Consumer perception on food safety during COVID-19 pandemic -A choice-based study in Polgahawela area

P.M.G.D. Thilakarathne[*], A.M.S.M.R.S.G. Bandara, P. Wattage

Department of Agribusiness Management, Faculty of Agricultural Sciences, Sabaragamuwa University of Sri Lanka, P.O. Box 02, Belihuloya, Sri Lanka
[*] *danushithilakarathne10@gmail.com*

1. Introduction

Thousands of infections and deaths are reported daily owing to the COVID-19 pandemic. Global food safety issues have also risen since the world's population is on lockdown. Food is a basic need for human survival and its demand is on the rise with the pandemic. With the COVID-19 pandemic, people have started to panic about buying food and other daily necessities. People were highly concerned about the availability of food in the first stage of the COVID-19 pandemic. Also, a greater emphasis was made on food safety and cleanliness. Food safety is a condition that ensures that the food is free from hazards and that it does not cause any harm to the consumer when prepared and consumed according to the intended use (Dawson, 1995). The unsafe nature of local food markets is a guide to global impact. Availability and access to food were restricted due to the issues of transportation, distribution, and delivery of fresh produce and processed food items (Galanakis, 2020; Vallianatos et al., 2010). The safety of food supply was neglected in food systems long before the onset of the COVID-19 pandemic (Nagyova et al., 2019). Therefore, the study's broad objective is to examine consumer perception of food safety during the pandemic situation in the Polgahawela area. The specific objective is to identify internal and external factors affecting consumer perception of food safety during the pandemic situation in the Polgahawela area.

2. Materials and Methods

Polgahawela division was selected as the research area. It was a suburb of the Kurunegala district. The sampling technique was simple random sampling and the sample size was 150. The response rate was 75%. The questionnaire consisted of three parts. The first part included a demographical profile of the consumer. To prove the choice experiment result second section elicited risk perception statements including the sources of information that generated perception about food safety. That statements were measured by 5 points Likert scale. The third section piloted the main analysis: the choice experiment. Its main target is to estimate the structure of an individual's preferences by establishing the relative importance of attributes. The total utility is based on that alternative and thereby is determined by the utility to the individual of each of the attributes. Limited scope for food safety practices during this pandemic and the existence of revealed that preference choice experiments fit well in this context. The respondents were required to complete the questionnaire by choosing choice cards. The choice card consisted of three attribute groups and three levels. Attributes provided a yardstick to gauge the public support for the survey and measure the perception correctly. The levels attached to the attributes chosen in the survey are depicted in table 1. It produced a total of 27 different combinations used for choice cards. The orthogonal design was used to limit the too many choices, and it minimized the number of cards to 9. Descriptive statistical analysis and choice modeling techniques were used. Data were analyzed using SPSS software and MS excel.

Table 01. Level and attributes of the choice experiment

Attributes	Level I	Level II	Level III
1. Price	2000/=	Between 2000-500 /=	Above5000/=
2. Exposed place & checking traceability	Retailing+Buying Tested	Processing+Buying Not tested	None+Not tested
3. Way of fears came	Among people	Social media + People	Different ways

3. Results and Discussion

According to the choice experiment result, attribute "Stage of contamination and traceability", a part-worth utility for "both not tested" is +0.6895 and for "processing, buying" was +0.651. Both levels were significant. The variable status quo (Retailing and buying) was a structural zero. The magnitude of the estimated coefficient indicated which objectives were more preferred by the sample respondents. Here "Processing and buying" and "both not tested" were preferred over the "status quo". From both, the selection was "None of stages and traceability not tested".

Attribute "Fears" came on food operations, and the levels were 'Social media, people' and 'different ways'. It was tested against the status quo situation in which 'between people'. β value of the status quo variable was structurally zero. 'Between social media and people' base value was +0.468 and it was significant. The different ways value was -0.2 and it makes no sense for the model because it was not significant. Fears about food operations generated from social media and people were preferred than status quo and different methods.

The third price level was the status quo, the variable was structurally zero. The first Price level (above 5000) is 0.531 not significant. The second price level (2000-5000) was 0.682; significant according to the model. (at the α=0.10). LKR 2000-5000 preferred rather than the first choice of price. To achieve more accurate results, a Likert scale analysis was also conducted and the result was compared. The researcher has identified the sources that disseminated knowledge on food safety. Accordingly, 90% strongly agreed that social media was the most common source of information variable.

4. Conclusions

The most neglected attribute was food perception fears among the different ways as it reported a negative value of the result table. The research revealed that information flowing from social media was a strong factor that affected consumer perception of food safety. Perception on the stage of contamination & availability of checking the traceability proved to be affecting the consumer choice. According to the study, the consumer spends a medium concern over these prices of the food product during the pandemic. The respondents expressed low awareness about food safety and they had fears regarding fresh food leading to contamination.

5. References

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