

TELEVISION ADVERTISING AND FOOD DEMAND OF CHILDREN IN SRI LANKA: A CASE STUDY FROM GALLE DISTRICT

G.R.S.R.C.Samaraweera, Department of Economics and Statistics, Sabaragamuwa University of Sri Lanka, Belihuloya, sumadi@sab.ac.lk

K.L.N.Samanthi Department of economics and statistics, Sabaragamuwa University of Sri Lanka, Belihuloya, nadee.saman@gmail.com

ABSTRACT

The main objective of the study is to seek the relationship between food demand and television advertising focusing on children in Sri Lanka. The study used primary data with 100 children in-between the age of 9-14 representing Sangamiththa Girls School and Olsent boys' school in Galle. Four stage sampling method was used by the study. In the first stage stratified cluster sampling was used to select two schools from five main girls' schools and five main boys' schools in Galle randomly by using lotteries method. In the second stage stratified random sample was selected representing the students in the classes from year 4 to year 9 cluster representing 25% of each class in both schools. At the final step systematic random sampling was used to select students with the gap of 4 students. Two questionnaires were provided for students and their parents to collect data. Descriptive statistics and multiple regression model were used for the analyzing. The dependent variables were used as expenditure on additional food items while using different socio economic demographic characteristics of children and their parents as explanatory variables.

The Study found that a positive relationship of television advertising on food demand. Residential sector, gender of the child, age , employment of parents, length of time of watching television, influence of friends, the mode of traveling to school , specific brand choices, using popular persons for the advertisements, giving attractive items with the product, giving sponsorships for children' events are identified as some significant factors determining the food demand of the children. Some possible policy implications suggested for the family, schools, advertising agencies, media and for the government, have been initiated as the final contribution of the study.

Key words: Television advertising, food demand, children

INTRODUCTION

Advertising has become an essential event in economy today. The main objective of advertising is to increase the demand for the commodity by ensuring the trust of the commodity in the minds of consumers. In the side of consumers, advertising provides more information to the consumers to support them to decide the commodity of buying. According to Nisshanka (2004) consumer demand is determined by the information provided by the advertisements in the current world. Some consumer commodities are popular among people not only because of the special quality of the product but also the creativity of the advertisement. Therefore advertising has become key factor for both consumers and producers in the market economy today.

There are number of modes for advertising in Sri Lanka including television, radio, news papers, magazines, posters, notice, hand bills, show room, cinema, video and photographs. The leading mode of advertising today is the television in Sri Lanka. 73.4% of households has television in 2003/04 (CFS, 2005) and that causes for the high popularity of the television as a media of advertising and the mode is in high quality. Therefore this study used television media as the key mode of advertising.

The focus of advertising is another important consideration in the market. Sometimes advertising focuses on specific groups such as children and women. According to Nishshanka (2004), television advertising for more consumption commodities focuses on children and they force their parents to buy that commodity for them. If television advertising based on the experiences which is strictly influence to the minds of children by using the most appropriate and best strategies, this directly influences on the food pattern of the children (Livingstone, & Helsper, 2004). According to Borekowski & Robinson (2001), even a short food advertisement has very high influence on food demand among pre-school children. Blisard (2008) found that children in between 2-11 years old watch 25629 television advertisements per year and 75.5% of those are watched with two children's programmes in USA in his research on "Advertising and What We Eat". Many advertising companies focus parents to promote their food product for children previously but currently children are directly focused by the advertisements and it converted children into consumers (Wiese, 2004). In Australia 30% of advertisements are food related and it creates high intensive for children for fast food consumption (Katke, 2006). According to Livingston and Helsper (2004), 38% of total advertisements in USA are related to the fast food items and it has a direct influence on food patterns of children. Kankel (2001) found that American food producers spent seven billion dollars for food advertising in 1997. Even in Sri Lanka children based advertising has become a very popular event among business community.

Considering the techniques and strategies of advertising, children below eight years old believe that advertisements tell the truth and they are being unable to protect from undue influences of commercial advertising (John, 1999). Some advertisements used extra items such as toys and stickers with the product to promote selling while some advertisements use popular characters to promote selling (Becker & Murphy, 1993). According to Bill (2008), Children believe the content of advertisements rather than the views of parents when they select food items for consumption.

