CHAPTER-2
REVIEW OF LITERATURE

This section deals with empirical work done by various researchers in the area of “Food Promotion to Children: A Study of Parental Perception and Mediation”. Some of the studies, having direct and indirect relevance for the present research topic have been reviewed and segmented under different heads such as nature and extent of food commercials targeted at children, promotional elements used in food commercials to target children, impact of television advertisements on children’s consumption and buying behaviour, retail store characteristics that influence purchase requests of children, shopping behaviour of children in retail stores and nature of feeding practices used by parents to mediate food consumption habits of children. A brief explanation of the studies reviewed is given below.

NATURE AND EXTENT OF FOOD COMMERCIALS TARGETED AT CHILDREN

Byrd-Bredbenner and Grasso (1999) content analysed 700 commercials out of which a majority (467) of advertisements were for products and services. Promotions of food and beverages accounted for 23 per cent of all advertisements. They found that while marketing foods and beverages, marketers gave much preference to taste in comparison to health or nutrition. Nearly, a half of the advertised foods classified in the breads and cereals group were either high in fat or sugar or none were whole grain foods. Fruits, vegetables and dairy products were rarely advertised on television. Further, they used USDA Food Guide Pyramid to classify food and beverages into eight categories. On comparing USDA Food Guide Pyramid with Prime-Time Pyramid for food advertisements shown on Saturday mornings, they found that proportion of fats, oils and sweets were more in Prime-Time Pyramid group. However, the proportion of fats, oils, sweets group and bread, cereal, rice, pasta group (41%) was almost equal in Prime-Time Pyramid group. But such position was not found for USDA Food Guide Pyramid group. In USDA Food Guide Pyramid, fats, oils and sweets group comprised of a very small percentage. In Prime-time Pyramid group, no importance was given to meat, poultry, fish, dry beans, eggs and nuts group while they were present in USDA Food Guide Pyramid.
Hastings et al. (2003), on the basis of systematic reviews, highlighted that children were exposed to a great deal of promotion of unhealthy foods. Advertisements for breakfast cereals, confectionery, snacks, soft-drinks, fast-food restaurants and toys were frequently targeted at children. All these foods were high in fats, sugars and salt and were harmful for the health of children. Advertisements for healthy foods such as fresh fruits or vegetables were rarely broadcast on television. Zuppa et al. (2003), Neville et al. (2005), Palmer and Carpenter (2006), Cairns et al. (2009, 2013) and Ariana and Benazic (2011) further corroborated these findings.

Harrison and Marske (2005) classified food advertisements across audience (child-audience and general-audience). They found that overall, convenience/fast foods and candy/sweets/soft drinks were frequently advertised on television. Moreover, advertisements for candy/sweets/soft drinks were frequently targeted at children, whilst convenience foods were mainly directed at general-audience.

Arnas (2006) conducted a content analysis of 775 advertisements and found that nearly half of the advertisements broadcast on television were for foods. Advertisements for candy/chocolate, chips, milk and derivations of milk such as cheese and yogurt and of breakfast cereals were frequently broadcast on television. Thus, most of these advertised foods were unhealthy and contained high level of fat, sugar and salt. However, there were no advertisements for fruits/vegetables, legumes and eggs.

Livingstone (2006) drew on literature reviews originally commissioned from the author by the Office of Communications (OfCom). It was found that television advertising had a modest direct effect on children’s food choices and most of foods advertised on television were of high in fat, salt or sugar that caused problem of obesity in children. The reason of giving more emphasis on television advertisements was frequent increase in expenditure of food and beverage advertising using television in developed countries like UK and USA. This study also explained that television viewing was associated with frequent consumption of snacks, prepared meals and/or fast foods.

Batada and Wootan (2007) investigated the nutritional quality of the foods and beverages marketed by one of the largest television channel to children. It was found that
a majority of beverages and restaurants meals marketed to children were of poor nutritional quality. The most commonly advertised foods were sugared cereals, fast-food restaurant items and pastries. Out of 168 food advertisements, 88 per cent were for poor nutritional quality foods. Only 11% of all food advertisements featured foods or meals with at least one-half serving of fruits or vegetables and 13 per cent of all food advertisements featured foods that met the whole-grain criterion. A majority of marketed foods were high in fat, saturated and trans fats, salt or sugars and few advertisements were for fruits, vegetables or whole grains. These findings were corroborated by Roberts and Pettigrew (2007).

Kelly et al. (2007) highlighted the pattern and prevalence of food and drink advertisements directed at children on commercial television in Australia. Data were collected by recording television advertisements on three commercial channels for 357 hours. Food advertisements were coded into three groups (core foods, high-fat/high-sugar foods and miscellaneous) using 18 food categories. The study revealed that a majority of food advertisements (48.6%) were of high-fat/high-sugar foods. Furthermore, children aged 5-12 years were exposed to 96 food advertisements, including 63 high-fat/high-sugar advertisements per week. Advertisements for fast-food restaurant, confectionery, dairy products, bread, cereals, rice and pasta were most frequently displayed on television.

Powell et al. (2007a) content analysed 2,24,083 advertisements viewed by children of age categories 2 to 11 years. They found that food advertisements comprised of 36.4% of all advertisements that were seen by children. Further, advertisements for cereals, sweets, snacks, beverages, fast food restaurants, non-fast food restaurants and other foods were mainly shown on television. However, cereals were the most frequently advertised foods followed by fast food restaurants and snacks.

Powell et al. (2007b) assessed 2,38,353 television advertisements viewed by children of age band 12 to 17 years. They pointed out that food advertisements accounted for one fifth of total advertisements shown on television. Fast food was the most frequently advertised food and it made up to 23 per cent of all food advertisements. Other
advertisements which were frequently shown on television were for sweets, beverages, cereals, snacks and non-fast food restaurant products. All these advertised products were within the reach of children’s purchasing power.

Galcheva et al. (2008) provided a comprehensive assessment of the amount and type of TV food advertising directed at Bulgarian children. A content analysis of 371 commercials was conducted during 41.5 hours of children’s TV programs, broadcast on three national TV stations—one public and two private. Out of 371 commercials, food/beverage advertisements accounted for one third (33.4%) of all commercials with a majority of commercials (96.8%) for unhealthy foods. More than half of advertisements (57%) were aimed specifically at children and the most frequently advertised products were salty/sweet-end snacks and cereals, sweet soft drinks/carbohydrates, juices and foods high in salt. Advertisements for fruits or vegetables are rarely shown on television.

