



The Influence of Parental Concern on Food Companies' Marketing Strategies

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Abstract

Consumer socialization has been investigated in the literature of various fields, including consumer behavior, marketing strategy, advertising, law, child education, medicine, and nutrition. While the importance of consumer socialization in the study of economics may be self-evident, there are few academic contributions on the topic. Thus, using orthodox microeconomic theory, in particular, game theory, we aim to analyze the interaction between parents as consumer socialization agents and food companies advertising to children through media (e.g., television commercials). This paper emphasizes that parental concern, or parental style, has a significant effect on food companies' marketing strategies toward children as well as on children's consumer socialization. From a game theoretical perspective, we find that the marketing behaviors of food companies are greatly influenced by the extent of parental concern for consumer socialization. In contrast, we find that parents do not alter their behaviors based on their awareness of the importance to food companies of their parental concern for consumer socialization. This paper asserts that parents, as agents, should consider how the volume of advertisements food companies supply is affected by the extent of parental concern for consumer socialization.

1. INTRODUCTION

Ward (1974) defines consumer socialization as the process “by which young people acquire the skills, knowledge, and attitude relevant to their functioning as consumers in the market place” (p. 2). Consumer socialization occurs primarily through media, parents, and peers (Ahmad, Sidin, & Omar, 2011; Carruth & Skinner, 2001; Moschis, 1985; Özmete, 2009). This paper focuses specifically on parents as consumer socialization agents, as they are considered to have the most significant effect on children's decision making (McNeal, 1992). Indeed, they are “the primary gatekeepers to children's food intake” (Buijzen, 2009). Although we focus on parents in this study, we acknowledge that both media (e.g., newspapers and the Internet) and peers play an important role in consumer socialization (Ahmad et al., 2011). This paper introduces a simple economic model that characterizes the interaction between parents as agents and food companies under a game theoretical context. In other words, each player reacts to the other's decision making. The significance of the role of parents in consumer socialization has been stressed from the perspective of parent-child relation, parent-child interaction, and family communication, among others (e.g., Carlson, Grossbart, & Stuenkel, 1992; Fisher, & Birch, 2007; Moschis, 1985; Özmete, 2009; Rose, 1999; Rose, Dalakas, & Kropp, 2003; Savage, Fisher, & Birch, 2007; Scaglioni, Arrizza, Vecchi, & Tedeschi, 2011). However, few researchers have explored the interaction between parents and food companies in the consumer decision making process. This may be due to the fact that food companies express their messages through media, not to specific customers but to customers in general. Nonetheless, it is safe to presume that food companies aim to identify the attributes of their customers, especially parents' behaviors as agents. Accordingly, food companies' marketing strategies are greatly influenced by parental concern and, more specifically, the extent to which parents are conscious of consumer socialization of children. It is noteworthy that our results, including the two lemmas detailed in Section 3, are based on assumptions that may seem strange, but have become popular in economics. This article is organized as follows. Section 2 derives our simple model. Section 3 explores an interaction between parents as agents and a food company advertising to children. Finally, we present our concluding remarks in Section 4.

2. MODEL

2.1 Basic Framework

We assume a two-period model, where consumers' time horizon is divided into a childhood period and an adulthood period. During the former period, “period 1”, consumers spend their childhood with their parents, encountering various types of food industry commercialization aimed at children. During the adulthood period, “period 2”, consumers become less concerned with foods and food advertisements. Therefore, during period 1, food manufacturers invest significant advertising resources into children as their main targets via mass media, such as television and the Internet.



It is significant to note that children do not necessarily display the same consumer behaviors that adults do. Children are highly impressionable to the marketing strategies of food companies; therefore, children's demand for food products may depend on the amount of advertising food companies deliver, which is largely done through television commercials. The FTC estimates that "\$1.6 billion was spent in 2006 on food marketing and promotion directed at children and adolescents, of which \$745 million was for television advertising" (Wilde, 2009, p. 156). Thus, we use α to denote the amount of advertisement a food company actually delivers at the beginning of period 1. α denotes the number of television commercials during each period. As children have not yet completed their consumer socialization, their demand for food products will depend on the amount of advertisement a food company provides through television commercials.