Food demand of children influenced by advertising has a direct relationship with children's health. The length of time of watching television has a positive relationship with the children's obesity (Gortmaker, Must, Sobol, Peteron, Colditz, Diet, 1996). According to Hastings (2003), the addition for the television advertisements is high among children with obesity. Livingstone & Helsper (2004) established the positive relationship of advertising and food with more fat, salt and sugar. This further proved that the above food consumption directly influenced on Child obesity. The above studies found that television has an influence on food demand and food pattern has a direct relationship with the children's health.

Majority of the researches gave a policy direction for proper advertising in their countries. Some studies suggested to prohibit child focused advertisements totally (Livingstone, Helsper, 2004). Some counties like Australia use self control techniques

with respect to advertising but that is very complicated system. Sri Lanka does not have rules and regulations in advertising but they have to be obligate for the cultural and social protection in creating advertisements. This study is an attempt to seek the interrelationship among food demand, television advertising, child health and policy frame work to protect child consumers from undue commercial influences.

Rationale of the Study

The advertising market has been rapidly promoting in Sri Lanka for recent years. New experiments related to the fast foods are high and those are highly focused in advertisements. Super markets with huge number of consumption commodities arrived to the villages even by expanding the opportunities to choose items among more alternatives. Various types of fast foods, sweets and dairy products produced with high focus to children have been promoted through these market accesses. Diabetics, cholesterol and obesity have been increasing among children due to the current change of food patterns. The food demand of children has been affected by several socio economic factors of the children. Advertising has identified as one of the key determinants of food demand among children in many developed and developing countries as identified before. But very few studies are conducted related to the food demand and advertising in Sri Lanka. The policy structure of advertising in Sri Lanka has a poor strength and minimum laws and regulations are practiced with respect to advertisements focused on Children. To identify the importance of policy framework related to the food advertising focused on children, it is important for seeking the influence of television advertising which is identified as the most powerful advertising mode among the all other sources of advertisements, on food demand in Sri Lanka.

Objectives of the Study

Main Objective

Identify the relationship between television adverting and food demand among children

Specific Objectives

Identify the nature of food adverting and food demand

Identify the determinants of food demand among Children

Address the country's policy dialogue with respect to television advertising focused on children with the parents view.

METHODOLOGY

Data

Primary data collected from Galle district is mainly used by the study. The questionnaire method was used for the data collection and two questionnaires were prepared separately for the children and the parents. Demographic information of child including age, gender, residential sector, ethnicity, religion, height and weight,

socio economic background of child including the pocket money expenses, participation with tuition, food consumption last week and specific brands, preferred television programmes and advertisements, and television advertising related information such as length of time in watching television, day, time of the day and health related information of child were collected through the child's questionnaire while parents questionnaire is consisted with housing and family information, economic status of parents including occupation and income, education of parents, attitudes towards food adverting and their child's requirements and expected policy suggestions.

Sampling

Four stage sampling method was used for the study. The data were collected from two schools from Galle town. At the first stage Sangamiththa Girl's school from five girl's schools and Olsent boy's college from five boy's schools in Galle were selected by using cluster sampling method. Two clusters were selected randomly by using lottery method. At the second stage the children (aged in-between 9-14) in the classes from year 4 to year 9 were selected for the study. To define children the classification is used as the children below 15 years old. The lower limit is used as year 9 because the children should be able to understand and answer for the questionnaire. At the third stage stratified random sampling was used by representing 25% of students in each class as given in Table 1. Altogether 65 girls and 35 boys were consisted in the sample. The last step of the sample was the systematic random sampling with the gap of four students.

