

POLIS

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#POLIS2022

Which alternatives to cars for families? Exploring their willingness to use cargo bikes

3F: PLEASE BEHAVE!

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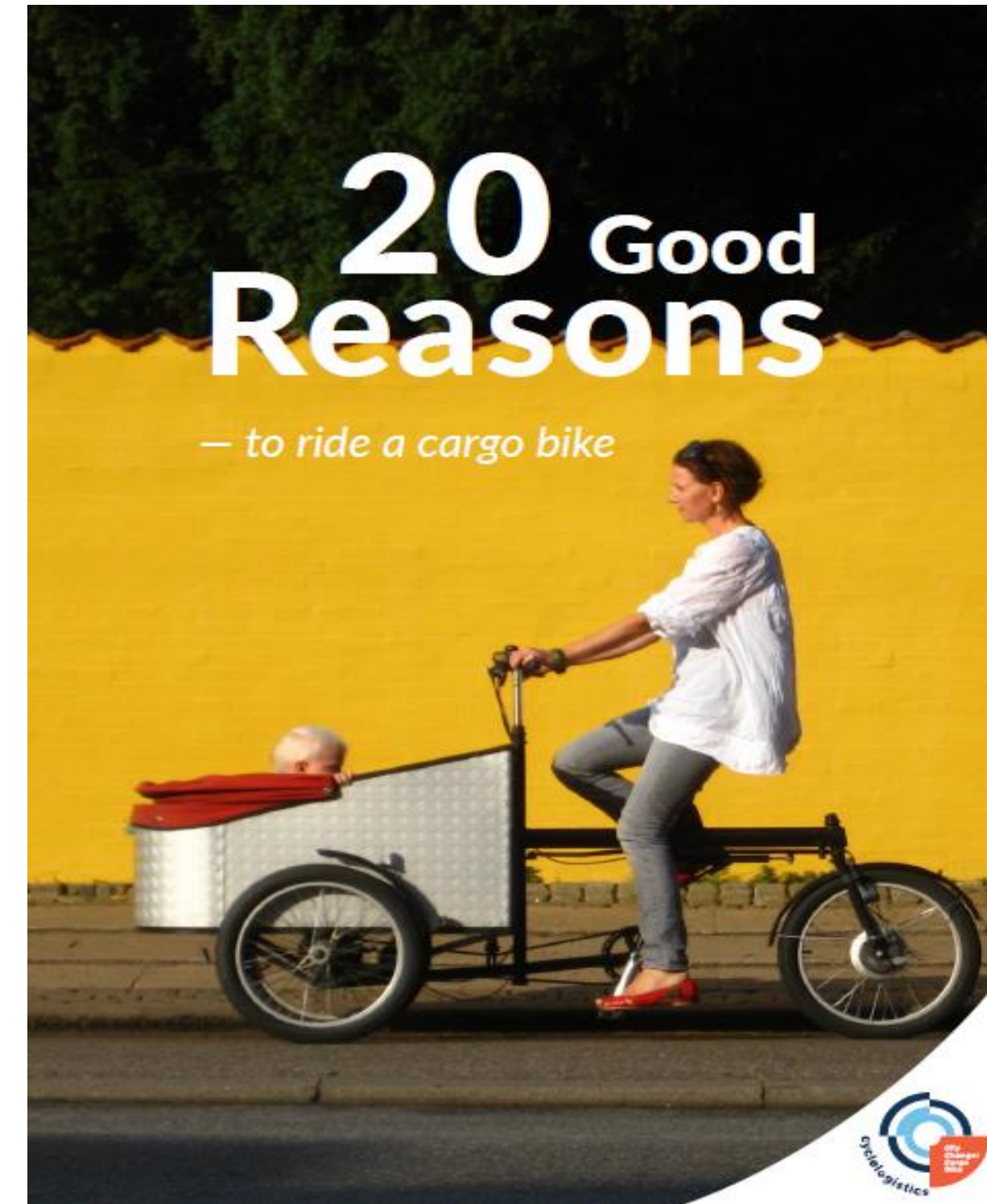
Vrije Universiteit Brussels

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- Results
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 - Barriers
 - Who are the families?
 - Family engagement
 - What needs to be done?
- Conclusion



Introduction - Potential of cargo bikes



Introduction – Research question

How willing are families to use cargo bikes for their daily activities?

