



DEVELOPMENT OF A LEAN MANAGEMENT-BASED OPERATIONAL TOOL FOR THE CLASSIFICATION OF REGISTERED FOOD BUSINESS IN THE PEDEMONTANA VICENTINA AREA

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Purpose. The animal-derived food production sector accounts for more than 40% of consumers' grocery expenditure. The Competent Authority (CA) primarily carries out inspection, surveillance, and control activities concerning foods of animal origin. These activities are planned according to a risk-based approach aimed at promoting the continuous improvement of food safety standards and protecting public health through both educational initiatives targeting food business operators (FBOs) and health promotion activities directed at consumers. This study shows the design and development of an operational tool, based on Lean Management principles, performed in order to support CA in the risk-based classification of registered food businesses operating within the Pedemontana Vicentina and to plan future official controls according to the risk ranking achieved by each business (risk rating).

Methods and Results. The study describes the methodological framework adopted for the development of the operational tool. The implementation process consisted of the following sequential phases, planned using a Gantt chart and verified through the Deming cycle: i) Assessment: analysis of postponements in the scheduling of official control activities involving registered retail food businesses during recent years, together with the evaluation of inspection outcomes conducted by other CAs; ii) Measurement: collection of information required to establish both baseline indicators (ex-

ante business registry database and compliance rates resulting from official controls conducted during the previous three years) and final performance outcomes; iii) Contextualization: updating the registry of registered food businesses, including operators working in public marketplaces and mobile food businesses whose legal headquarters are located outside the jurisdiction of the Local Health Authority. This activity was carried out in collaboration with municipal administrations hosting weekly markets, with the aim of grouping food businesses into territorial clusters to optimize field inspection planning. Preliminary waste assessment (Muda of transportation, process and waiting) was performed through Gemba observations and the development of a spaghetti chart to determine takt time and subsequently optimize inspection scheduling; iv) Optimization: application of brainstorming and nudging techniques through preliminary self-assessment questionnaires, developed by CA on food safety culture, and completed by FBOs; v) Feedback Analysis and Risk Rating: analysis of information obtained from FBO self-assessments and assignment of risk ratings.

Conclusions. An innovative tool integrating Lean Management principles into risk-based planning of official controls was developed by CA representing an attempt to support classification of registered food businesses and risk-based prioritization system for inspections. Its effectiveness will be assessed during routine application.