Table 1: Sampling of the study

Year	Total number of students in the class		Selected number of Students (25% from total)	
	Sangamiththa	Olsent	Sangamiththa	Olsen
Year 4	36	21	9	7
Year 5	48	20	12	5
Year 6	44	24	11	6
Year 7	44	20	11	5
Year 8	48	24	12	6
Year 9	40	24	10	6

The Model

Descriptive statistics and multiple regression model were used by the study as the methods of analyzing.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots \dots \dots \beta_n X_n$$

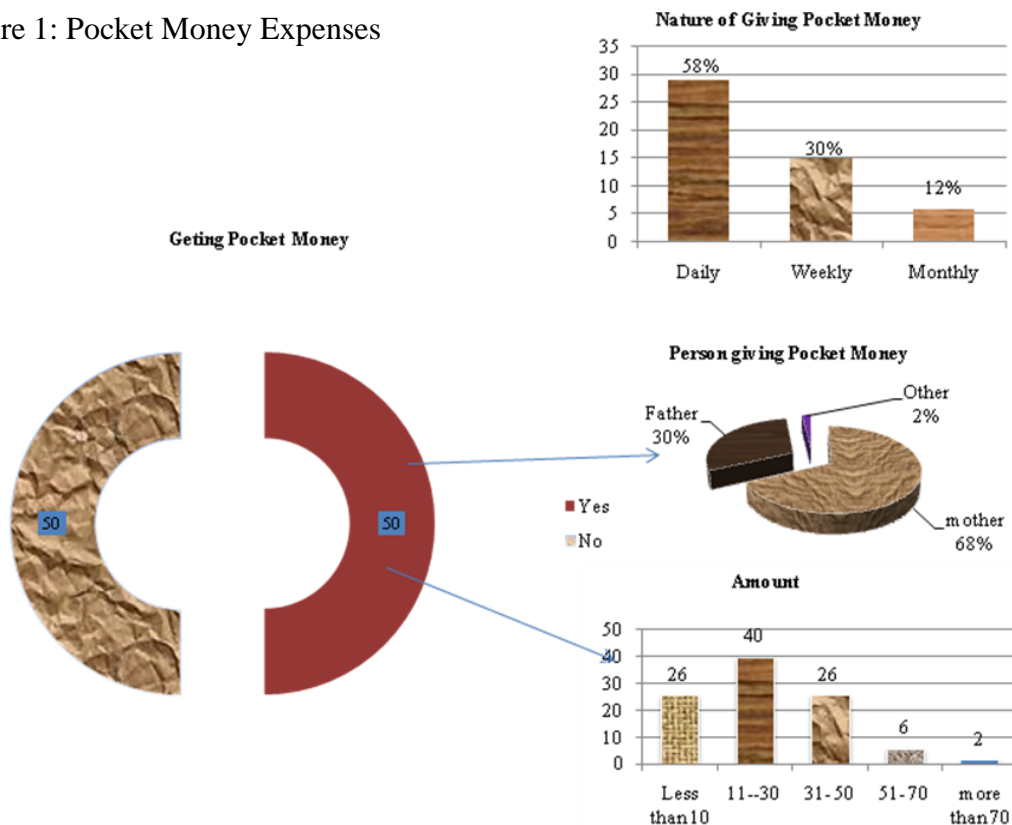
The dependent variables of the regression models are given as the expenditure on additional foods per week while using different socio economic, demographic, and television adverting related factors as explanatory variables.

RESULTS AND DISCUSSION

100 students including 65 girls and 35 boys have been selected for the study. 55% of the sample are representing urban sector and the rest are from the rural sector. The sample consisted with students aged in-between 9-14. Considering the general health condition of children, 70% of children are in the normal ratio between heights to weight, while 22% represented over weight and 8%; low weight.

Socio economic condition of children is an important factor of determining the pattern of food demand. The majority (33%) of children represented the income group of 20001-30000 while second and third importance were given to the income categories of 30001-40000 and 10001-20000 respectively. Parent's education and employment also show a significant influence on the food consumption pattern of the child. 51% of fathers and 52% of mothers are educated more than GCE A/L in the sample. 40% of mothers are employed and 47% of them leave home in-between 6am to 7 am while 37% leave home in- between 7 to 8 am. 5% of employed mothers leave home for work before 6 am. 52% of employed mothers returned to the home before 3 pm while 26% of them came back to the home in-between 5-7 pm. The busy life of mother makes a direct influence on the food pattern of the children.

Figure 1: Pocket Money Expenses



Provision of pocket money for the children has a considerable influence on food demand of children by themselves (Figure 1). 50% of children were given pocket money when they leave the home and 58% of them were given pocket money daily. 68% of children, who were given pocket money, were given by the mothers while 30% were given by the fathers. The majority of children with pocket money beard the amount in between 10-30 rupees per day.

