

THE TECHNOLOGY ACCEPTANCE MODEL FOR SMART CITY MOBILE APPLICATIONS; THE CASE OF KONYA CITY

Youth, social media activism and social inclusion of migrants

Musab Talha AKPINAR

Ankara Yildirim Beyazit University, TURKEY, takpinar@ybu.edu.tr

Global Media and Information Literacy Week 2018
Feature Conference Eighth MILID Conference
24-25 October 2018, Lithuania



INTRODUCTION

- Smart Cities
- Mobile Applications
- Background
- Method
- The Case and Application
- Results
- Discussion & Conclusion
- Q & A



SMART CITIES

- The 19th century was a century of **empires**, the 20th century, a century of **nation states**. The 21st century will be a century of **cities**. (Wellington Webb)

- City; designed and incorporates ICT
- European Union's focus on Smart Cities
- Riga Smart City
- Trends

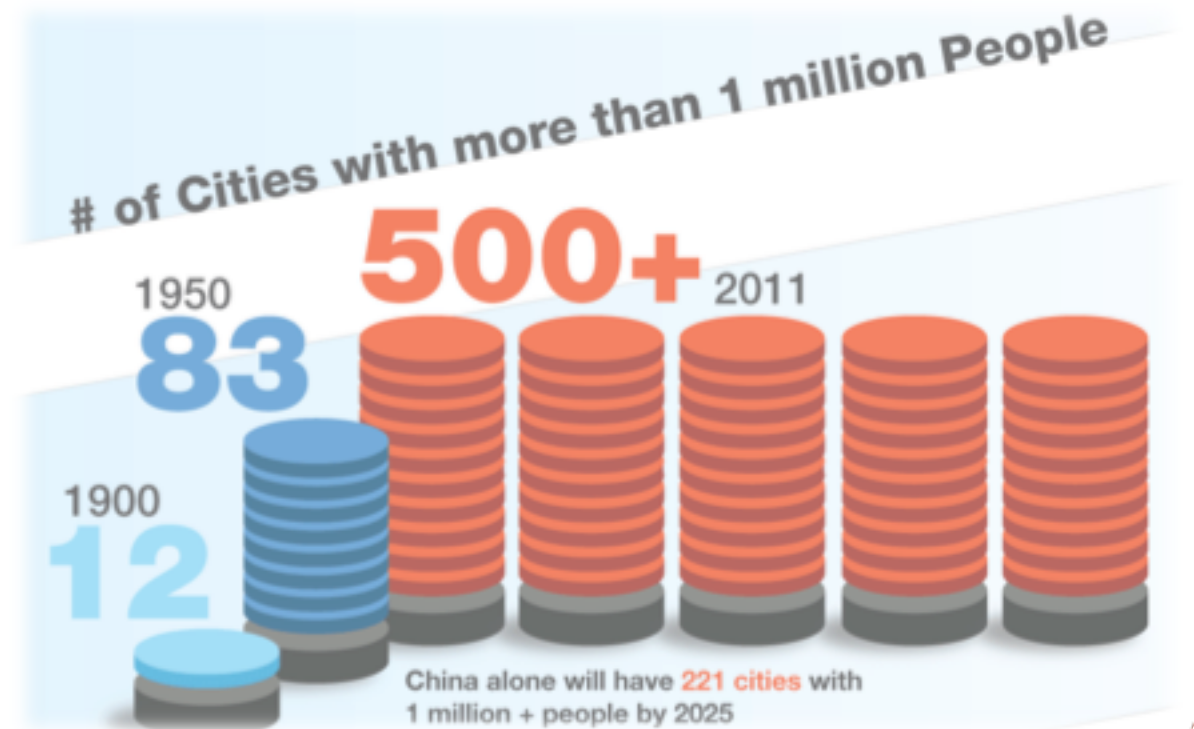


Fig. 1: Cities

MOBILE APPLICATIONS

- Mobile Phones are double-sided
 - data access
 - data creation
- Mobile Applications
- Smart City Applications (**SCA**)

