

Exploring the Efficacy of the Teaching Kitchen Model within the Urban Slum of Kolkata

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Introduction

Global malnutrition, affecting over 2.6 billion people globally, represents a triple burden to health in the form of micronutrient deficiencies, under- and over-nutrition. Nutritional education forms only one tool to tackle this global crisis. As part of an innovative, multi-phase, public health research initiative, both nutritional education and female empowerment were addressed in two urban slums in Kolkata. The "Mobile Teaching Kitchen" model uses a "See one, Do one, Teach one" approach. Healthcare professionals were educated on the importance of nutrition then empowered to assess and improve nutritional knowledge among under-nourished mothers within urban slums. Once successfully educated, mothers were taught to prepare nutritious meals. Through a microenterprise model, mothers then sold these meals, predominantly to office workers, whilst conveying health education messages to tackle over-nutrition. Now established, the micro-enterprise potential of the mobile teaching kitchens, within India and more globally, is being evaluated.

Methods

Micro-enterprise customers completed questionnaires at 3 different locations (Salt Lake, Alipore and Lake Town). They evaluated the food and service provided on a 5-point Likert-scale of 1 (Very good) to 5 (Extremely poor). Multiple samples were collected from Alipore customers. The mean, minimum and maximum ratings and the percentage of 1s given were calculated. To compare inter- and intra-location differences in ratings across the dates, a Kruskal-Wallis test with post-hoc pairwise comparisons was performed (see Table 1).

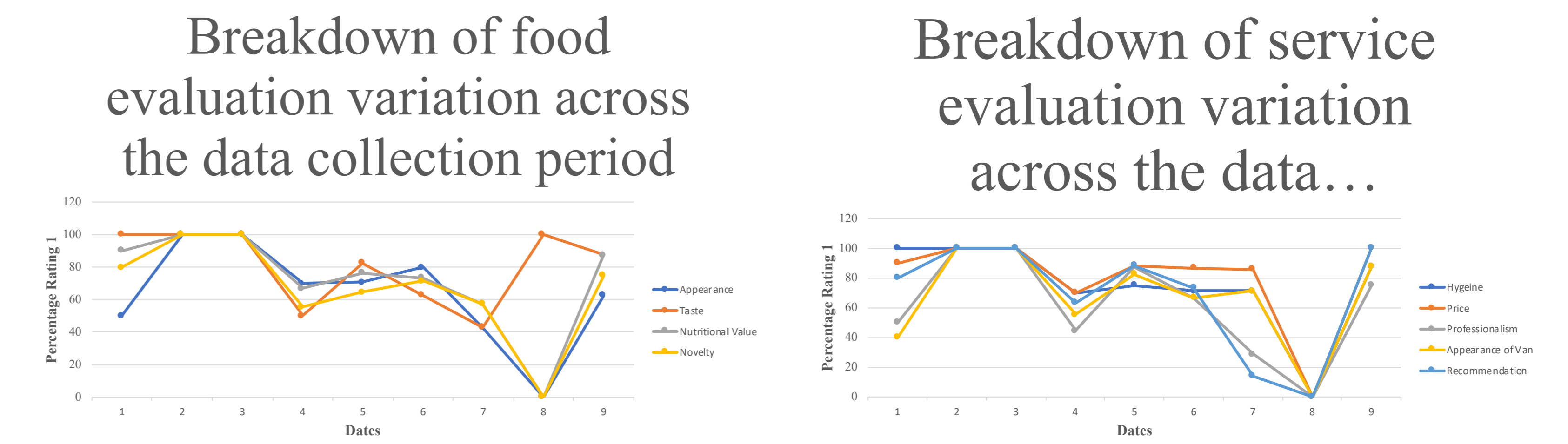
Results

100 questionnaires total were completed, with largely positive responses; only two 5s and three 4s were given as ratings throughout the whole data set. Service evaluation consistently had a greater proportion of 1s except at Lake Town, where the mobile teaching kitchen was launched (see Figure 1). Significant differences in ratings were noted for Taste, Professionalism, Price, Van Appearance and Recommendation (see Figure 2).

Discussion

The data collected so far is overwhelmingly positive, showing no significant differences among ratings across locations (apart from Van Appearance). This suggests that the mobile teaching kitchen is not highly variable between locations. Furthermore, the model was able to tackle both malnutrition in the urban slums and over-nutrition in office workers, highlighting its potential applicability to other regions within India and more globally.