Attending with private tuition has an influence on the demanded food pattern by children. 94% of children attend with private tuition and 62% out of them were given money for additional foods. According to the view of children, 57% of children said that their friends are normally buying food items on the way to the tuition classes.

Considering the characteristics of food demand by the children, 67% demanded for additional food items in the previous week of the survey. Determining the food items by children is affected by the advertisement in different manner. 34% of children agreed that their food demand is highly affected by the advertising while 44% said that it has a considerable influence. 22% disagreed the idea of the advertising influence on their food demand.

The food consumption pattern of the children in the previous week to the survey is determined as follows (Table 1).

Table 1: Expenditure pattern and the influence of advertising according to the point of view of children for additional food items

Expenditure sector	Expenditure (As %)					Influence of Advertising (As %)				
	Less than 50	51-100	101-150	151-200	More than 200	Strongly affected	Affected	Neutral	Not affected	Never affected
For soft drink	59.3	25.9	9.3	3.7	1.9	1.9	40.8	35.2	9.3	13
For fast food	41	25.3	12	9.6	12	3.6	45.8	24.1	9.6	16.9
For sweets	67.4	23.3	3.5	3.5	2.3	1.2	39.6	29.1	14	16.3
For dairy Products	41.5	3.7	43.9	4.9	6.1	1.2	23.1	41.5	12.2	22

The majority of children (59.3%) spent less than 50 rupees for soft drinks while the similar patterns are recorded with respect to the fast foods (41%) and sweets (67.4%). 43.9% of children demanded for dairy products by spending 101-150 rupees. The majority agreed with the high influence of advertizing on food demand with respect to soft drink, fast food items and sweets while the majority who bought dairy products agreed the idea of advertising has a neutral influence on food demand.

Demand for soft drinks and fast food items by children are given in figure 2 and 3 as follows.

Figure 2: Demand for Soft drinks

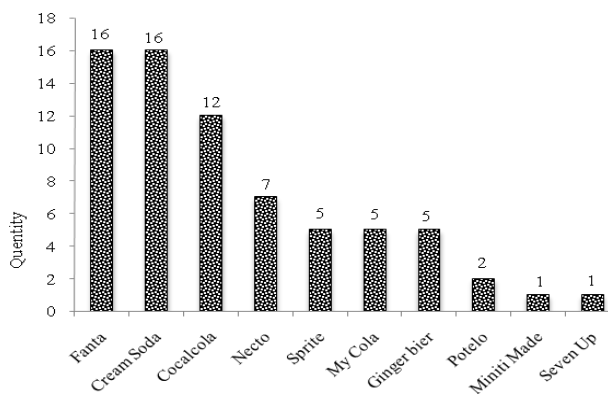
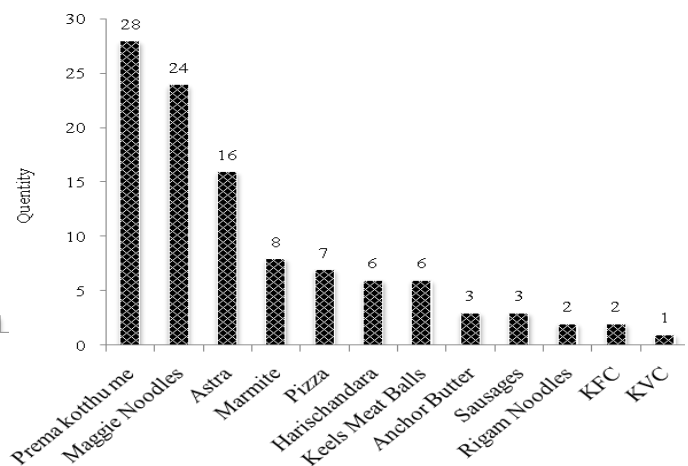
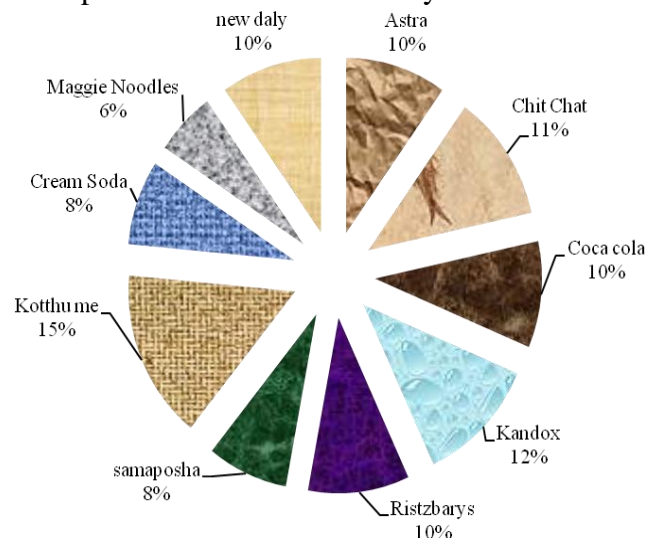