Linn and Novosat (2008) revealed that a majority of promoted foods targeted at children were energy-dense and contained less nutrition. They further found that children and youth consumers spent a huge amount of money on purchasing four categories of foods—candy and snacks foods, soft drinks, fast foods and cereals. All these foods were of unhealthy nature and contain high level of fat, sugar and salt. Consumption of these foods in large portions are leading to problem of obesity in children.

Stitt and Kunkel (2008) investigated that most of the time, low-nutrient and high calorie foods were marketed to children. They further identified that the advertisements for fats/sweets, bread/cereals and fast foods/restaurants foods were predominately directed at children. Moreover, nearly half of food advertisements targeted at children were for sugared snacks and cereal products. In contrast, there were few advertisements of healthy foods such as dairy, fruits/vegetables and proteins. After analyzing the nutritional quality of foods marketed to children, it was found that a majority of foods marketed to children were not according to dietary guidelines.

Warren et al. (2008) classified food advertisements across child-audience and general-audience. They explored that out of total food advertisements, more than half food advertisements were targeted at child-audience and 49 per cent were targeted at general-
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audience. Overall, foods which were frequently advertised on television included pizza/fast foods, sweets, breakfast foods, family restaurants meals and convenience foods. Similar patterns were observed for food advertisements targeted at child-audience and general-audience. However, a majority of these advertised foods are unhealthy.

_Huang et al. (2012)_ conducted content analysis of 1344 television advertisements shown during children’s television programs in Singapore. They found that food advertisements accounted for 33 per cent of all advertisements. Whereas, this percentage was quite high during weekdays (46 per cent) and it increased upto 54 per cent on weekends. Further, on an average 4.5 food advertisements were screened per hour. However, the frequency of appearing food advertisements per hour was quite high on weekends (7.0 food advertisements per hour) and it was more than twice of food advertisements shown on weekdays (3.2 food advertisements per hour). As regards nature of advertised foods, overall, candy and confectionery were the most frequently advertised foods followed by retail food outlets and milk. Moreover, 45 per cent advertisements in retail food outlets were for fast foods. Thus, a majority of advertisements broadcast on children’s television networks were for unhealthy foods. Thereafter, a comparison of nature of food advertisements shown during weekdays and weekends revealed that frequency of screening unhealthy food advertisements per hour is more than twice on weekends than weekdays (4 than 1.8 unhealthy food advertisements per hour).

_Castonguay et al. (2013)_ conducted content analysis of 534 food advertisements broadcast during children’s programming in the USA and found that nearly 7.6 food advertisements were shown per hour to target children. They further divided all food advertisements into nine categories namely fast foods, sugared cereals, salty snacks, dairy, pasta, sugared drinks, sugared snacks, restaurant foods and others. The findings revealed that the most frequently advertised foods during children’s programs were fast foods followed by sugared cereals and salty snacks. These food advertisements cumulatively comprise of nearly three fourth of all food advertisements (73 per cent) targeted at children. By comparing these advertised foods with “Go-Slow-Whoa” food rating system, which is used to evaluate nutritional quality of foods and devised by the US Department of Health and Human Services (USDHHS), the interesting finding was
that only 1 per cent advertised foods targeted at children were most nutritious and classified as “Go” foods. Contrary to this, 27 per cent of advertised foods were classified as “Slow” foods (contain high calories and some nutritional value) and a majority of advertised foods (72 per cent) were categorised as “Whoa” foods (low-nutrient and calorie-dense) that should not be eaten regularly.

PROMOTIONAL ELEMENTS USED IN FOOD ADVERTISEMENTS TO TARGET CHILDREN

Buijzen and Valkenburg (2002) compared appeals used in advertisements directed at audience of different age groups. They found that the most frequently used appeals in commercials aimed at children were play, action-adventure, fun, courage, affection for animals and affection for children. Whereas, commercials aimed at teenagers were found to use appeals of having the best, fun, seizing opportunities, being modern and being cool. Similarly, appeals of convenience, physical attractiveness, health, financial security and sexuality were found to be used frequently in television advertisements targeted at general-audience. Further, they found that advertisements for candy and snacks as well as foods were frequently displayed on television. Appeals which were predominately used in advertisements for candy and snacks include pleasant taste, humour, newness, fun and action-adventure. Whilst, use of appeals—humour, taste, quality, newness and health were more common in food advertisements.

Harrison and Marske (2005) further analysed food advertisements targeted at children and general-audience on the basis of certain variables. These variables include health related messages, eating occasion, eating location, apparent character gender, apparent character race, apparent character body size. Their findings revealed that a majority of food advertisements (overall as well as child-audience and general-audience) did not display any health related message. However, the message of ‘natural ingredients’ was most commonly used in food advertisements. Further, eating during ‘snack time’ was the most frequently used eating occasion followed by eating during ‘breakfast’. Similar patterns were observed for food advertisements targeted at child-audience and general-audience both. The eating location used in food advertisements was defined as eating at
home, in restaurant, in car, outside and elsewhere. Most of food advertisements highlight eating location ‘home only’. However, eating outside home location is depicted in more than one fifth of food advertisements (overall as well as child-audience and general-audience advertisements). Male characters were commonly used in food advertisements targeted at children as well as general-audience. Further, more than three fourth of food advertisements displayed the use of white character race in food advertisements (overall as well as child-audience and general-audience advertisements). Overall, both males average and females average characters were shown in three fourth of food advertisements. Whilst, females average characters were shown in food advertisements targeted at children followed by male average characters. However, use of male average characters was more frequent in food advertisements targeted at general-audience than female average characters.