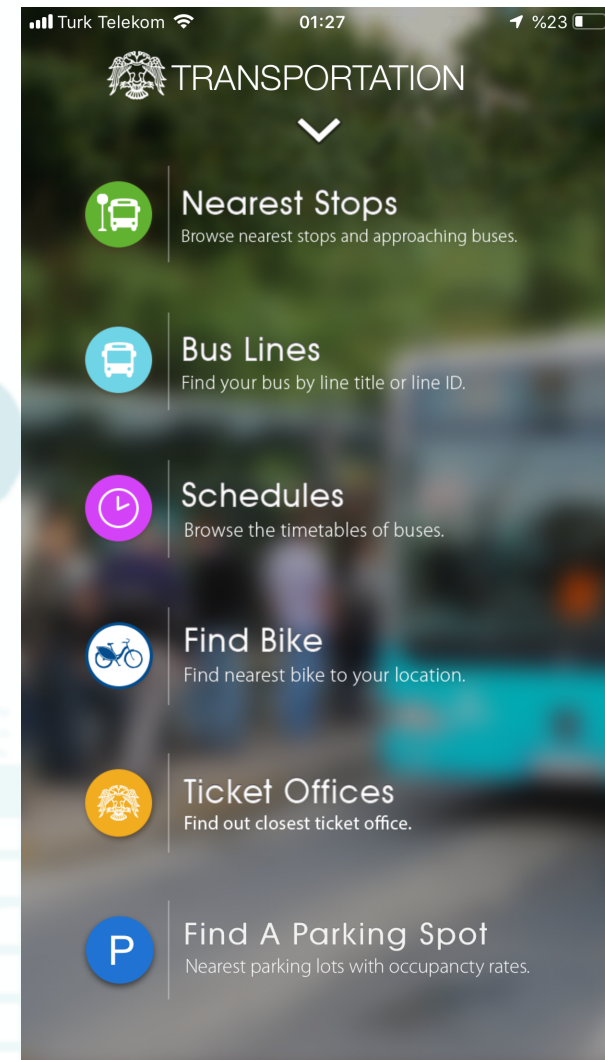


Fig. 2: Screenshot of the App

BACKGROUND

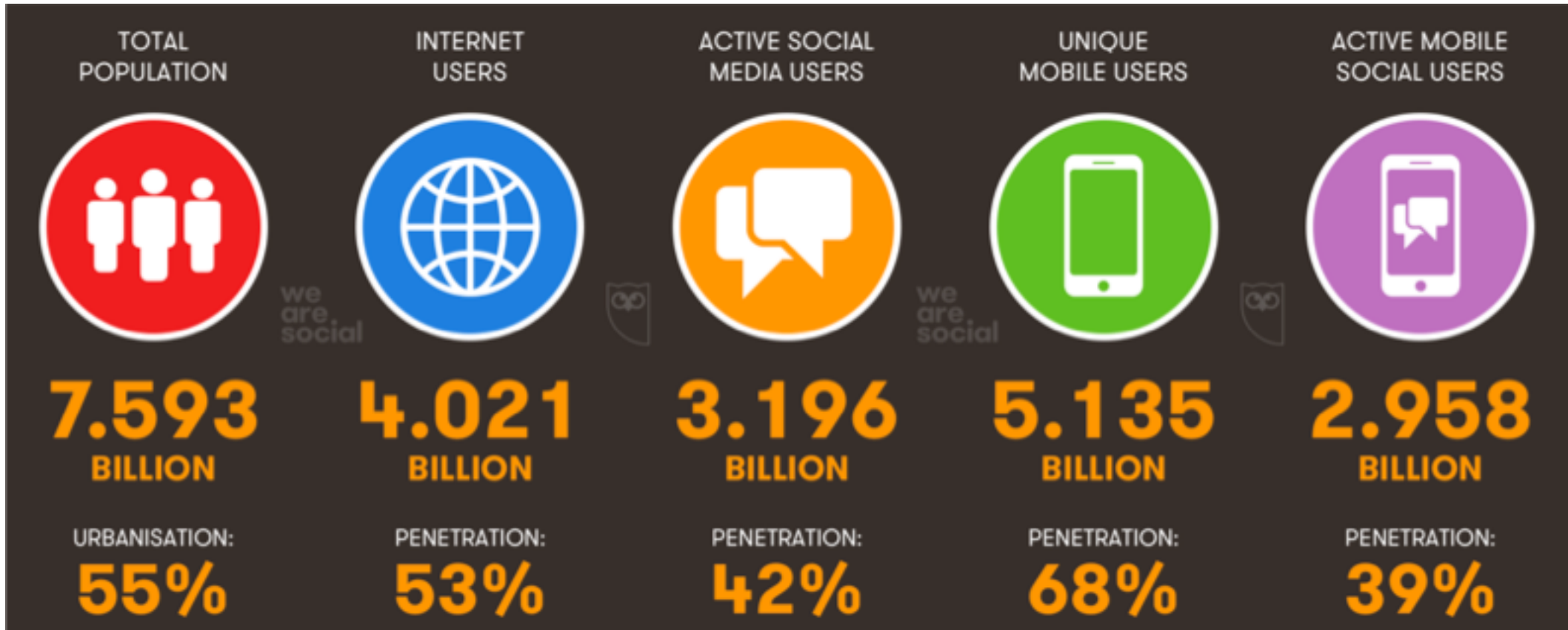


Fig. 3: Turkey with Numbers

How many times per day do you look at your phone?