Figure 3: Demand for fast foods



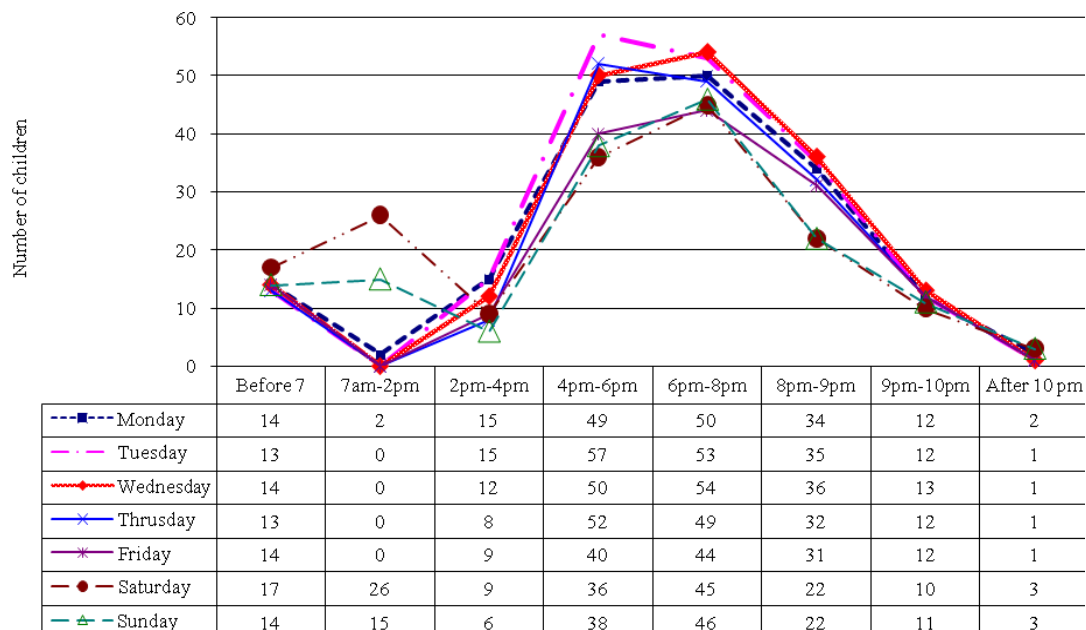
Fanta, *Cream soda* and *Coco cola* are the most popular brands among children according to the figure 2 and *Prema koththume*, *Maggie noodles* and *Astra* are the highly using fast food brands. Considering sweets chocolate is the highest demanded sweets and *Riztbary* is the most popular brand according to this sample. *Chit Chat*, *Popit* and *Pebbles* mainly come under that brand. *Edna* and *Kandox* brands are popular among children after that respectively. The most preferred advertisements among children are given as follows (Figure 4). *Koththume* advertisement was the most popular advertisement among this students and demand for *Koththu me* among fast food items is comparatively very high among children. This also proves the relationship between advertising and the food demand.

Figure 4: The most preferred advertisements by children



The time duration of watching television, specific time preferences for watching television and specific television programmes have considerable influence on the preference of the children. The child focused advertisements are advertised during the target times and during the programmes for children.