Figure 1



Dates Key: 1(Salt Lake) = 23.08.18; 2(Alipore) = 26.11.18; 3(Alipore) = 28.11.18; 4(Alipore) = 5.12.18; 6(Alipore) = 14.12.18; 7(Alipore) = 22.01.19; 8(Alipore) = 28.01.19; 9(Lake town) = 31.01.19

Figure 2

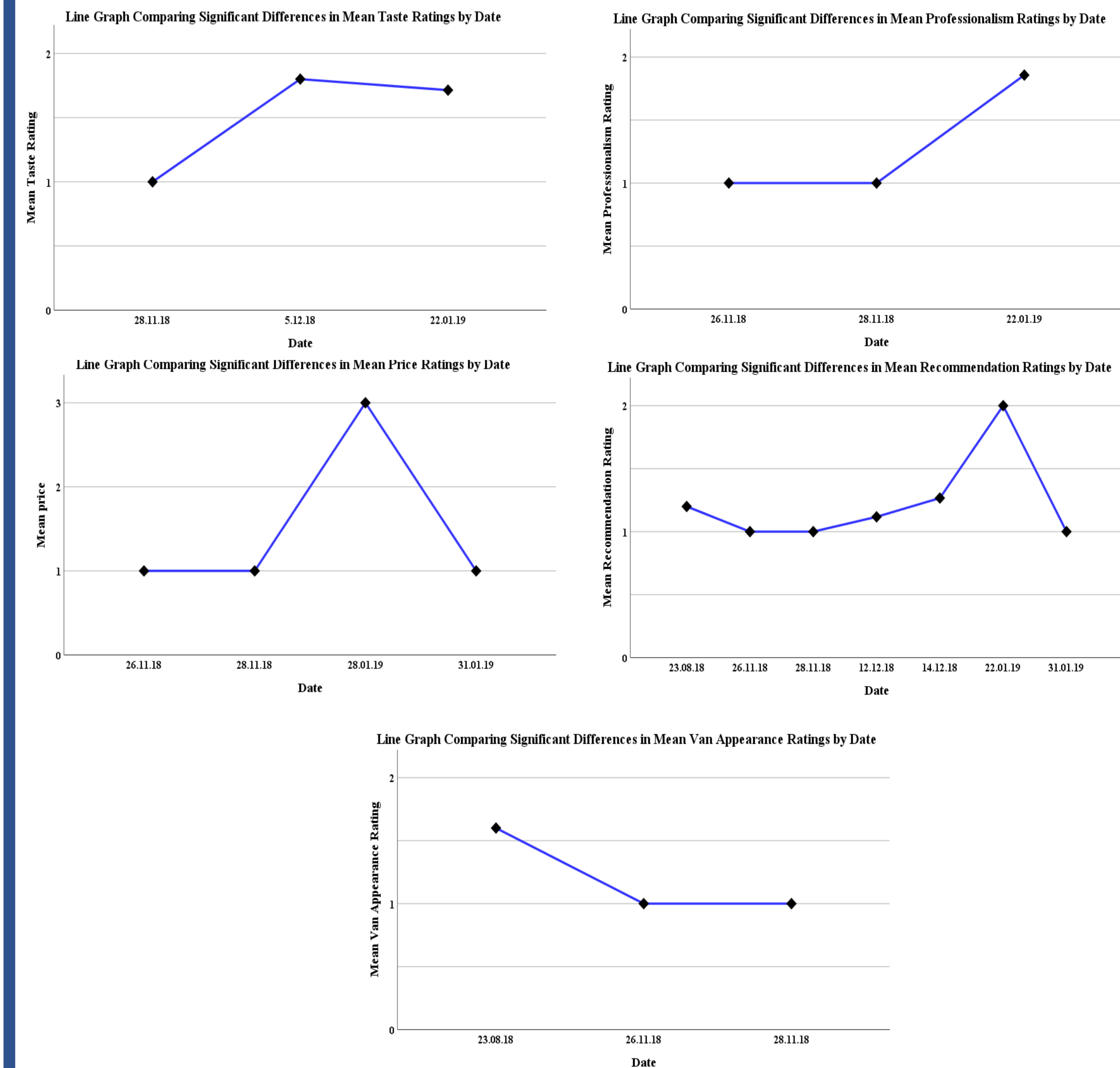


Table 2

	Rating Variable								
	Appearance	Taste	Nutritional value	Novelty	Hygiene	Price	Professionalism	Van Appearance	Recommendation
Kruskal-Wallis test statistic	21.987	26.348	14.087	19.651	18.157	19.625	29.172	23.951	37.242
df	8	8	7	8	8	8	8	8	8
p value	.005	.001	.050	.012	.020	.012	.000	.002	.000

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