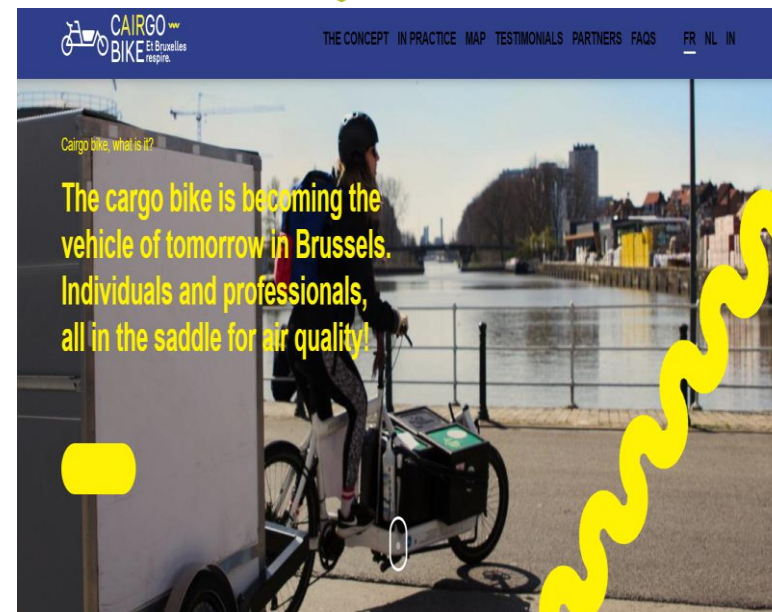
- Willingness of families describes the attitude of families towards cargo bikes.
- Willingness of families describes how cargo bikes fit into the needs of families.
- Willingness also includes how motivated families are to use cargo.



Methodology - CAIRGo Bike Project

A project coordinated by Brussels Mobility and 9 other partners

Pro Velo and families in the 19 municipalities



Improving the air quality in Brussels

Families and professionals

urbi&e



Pro Velo



BRUXELLES ÉCONOMIE ET EMPLOI
SERVICE PUBLIC RÉGIONAL DE BRUXELLES



Methodology - What do we do?



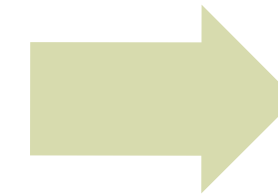
Start of the 2 weeks test session

- Approximately 8 families
- 2 sessions in a month/commune



Return of cargo bikes after the 2 weeks sessions

- A second survey is filled



After six months

- A third survey is filled
- Is there a switch to cargo bikes?



Methodology- UTAUT Constructs

- Car habit
- Performance expectancy
- Social influence
- Effort expectancy
- Perceived value
- Perceived norms
- Perceived safety
- Attitude
- Hedonic motivation
- Facilitating conditions
- Intentions