Figure 5: Time of watching television

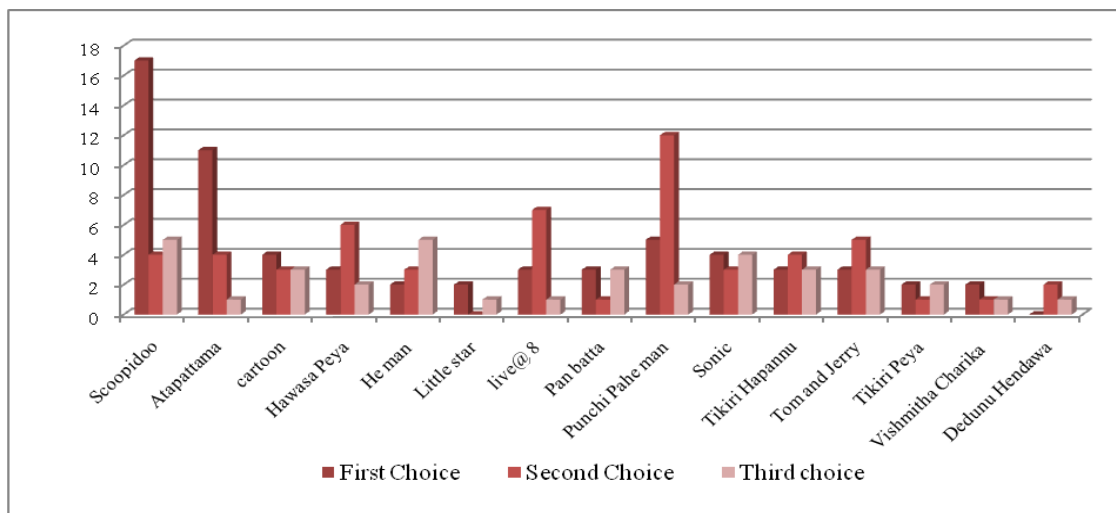


According to Figure 5, the time duration between 4 pm to 9pm is the peak time with respect to child focus advertising in all seven days of the week. The morning time is popular among children mainly in Saturdays and Sundays. Morning time is not popular among children because of the schooling in week days. The most popular television programmes among children are recorded as given in Figure 6 and the advertisement during these programs is very effective in influencing the food pattern of children.

Different television channels are popular among children in different time durations of the day. Considering the time duration before 7 am, Sirasa TV is the most popular channel among children while Sirasa TV is leading in between 7 to 2 pm too while Swarnawahini Comes second. Sirasa TV and national television are the two popular channels in between 2-4 pm. During the 4 to 6 pm duration, Sirasa is the most popular channel among children while national television comes second. The most popular channel in-between 7-8 is ITN and Sarnawahini is the leading channel during the period of 8-9 pm. ITN again leads in between 9-10 while Sirasa comes first again after 10 pm. Child based advertising during the above focused time durations in above popular channels make a huge influence on the food demand of the children.

The advertising during the favorite television programmes of children has a considerable influence on food demand of children. According to the first preference of the children *Scoopido* is the most popular programme among children while *Atapattama* comes second. Considering the second preference *Punchi Pahe Man* is a leading programme among children. Figure 6 shows the popular television programmes among children and the advertising during the period of this programmes induced the children for more food items.

Figure 6: Popular Television programmes among children



According to the parent's view point the influence of advertising on the food demand of children is very high with some specific techniques used by the advertisement. For examples many advertisement are using popular characters to promote the product, providing toys and small items with the product and holding completions among children and giving sponsorships for the children's events are such techniques. The view point of parent's on such event is given in Table 2.

Table 2: Influence of advertising techniques on food demand of children according to the parents

Influence of advertisement	Holding Competition and giving sponsorships	Giving Toys, presents and stickers with the food item	Using popular person for the advertisement
strongly affect	3	8	12
affect	23	41	26
Neutral	66	27	34
not affect	1	10	15
strongly not affect	7	14	13
Total	100	100	100

According to the to the children e Table 2, 26% of parents believed that holding competitions and giving sponsorships for the children’s event affects on food demand of children. 49% of parents believed that giving toys, presents and stickers with the food items creates a strong demand for food items among children. 38% parents believed that using popular characters for the food advertisements has a strong influence on food demand among children.

Considering the parent’s assistance with respect to the policy making related to the food advertisement focus on children, 98% parents supported for the proper controlling of child focus advertisements while 87% parents would like for total prohibition of food advertisement during the telecasting of children focused programmes. 32% parents would like for the total prohibition of food advertisements.

