

Master of Science in Engineering

Digital business model propositions for a data collecting device installed on urban vehicles in Switzerland

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- Subscriptions
- Custom measurements
- Sensor-Box rental
- User insights

understand urban

We believe in informed decisions on public infrastructure and policies. This requires valid data at scale. With over 10'000 data points gathered for each kilometer ridden on one of our 5'800 bikes, we map urban environments in a way that empowers governmental organisations to make the right choices. Access the platform under publimap.ch and start your ride towards understanding urban.

PubliMap

Four propositions for revenue generation via a map-based online platform named PubliMap.

Challenge

PubliBike, a Swiss-based bike-sharing system founded in 2011, seeks to diversify its current business scope by expanding into new areas. It wants to establish a data-driven business by leveraging data gathered in urban settings, targeting customers in the business to government sector. This should be achieved by equipping vehicles ridden in such environments with a measurement device (Sensor-Box).

Solution

After employing several quantitative and qualitative methods, PubliBike is presented with four different propositions for revenue generation via a map-based online platform named PubliMap. Operating on the principle of a freemium model, the primary suggestion advocates making the platform freely accessible, with specific functionalities and features accessible through a paid subscription. The supplementary revenue streams involve (1) renting the Sensor-Box, (2) conducting custom measurements upon request, or (3) harnessing user-generated data on the platform.

Data selection

Regarding the selection of data collected by the Sensor-Box, it is recommended to initially emphasise the topics of traffic and traffic safety. During the nine interviews conducted to identify the needs of potential B2G customers, resonance to traffic was disproportionately positive compared to other topics. Safety was prioritised because PubliBike had established contact with governmental organisations expressing interest in collaborating in this domain. In the long-term, the platform may incorporate additional topics. In a survey, 400 respondents assessed one of four map-concepts based on air quality, acoustic quality, light, or heat. Statistical analysis indicates favourable perceptions of air quality and acoustic quality compared to heat, with no conclusive statement regarding light at a $p = 0.05$ significance level.

Recommendation

As a next step, it is advised to engage in active collaboration with potential customers. Gathering feedback from co-developing prototypes or even an initial version of the actual platform is anticipated to offer crucial insights for transforming the proposals in this report into a tangible, valuable solution.

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