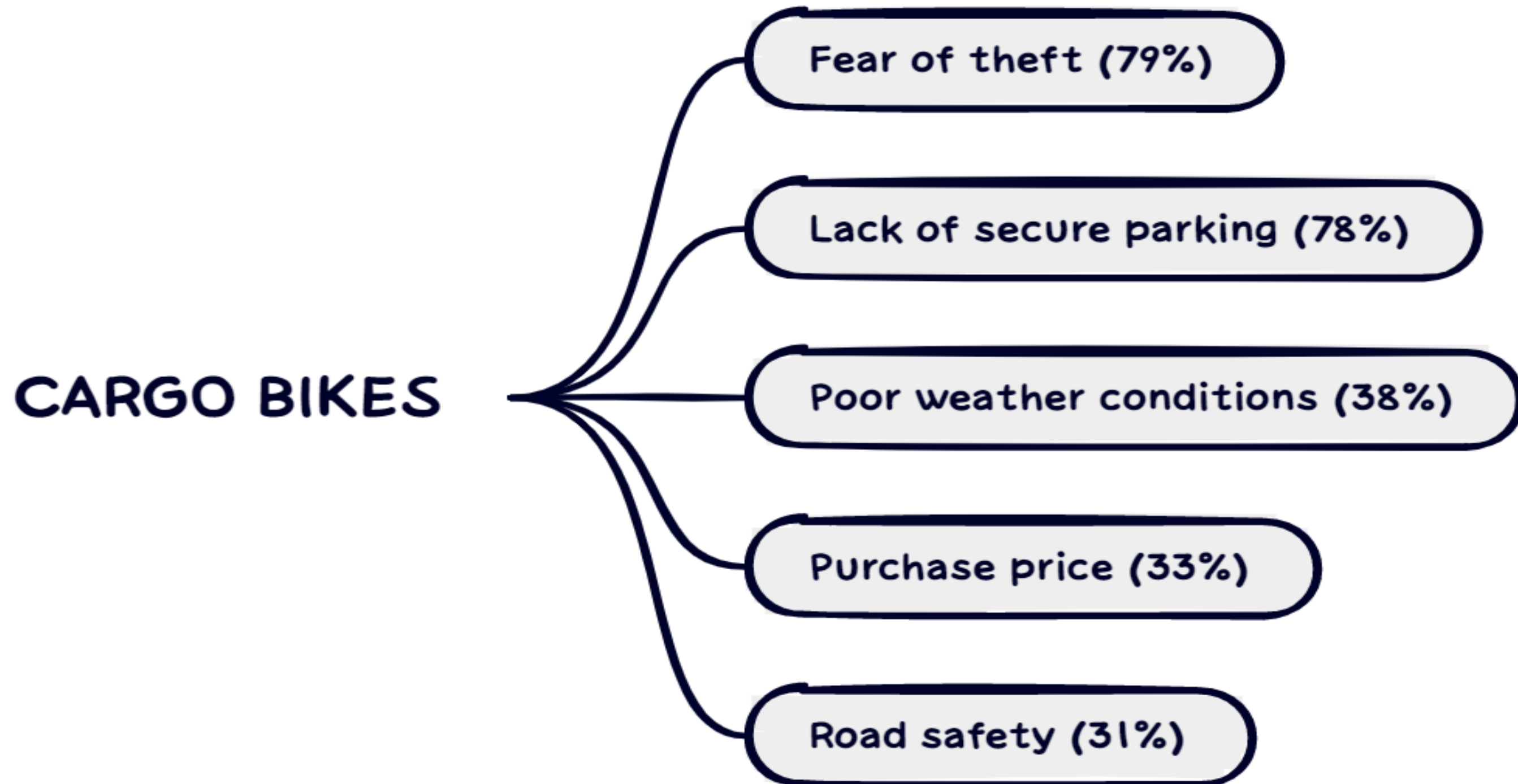
Results - Measure of success

Aim – Improving air quality in Brussels by encouraging families to cycle

- Approximately 280 families since June 2020
- 33 families have bought a cargo bike
- 26% of participants after 6 months do not own a car



