

XII Congresso
Fluminense
de Iniciação Científica
e Tecnológica



V Congresso
Fluminense
de Pós-Graduação

Ciência para o Desenvolvimento Sustentável

New Horizons for Last Mile Delivery After the Coronavirus Novel

Paulo Rossi Croce, João José de Assis Rangel, Geísa Pereira Marcilio Nogueira

The COVID-19 outbreak infected millions of people around the globe, forcing the people stay home. The new daily life became indoor shopping and the retailers had to adapt to this new reality, causing a high demand for the logistics. The common delivery occurs when carrier picks up the packages and the goods are taken to customer's address. The last step is called Last Mile. This research presents the willingness of a post-pandemic medium-sized city consumers to adopt new modalities of delivery: reception boxes, delivery drones and crowdsourcing logistics. The appliance of the survey aimed to investigate the changes about the means of acquiring products during the pandemics outbreak and also explores new ways to deliver goods that are little explored in Brazil. The questions were applied online to 401 people and the data collection was made to gather information about this subject though an online survey. The five-points likert scale was used on questions regarding the customer's opinion, a higher score means a stronger concordance with the affirmative. Only closed questions were considered, divided in sections that flows according with the previous answer. There are four paths depending on the answer in order to analyze each customer profile. The pandemic forced the consumers to go virtual, increasing the demand of the last-mile. It was found that most of citizens have been already buying online before the outbreak, and most of those who haven't experimented yet agreed to try the e-commerce. The majority of consumers are young people, from 18 to 39 years old and have already graduated. Even though the courier provided satisfactory services, the new trends of delivery are slowly being implemented, and the popular opinion was positive towards experimenting these innovations. With the reception boxes, the costumer may pick up the goods while returning home from work, avoiding being absent during the delivery at home, increasing the efficiency of the logistics. Regarding the drones, smaller packages can be lift and delivered at the customer's door, minimizing the gas emissions from vans and trucks. It prevents human contact, collaborating with the social distancing and performing their work. The crowdsourcing is one of the most promising solutions, since its concept is well accepted by the citizens on food delivery or ridesharing applications. It provides at the same place drivers willing to complete the freight, the courier's services that needs to satisfy their customer and the receiver. As the fast pacing of technology development, the modalities of last-mile delivery will be increased. There will be many choices of delivery modes available for customers and the wellbeing of mankind will definitely be better than before.