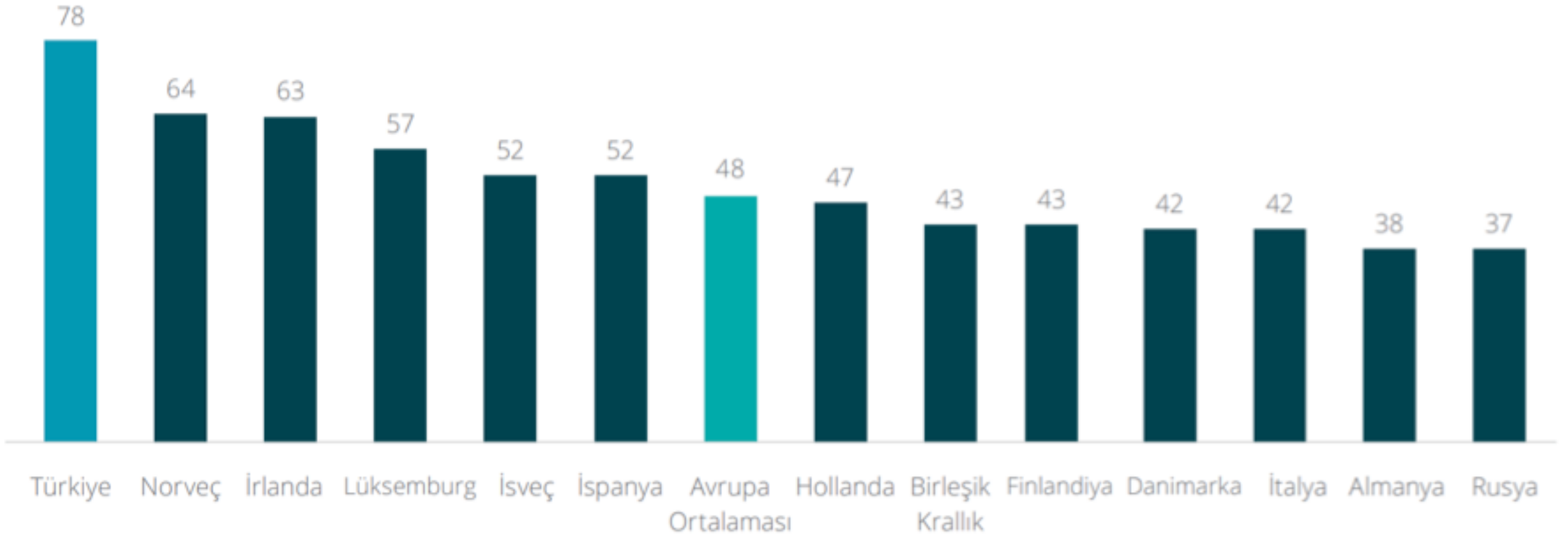
