

Information and Communication Technology and Its Role in Reducing Intra-Urban Trips (Case Study: Yazd City)

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1. INTRODUCTION

City is the embodiment and spatial crystallization of fundamental roles of humans in geographical arena which can be created and developed in commensurate with resources, potentials, cultural capacity and individual tastes. For the first time in history, a large portion of world's people live in cities and their surrounding areas with UN forecasts showing that until 2030, more than 60% of the world population will be living in cities.

Yazd is a city with numerous monuments, and many valuable historical and natural treasures. As one of the metropolitans of Iran, Yazd struggles with the problem of traffic congestion. Today, with the development of cities and their physical development, the demand for urban travel has been on rise.

Therefore, a large part of the citizens' time in large and medium-sized cities is usually wasted in lines for buses, taxis and traffic jams. Large economic resources are squandered on the depreciation of private vehicles and fuel consumption. Unfortunately, travel demand in Iranian cities, especially large cities, has exceeded expectations. Iran, in contrast to countries with the same travel demand, has lower per capital income. On the other hand, it has been estimated that by reducing four short urban trips during a week, each citizen can prevent the release of 100 kg

of carbon dioxide throughout the year. Therefore, given the importance of this matter, it is hoped that the utilization of ICT can help reduce travel demand.

With regard to the aforementioned points, this paper seeks to answer the following questions:

1. What is the status of ICT indices in Yazd?
2. What is the relationship between ICT facilities and the amount of intra-urban trips?
3. What is the effect of electronic government service on reducing the need for physical presence of people in government offices?
4. Do education and literacy levels are associated with the reduced intra-urban trips?

2. THEORETICAL FRAMEWORK

The term IT words was first used by Leavitt and Whisler in 1985 to describe the role of computers in supporting decision making and data processing in organizations. There are several interpretations of IT with each giving rise to a certain image of it in different societies. Electronic government refers to the use of World Wide Web or Internet with the aim of providing online services to citizens and establishing simultaneous electronic interaction with government organizations at various levels. Electronics city is characterized by electronic access of citizens to 24/7 services and information of government offices, in a way that is permanent, reliable, secure and confidential.

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3. METHODOLOGY

This is an applied research that uses a descriptive - analytical method. The data were gathered from library resources (including note-taking and Internet) and field work (questionnaires and interviews). Statistical population included the population of Yazd. In terms of municipal divisions, Yazd is divided into four parts, District 1, 2, 3 and historical areas. The cluster analysis method was used for sampling and determining the sample size. Accordingly, 384 questionnaires were used in this study.

4. DISCUSSION & CONCLUSION

The results of the study about the use of ICT by the study population suggest that more than half of the people have access to ICT, using its services to perform their everyday chores such as banking, post services and officer related works. The results show that there is a relationship between two variables of literacy and urban trips with higher level of literacy leading to fewer urban trips. Also, it increases the expectations of citizens about the quality

of the electronic services. The following are some macro and micro-level strategies that can help develop ICT services.

- Changing the attitude of managers and authorities about the field of information and communication technology and updating their knowledge about the modern technology;
- Developing and expanding ICT-related infrastructures in Yazd (broader bandwidth, development of communication centers at different parts of city, etc.);
- Providing necessary training to experts and managers about the communication technologies (ICT);
- Balanced distribution of electronic services at different parts of city proportional to the needs of citizens;
- Creating infrastructures necessary to move towards the delivery of electronic service by civil organizations and institutions.

Keywords: ICT, Intra-urban trips, Electronic Government, Yazd city

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