A methodological proposal for develop a decision support system, as a tool to facilitate the coordination among stakeholders in the city of Bogota - Colombia

Laura Vanessa Palacios a, Jairo Enrique Parra b, Wilson Adarme Jaimes c

a Facultad de Ingeniería, Universidad Nacional de Colombia, Colombia. lpalacios@unal.edu.co
b Facultad de Ingeniería, Universidad Nacional de Colombia, Colombia. jeparrah@unal.edu.co
c Facultad de Ingeniería, Universidad Nacional de Colombia, Colombia. wadarme@unal.edu.co

Extended abstract

Objectives and motivation

The aim of this paper is present the methodology that allows to characterize and design a decision support system. Given that these systems have been developed to assist and support a strategic decision manager. This paper presents the structuring of the proposal taking as its starting point the investigation of “Diagnosis and Formulation of Alternative Management for Logistics Operations at Loading and Unloading of Goods in 10 areas of Bogotá”, developed by the National University of Colombia. According to data from research a system that allows the articulation of different stakeholders in the processes of distribution in the city is proposed as address the shortcomings found in the investigation that these stakeholders have to face when operations are performed loading and unloading of goods.

That is why the assessment given the very different dynamics found in the 10 areas assessed in the study considers a decision support system as a robust tool to adapt to the different dynamics of each area. Complementing the methodological proposal for the development of the system of decision support certain information, perspectives and preliminary conclusions of the implementation and development of the proposal, as well as a group of research perspectives in this field are presented according to the study was conducted to choose the option of decision support system.

General description

In the first part present the description of the research that served as a basis for the conception and formulation of the methodological proposal in this description will be make emphasis on the background of the study and the type of information founded, which served to highlight the needs dormant for stakeholders in the operations of loading and unloading.

In a second instance will be entered to define concepts and approaches that allow to structure the basis for developing a decision support system idea. Exposing the review of literature carried out and supporting this, the benefits and uses of these systems in different cities around the world will be exposed, looking to have an approximation to the dynamics proposed by the areas of the city of Bogotá, or sustaining the use of this tool transversely looking for coordinating follow the stakeholders involved in logistical operations.

Entering the central axis of the paper are the proposed methodology for the development propose, based on the current situation and the desired situation which is expected to reach through the development of decision support system. In this case, the advantages of developing the system with the regulator and the challenges for acceptance by stakeholders involved in the daily logistical operations within the city.

As finding is presented as research results after some estimates data system development, this as desired situation, perspectives and development and implementation of the system challenges, and description of some latent gaps in research for the application of tools such as systems, decision support, looking to be media coordinators stakeholders and control bodies amid the logistical operations that take place in a city. And finally some recommendations to consider in accordance with the findings in the study and review of the literature.

Results and conclusions

- Coordination of stakeholders to mitigate the effects of operations, had a positive impact on the decrease of the effects associated with the operations of loading and unloading of goods
- The development of the tool must be coordinated with the technological platform that has the body of government control as she is concerned the issue
- The acceptance of a technological system is slow due to resistance from stakeholders to implement information technologies in their operations

References

Keywords: Urban logistics; decision support system; Coordination;