Market structure and segments for seafood: A stated preference approach

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Abstract

Demand structure and market segmentation for seafood have been investigated intensively. However, most the researches so far applied traditional demand analysis and descriptive segmentation approach by separated models. The traditional demand analysis assuming consumer homogeneity, behavior consistence, and using aggregate data may result biased estimation, while the segmentation based on descriptive approach has results less accessible and actionable. We the first used discrete choice model and stated preference data to simultaneously estimate the demand structure and segments for twelve seafood species in French context. The four-latent segments model have the best fit to the data and demand elasticities estimated are comparable to those in the traditional studies but provide more efficient and actionable guidance for practitioners. Consistence with previous seafood demand study we found that elasticities of high valued fish such as salmon, tuna, cod, sole, and shrimp are price elastic while low valued species like mussels, oyster, and pangasius are inelastic. Moreover, latent class model revealed that 39.5% of the sample are not price sensitive, 29.6% moderate sensitive, 20.3% sensitive, and 10.6% are very sensitive. Similarly, we investigated deeper for particular species and uncovered demand structure of each species. For instance, only 30.9% of consumers are price elastic for salmon, while 39.5% and 29.6% of the sample are inelastic and moderate elastic for this species, respectively. We also regressed the segment membership probabilities on the consumer characteristics to give better segment description and provide efficient guidance for seafood producers and marketers.