

Inverse problems for decision principle in media planning

Anna Zykina and Uljna Kulbida *

Omsk State Technical University, Omsk, Russia
avzykina@mail.ru, uni_form@mail.ru

This article deals with the inverse problems for the optimization models in media planning [1]. The choice of simulation parameters and fundamental numeric indicators based on the recommendations in [2].

Mathematical models include on the one hand the internal parameters on the other hand external parameters. These parameters reflect the environment impact on the decision-making process. On this point the effectiveness and sufficiency of mathematical modeling the inverse problem allow to consider the desired properties of the desired solutions in the model. As a result is, the mathematical model differs from classical optimization problems. The efficiency of these problems requires new techniques for finding solutions. In addition, it is necessary basically new mathematical constructs for the solutions formulation of these problems.

Using the definition of inverse problems, we have a choice, which of two tasks is the direct and which is reversed. Usually simpler and better studied task takes as a direct one.

Advertising specialist has possibilities to advertising positioning and a creative brand strategy developing by using the developed models. If it is necessary, you can plan the advertising budget allocation scheme. In addition, you can calculate the optimal cost of the advertising promotion. In that way there is no need to use an external advertising agencies.

References

1. Kulbida U.N., Kaneva O.N., Zykina A.V. Media planning optimization treatment. 2014 Dynamics of Systems, Mechanisms and Machines, Dynamics 2014 - Proceedings. 7005673 (2015).
2. Rossiter, J., Percy L. Advertising Communications and Promotion Management. - Hill Companies, 1997.

* This work was supported by grant 15-41-04436 from the Russian Foundation for Basic Research.