

# In a maddening subway crowd? Escape with Mobile Shopping Immersion

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What do irritable, squished riders on a crowded subway train do? According to a forthcoming study in the INFORMS journal *Marketing Science*, they often immerse themselves in their mobile phones to escape the crowd, and that they shop and buy more in response to mobile ads in the crowded train.

The research conducted by Michelle Andrews of Emory University, Xueming Luo of Temple University, Zheng Fang of Sichuan University, and Anindya Ghose of New York University, examined responses to mobile ads of riders who took the subway in a large city and found that riders in crowded subway trains are about twice as likely to respond to a mobile ad by making a purchase relative to those in non-crowded trains.

The authors partnered with a cellphone service provider who sent randomly selected subway riders, over several days, mobile ads for digital services, such as video-streaming. Based on a sample of almost 15,000 [mobile phone users](#), the authors found that on average, the purchase rate was 2.1% when there were fewer than two people per square meter, but increased to 4.3% when there were five people per square meter. The authors rule out the possibility that the result could arise because crowded peak hours are better times for shopping. Their results hold controlling for the time of day, day of week, and idiosyncratic differences in individual mobile use. Their results are true even in response to changes in crowdedness due to unexpected train delays under-ground and street traffic halts above-ground.

"Given our extensive battery of tests, we are confident that physical crowdedness engenders the higher consumer response to mobile ads," says Andrews, who goes on to explain. "Nowadays a smartphone is a good way to mentally escape from physically crowded environments. As a result, people are more involved with their smartphones and may pay more attention to incoming mobile ads when they are in crowded areas." Luo adds, "crowdedness in public transportation, where commuters are often squeezed against strangers with little else to do, is annoying, and yet ironically an opportune moment for [mobile ads](#)."

The authors caution that not all crowded places may produce the same results. Ghose notes, "People at a crowded restaurant or stadium may focus on food, companions, or a game, rather than the ads. Moreover, people may cope with crowdedness differently depending on their preferences and living circumstances." Fang points out, "Physical crowdedness in Hong Kong may be perceived quite differently from that in a college town."

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