Matthews (2007) examined the effects of promotional strategies and channels within food marketing to children. In the UK as well as in other countries, various creative strategies were found to be used by food advertisers to target children included linking into children’s culture by referencing movies and their characters, and by using child-related appeals to play, fun, action-adventure, humour, magic or fantasy. Apart from these, many advertisers also used cartoons or celebrity characters in advertisements to allure children. However, television was found to be the prime promotional medium and food advertisements during children’s television overwhelmingly promoted ‘unhealthy’ foods (savoury snacks and confectionary), with very little promotion of fruits and vegetables and other ‘healthy’ foods.

Page and Brewster (2007) content analysed 147 television commercials that were displayed during children’s programming blocks on 5 US terrestrial broadcast networks. These advertisements contained 20 separate promotional strategies and 20 different attention elements. Most popular promotional strategies that were used in television advertisements included use of jingles/slogans, showing children with the advertised food, use of product identification characters. The use of animation, real children and animal characters in commercials were the most frequently used attention elements in commercials. The study further revealed that high-sugar cereal commercials used more
attention elements than fast food restaurant commercials. Fast food restaurant commercials were more likely to have fast-cutting scenes and used simplistic sketches or figures in commercials.

Roberts and Pettigrew (2007) found that themes mainly used in television advertisements targeting children comprised of—portrayal of grazing (showing children eating advertised foods), denigration of core foods (showing children dislike core/unprocessed foods and wishing to eat advertised foods) and exaggerated health claims (use of word ‘healthy’ repeatedly). They also highlighted that themes of popularity, performance and mood alteration/enhancement were generally used in food advertisements. ‘Popularity’ was depicted by acceptance of the advertised food by a celebrity or a large number of consumers. The theme ‘performance’ explained implied relationship of the product and exceptional performance in sporting endeavours. Theme of ‘mood alteration/enhancement’ highlighted that the advertised product would either create/enhance positive feelings (e.g. happiness, relief) or remove negative feelings (e.g. boredom, anxiety, anger over not having product).

Kelly et al. (2008) highlighted the use of two forms of persuasive food marketing techniques—premium offers (competitions, giveaways, rebates and vouchers) and promotional characters (celebrities, sports persons, cartoon characters and spokes/branded characters) in television food commercials. A total of 20,201 advertisements were recorded on all three commercial Australian television channels. They found that food advertisements accounted for 25.5 per cent of all advertisements. Further, a majority of food advertisements were displayed during peak time period when large numbers of children watched television. Overall, 21.4 per cent of food advertisements featured promotional characters and 7.3 per cent food advertisements used premium offers. However, most of time, these persuasive food marketing techniques were used to promote non-core foods which were mainly targeted at children.

Warren et al. (2008) classified appeals into two broad categories—product appeals (explaining about features or inherent qualities of the advertised product) and emotional appeals (suggestions of affective appeals directly associated with product consumption).
Their findings revealed that appeals like taste/flavour, mood alteration, nutritional content, new and value for money were prevalent in three fourth of food commercials directed at children. Similar pattern was also followed in general-audience targeted food advertisements. However, most of these appeals were product appeals.

Cairns et al. (2009) reported that food marketers used different promotional channels such as television advertising, in-school marketing, point of sale, on-pack promotions, cartoon characters and animations, interactive websites, free samples of foods, free gifts/tokens with foods, including toys or collectibles bearing the product’s name, tie-ins with movies, sponsorship of school activities and sports and competitions to advertise their foods. However, television was indeed the prime medium used for promoting foods to children. Hastings et al. (2003) and Story and French (2004) have already made these findings. They also found that various animation techniques and themes/appeals (such as taste, nutritional or health properties, texture of the food, fantasy and adventure themes, fun and humour, price and novelty) were used by marketers to wield influence on children’s buying behaviour. However, food marketers gave more emphasis on themes/appeals based on taste, humour, action-adventure, fun and fantasy, or taste instead of health and nutrition. Hastings et al.’s (2003) findings are reiterated. Further, these findings are also corroborated by Khanna (2012) and Cairns et al. (2013).

Boyland et al. (2012) assessed the use of persuasive marketing techniques in food and beverage advertisements. They found that more than fifty per cent of food advertisements (55.7%) display promotional characters (brand equity and licensed characters) to entice children. Further, on comparing appeals used in food advertisements targeted across audience of different age groups, they found that fun, taste and premium/contest were more commonly used in food advertisements targeting children. While, appeals of taste, health/nutrition and premium/contest were frequently used in food advertisements directed at teenagers and adult-audience. However, promotional characters, celebrity endorsers and premium offers were used in high proportion to promote non-core foods than other foods. Further, more than a quarter of food advertisements were found to promote websites as a persuasive marketing technique.
Castonguay et al. (2013) analysed types and frequency of health-related messages used in food advertisements broadcast during children’s programming in the USA. Three types of health-related messages were found to be used in food advertisements namely—making healthy food claim (e.g. keeps a person heart healthy, contains whole grain and reduce fat), depicting of physical activity (e.g. showing characters play or perform various physical exercises in the advertisements) and associating foods with fruit (e.g. depiction of any fruit in the advertisement, make claim of fruit flavour or indicate that the advertised foods contain fruit). These health-related messages were used in food advertisements in proportion of 27.2 per cent, 6.6 per cent and 32.2 per cent respectively. They also revealed that fast foods, sugared cereals and salty snacks were the most frequently advertised foods and a majority of health-related messages were used in these food advertisements. The health-related messages were deployed in more than eighty per cent (81.6%) advertisements for fast foods, seventy four per cent advertisements for sugared cereals and sixty four per cent advertisements for salty snacks. Thus, by using health-related messages in advertisements of unhealthy/nutritionally deficient foods meticulously, food advertisers target young audience.

**IMPACT OF TELEVISION ADVERTISEMENTS ON CHILDREN’S CONSUMPTION AND BUYING BEHAVIOUR**

Young and Hetherington (1996) examined frequency and content of television advertising to children, their purchase request behaviour and influence of advertising on their food-related behaviour. They explored that much of the research adopted a model of advertising in relation to children that was influenced by S-O-R paradigm in experimental psychology. This paradigm presumed a sequence of influence with a stimulus (S) affecting an organism (O) with a response (R) being elicited. The stimulus would be an advertisement, the organism a child. There were a range of possible response measures such as food choice from a range of alternatives, pressure put on parents to buy various foods, attitudes toward advertising, recall of brands, and so on. The S-O-R paradigm would regard advertising as a cultural resource along with other sources of information that the child used when making a food choice. The extent to which the child was literate with advertising would affect the interpretation and utilization of advertising. They
however concluded that there was a linkage between the presence of brands of cereals in the household and the extent to which the child had viewed commercials for these brands.

