

## **Awareness and attitude towards 3D food printing technology: the case of consumer responses from Klang Valley, Malaysia**

### **ABSTRACT**

This study aimed to investigate the Malaysian consumer response to 3D food printing. The objectives were to evaluate the awareness of consumers on 3D food printing and identify the factors that influence consumers' final attitude towards 3D food printing and assess consumers' change in attitude towards 3D food printing after being further informed about the technology. An online consumer survey was conducted in Klang Valley which involved 394 Malaysians of age between 24 to 55 years old. From the survey, the respondents showed a relatively low awareness of 3D food printing. Their initial attitudes toward the technology indicated a neutral (mean  $3.99 \pm 0.98$ ) due to the lack of knowledge and experience on 3D food printing. Multiple linear regression analysis indicated that consumers' willingness to consume 3D printed food ( $B = 0.397$ ) and their benefit perception towards 3D food printing ( $B = 0.308$ ) significantly led to a positive attitude. Food technology neophobia ( $B = -0.202$ ) and familiarity ( $B = -0.180$ ) were the factors that significantly contributed to a negative attitude among the respondents. From the paired t-test, it was found that the respondents' overall attitude has improved significantly (mean  $0.707 \pm 0.904$ ) with the aid of an infographic included in the survey as the medium for the respondents to know more about 3D food printing. This shows that information delivery is important in influencing consumers' attitudes towards 3D food printing. A well-designed communication strategy that is appropriate to the target consumers may be able to develop a positive response to 3D food printing among the consumers.