

## 4. CONCLUSION AND SUGGESTION

### 4.1. Conclusion

Almost all of the researches about fat replacers were done with the similar interest to find the formulation of fat replacer that can mimic fat properties in food to receive acceptability from the consumer. The problem of obesity and nutrition-related diseases creates a new consumer segmentation called health-conscious consumer. Once happened only in developed countries, obesity and nutrition-related diseases are expanding in developing countries. Since 1998, the scientist in developed countries had been developed fat replacers and able to classify them. However, the rate of obesity is not decreasing as expected with the development of the research that grows into more sophisticated fat replacer technology.

Indonesia as one of the biggest developing country in Asia become the representative sample to know about the consumers' characteristics. This study proved that the Indonesian consumer has a positive attitude toward fat replacer as they are health-conscious. However, those consumers didn't make food products with fat replacer formulation as a priority in purchasing due to worries about lack of sensory properties, food safety, and price comparison.

Lack of sensory properties is proven by literature study, where almost all the score of the modified food product is less than the original formulation. Therefore, within consideration, they will receive less satisfaction in purchasing modified food products with a fat replacer, not to mention the price is quite expensive (not affordable for some consumer). These may caused consumer to put other basic need as priority rather than purchasing low calory products with fat replacer. In terms of safety, fat replacers are safe food additives with the proper formulation. Based on this paper, it can be a considerable challenge for the food industry to produce high quality and cost effective fat replacers to meet consumers demand for high acceptability, reasonable cost and safe.

#### 4.2. Suggestion

- Studies on exploration toward local ingredients that can be used as a fat replacer to minimize the production cost.
- Studies on the relationship between consumers characteristics toward fat replacers products.
- Studies to propose a legal regulation of the food product that use fat replacers to show that this sort of product is approved and safe for the sake of society convenience.