**Kraak and Pelletier (1998)** reported that television commercials had an impact on children’s food buying behaviour in supermarket. Children request those foods in supermarkets which were frequently advertised on television. These findings were further corroborated by Gotze and Schlegelmilch (2000) who found a significant positive correlation between children’s TV viewing time and their purchase requests. The probability of purchase requests also increased with the increased exposure of television advertisements by children. Further, a significant positive association was also found between television viewing habits of mothers and children.

**Borzekowski and Robinson (2001)** hypothesized that television food commercials had immediate effects on children’s food preferences. Children after watching television either requested their parents to buy advertised food or to go to retail store or restaurant which was advertised in television.

**Coon et al. (2001)** examined relationship between the presence of television during meals and children’s food consumption patterns. Data were collected from 91 parent-child pairs from suburbs adjacent to Washington, D.C. Three non consecutive 24-hour dietary recalls were conducted with each child. The study revealed an association between television viewing and children’s requests for and consumption of advertised foods. Consumption of grains, fruits, green and yellow vegetables, potatoes, beans, and nuts was lower in case of children who viewed television two or more meals per day than did children from families in which the television was either not on at meals or was on only for one meal. Children from the families in which television viewing was a normal part of meal routines consumed more pizzas, snack foods and sodas than the children from families in which television viewing and eating were two separate activities. There was also a significant positive relation between television viewing and children’s consumption of caffeine and a negative relationship between parents’ nutrition knowledge and presence of television during mealtime. The presence of television during mealtime also has an effect on frequency of using quick suppers by parents. Thus,
watching television during meals negatively affected the dietary patterns of children and their families.

**Matheson et al. (2004)** investigated types of foods consumed by children during television viewing on weekdays and weekends. Through a longitudinal study, they found that there was a difference in food consumption behaviour of children during television viewing on weekends and weekdays. Consumption of energy during television viewing was more on weekends in comparison to weekdays. Children’s preferences for vegetables were generally low during television viewing. While watching television, they preferred to consume snacks than any of the meals and did not consume highly advertised foods.

**Arnas (2006)** examined the impact of television advertisements on food consumption as well as food purchase behaviour of children. This study was conducted on children of age group 3-8 years and it was found that children in the 5-6 years age group spent more time watching television during weekdays than the other age groups (3-5 or 6-8 years). Most of children ate or drank while watching television. More so, one-third of the foods preferred by them while watching television were unhealthy foods and contained high fat and sugar contents. These foods included popcorn/nuts, chips, chocolate, candy and cake. A majority of children either desired to purchase foods that they saw in television advertisements or wished parents to buy those advertised foods during shopping at the supermarket. If requested foods were not purchased according to the desire of younger children, they started to argue and cried to get what they wanted. Younger children were found to pay more attention to advertisements than older children.

**Dixon et al. (2007)** examined the persuasive impact of television food advertising on children’s food-related attitudes and beliefs. Data were collected from 919 students of grade five and six from schools in Melbourne, Australia. By using regression analysis, it was found that there was an association between children’s usual television use and junk food-related attitudes, beliefs and behaviours. Children’s exposure to TV advertising was positively correlated with pro-junk food attitudes and beliefs and the consequent junk food consumption. After controlling for students gender, grade and socio-economic
status, it was found that there was significant positive association between hours of weekly TV viewing and more positive attitudes of children towards fizzy drinks, chocolate and fast food consumption. Thus, this study revealed that television commercials had an adverse effect on children’s dietary consumption.

**Buijzen et al. (2008)** found that television food advertising wielded a strong influence on children’s food preferences. Therefore, children who watched food advertisements more frequently consumed more energy-dense foods. These included sugared breakfast cereals, confectionery, savoury snacks, soft drinks, and product from fast food restaurants.

**Chernin (2008)** examined the influence of food marketing on children’s food preferences and tested whether age and gender moderated the effects of advertisement exposure on food preferences and eating behaviour of children. A convenience sample of 133 children between the ages of five and eleven was selected for the study. The study found that exposure to food marketing affected children’s food preferences and eating behaviour. A majority of children preferred advertised foods. Boys were more influenced by the advertisements than girls. However, age did not moderate the effects of advertisement exposure on food preferences and eating behaviour of children.

**Fiates et al. (2008)** explored food choices and television viewing habits of children in Brazil. Data were collected through 12 focus group interviews from 57 students, aged 7-10 years. The results revealed that children had a habit of eating during watching television in their leisure hours. Although parents had control over food choice of children but not over the time they spent watching television. A majority of children ate salads and fresh fruits regularly and snack foods occasionally but mainly purchased them with their own money. The foods that were purchased by children independently included snacks such as sweets and salted snacks, candies, gums, lollipops and ice-pops. Most of these foods were displayed in television advertisements.

**Cairns et al. (2009)** reported that various promotional channels were used to advertise foods targeted at children. However, television was the most prominent channel among
all promotional channels. There was a significant association between food promotion and children’s food preferences. Food promotion also encouraged children’s food purchases and purchase requests to parents for the advertised foods. Children are also seen to purchase foods themselves in the absence of parents. More so, parents also accepted food purchase requests of children that were stimulated from food promotion. Hastings et al. (2003) has already made these findings. Further, these findings were corroborated by Cairns et al. (2013).

Wiharto and Haryanto (2009) reported food promotion through television as one of the strongest determinants of the children intention to consume fast food products. Four main determinants of children intention to consume such as product characteristics, reference groups, retail environment and promotion were taken for study. Data were collected from elementary schools in different areas. The results showed that product promotion through television had a strong influence on children’s intention to consume as compared to other determinants as kids usually spent most of their time in watching television.

Miryala (2011) conducted personal interviews with 100 children in the age group of 5-15 years and 50 parents in India. He found that a majority of parents felt that television had a negative impact on food habits of children. Nearly 81 per cent of children watched television during mealtime and demanded parents to buy foods which were shown in television advertisements. More than half of television advertisements promoted sugared cereals, candy, fatty foods and toys. Fast foods consisted of 83 per cent of the advertised products. All these foods were not beneficial for a child’s physical health.