Results - Barriers

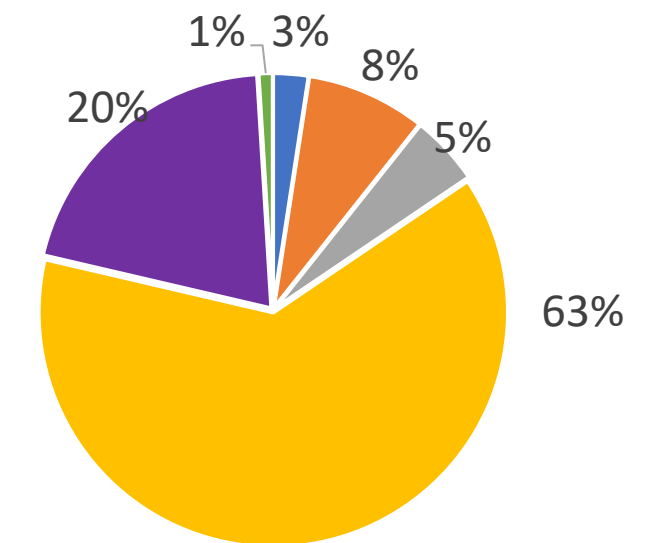


Results - Who are the families

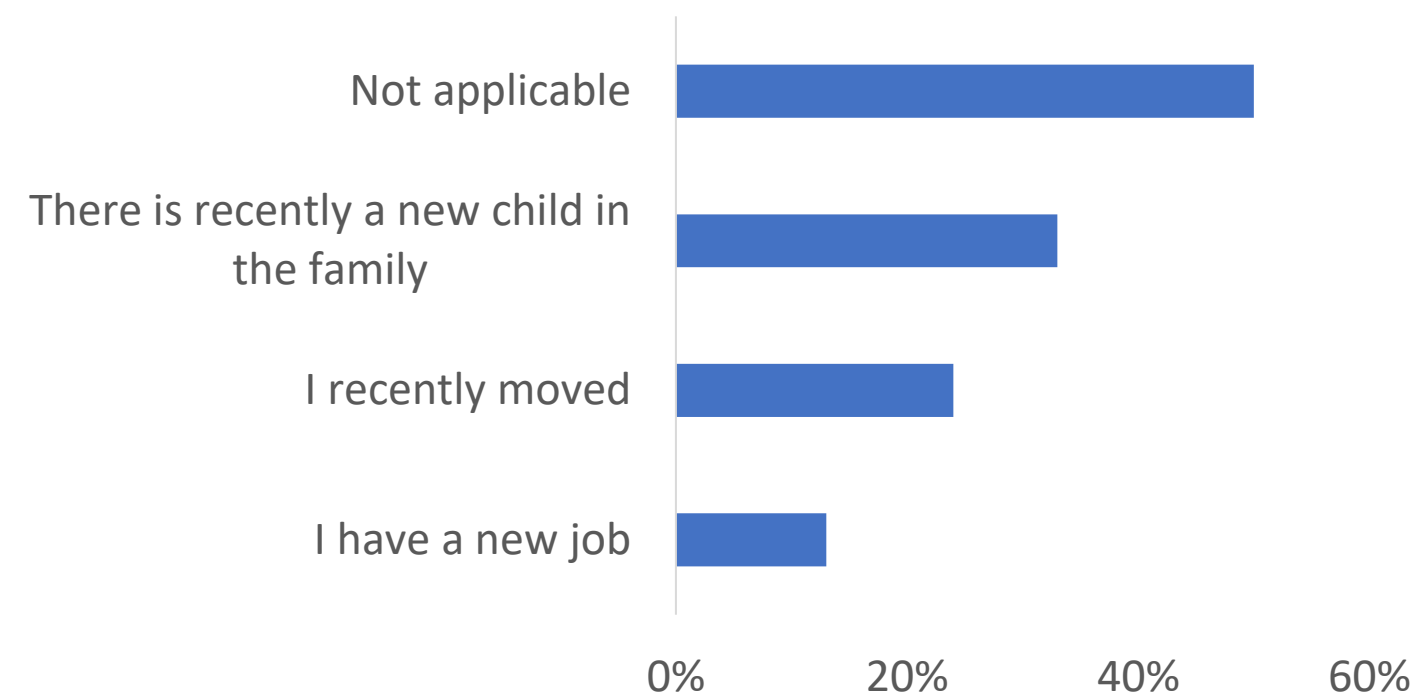
- Females value the use of cargo bikes for transporting children more than men.
- Only 4% of the participants either live alone or are co-housing.
- 71% of the participants have kids
- Cargo bikes are useful for all kinds of living situations but are most likely to be adopted by families with kids.
- They are suitable for kids of all ages as 33% of the participants have newborns.

