

Nudging for safety driving: how to decrease accident rates and increase shared taxi safety?

Experimentation

The challenge

Shared taxis are minibuses that run between towns (Louage) and within cities (Collectif Taxi). They take passengers on a fixed route, departing when all seats are filled. Shared taxis are one of the most popular collective means of transportation in Tunisia. They are often known for being fast and for routing with no clear timetable. Passengers may also board and disembark at any point during travel. On this account, people find them practical for their commute.

Nudging intervention - safety



The challenge

Nudging intervention - Safety

Multiple car accidents, deaths, and injuries are caused by these vehicles. This is owing to the fact that drivers ride too fast; according to Mourad Jouini, the communications officer of the National Road Safety Observatory, speeding is the first factor of mortal car accidents with 168 deaths and 713 injuries for 441 accidents. Shared Taxis drivers, hence, would skip traffic lights and surpass other speeding cars and lines to arrive at their destination in the fastest way possible. Added to that, they bring about negative feelings of critiques, discomfort, and anger within the riders.

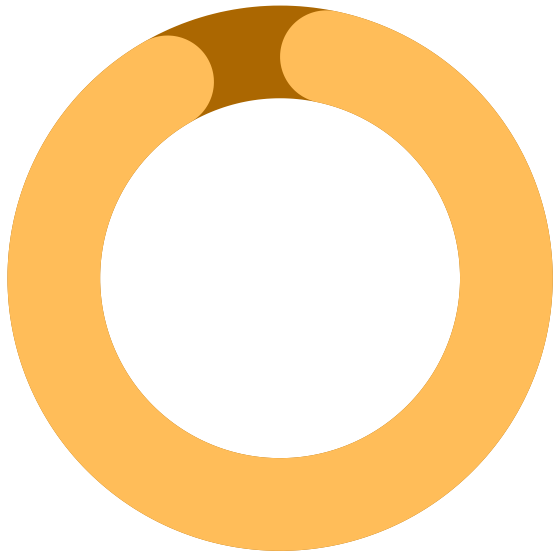
Multiple initiatives to ban these shared taxis have been taken, and awareness campaigns have been launched. Yet, they have always been ineffectual, as people will always resort to them by virtue of their convenience. Our aim is, thus, to find a solution to scale down accidents and to make this service safer.

The Qualitative and Quantitative Research

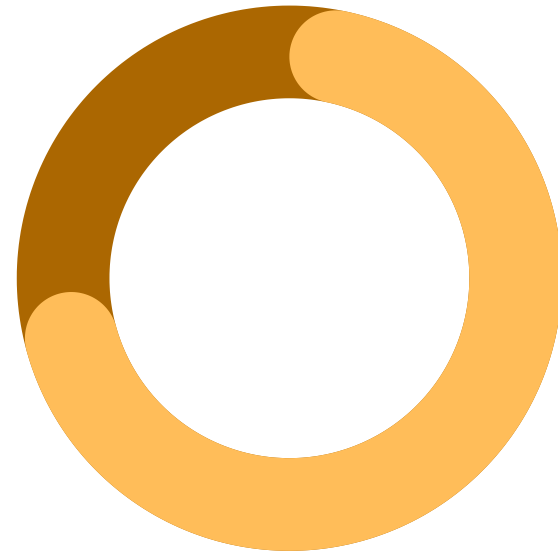
One major complication identified is the Tunisian poor transportation system. This problem induces people to opt for shared taxis as the only fast and easy alternative to travel, notwithstanding their poor organization, high speed, and the drivers' unpleasant reputation.

Since other means of transportations are often perceived worse and sometimes unavailable, passengers thereby choose to sacrifice their comfort and their safety.