Ariana and Benazic (2011) explored that foods which were frequently advertised on television contained too much sugar, fat and additives. These advertisements had negative influence on the nutritional habits of children. More so, frequent exposures of children to these food advertisements did not increase the children’s knowledge about healthy foods but it increased unhealthy eating habits in children also. Therefore, parents held negative attitudes towards the undesirable content of the advertised foods.
RETAIL STORES CHARACTERISTICS THAT INFLUENCE PURCHASE REQUESTS OF CHILDREN

Gelperowic and Beharrell (1994) stated that appealing packaging of a product had a strong influence on purchase decisions of mothers and children in a shopping center. They carried out a mall-intercept interview in four different Bedfordshire shopping centers. Data were collected from 100 mothers who had children younger than 12 years of age. The results of the study revealed that mothers were ready to buy foods with appealing packaging only because the food in question was considered healthy and also gave an assurance of food being eaten by children. Thus, purchase decisions of mothers were also influenced by eating behaviour of children.

Hastings et al. (2003) concluded that free gifts and packaging attributes had a strong influence on children’s buying behaviour. Various packaging attributes that attracted the attention of children might be colour of packaging, characters depicted on the packaging, free gift, game depicted on the packaging, shape or the picture of the food. Children gave high priority to liking/favourite, flavour/taste, characters/action figures, product type and colour in choosing foods and low priority to other reasons such as foods depicted on the package, prior consumption, appearance, free gift, because parents buy it and nutrient contents of food. Cairns et al. (2009) also supported these findings.

Pettersson et al. (2004) highlighted that various promotional strategies were used to attract children in grocery stores. These included placing the products at suitable levels and use of cartoons and multicolored figures in designing package for food. Various factors which made a grocery store a convenient place for shopping with family were provision of play areas, special trolleys for children and diaper-changing areas. Parents preferred to go for shopping with their family on weekends.

Chapman et al. (2006) conducted a research in nine selected Sydney supermarkets in Australia. For this research, the number and types of promotions were measured within seven food categories like sweet biscuits, snack foods, confectionery, chips/savoury snacks, cereals, dairy snacks and ice-cream. The study found that on an average, 35 per cent of confectionery items in supermarkets used promotional tactics such as discounts,
premiums and prizes. The uses of television/movie celebrities and cartoon characters for promotion were most common, making up majority (75%) of all promotions. Themes of fun and fantasy were apparent and lacked any reference to good health and nutrition. Giveaways accounted for very small percentage (13%) of all promotions. The proportion of using promotional tactics was also high in the snack food or dairy snack categories. However, very few promotional tactics were used in case of chips/savoury snacks, breakfast cereals and ice-cream categories. A majority of food promotions were for unhealthy foods and nearly one fifth of the promotional tactics were used to promote healthy foods in supermarkets.

**Dixon et al. (2006)** conducted an observational survey in 24 randomly selected supermarkets in Australia. They noted that a majority of chocolate bars having colorful packaging were stored at the reachable shelf locations in order to attract children. While mints, luxury chocolates and chewing gums/bubblegums were usually placed at the mid-top levels. Products with children’s promotions inside (chocolate eggs containing a toy) were generally observed to be positioned at the lowest point in the display within reach of child sitting in a pusher or standing up. A majority of checkouts within each supermarket displayed confectionery, food or drinks, sweets, chocolates, chewing gum or bubblegum. Very few supermarkets displayed fruits at any of their checkouts and only one supermarket displayed vegetables at the checkout area.

**Pettigrew and Roberts (2006)** propounded that mothers had negative attitudes towards toys that were offered with fast food meals as a promotional strategy. Two focus groups and 12 individual interviews were conducted with 21 mothers of young children. Their findings projected that advertising and peer influence played a major role in developing pester behaviour of children. Toy was the primary attraction of visiting a restaurant and aroused materialistic attitudes and other psychological problems in children. Children were not interested in quality, taste and nutrient contents of meal. Most of the time, they requested meal (with toy) which was uneconomical and usually nutritionally inferior. Sometimes after getting toys, children lost their interest in restaurant meals.
Berry and McMullen (2008) studied the nature of visual communication to children in supermarket context as health protective or exploitative. The authors studied supermarkets to identify how elements of child targeted marketing (cartoon like spokes characters, appealing box colour schemes, cereal shapes/colours, child oriented incentives in the box and the accessibility and visibility of products on store shelves) in that setting were linked to the nutritional health of breakfast cereals sold there. The authors sampled 15 distinct supermarkets in the Greater Toronto metropolitan area and used econometric methods to systematically observe the simulated perspective of young children. The study found that boxes with spokes characters, highly child oriented colours, shapes and themes and premiums occupied more space than cereal boxes which failed to provide any of these cues. The sugar content, refined grain based formulas and trans fats were also more in ratio in the cereal boxes with high cues (as mentioned above).

Filipovic and Djordjevic (2010) explored important features of stores that increased the likability of children for them. Data were collected from 500 respondents of two age groups (7-8 years and 12-13 years) in Serbia. They investigated four functional features of the marketplace—price of merchandising in a shop, store’s arrangement, sales personnel attitude towards children and store location. Their findings showed that younger children were more price sensitive than older children. They selected retail stores by considering their location as parents did not allow them to go to marketplaces situated at distant locations. Whereas, older children gave more importance to store’s arrangement or decoration. Besides, children also like stores because of presence of kind sales personnel who welcome them with respect.

Harris et al. (2009) found that marketers mostly used promotional strategies such as packaging and other in-store marketing programs to increase the sale of foods in retail stores. A sample of 397 products and 296 promotional agreements were taken into account for this purpose. Through a longitudinal study, they found that various cross-promotional techniques were used to appeal to the youth included third-party licensed characters (i.e. the use of animated characters from television and movies) as well as tie-ins with other television shows and movies; athletes; sports teams and events; theme parks; toys and games; and charities. These promotions took many forms, included
characters or celebrities featured on the package, special flavours, sweepstakes, premium giveaways and charitable donations. However, most effective method to influence youth in retail stores was use of in-store marketing programs. A majority of promotional tactics were used in only five categories of foods such as cereals, fruit snacks, meal products, frozen desserts and candy. Thus, results revealed that use of cross promotions as a marketing strategy had increased but nutritional value of products targeted at youth had declined.