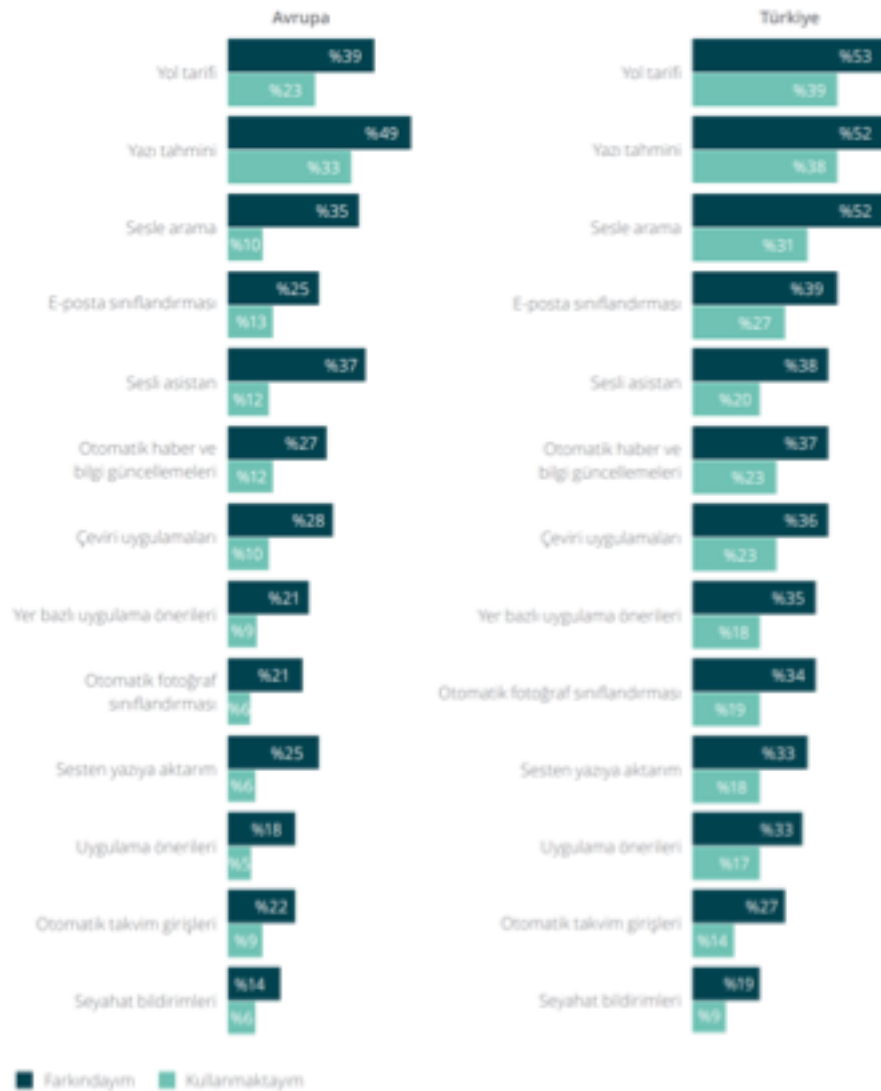