Which description best fits your living situation?

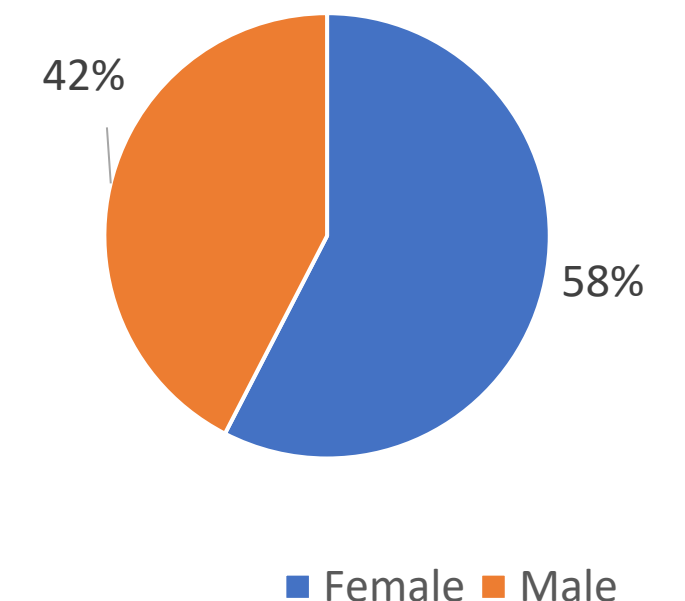
- I live alone
- I live without a partner with child(ren)
- I live with a partner (married or not) without children
- I live with a partner (married or not) with child(ren)
- I live with family
- I live with others: co-housing



Have you recently gone through any of the following changes in your life?