Ogba and Johnson (2010) investigated the effect of packaging on children’s product preferences and its ability to influence parents’ buyer decision in-store. Data were collected from 145 parents. The results of the analysis showed that children were much influenced by packaging and its associated variables like bright colours, character licenses, product specific characters of packaging and offers of free gifts.

Mehta et al. (2012) conducted a study in a supermarket to look into the nature and extent of marketing techniques used on the packaging of child-oriented food and beverage products. They segmented all marketing techniques into five major categories namely semiotics (child-oriented graphics, child-oriented cartoons and celebrities, and claims about health and nutrition), cross promotions (links to television, movies and websites), packaging form (lunch box/kids-size packaging and unusual shapes), price promotions (discounts and bonus offers) and premium promotions (giveaways (toys and games) and competitions). They found that 10% or more than those child-oriented foods used sixteen unique marketing techniques on packaging namely bright colours, childish script, lunch box/kids-size packs, directed to food company website, unlicensed cartoon characters (generic cartoons, sports equipment), references to play or education and flavour, captions exaggerating attributes (‘bliss bombs’, ‘dangerously cheesy’), licensed cartoon characters, discounts, directed to brand website, unusual packaging shape, cross-promotions (links to movies or television), bonus offers, images of children, celebrities-sports or entertainment and others like puzzles, games, novelty items etc. On an average, more than six marketing techniques were used on each food. Further, out of 157 discrete food and beverage products targeted at children, almost all foods (99.4%) used semiotics on packages to market foods. This was followed by cross-promotions (77.1%), attractive
packaging designs (55.4%), price promotions (33.1%) and premium promotions (24.8%). Semiotics such as graphics, cartoon and celebrities, claims about health and nutrition and cross-promotions were also used in a majority of child-oriented foods. Their respective percentages were 99%, 85%, 64% and 77%.

**CHILDREN’S BUYING BEHAVIOUR IN RETAIL STORES**

*Galst and White (1976)* demonstrated significant positive relationship between the overall reinforcement value of television commercials and children’s purchase-influencing attempts (PIAs) at the supermarket. A total of 41 children (20 girls and 21 boys) of mean age 4-7 and their mothers participated in the study. The results showed that children always preferred those foods which were displayed in TV commercials. Whenever children went to supermarket along with their parents, they requested meats, fruits, vegetables, dairy products and foods which were infrequently advertised on television. Cereals and candies, however, were the most heavily requested items by children. There was significant positive relation between hours of commercials watched per week and number of children purchase-influencing attempts (PIAs) made. *Kraak and Pelletier (1998)* and *Ogba and Johnson (2010)* also corroborated these findings.

*Atkin (1978)* observed parent-child interaction in supermarkets for buying breakfast cereals. In an observational study, they revealed that television advertisements had a major influence on brand choice decision of children in supermarket. Nearly two third children (66%) in supermarkets expressed a desire for cereals and in one third cases (34%), parents either initiated their children for selecting breakfast cereals or they selected cereals themselves. The frequency of initiating requests was high in case of younger children in comparison to older children and in middle class rather than the working class. However, in parent-initiated sequences, child compliance tended to increase with age. Most of children preferred a particular brand of breakfast cereals because of premiums and incentives. Very few children seemed to consider nutritive merits in distinguishing among various brands.

*Pettersson et al. (2004)* highlighted that young people preferred to go to a grocery store for purchasing foods with family. Both hidden observation and family interview methods
were used to collect data. A total of 338 people were observed in seven different grocery stores in Stockholm. Seven family interviews, involving a total of 29 persons, were conducted in Uppsala. The results revealed that the buying behaviour of children varied according to their age and types of products in grocery store. Younger children seemed to enjoy collecting fruits and vegetables together with the adult while older children were often seen yielding in discussions about candy, lemonade and other non-food products found in supermarkets, for instance, candles, toys and magazines. In comparison to boys, girls also helped parents in shopping especially in buying breakfast cereals or fruits.

O’Dougherty et al. (2006) conducted a study on 142 adults in eleven supermarkets in Minneapolis. Through observational analysis, they found that a majority of children requested parents for sweets and snacks followed by fruits and vegetables, dairy and prepackaged meals in a supermarket. Nearly half of the time, a request was initiated by a child. Moreover, children’s buying decisions in supermarkets were affected by previous knowledge of brands and/or marketing techniques. In spite of buying only, children showed interest in reading, spelling or counting food in supermarkets. Parents did not seem to provide information about nutritional contents of foods to children in supermarkets.

Norgaard et al. (2007) highlighted that decision making was a joint process of children and parents when shopping for foods. Data were collected from 451 Danish families with children aged ten to thirteen years using questionnaires for both children and parents. The findings of the study showed that children participated in the initiation stage of the family food buying process by carrying out a role as initiators. They acted as idea generators, thereby making active and direct influence attempts in the family food buying process. Sometimes, children tried to influence family members to buy healthy foods such as fruits and vegetables, thus playing a role of health influencers. Children had a strong influence on purchase decisions of small and easy prepared foods for in-between meals and breakfast and least influence on purchase decisions of foods for dinner. They showed much interest in the choice of sweets and least interest in the choice of fish and meat.
**Review of Literature**

**Buijzen and Valkenburg (2008)** investigated that television viewing had an impact on children’s buying behaviour in the supermarket. A sample of 269 parent-child dyads was taken from 10 supermarkets and 5 toy stores in Netherlands. Through observational analysis and survey method, it was found that children demanded those products in supermarket which were shown in television advertisements. Nearly two third of purchase requests were initiated by children and one third by parents. There was significant negative correlation between children’s coercive behaviour and parent-initiated interaction and between children’s coercive behaviour and product purchase. Parent-initiated communication was significantly positively associated with product purchase.