Fig. 4: Mobile Phone Statistics

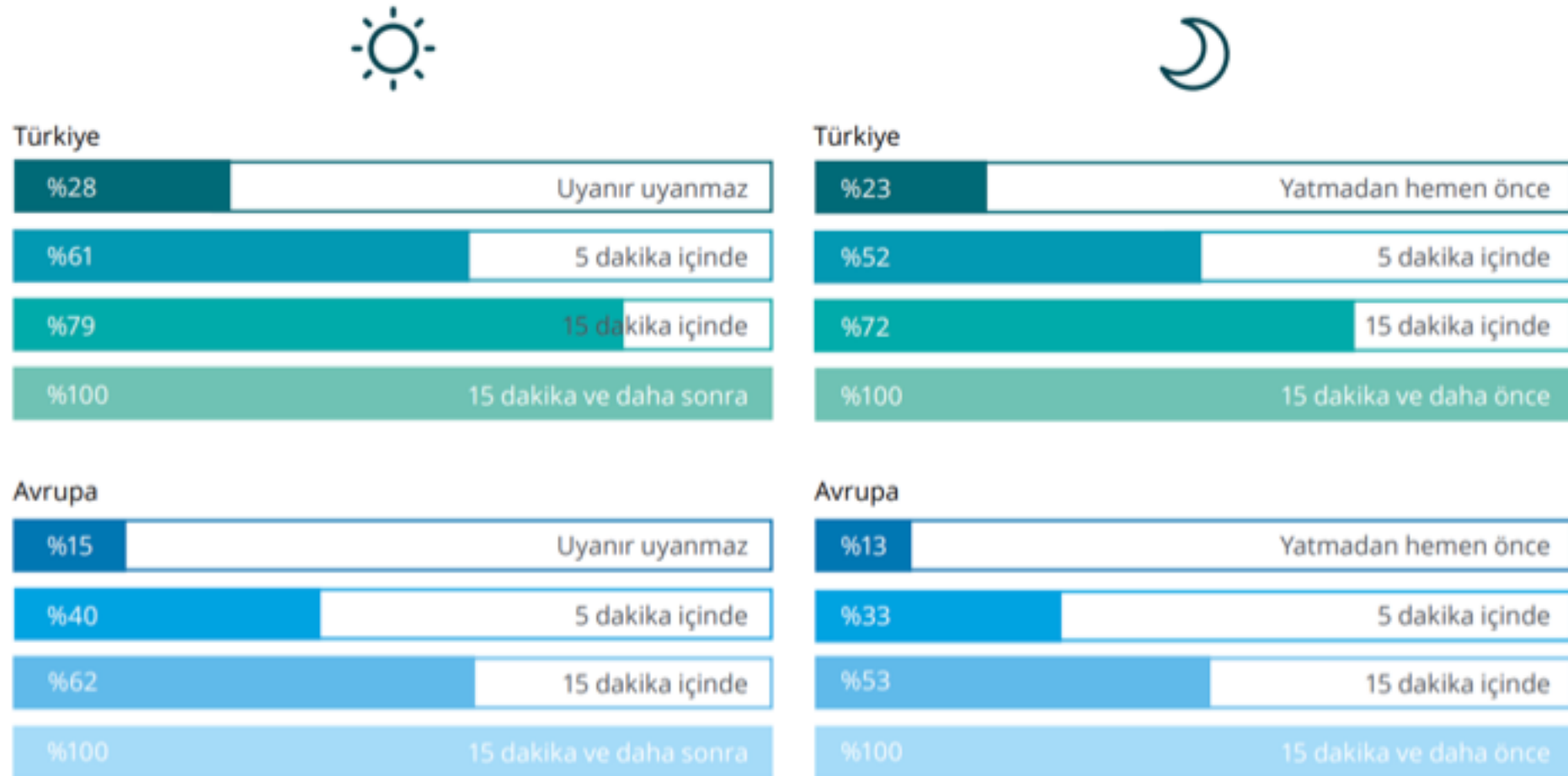


Which features of your smartphones do you know / which ones do you use?

Fig. 5: Mobile Phone Statistics

How much time is there between the moment you wake up and the first time you look at your phone?

When was the last time you looked at your phone before you went to sleep?