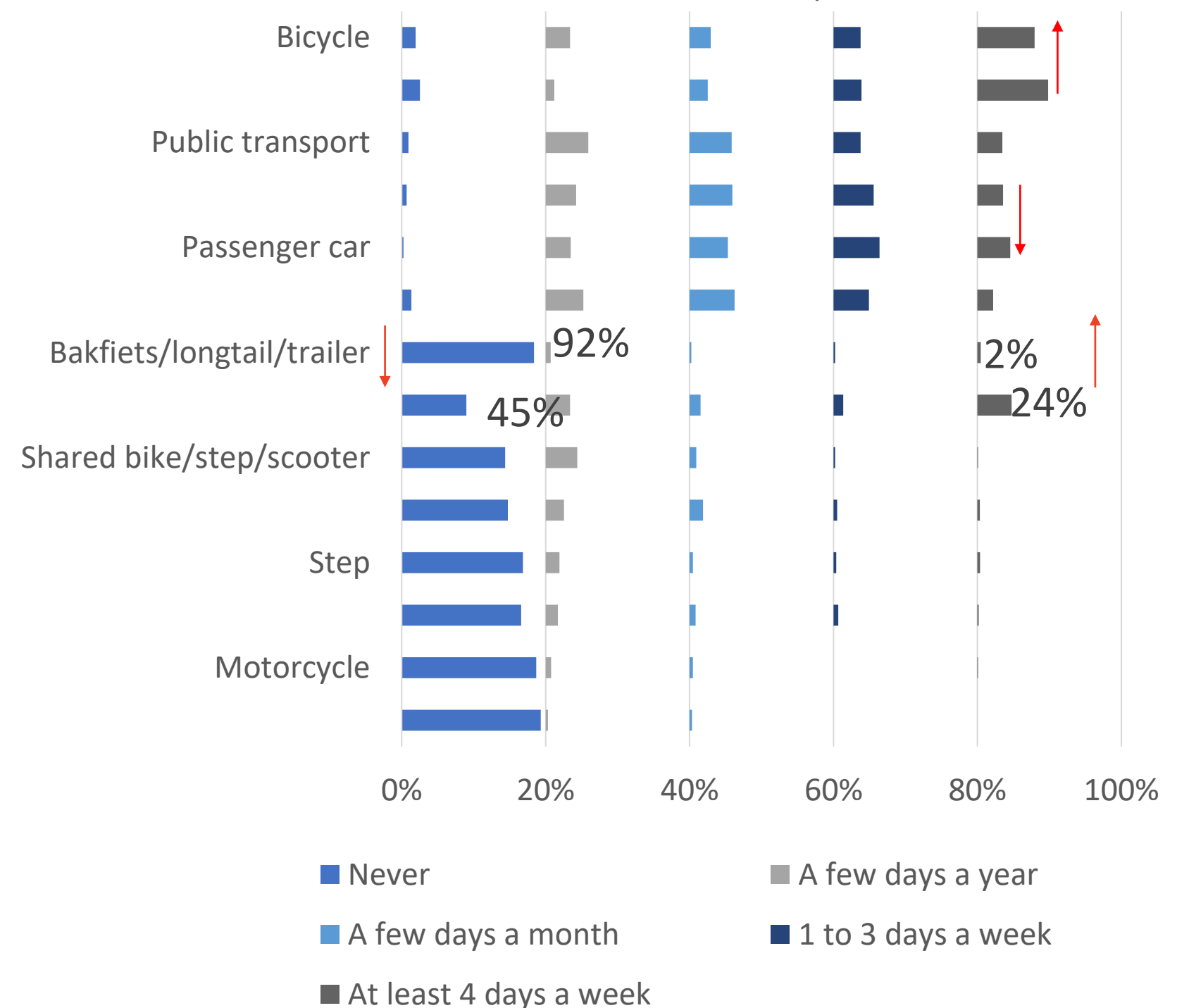
Gender



Results - Family engagement

- They are bike enthusiasts with approximately 40% using conventional bicycles at least 4 days a week before the trials.
- There is a 22% increase in the frequency of use of cargo bikes after six months

With what frequency did you use the following means of transport in the past year? (Mobility behaviour before and six months later)



