

### **Food Preferences and Discrete choice experiment survey**

In the terms of health, nutrition, and productivity, they are completely related since the nutrition in food consumption affects health status which is a form of human capital related to labor market success. Consequently, poor health increases the medical expenses affecting a reduction in income as well as lower productivity leading to impoverishment. On the other hand, because it increases physical vitality and mental acuity, reduces sickness absence, and increases longevity or decreases morbidity, excellent health improves labor productivity and living standards. Therefore, consuming healthy food is the key factor for enhancing the labor market. However, in the present, there are still many people who do not have access to as much healthy food as they could. First, the price barrier or the high healthy food price prevents people from accessing due to the cost of Health eating of The New York Times, healthy meals cost nearly twice as much as bad foods (\$0.590 per serving vs \$0.298 per serving). Second, the food deserts or geographic areas consist of unhealthy food options and limited access to the affordable quality of healthy food. Third, SES or socioeconomic status and lastly food preferences are one of the factors influencing healthy eating barriers. Food preferences are the evaluative attitudes that people express toward foods. The food attributes that influence food preference can be divided into two categories: intrinsic food attributes and extrinsic food attributes. The intrinsic food attributes are related to the physical aspects of the product such as color, flavor, texture, and nutrients. For the extrinsic food attributes, they are related to the product, but not in the physical part such as brand name, price, packaging, advertising, peer influence, and family culture. To examine the food preferences, we can use the Likert Scale Survey and Ranking Scale Survey. Moreover, we can use a Discrete choice experiment survey to elicit food preferences. The DCE or Discrete choice experiment survey is a survey approach used to better understand the preferences of subjects. It allows researchers to uncover how individuals value selected attributes of a program, product, or service by asking them to state their choice over different hypothetical alternatives. In other words, the DCE is a resemblance to real-life scenarios in which individuals make selections based on several options, each of which includes a mix of multi-level qualities. For instance, in health economics, Preferences for exiting COVID-19 lockdown measures in Germany for identifying trade-offs between different exit strategies by providing attributes in different situations: situation A and Situation B. To design the DCE, the number of viable decision sets grows as the number of qualities grows, which might be overwhelming for the subjects. In addition, the study can employ different ways to create options and the ideal choice set in order to limit the number of choices sets and achieve unbiased coefficient estimation; D-efficient design using the NGENE program, Fractional Factorial Design, and Blocked Fractional Factorial Design (BFFD). To analyze DCE, we would use the Multinomial Logit Model (MNL) and Conditional Logit (CL) to estimate the interaction between attributes and the interaction between attribute and SES and calculate the relative importance. In terms of the limitation of DCE, since individuals make decisions based on hypothetical options rather than choices in a real-life setting, DCE can only elicit stated preferences. Consequently, if many attributes are in the model or when the qualities of choices in choice tasks do not entirely represent reality, hypothetical bias might occur. This topic relates to the development of microeconomics since food consumption has an impact on health status, which is a type of human capital linked to labor market success as well as economics also plays a major role and has an impact on personal nutrition status and health.