The Regression Model

The following multiple regression model is derived by using the expenditure on additional food items mainly including four categories of soft drinks, fast foods, sweets and dairy products as the dependent variable of the model with different socio economic and advertising related factors as explanatory variables (Table 3).

Table 3: Multiple regression model for additional food demand among children

Variables	Coefficient	SE	t-value	P-value
Constant	493.207	126.683	3.893	.000
Being male	-74.229	20.335	-3.650	.001
Being urban	63.402	17.709	3.580	.001
Weight	2.125	1.263	1.683	.097
Using bus as the travel mode	44.526	18.139	2.455	.017
Using other private travel modes	80.120	36.878	2.173	.033
Being influenced by friends for buying additional foods	43.325	16.138	2.685	.009
Age of the Mother	-3.540	1.326	-2.669	.010
Education level of the mother	-35.496	9.070	-3.914	.000
Being influenced by the popular characters in the advertisements	59.304	18.688	3.173	.002
Being influenced by the free items provided with the product	31.897	17.315	1.842	.070

Length of time of watching television	2.653	1.531	1.733	.088
Having special preference for Coca cola brand	69.227	25.566	2.708	.009
Average number of terms affected by advertising of soft drinks per day	26.878	6.761	3.975	.000
Average number of terms of advertising of sweets per day	16.636	6.541	2.543	.013
Having an employed mother	50.769	17.999	2.821	.006

According to the above regression model being male child has relatively less expenditure on additional food relatively to a female child in the sample. Being urban child has relatively high demand for additional food items than the child representing rural sector. The market access for the different fast food items is relatively low for the rural dwellers than the urban dwellers and that made an influence on this nature of demand. Weight of child and the additional food expenditure has a statistically significant positive relationship. Using bus as the main travel mode has a positive relationship with the food expenditure. Using private travel mode created more expenditure on additional food items than the other mode of travel and this is because of the financial capability of the child and the parents. Being influenced by the friends to buy additional food items increases the expenditure from 43 rupees. When the age of the mother increases the expenditure on additional food reduces. Maturity of mother allows for more prudential decision making related to the selection of food items for the children. A statistically negative relationship between mother's education and expenditure on additional food items is established by the study. High consideration on child health by mother is increased with her education level and it caused to reduce unhealthy food expenditure. Being influenced by the popular characters in the advertisement has statistically significant positive relationship with the additional food expenditure. It increases expenditure by 59 rupees. Being influenced by the free items provided with the product increases additional food expenditure from 32 rupees. The length of time of watching television also shows statistically significant positive relationship with additional food expenditure. When the length of time of watching television increases, the children open for more advertisements on food. It induced children for more food demand. Having special preference for Coca cola brand increased the additional food expenditure by the children. Introducing Coca cola as a complementary product with other food items may cause to this positive relationship. Average number of terms of advertising of soft drinks and sweets also established positive relationships with the additional food expenditure. Finally having an employed mother increases the additional food expenditure of the children because of the lack of time for preparing meals for children by the mother. The R² of the model is 68% and that means the explanatory variables are sufficient in explaining the 68% of the dependant variable.

CONCLUSIONS AND RECOMMENDATIONS

The study concludes that television advertising has strong relationship with the food demand by the children. Considering food demand of children, it is created by children by themselves and by parents for their children. The food demand created by children is determined by several factors such as pocket money, special brand choices of food items, preferred advertisements, and time of watching television, different television channels and specific programmes and the techniques used by the advertisements. Being male child, Being urban dweller, weight of the child, using bus

as the key travel mode, using private vehicle as the key travel mode, influences of friends, length of watching television, number of terms opened to the advertisements are some other statistically significant factors affected to the additional food demand of the children. Considering the parents characteristics, mother's employment, age and education made statically significant influences to determine the food demand of children. According to the parent's vision, ¼ of parents believe that holding completion and giving sponsorships for the children's event affect on food demand of children while more than 1/3 believes that using popular characters affects on food demand of children. Half of the parents believe that giving toys and stickers affects to the food demand of children very much. The majority of parents are willing to support for proper policy of controlling food advertisements of children. In the policy aspects, several key stakeholders including parents, schools, advertising agencies, media and the government are identified to address this issue.