**Ebster et al. (2009)** investigated influence of personal and environmental factors on purchase requests of children in retail stores. Personal factors included three development stages of a child (i.e. perceptual, reflective and analytical) as defined by John (1999). Environmental factors were defined as placement of products at eye level of children and restriction on their movement while sitting in shopping carts. Their findings revealed that children who were at perceptual stage (ages 3-7 years) made more purchase requests than children who were at analytical (ages 8-10 years) and reflective stages (11 years and above). However, if their view was restricted through sitting in a shopping cart, the probability of their purchase requests also declined. Further, a significant positive relationship was found between placement of product at eye level of children in retail stores and their increased purchase requests. This showed that keeping the products at eye level of children further increased the chances of their purchase requests.

**NATURE OF FEEDING PRACTICES USED BY PARENTS TO MEDIATE FOOD CONSUMPTION HABITS OF CHILDREN**

**Klesges et al. (1983)** highlighted that parents had a strong influence on children’s eating behaviour. They observed the relationship between parent behaviour and child mealtime behaviour during the dinnertime meal using the BATMAN (Bob and Tom's Method of Assessing Nutrition). The results revealed that maternal prompts had more influence on children’s eating habits in comparison to paternal prompts. Verbal encouragements to eat
(such as suggests, commands, directs, makes positive statements about) were much effective than physical encouragement (i.e. pats, hugs, kisses, pushes or moves, directs physically, holds and points, models). However, parental encouragements to eat increased the likelihood of eating meal by child.

**Neumark-Sztainer et al. (2000)** studied the impact of family meals on adolescents’ eating behaviour. A sample of 252 students in Minnesota was taken for study. The findings of the study showed that nearly one third of the total respondents’ families ate together seven or more times in a week. A similar percentage reported two or fewer family meals. Older adolescents were less interested in eating with family than younger adolescents. About one-quarter of the adolescents reported that at least one parent was in the room with them every day during dinner. A majority of children enjoyed eating meals with their families. Half of the respondents watched television frequently during meals. Most of respondents believed that they could eat healthy foods in dinner with families.

**Boutelle et al. (2001)** conducted a study on family mealtime environment. A convenience sample of 282 adolescents and their parents were taken from four schools in the Minneapolis/St. Paul metropolitan areas. The findings of the study revealed that a majority of parents (60%) and adolescents in the family sat down together for dinner four or more times per week. Only 29 per cent parents reported to have dinner together one to three times per week. However, parents were much interested in family meals than adolescents. Frequency of watching television was also more in parents in comparison to adolescents during dinner.

**Boutelle et al. (2003)** collected data from 277 adolescents and their families through four schools in the Minneapolis/St. Paul Minnesota, metropolitan area. They explored that more than half of the adults sat down together for family dinner for four or more times a week. However, sometimes, children’s activities and adults’ work schedules made it difficult to have family meals together. To consume more fruits and vegetables during the mealtime, dinner should be planned in advance. There was significant association between less television viewing during dinner and consuming more fruits and vegetables.
Conflict and arguments during dinner was significantly associated with higher overall fat consumption.

**Patrick and Nicklas (2005)** highlighted the importance of the physical and social environment in eating patterns of children. Children preferred to eat more fruits, vegetables and other nutrition foods, if these were available at home at reachable locations. The frequency of consuming snack foods was more in those families who did not eat meals together or who watched TV during meals. There was positive association between eating habits of children and parents’ preferences, attitudes and feeding styles. Frequency of eating meals as a family was negatively associated with soft drink consumption. It was found that big cause of consuming less fruits, vegetables and nutrition foods by adolescents was advertisements of unhealthy foods on television and availability of those foods (pizza, burger and soft drinks etc.) in large portion. Socioeconomic and cultural factors like working women dependence on convenience foods, pre-packaged and the frozen foods due to time constraints, increased level of education, high level of disposable income, ethnicity and culture also had some effect on children eating behaviour.

**Fulkerson et al. (2006)** examined adolescent and parent views of family meals. Data were collected from 902 adolescents of grade 7-9 and 10-12. One of their guardians/parents was also included in this survey. Both adolescents and parents had positive perceptions of family meals. However, parents were much interested in eating five or more meals per week than adolescents. Parents strongly agreed that family mealtime was the suitable time to develop social relationships and manners as well as healthy eating habits in children. Further, adolescents preferred to watch television more during dinner time than their parents. Younger adolescents gave high priority to family meals than older adolescents and followed rules at mealtime. Parents and older adolescents were more likely than younger adolescents to report scheduling and time barriers to family meals.

**Gable et al. (2007)** investigated that there was a negative association between children’s television viewing time and their aerobic exercise, opportunities for activity and
frequency of family meals. Chances of overweight were more in case of children who watched more television and ate fewer family meals.

**Musher-Eizenman and Holub (2007)** outlined the development and initial validation of a new self-report instrument Comprehensive Feeding Practices Questionnaire (CFPQ) that examined previous approaches to the measurement of parents’ child feeding behaviour. This new instrument examined multiple feeding practices followed by parents to mediate food consumption habits of children. Data were collected from mothers and fathers. CFPQ was an adequate tool for measuring the feeding practices of parents of young children. The twelve dimensions of CFPQ are construed of forty nine items. These dimensions are child control, emotion regulation, encourage balance and variety, environment, food as reward, involvement, modeling, monitoring, pressure, restriction for health, restriction for weight control and teaching about nutrition. Another benefit of this measure was that the factor structure of the items appeared to be consistent for mothers and fathers and across multiple modalities of survey administration. Thus, the scale provided flexibility for use in multiple setting and could be adapted to suit the needs of a particular object.

This scale was further used by Haszard et al. (2013) in their study to explore parental feeding practices followed with children. They applied Confirmatory Factor Analysis (CFA) on original CFPQ in order to check its validation in New Zealand settings. The results showed that original twelve factor model was not a good fit. Therefore, Exploratory Factor Analysis (EFA) was subsequently applied on forty nine items. The result finally gave a five factor solution that consisted of thirty two items. These five factors were healthy eating guidance, monitoring, parent pressure, restriction and child control. Also, the findings of CFA revealed that five factor model fit well. This may be so because of differences in maternal education, socio-economic status, ethnicity and maternal weight, parents use different feeding practices with children. More so, country specific issues also affect the applicability of the CFPQ.

