OPPORTUNITIES OF ICT SUPPORT TO MANAGEMENT SYSTEMS IN FOOD COMPANIES IN THE BALKAN COUNTRIES

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Abstract

Food companies are increasingly realizing the importance of applying information and communication technologies (ICT) in their business. They use ICT to share information, apply innovation and technological development. However, they make little use of ICT in management systems (MS). The aim of this paper is to determine the possibility for food companies to apply ICT in their quality management systems (QMS), food safety management systems (FSMS), environmental management systems (EMS), occupational health and safety management systems (OHSMS) and other management systems.

The survey (by e-questionnaire) was conducted in four Balkan countries (Bosnia and Herzegovina, Serbia, Macedonia, and Montenegro) and covered 92 companies in the food sector. A special questionnaire was designed for this research. The obtained results were statistically processed using IBM SPSS Statistics 26. D

During the research, the authors identified areas where companies are already implementing ICT and their plans related to the integration of ICT into management systems (MS) in the coming period. The companies listed 12 areas in which they most often apply some type of ICT, and which are related to MS. They have developed and use several e-databases (e-database of employees - 86 companies, e-database of suppliers - 81, e-database of customers - 80, etc.). One third of the companies use the e-database of environmental protection aspects, the e-database of incidents and injuries at work, and the e-database of reports on laboratory analyzes. Some companies use specific software to manage individual production operations (32) and software to identify and trace products (36). The companies, which do not currently use e-databases, claim that they will establish them in the coming years (for a maximum of 5 years) and that they will use ICT in product safety risk assessment systems and environmental assessment systems. The surveyed companies are well aware of the benefits of applying ICT, and they plan to develop and implement an integrated information system in their business, which will include management system support.

The survey showed that companies in the food sector in the 4 Balkan countries use different forms of ICT, to have clear plans for the development and implementation of ICT in their business, including management systems. On the other hand, most companies that currently use ICT on a small scale, plan to develop e-databases and specific software in the next 5 years, which will make their business easier, including QMS, FSMS, EMS and OHSMS. It is encouraging that most companies are working on the development of an integrated information system.

Key words: *Management systems, ICT, Implementation plan, Food sector.*