Results - Family engagement

Motivations

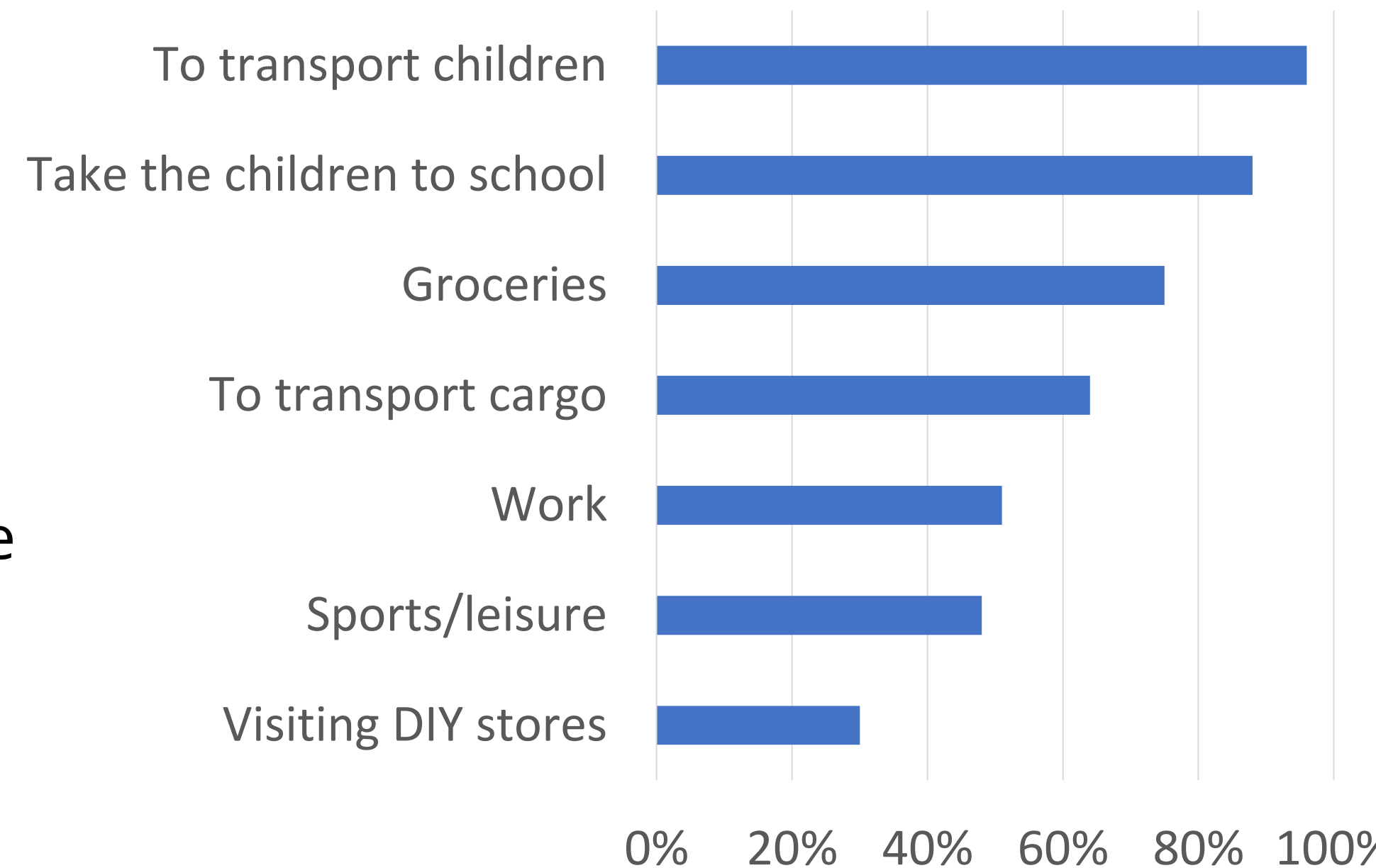
- Capacity (55%)
- Ease to use (29%)
- Safe time (26%)
- Fun of riding (17%)
- Ecology (12%)
- Safety due to its size (4%)
- Easy parking (4%)
- Health (3%)
- Cost savings (3%)



Results - Family engagement

- 96% of cargo bike use among families is for children-related transportation.
- Other uses such as for groceries and transporting cargo attract more than 50% of families to use cargo bikes.
- Families with children are therefore the most susceptible to the use of cargo bikes compared to other family structures.

For which rides would you use the cargo bike?