Parents should pay their attention on the healthy condition of the food than the requirements of the children when they buy food for children. Children should not be isolated in the decision making process of determining their day today meals. Parents should derive limitations for the length of watching television by the children and the programmes and should spend their time with children to assist to clarify the good and bad products for them kindly. Schools could encourage children for healthy diet especially in the morning. A list of foods could be prepared by the primary teachers for the children and encourage parents for preparing healthy diet for their children for the breakfast. Providing knowledge about unhealthy foods and the results of those foods will help to change the attitudes of the children.

Advertising agencies should identify their social responsibility of creating better future for the children rather than be profit oriented. The child focused advertising should be controlled by them by following appropriate business advertising ethics. The role of media is also an important factor to be considered with respect to advertising. They should be more careful in advertising during the telecasting of children focused programmes. Finally government has the key role of prohibiting and controlling unethical advertisements by using well planned criterions. Sri Lanka do not have proper legal framework for advertising and it created huge harm on culture and the society of the country. Therefore government should identify their role with respect to the undue advertising towards food items mostly used by the children. It will help to achieve the sustainable development for the country with a healthy nation.

REFERENCES

- Consumer finance and Socio Economic Survey, 2005, Final Report Consumer finance and Socio Economic Survey 2003/04, Central bank, Sri Lanka
- Chapman, K., P. Nicholas, et al. (2006). "How much food advertising is there on Australian television?" *Health Promotion International* **21**(3): 172 - 80
- Wiese J.2004 "Guidance for food Advertising Self- Regulation" National Advertising Review Council. http://www.narcpartner.org/reports/NARC_White_Paper_6-1-04.pdf [Accessed on 15/01/2009]
- Nishshanka C,(2004). Advertising, S Godage Brothers, Colombo 10, Sri Lanka
- Consumer Finance and Socio Economic Survey 2003/04 (2005). Central Bank. Sri Lanka
- Livingstone S, & Helsper E.,2004 "Advertising Food To Children" Publisher: London, Department of Media and Communications

- http://www.ofcom.org.uk/research/tv/reports/food_ads/appendix2.pdf [Accessed on 18/02/2009]
- Blisard N. 2008, "Advertising and What We Eat", U.S. Department of Agriculture <http://www.er.usda.gov/publications/aib750/aib750j.pdf> [Accessed on 14/02/2009]
- Wiese J.2004 "Guidance for food Advertising Self- Regulation " National Advertising Review Council http://www.narcpartner.org/reports/NARC_White_Paper_6-1-04.pdf [Accessed on 15/01/2009]
- Katke.K 2006, "The Impact of Television advertising on Child health and family Spending", <http://dspace.iimk.ac.in/bitstream/2259/359/1/283-286.pdf> [Accessed on 22/03/2009]
- Borzekowski D.L, Robinson T.N (2001). The 30-Second Effect: An Experiment Revealing the Impact of Television Commercials On Food Preferences of Preschooler. *Journal of the American Dietetic Association* , 101:42-6.
- Kunkel D. 2001. Children and Television Advertising. In *Handbook of Children and the Media*, ed. DGSaJL Singer, pp. 375-93. Thousand Oaks, CA: Sage Publications.
- John, D. (1999). Through the eyes of a child: children's knowledge and understanding of advertising. Cited in MC Macklin and L Carlson (Eds) *Advertising to Children: Concepts and Controversies*. CA, Thousand Oaks, Sage.
- Becker G.S, Murphy K.M. (1993). A Simple Theory of Advertising as a Good or Bad. *Quarterly Journal of Economics* 108: 941-64
- Gortmaker S.L, Must A, Sobol AM, Peteron K, Colditz GA, Dietz WH. (1996). Television Viewing As a Cause of Increasing Obesity Among Children in the United States. *1986-1990 Archives of Pediatrics & Adolescent Medicine* , 150:356-62.
- Hastings, G., M. Stead, et al. (2003). Review of research on the effects of food promotion to children: Final report, Centre for Social Marketing, The University of Strathclyde, Glasgow
- Bill, 2007/2008 "Food products Marketing to Children Bill", library House of Commodity <http://www.parliament.uk/commons/lib/research/rp2008/rp08-035.pdf> [Accessed on 08/02/2009]