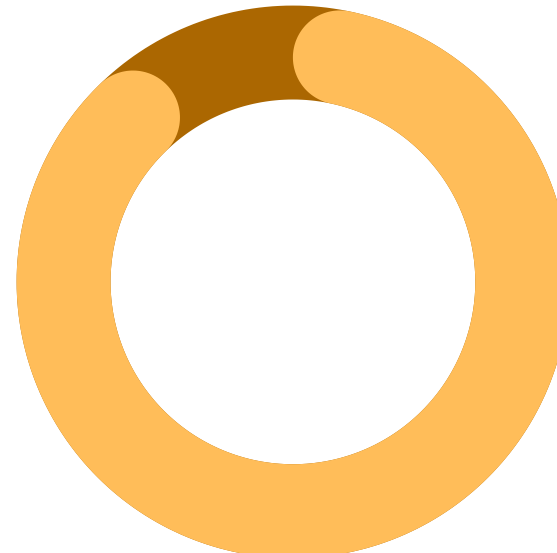
Below are the research results with regard to the “safety feeling” among shared taxi riders. This is found to be on account of different reasons: people never think about reacting at the moment, they think of their reaction to being unavailing, they regard the speeding and the feeling of unsafety as the norm, their ride is short or they don’t want to confront the driver.



95% of people who take the shared taxis daily felt unsafe during the trip at least once



74% of people who take the shared taxis daily usually feel unsafe



91% of people who felt unsafe didn't speak up

Intervention Design

Low-cost interventions
based on insights from
behavioural science

The research we conducted revealed that banning or restricting shared taxis is inefficient since passengers are compelled to bank on them to commute. Awareness campaigns are also found to be impractical as passengers do reckon that these taxis are perilous but they feel powerless, they can't stop using them and they can't do anything about the safety conditions.

Accordingly, our grail was to urge people to speak up, to feel empowered, and ultimately discard their defenselessness. For that, we designed a sticker with a message nudging them to communicate their concerns. This would serve as a gentle reminder to encourage them to act.

Two variants of the sticker were prepared in Tunisian Dialect, as shown below. The second variant was designed to foster trust between the riders and the driver. As the latter is often perceived to be noncooperative and ignorant, riders would choose to stay silent in order to avoid any unpleasant confrontation with him. The intervention idea was inspired by the research findings, indicating that passengers feel unsafe but never do anything about it.

VARIANT 1

A message nudging the riders to speak up whenever they feel unsafe.

(If you feel the driver is speeding up, please tell him to slow down. Your safety matters!)

VARIANT 2

A message coming from the driver himself.

(If you feel that I'm speeding up, please ask me to slow down. Your safety matters!)

The Experimentation

We designed a Randomised Controlled Trial (RCT) to evaluate the impact of the nudging intervention.

The stickers were put on the 8 shared taxis, 2 regional taxis (Louages), and 6 between cities (taxi Collectif) taking different routes between Ariana, Tunis, Marsa, and Mourouj and the towns of Sousse.

The trial launched in December 2020. The riders' behaviors were observed by cooperating daily passengers and our research team for 2 weeks.