What needs to be done - UTAUT Constructs

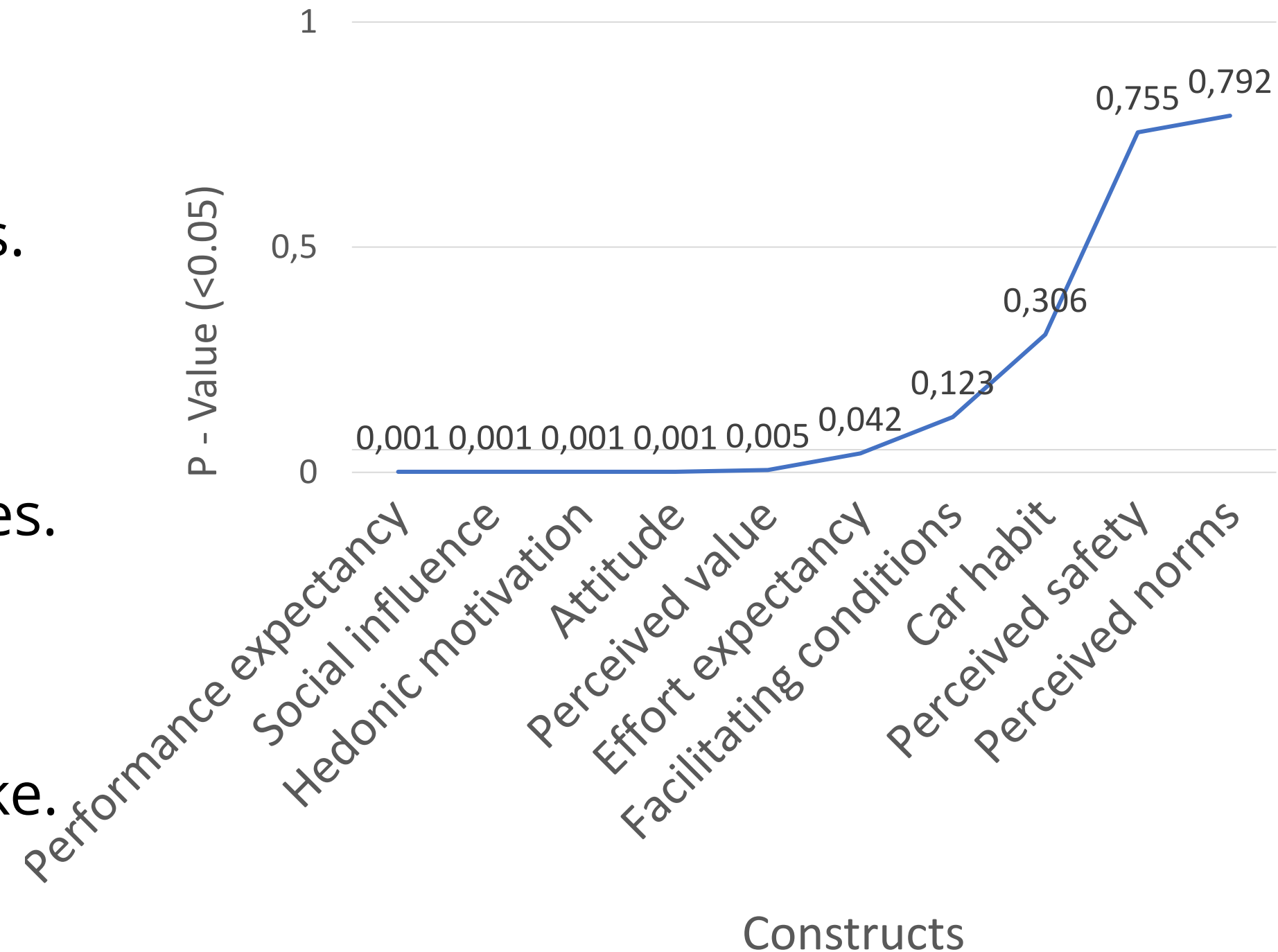
- Car habit
- Performance expectancy
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- Intentions



What needs to be done

- Showing the usefulness of cargo bikes in daily travel needs.
- Influence key decision-makers in families.
- Portraying cargo bikes the use of cargo bikes as fun.
- Influence the attitude towards cargo bikes.
- Showing that cargo bikes are cost-effective.
- Showing how easy it is to ride a cargo bike.

Determinants of the intention of use of cargo bikes by families



Conclusion

- Cargo bikes are a very useful tool for families especially families with children.
- 26% of families do not use a car after six months.
- The fear of theft is a great barrier to cargo bike adoption by families.
- Performance expectancy, social influence, hedonic motivation, attitude, perceived value, and effort expectancy are key factors influencing the intention to use a cargo bike.
- Facilitating conditions, car habits, perceived safety, and perceived norms also influence the intention to use cargo bikes to a limited extent.



Thank you for your attention!

For questions:

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