The Intra-rural Digital Divide: How do Farmers use the Internet? - Abstract

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Summary

The digital divide is nothing more than a reflection of the existing, varied and diachronic social differences in the modern information world, conveying inequalities in *access to* and *use of* Information and Communication Technologies (ICTs) (Botsiou, 2020). Conceptualizations of the digital divide have been described as "who, with which characteristics, connects how to what" (Hilbert, 2011). The intra-rural digital divide is particularly interesting and is described as "the emergence of a digital divide which creates pockets of relative or even absolute disadvantage within agricultural society" (Warren, 2002:6). Nowadays, the use of the Internet gives, or in many cases, facilitates access to innovation and resolution of various issues and challenges that farmers face. As a result, reduced use or access to the Internet equals reduced access to innovation.

Our research focuses on how farmers use the Internet and on the socioeconomical characteristics that concern this use, defining the intra-rural digital divide. The research conducted in two Greek Regional Units (Heraklion and Kilkis), in a sample of 339 agricultural holders (2016). The sample was drawn in 26 settlements, out of which 18 are located in the Heraklion R.U. and 8 in the Kilkis R.U. The selection of the settlements was carried out with proportional stratified random sampling at 10%. The stratification criteria were: (i) the degree of the urbanization (urban/rural settlements) (ELSTAT, 2011), (ii) the mountainous subclass of the settlements (mountainous, semi-mountainous, lowlands) (ELSTAT, 2011) and (iii) the settlements' broadband access ADSL 24 mb/s in the first half of 2016. Subsequently, the sample of the farmers was drawn in random sampling within the indicated settlements.

Based on the previous qualitative research in 29 farmers and using content analysis (Botsiou, 2012), we developed an Internet Usage Scale that consists of 18 different Internet activities in a frequency of 5-point Likert scale. Using Exploratory Factor Analysis, we identify the underlying dimensions of the Internet Usage Scale. Next, in order to determine how changes in the farmers' characteristics are associated with changes in each factor, we applied Categorical Regression Analysis.

The results reveal four different model-environments of Internet utilization. The first model-environment, which is labeled "Professional use of the Internet: Search for agricultural information", is affected by those whose main occupation farming and those who are most experienced in ICT use. The "Professional use of the Internet:

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Online shopping and sales", is affected only by the number of years the farmers' have experience in ICTs. Activities that relate with social media, communication and e-banking which is labeled as "Other Internet usage", are affected by farmers owning ICT devices and their knowledge of a foreign language. The fourth model-environment is about Internet use on "Education and Lifelong Learning", and the results reveal that those who look for Life long-learning choices have 3 things in common: Education, they know a foreign language and they possess/use ICT devices.

Keywords: Intra-rural Digital Divide; Internet; Farmers; Greece.

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