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Urban Land-use and Traffic Congestion: Mapping the Interaction

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ABSTRACT



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The interaction between transport, land-uses and travel patterns produce diverse transportation problems in urban cities with traffic congestion as the most visible manifestation. Traffic congestion is a frequent phenomenon in most cities around the globe. This paper reviews the interaction between land-use traffic congestion through published literature. The objective of this study is to encourage and provide researchers with future research directions in land-use and traffic congestion. For this purpose, a systematic review was performed analysing 45 articles from the year 2010 to 2020 using a descriptive approach. Subsequently, the results of the study show that although the interaction between land-use and traffic congestion has gained currency in developed countries far less is known on this subject in developing parts of the world, though new evidence is steadily accumulating. Consequently, limitations of this work are presented, opportunities are identified for future lines of research. Finally, the conclusion confirms the need for further research addressing the methodological concerns.

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1. Introduction

This systematic review aims to examine the recent literature on the interaction between land-use and traffic congestion. Traffic congestion has become a ubiquitous problem worthy of policy attention and citizens alike (Shahgholian & Gharavian, 2018; Uniyal & Gandhi, 2019). The rush hour has become a two or three-hour peak period, and congestion recurs mornings, midday, midevening, and on weekends as well (Jayasooriya & Bandara,

2017). Mir Shabbar, Muhammad, and Syed Fazal Abbas (2014) argue that unplanned landuse results in traffic congestion. Other scholars have asserted a connection between land use and traffic congestion in urban areas (Colonna, Berloco, & Circella, 2012; Kuzmyak, 2012;

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