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ABIRI: ADDRESSING PASSENGER MANIFEST MANAGEMENT CHALLENGES FOR PUBLIC SERVICE VEHICLES IN KENYA

Passenger manifests are critical in the transport sector as they provide critical information to the transport providers and the government on the volumes and value of business transacted as well as to insurance companies in the event of accidents necessitating compensation of victims. However, the public service transport sector in Kenya and particularly the medium distance providers do not have systems in place to accurately and consistently capture this information. The passenger manifest automation process often times requires the development of software systems, the procurement of additional hardware, installation of networks, training of personnel and attracts significant costs in the ongoing maintenance of these systems. The process and costs are often times out of the reach of a majority of medium distance public service transport providers in Kenya. This study undertook to examine the options available for the effective and affordable automation of the passenger manifests for these public service vehicles. The approach identified and adopted the use of the cloud to host the system in order to allow for universal and convenient access, the use of a mobile application whose use is simple and the use of a pay per use approach in order to spread the costs of development and maintenance of the system. A system prototype using the rapid prototyping approach was developed and evaluated for its potential use in the sector. The approach was found to be convenient given that the users would pay for the development or maintenance of the system progressively and not upfront. Additionally, the use of existing devices in the form of smartphones that most users possess as well as the mobile phone networks which provide coverage across the country was found to significantly reduce barriers to adoption of the system.

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