Main findings

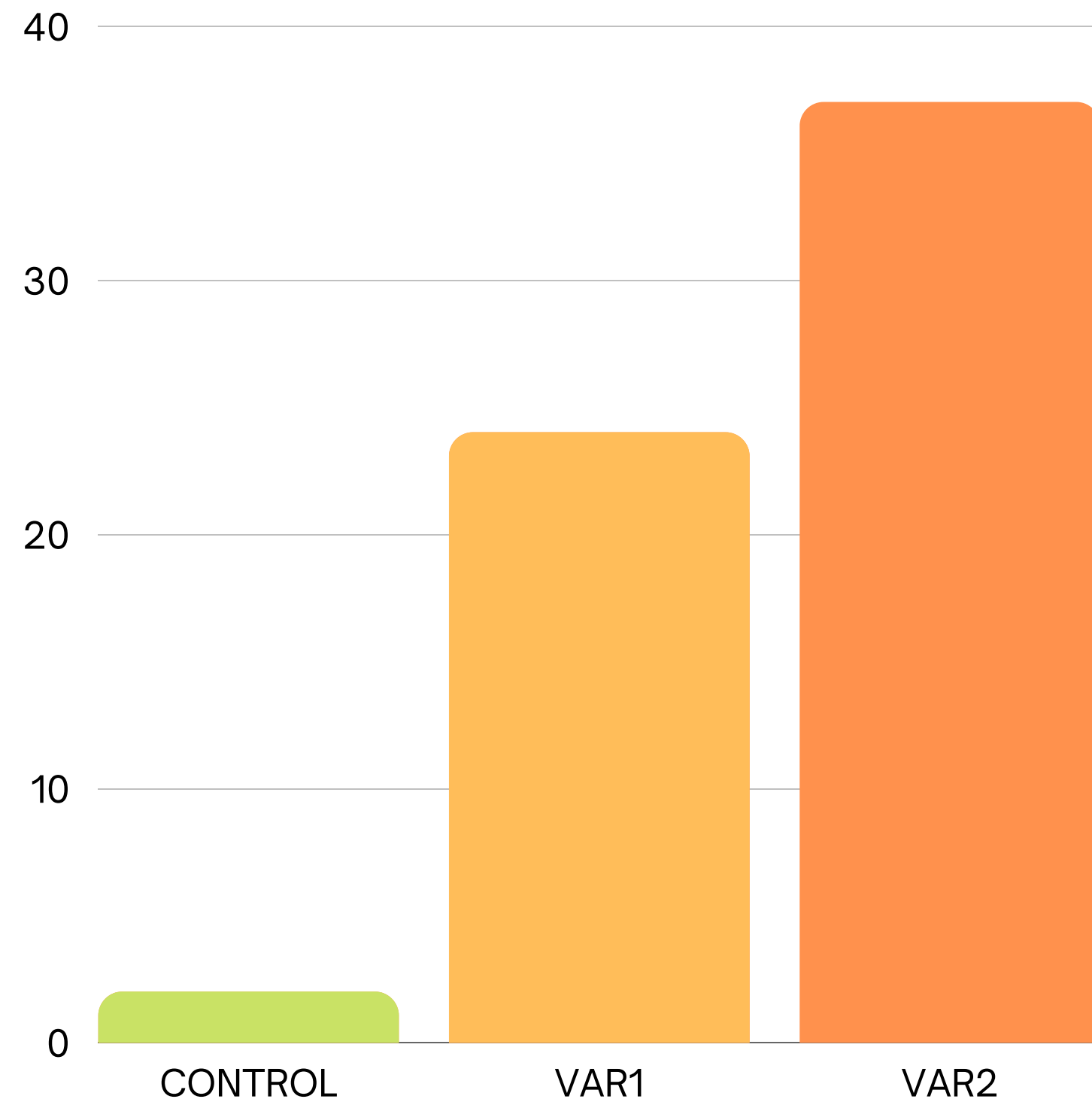
A total of 328 passengers were observed during the two weeks. The aim of the experiment is to compare the number of passengers who speak up, when the drivers speed up, drive recklessly or break the traffic rules.

The result shows a significant difference among riders' behaviors when the sticker is on the car window. When only 2% of passengers from the control group expressed their concerns, the percentage rose to 24% for the treatment group. There is no significant difference between the passengers' behaviors on Louages or Share taxi. Similarly, no difference was observed between the cities of Tunis, Ariana, Ben Arous, Hammamet, and Sousse.

Main findings

Interestingly, the second variant group was more interactive and the sticker messages were more effective. Almost 37% of passengers asked the driver to slow down or talked to him about his driving behavior.

As expected, avoiding confrontation with drivers and having certain assumptions about their attitudes and reactions were one of the biggest barriers to expressing safety concerns. Thus a friendly message coming from drivers could reduce or remove these barriers.



Experiment results - the percentage of passengers speaking up when they feel unsafe. Generally when the drivers speed up, drive recklessly or break the traffic rules

Main findings

The stickers were distributed to a plethora of shared taxis in different regions including Marsa, Ariana, Aouina, Tunis, Sousse, and Hammamet.

Few drivers claimed that they never endangered the passengers. Thereby, they disdained putting the stickers on their taxis. Nevertheless, the majority of them embraced this idea. Being mindful of how deplorable their reputation can be, they wanted to upgrade their social approval, reduce stereotypes, and prove that they are more concerned about riders' safety than extra rides.