Smart Glasses' Acceptance by Agricultural Stakeholders Using the Technology Acceptance Model (TAM)

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Keywords: TAM, Agriculture, Augmented reality, Behavioral intention

Objectives

The rapid growth and development of Augmented Reality technologies and smart glasses for augmented reality will bring to a widespread diffusion of these digital devices in many fields of work such as medicine, engineering and education. Recent studies highlighted that augmented reality could be a useful technology supporting farmers in agricultural activities. This study examines the acceptance level of agricultural stakeholders to use smart glasses for augmented reality in their activities.

Methods

In order to bridge the gap between agricultural-related workers and augmented reality devices the factors related to the acceptance of smart glasses were investigated and evaluated through the Technology Acceptance Model (TAM). The TAM was used considering its prime construct which includes perceived ease of use (PEU), perceived usefulness (PU), attitude to use (AU) and intention to use (IU). The questionnaires were submitted to agricultural stakeholders that had previous knowledge and expertise on augmented reality and smart glasses applied to the agricultural sector.

Results

The results obtained by the survey showed which factors influenced the agricultural worker behavior on the acceptance of smart glasses as a possible new tool to support on-farm activities.