

Effect of socio-demographic factors on advertising appeals underpinning food choice behavior of young adults in Sri Lanka

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1. Introduction

Advertising appeals; a specific way of framing and delivering a message intended to persuade a consumer to make a purchase, can be used to manipulate people’s purchasing decisions. Food choices are often nudged through advertisements (Kahneman, 2011) via different advertising appeals. Thus, advertising appeals have implications for anyone interested in promoting a food product across a target population. Among the two cognitive systems which people use to make decisions, the automatic system underpins intuitive thinking is more pervasive and dominant than rational thinking. Advertisers often make use of a package of techniques, referred to as “nudging” (Thaler & Sunstein, 2008), to target the automatic thinking of people and persuade them to effortlessly buy their target products.

Do advertising appeals have different nudging effects on different people in Sri Lanka?

Although advertising appeals are proven to nudge food choices made by consumers to a great extent, their differential effect on people based on socio-demographic variability is less known. This study attempts to fill the above knowledge gap related to a Sri Lankan population. The study attempted to reveal the effect of socio-demographic factors on advertising appeals underpinning food choice behavior among young adults in Sri Lanka.

The objectives of this research are to identify the advertising appeals that are most receptive to the young adults in Sri Lanka, to investigate whether there is an effect of socio-demographic factors on advertising appeals, and to investigate the effect of socio-demographic factors on the association between food consumption preferences and advertising appeals.

2. Materials and Methods

An online quasi-experiment was conducted over a sample of 445 young Sri Lankans within the age category of 18-39 years. The quasi-experiment sought to find the association between 16 selected socio-demographic characteristics and food choices structured by six different sets of advertising appeals. The respondents were asked to make a choice between two similar food products advertised by two different advertising appeals representing the two opposite ends of the same concept (e.g., modern Vs. traditional).

Socio-demographic information was inquired under four categories as given below.

Table 01. Socio-demographic information

Socio-demographic Category	Variable
1. Biographical and structural demographics (Bio-Structural-Demo)	<ul style="list-style-type: none"> ● Gender (G) ● Marital status (MS) ● Having children (HC)

2. Household related demographics (House-Demo)	<ul style="list-style-type: none"> • Type of residence (TR) • Current living status (CLS) • Household type (HT)
3. Employment and career-related demographics (Employment-Career-Demo)	<ul style="list-style-type: none"> • Employment status (ES) • Current study Status (CSS) • Place of employment (PE) • Transport method to the workplace (TW) • Monthly income (MI)
4. Social learning-related demographics (Social-Learning-Demo)	<ul style="list-style-type: none"> • Type of area lived at childhood (CA) • Childhood-company (CC) • Type of freedom had at childhood (CF) • Thinking style (TS) • Personality type (PT)

The six pairs of advertisements, each arranged on a bi-polar continuum, were carefully developed. The efforts were made to neutralize the effect of possible other contaminant factors affecting the respondents’ choices. For example, to neutralize the logo effect of the brands advertised by each appeal, the logos in each pair of advertisements were designed following a similar format. Similarly, to eliminate the price effect, it was mentioned that the prices of the two products were similar. The questions for the advertising appeals and the food preferences and their answers were shuffled to neutralize the order effect bias.

The Cognitive Reflection Test (CRT) was applied to gauge the thinking style (Frederick, 2005) of the respondents. The limitation of having already performed CRT in the past was overcome by asking a question whether the respondents had done these tasks before. The records which had answered “YES” were excluded in the data cleaning process.

A modified ten-item version of the Multidimensional Introversion-Extraversion Scale (MIES) was used to determine the personality of the respondents (So, 2020). The k-means clustering was employed to categorize the sample into two personality groups as introverts and extraverts.

3. Results and Discussion

Table 1 illustrates the most preferred 6 advertising appeals among the 12 advertisements.

