edu.ph</u>

Submitted: 15 November 2021 Revised: 27 December 2021 Accepted: 06 January 2022

Peer-review under responsibility of 7th Asia International Conference 2021 (Online) Scientific Committee

http://connectingasia.org/scientific-committee/

© 2022 Published by Readers Insight Publisher,

Office # 6, First Floor, A & K Plaza, Near D Watson, F-10 Markaz, Islamabad. Pakistan,

editor@readersinsight.net

This is an open access article under the CC BY license (http://creativecommons.org/licenses/4.0/).



### **ABSTRACT**

Metro Manila is one of the top congested cities not just in Asia but in the world pre- and post-pandemic. This study employed the Driver Behavior Questionnaire based on Guého et al's adaptation of the Manchester DBQ where respondents were to self-assess for behaviors related to lapses, errors and violations and positive behaviors. It analyzed the demographics of city drivers and their behaviors to address unnecessary behavior-based congestion. The findings revealed that majority of Filipino drivers did not go through formal driving training and the rating on positive behaviors needs to be improved across all ages and educational levels. The results were cross-validated with government-provided empirical data. Recommendation for the mitigation of congestion outside of infrastructure-related solutions are through the education of city drivers particularly leveraging on the Filipino value of "Pakikipagkapwa" or concerned for others. This may be achieved through an information campaign on inter-driver cooperation, consistent traffic rules implementation and provision of informative and conspicuous traffic signs in order to prevent the top traffic violations in the city namely, obstruction and disregard of traffic signs. This study covers Level 4 of the Industry 4.0 framework in the Integrated Smart Traffic Management Solution—human factor complementing the digital solution.

**Keywords:** Philippine DBQ; Traffic Congestion; Pakikipagkapwa; Sikolohiyang Pilipino; Industrial Revolution 4.0

