

## ABSTRAK

Ikan salmon merupakan komoditas bernilai tinggi yang sangat rentan mengalami penurunan mutu akibat oksidasi lipid dan pertumbuhan mikroorganisme selama proses penyimpanan. Permasalahan ini umumnya disebabkan oleh desain kemasan yang belum sepenuhnya sesuai dengan karakteristik produk dan kebutuhan konsumen.

Penelitian ini bertujuan untuk merancang kemasan penyimpanan ikan salmon yang mampu mempertahankan mutu dan memperpanjang masa simpan dengan mengintegrasikan metode Quality Function Deployment (QFD) dan Morphological Chart. Landasan teori dan kajian pustaka mencakup konsep kemasan pangan, QFD, House of Quality, serta Morphological Chart sebagai alat pengembangan alternatif desain.

Metode penelitian yang digunakan adalah deskriptif dengan pendekatan kualitatif dan kuantitatif. Penggalan data dilakukan melalui studi literatur dan pemetaan voice of customer, yang selanjutnya dianalisis menggunakan QFD untuk menentukan prioritas teknis kemasan.

Hasil penelitian menunjukkan bahwa metode pengemasan (vacuum/MAP), permeabilitas oksigen, dan suhu penyimpanan merupakan prioritas teknis utama. Selanjutnya, Morphological Chart menghasilkan kombinasi desain optimal berupa kemasan MAP dengan kontrol oksigen sangat rendah, material multilayer food grade, kekuatan seal tinggi, dan suhu penyimpanan  $-1$  hingga  $0$  °C. Kesimpulan penelitian ini menunjukkan bahwa integrasi QFD dan Morphological Chart efektif dalam menghasilkan desain kemasan salmon yang sesuai kebutuhan konsumen dan mampu mempertahankan mutu produk.

Kata kunci: kemasan salmon, Quality Function Deployment, Morphological Chart, masa simpan, mutu produk

## ABSTRACT

Salmon is a high-value food commodity that is highly susceptible to quality deterioration due to lipid oxidation and microbial growth during storage. This issue is often caused by packaging designs that do not fully accommodate product characteristics and consumer requirements.

This study aims to develop a salmon packaging design capable of maintaining product quality and extending shelf life by integrating the Quality Function Deployment (QFD) method and the Morphological Chart approach. The theoretical framework and literature review cover food packaging concepts, QFD, the House of Quality, and the Morphological Chart as a tool for generating design alternatives.

This research employs a descriptive method with qualitative and quantitative approaches. Data were collected through literature studies and the identification of the voice of customer, which were subsequently analyzed using QFD to determine priority technical requirements.

The results indicate that packaging methods (vacuum/MAP), oxygen permeability, and storage temperature are the most critical technical priorities. Furthermore, the Morphological Chart produced an optimal design combination consisting of MAP packaging with very low oxygen control, multilayer food-grade materials, high sealing strength, and storage temperatures ranging from  $-1$  to  $0$  °C. In conclusion, the integration of QFD and the Morphological Chart is effective in generating a salmon packaging design that meets consumer needs and preserves product quality.

Keywords: salmon packaging, Quality Function Deployment, Morphological Chart, shelf life, product quality