**Orrell-Valente et al. (2007)** observed that parents used different strategies in the childhood mealtime environment to develop habits of eating more in children. Data were collected
from 142 families of kindergarteners. A majority of parents were present and ate dinner with their children. Through observational analysis, it was found that nine parental strategies were followed namely neutral prompts, pressure/demand to eat, reasoning, food reward, praise, food restraint/portion control, threat to withhold food, threat to withhold play privileges and offer of play rewards. Out of these strategies, parents tended to use neutral prompts and pressure to eat most often, with reasoning used next in frequency. Other strategies to get children to eat more (e.g. praise, offers of food rewards, threats to withhold food/play rewards) or to eat less (i.e. restraint/portion control) were used relatively infrequently. Both mothers and fathers used different parental strategies. Fathers used pressure tactics with boys and mothers praised girls for eating. Mothers also used more parental strategies than fathers. Parents’ use of neutral prompts, food rewards and praise was significantly associated with child eating compliance. Whereas, parental threats to withdraw play privileges were associated with child refusal. About one in five children (20%) were allowed to watch television during mealtime.

Mata et al. (2008) examined prediction power of parents about their children’s eating behaviour. Data were collected from 30 primary school students and their parents in Germany. The results of study revealed that parents had high prediction accuracy for their child’s meal preferences. Parents were better at predicting which meals their children liked than which they disliked. Parents’ predictions seemed to arise through the use of specific knowledge of their children’s preferences and possibly also through some projection of their own preferences. Healthfulness of meals did not seem to be a useful cue for parents’ predictions. The reason of this finding might be low agreement between parents and children in the matter of healthy food.

Ventura and Birch (2008) conducted a review of previous research and developed a conceptual mediation model which showed influence of parenting and parents’ feeding practices (such as pressure, modeling and availability) and styles on children’s eating behaviour, dietary preferences, intake and subsequent weight status. The authors stated that young children were dependent on parents and caregivers for foods. Parents’ eating habits had a strong influence on children’s eating behaviour.
Williams et al. (2008) identified dimensions of feeding practices used by parents during mealtime to motivate children to eat food. These dimensions were derived from 17 feeding practices used by parents. A sample of 240 children was taken for this study. The results revealed that various mealtime behaviour problems were faced by parents during feeding to children. On the basis of these feeding problems to children, they described various dimensions of feeding practices used by parents during meal time. They were—setting meal rules, insisting on food amounts, increasing intake of food, using non-food rewards, becoming punitive and becoming permissive. This study also interpreted that parent feeding practices were a consequence of the mealtime behaviour problems of the children, rather than a trigger for them.

Hendy et al. (2009) developed a comprehensive Parent Mealtime Action Scale (PMAS) to identify dimensions of mealtime behaviour used by parents. The improved Parent Mealtime Action Scale (PMAS) was based on 31-item scale with nine dimensions: snack limits, positive persuasion, daily FV (Fruit-Vegetables) availability, use of rewards, insistence on eating, snack modeling, special meals, fat reduction and many food choices. Exploratory Factor Analysis (EFA) with 2008 mothers and two Confirmatory Factor Analysis (CFA) with 541 mothers and 439 fathers were conducted to produce PMAS. This study focused on parent mealtime behaviour rather than parent attitudes about feeding their children. The results of the study showed that mothers and fathers used different feeding styles for encouraging their children to eat during meals. Mothers used more gentle PMAS actions like setting snack limits, ensuring daily FV availability and using fat reduction and positive persuasion during meals. Whereas, fathers used more forceful PMAS actions like insistence on eating during meals. Parent mealtime actions could influence children’s diets. Children’s diets could then influence children’s weight status, which could in turn influence the parent’s mealtime behaviour as they were concerned more about weight of children.

This scale was further validated by Williams et al. (2011). They calculated internal reliability and convergent validity and found that PMAS with nine dimensions could be useful as a valid tool for measuring parent mealtime actions of children with feeding problems. However, out of nine dimensions, only five dimensions (snack limits,
insistence on eating, fat reduction, many food choices and special meals) were more significant. There was no significant association between children’s gender and parent mealtime actions. However, parents used more fat reduction and food choices actions with older children and more fat reduction and less insistence on eating actions with healthy children. Children with limited diet variety received more positive persuasion, fewer snack limits, and more special meals.

Mulder et al. (2009) collected data from 232 children and their mothers through three primary schools in Chile. They found that there was a significant difference in maternal child-feeding practices between boys and girls. Mothers perceived overweight girls as more unhealthy in comparison to overweight boys and therefore, used more controlling child-feeding practices for girls.

McCurdy and Gorman (2010) collected data from 38 parents to study broad components of the family food environment. The results explored four factors namely maternal control, child choice, maternal presence and organization of eating environment. Out of four factors, maternal control had the highest reliability followed by child choice, maternal presence and organization of eating environment. It was found that child choice had a significant negative correlation with maternal control and positive correlation with less organized eating environment. Maternal control was significantly correlated with maternal presence.

Lewis and Worobey (2011) conducted a survey on mothers and their toddlers. Data were collected from 20 mothers having age 38 years and their 2 years old children. They observed that there were no differences between normal weight mothers and overweight mothers during the lunch and in their feeding behaviour toward their children. However overweight mothers were more concerned about their own weight relative to normal weight mothers.

Sweetman et al. (2011) examined associations between family mealtime characteristics and preschoolers’ vegetables consumption and liking. Data were collected from 434 parents or primary caregivers of preschool children aged 2 to 5 years. The findings of study revealed that forty four percent families sat down together for the main meal five
times per week or more. Only thirteen percent of families sat down together once per week or less. Parents’ vegetables consumption had a strong influence on their children’s consumption of vegetables. Dietary quality and intake was negatively associated with using ready-made sauces for the child’s main meal and positively associated with home-cooked foods. There was no association between frequency of family mealtimes and preschoolers’ vegetables consumption or liking. But in case of older children and adolescents, frequency of family mealtimes was significantly related to dietary quality and intake. Watching TV during the main meal and using convenience foods were associated with lower consumption of and liking of vegetables.