METHOD

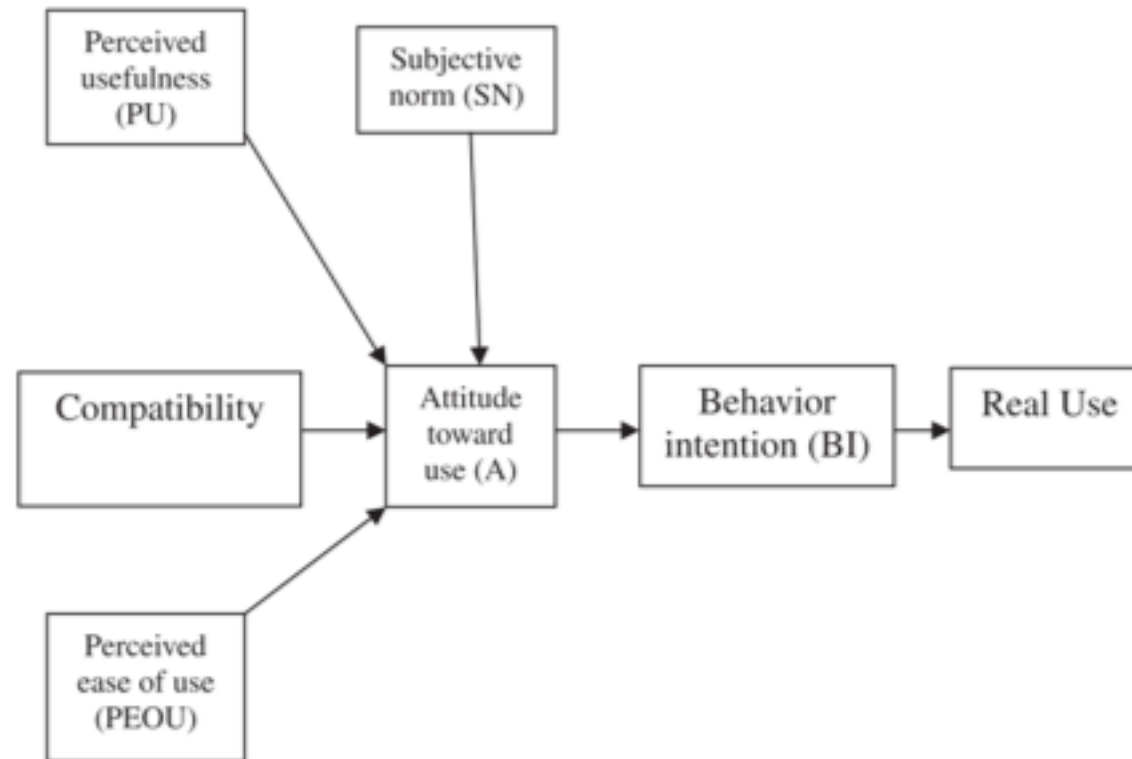


Fig. 7: Proposed Model

METHOD

- **Research Question (Main):**

What are the factors that influence on undergraduate students about their acceptance of an Smart City Applications and investigate the factors influencing the students' attitude toward using system in public universities in Konya, Turkey?

- **Related to the variable “intention of use”:**

What are the factors that influence over intention of use in a SCA?

How do these variables: perceived usefulness, perceived ease of use and subjective norm influence on the use of technology?

- As part of the model, attitude toward new technology has been identified.

What is the relationship between perceived usefulness in a SCA and the intention to use it?

What is the relationship between perceived ease of use in a SCA and the intention to use it?

What is the relationship between subjective norm in a SCA and the intention to use it?

