## Changes in the Demand of Waterway Passengers During COVID-19 Pandemic: Case Study of Belém-Marajó Island, in Brazil

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Abstract: Waterway transport in the Amazon was the first means of access and occupation in the region. For the economic and social matter of high importance, still nowadays one of the main transport modes to several places in the region. To some places, still the only transport mode. With the advent of the pandemic, transport companies that already faced management challenges began to experience unprecedented structural changes and trends in trade and global supply chains. Thus, companies need operational reorganization to maintain the sustainability of the service under the penalty of loss of demand. Allied to this fact, it was observed that the demand presented behavior changes to adapt to this new moment. However, the lack of information about these changes makes it difficult to find solutions to maintain the quality of service. This work aimed to characterize the changes in the demand of waterway passengers through an empirical study with field research involving interviews with users and crew, on-board journeys, and visits to the waterway service company. The case study is the route Belém-Camara, on Marajó Island, in the state of Pará. This line is traditionally the only means of transport for this route, besides air transport on a much smaller scale. The collected data had a descriptive and analytical statistical treatment presented in this work. As the main result, the COVID-19 pandemic has caused significant changes, mainly in trip time and motives and, in the perception itself on service quality by part of the demand, with the increase of trip time and the feeling of insecurity. In conclusion, the service operator must review cost management and business survival strategies and tactics. The viability of the service and the social guarantee of transport proved to be threatened, putting at risk the service to the riverside populations.

Keywords: demand of waterway transport passengers, data analysis, COVID-19, amazonia

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