

DECISIONS OF INTELLIGENT SUPPORT FOR FOOD SUPPLIER'S SELECTION IN HEALTH CARE INSTITUTIONS

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Abstract

Numerous publications have shown that food produced inside of the health care institution is better quality than transported from other places. So, managers face some rather serious problems: what is possibilities to get appropriate food raw materials, how to choose suppliers, which supplier is the best. These issues are relevant to every food production establishment, but are especially important for producing dietetic food. Particular attention must be paid to the quality of food, because in these institutions, food is needed not only to meet physiological needs, but also to treat certain diseases. The most of suppliers are commercial business companies, so health care institutions meet some difficulties in communication with commercial structures: possible uncertainty in suppliers' commercial conditions, risks of choice, so finding the best supply chains are playing an increasing role especially for state health care institutions, which do not have experience in commercial activity. This in turn changes the relationship of business and suppliers. Changes in the relationship substantially increase the requirements for supplier selection. Increased requirements have led to much more intensive research into this problem. The aim of the research is to develop and to test practically a methodological tool to increase the efficiency of supplier selection in the healthcare institutions that produce food by themselves by applying multi-criteria methods.

Summarizing scientific and professional literature of supplier selection, we see it meaningful to analyze supplier selection as a process. This is the precondition for the most appropriate disclosure of both the content of the selection and the chain of this multi-step process. So, we found that suppliers' selection is multicriteria task, therefore the use the simple additive weighting (SAW) multi-criteria evaluation method was the most suitable in this case. In order to create a practical tool for the evaluation of food suppliers, it must be possible to adapt the evaluation to specific situations, which may be determined by various combinations of characteristics of supply objects, suppliers, buyers and priorities of decision-makers. For that purpose, the main criteria for evaluating food suppliers are identified and even the significance of them was calculated. So, the use of multicriteria SAW method helps to identify the most suitable food supplier for healthcare institutions.

The most important task solved was the selection of appropriate criteria for assessment. The SAW method for multicriteria evaluation recognized as the best. After systematizing the basic information about the process of food supplier selection and developing an evaluation tool, it was tested in the supplier selection of health care company in Biržtonas town (Lithuania). After performing an expert evaluation according to the criteria's and after multi-criteria evaluation calculations, the most suitable supplier was selected, which best meets the requirements for food suppliers according to the developed tool.

The scientific potential of evaluating the selection of food suppliers is used only occasionally, as there is no clear tool for practitioners to more easily identify the most appropriate food supplier in the healthcare sector. The multi-criteria method presented in the article and the identified evaluation criteria create preconditions for increasing the efficiency of food supplier selection in the health care sector.

Key words: Selection of suppliers, Selection process, Multi-criteria evaluation, SAW.