THE CASE

- The figures of student university population in Turkey are published by the higher education institution. The quantity of university students enrolled in Turkish universities increased from **5.472.521** students in year 2013, to **7.560.371** students in year 2018.
- **Konya** is the one of the **largest** cities in Central Anatolia (Turkey) with an area of 38,873 km².
- The total population of Konya is **2,217,225**. It is also one of the biggest cities in terms of population and economic features in Turkey today.
- Students, especially higher education students are much more likely to use mobile applications.
- There are **5 universities** in **Konya**, total undergraduate and graduated student population is around **170.000** in that city.
- Konya is the one of the **leading smart cities** not only Turkey but also all **Mediterranean and middle east**.
- Because of all those rationales, **this study survey has been completed in Konya.**

THE CASE APPLICATION



SURVEY

- Prepared primary used method for data collection is the questionnaire survey.
- TAM research articles that were extended by adding factors from other theories/models indicated that the main used method for data collection is the questionnaire survey, followed by both (questionnaire surveys and experiments together).
- Through the online attitude scale, the data were collected from 85 undergraduate students until now.
- The seven-point Likert-type scale rated used in the scale.
- The survey results didn't match with the real usage and experiment!

RESULTS

- The following relationships have been confirmed:

Perceived usefulness influences on attitude toward using SCA.

Perceived usefulness influences on behavior intention of using SCA.

Subjective norm influences on attitude toward using SCA.

Attitude influences on the intention to use SCA.

RESULTS

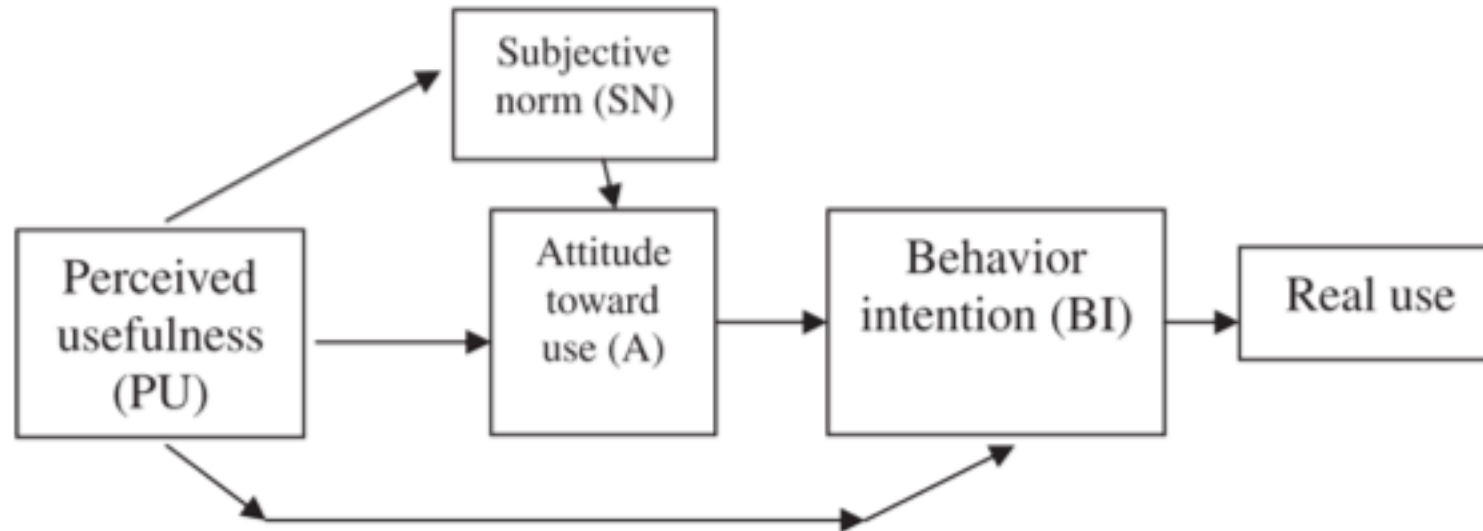


Fig. 2: Resulting model

DISCUSSION & CONCLUSION

- Develop the model and add more attributes
- Should expand the work
- While the benefits of intelligent technological developments and smart infrastructures described in many sources are important; for smart cities, it is needed smart management and more importantly it is required smart people.

**THANK YOU FOR YOUR
ATTENTION!**



Q & A