



A COMBINED QFD-GAHP TECHNIQUE TO TRANSLATE CUSTOMER REQUIREMENTS INTO THE PRODUCTION PROCESS OF MEAT PRODUCTS

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ABSTRACT

Quality Function Deployment (QFD), as one of the quality engineering methods, tries to attract customer's satisfaction and produce a product suitable for the customers' needs. The aim of the present study is to describe the process of producing a meat product (hamburger) based on the customers' need defined on a higher quality level via combining quality function deployment (QFD) and group analytic hierarchy process (GAHP) techniques. At first, the target customers and what they need from a hamburger product were recognized. Then, using GAHP Method the relative weight of each requirement was calculated. The 4-matrix QFD model was used and the house of quality matrix, product design matrix, process design matrix, and process control planning matrix were completed based on technical principles and hygienic standards of meat product producing units. Among recognized customer requirements of hamburger quality, "not being harmful to body" is the most important requirement and "packed in different weights" is the least important one. Research findings indicates that improving the level of technical and engineering characteristics of "frozen meat" would have a significant effect on enhancing the quality of hamburger and consequently on the satisfaction of the customer. Further, it is necessary that in process design matrix, "microbial test of meat" and "microbial test of semi-processed product" be under a precise control.

To our knowledge, the current study investigates the first application of 4-matrix QFD method and its combination with GAHP to identify and develop the technical and qualitative characteristics of the meat products in accordance with the customers' requirements. There is no study in the literature.