Table 01. The twelve advertisements designed under six appeal categories

Category 1	
	<p>Modern Appeal (MA)*</p> <p>Percentage-61.3%</p>
	<p>Traditional Appeal (TA)</p> <p>Percentage-38.7%</p>

Category 2



Rural Appeal (RuA)*
Percentage-72.8%



Urban Appeal (UrA)
Percentage-27.2%

Category 3



Oneness with nature Appeal (ONA)*
Percentage-62.7 %



Manipulated Nature Appeal (MNA)
Percentage-37.3%

Category 4



Collectivistic Appeal (CoA)*
Percentage-76.6%



Individualistic Appeal (InA)
Percentage-23.4%

Category 5



Gain-framed Appeal (GFA)*
Percentage-69.7%



Loss-framed Appeal (LFA)
Percentage-30.3%

Category 6:



Relaxation Appeal (ReA)*
Percentage-69.7%



Convenience Appeal (ConA)
Percentage-30.3%

* The most preferred advertising appeal within each category

With a 2-way chi-square test of independence, the association between each demographic variable and choice corresponding to each advertising appeal was tested. Although there were statistically significant ($p < 0.05$), associations between many socio-demographics and choices structured by advertising appeals, the strengths of all the associations were deemed weak by the obtained Cramer's V values (< 0.3).

Then, a 3-way chi-square test was run to test the same associations while controlling for each socio-demographic factor concerned. Among the resulted significant relationships, there were strong (Cramer's $V > 0.5$) and moderately strong (Cramer's $V > 0.3$) associations between the socio-demographic factors and the choices structured by the advertising appeals. Furthermore, the odds ratio (OR) was calculated for the associations which were strong and moderately strong.

Among the respondents who had spent their childhood alone, married respondents were 16 times likely to choose collectivistic appeal than the unmarried ones who had a similar childhood experience (OR=16).

Next, with a 2-way chi-square test of independence, the association between relevant food consumption preference and choice corresponding to each advertising appeal was tested. Since the significant association strengths were deemed weak, with a 3-way chi-square test of independence test, the same associations were tested while controlling for each socio-demographic factor concerned. There the strength of the associations seemed to be increased up to moderately strong and strong associations between the food consumption preferences and the choices structured by the advertising appeals. The odds ratios were also calculated for further interpretation.

After scrutinizing the results thoroughly, a pattern could be identified. When considering all the significant associations, among all the socio-demographics, “social learning-related demographics” were found to be more pervasive and influential on the choice for food nudged by advertising appeals. This observation can be explained well following the Social Learning Theory (SLT) (Bandura, 1969). The “social learning” structured by environmental and cognitive factors, aid the choices people make in various circumstances such as in this case; the choice for the food nudged by advertising appeals.

Figure 1 was developed with the results obtained from the 3-way chi-square test of independence for the association between socio-demographic factors and advertising appeals. It interprets the results of the odds ratio for each strong and moderately strong association.

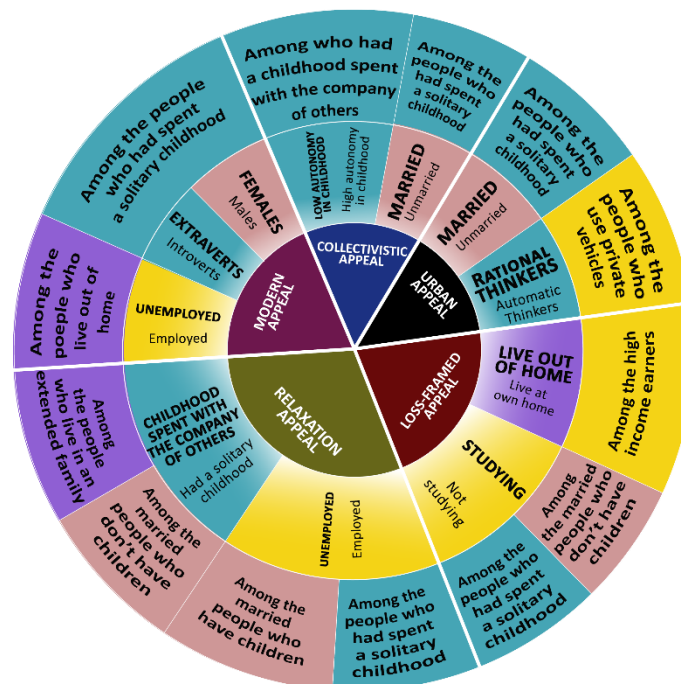


Figure 1. Graphical representation of results of the 3-way chi-square test with odds ratios for the association between socio-demographic factors and advertising appeals

4. Conclusions

The nudge principle that targets the automatic thinking system and its heuristics can be taken into account as a way to approach the above target via advertising appeals that nudge the food choices of people. The results supported the three objectives to be met. It was found that there is an effect of socio-demographic factors and food consumption preferences on advertising

appeals. Within the Sri Lankan context, social-learning-related demographic factors are the most influential on the food choices structured by advertising appeals.

5. References

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