Wilde (2009) emphasizes that increased marketing of food products leads to a brand-switching effect and a demand-expanding effect. In our model, we consider only the latter effect; if the brand-switching effect is considered more significant, food companies would welcome regulation in food advertising, as such interference would help them retain customers and reduce advertising costs (Wilde, 2009). We focus only on the amount of television commercials, without considering the content and quality level of those commercials. Nevertheless, the content and quality of commercials have been recognized as important aspects of marketing strategies. β denotes the marketing costs a food company incurs as a result of creating and distributing television commercials. It is apparent that these costs depend on the amount of commercials α , and β is an increasing function of α . Thus,

2.2 Parents as Consumer

Socialization Agents A number of studies have shown that parents play a significant role in consumer socialization. As agents, parents transmit to their children a wide variety of properties necessary for socialization, such as norms, attitudes, motivations, and behaviors (Ahmad et al., 2011; Carlson & Grossbart, 1988; Moschis, 1985; Savage, 2007; Scaglioni et al., 2011). In our framework, at the beginning of period 1, parents as agents initiate consumer socialization of children. The way parents relate to their children's consumption affects socialization outcomes. Children whose parents put much effort into consumer socialization will perform rationally in their consumption decision making without being affected by food companies' advertisements. On the other hand, children with parents who are entirely unaware of their role in consumer socialization will be susceptible to food companies' marketing strategies. We model such consumer socialization outcomes by $\gamma \cdot \alpha \cdot \tau \cdot 1$. In other words, τ measures the extent to which children are unaffected by food companies' television commercials as a result of parental engagement in consumer socialization during period 1. Therefore, the greater τ is, the less children are affected by food companies' television commercials. As there might be some controversy concerning what should be evaluated as socialization outcomes, we embody our perspective by constructing the mathematical model. Solomon (2004) classifies parents, as consumer socialization agents, into three different styles; "authoritarian parent," "neglecting parent," and "indulgent parent" (Carlson et al., 1988; Özmete, 2009). For the purpose of mathematical convenience, we assume these styles to be continuous and express them as $\gamma \cdot 0$. Note that the classification is not necessarily continuous and it is only for the mathematical convenience. γ denotes the extent to which parents are consciously involved in consumer socialization of children. The greater is γ , an indicator of parental concern regarding consumer socialization, the higher is the level of consumer socialization outcomes τ . A deeper parental concern leads to improved consumer socialization outcomes and, thus, an increased likelihood that children display rational economic behavior. We employ the concept of economic rationality consistent with its extensive use in economic literature (see, e.g., Kreps, 1990). In this context, it means that children maximize the difference between their willingness to pay (WTP) for food consumption and the costs they incur as a result of that consumption. While this assumption may be debatable, we assert that it effectively clarifies the nature of children's economic decision making behaviors. Even when parents are fully engaged in consumer socialization of children, a child may not necessarily develop rational economic behavior. As is easily imagined, children can still be partially affected by food companies' commercial advertisements. Thus, with proportion $\gamma \cdot \tau$, children follow the maximization behavior, and with proportion $1 - \gamma \cdot \tau$, they follow the behavior encouraged by a marketing strategy. Therefore, the value of $\gamma \cdot \tau$ is neither zero nor one. The children of parents who are eagerly engaged in consumer socialization still cannot fully overcome the influence of companies' marketing.

2.3 Compensation for Marketing-Related

Diseases The threat of an increase in marketing-related diseases, such as obesity and diabetes, in children is currently escalating through the world. Many children are victims of such diseases, being forced to live in a toxic commercial environment (Amano, 2014; Linn, 2004; Schor, 2004). The World Health Organization demanded social accountability



on the part of food and beverage companies selling products that have a negative impact on children's health (Amano, 2014). Our model presumes that a food company compensates perfectly for marketing-related diseases that result from the harmful influence of television commercials on children. Partial compensation is given for diseases affecting children who make their decisions independently, without any influence of television commercials.

3. INTERACTION BETWEEN PARENTS AS AGENTS AND A FOOD COMPANY MARKETING TO CHILDREN

3.1 Derivation of Reaction Functions

Note that we employ one representative food company as an example. Given the amount of television commercials α offered by the food company at the beginning of period 1, parents as agents determine the optimum quantity of the independent demand β , which differs from α , which depends on the amount of television commercials. Meanwhile, the food company determines the optimum number of television commercials based on conjectures about α offered by parents. Both players react simultaneously to their opponent's decision with full information and without cooperating. Thus, these two players engage in a non-cooperative game that results in an equilibrium solution. The result of this game is thought to represent a Cournot-equilibrium solution, given the price constant in oligopoly (Kreps, 1990).

Inequality (9) indicates that the reaction function for children is always negatively sloping when α is on the vertical axis and β is on the horizontal axis. Lemma 1 implies that parents as agents take the strategy independent of how consciously they are involved in consumer socialization, as the consumer's reaction function is unaffected by consumer socialization outcome β . More precisely, the reaction function does not respond to an indicator of parental concern γ , which varies for each individual. This finding is particularly meaningful in contrast with the food company's marketing strategy, as explained below.

Setting the right-hand side of equation (14) equal to zero and rearranging the result leads to definition (11). When we use definitions (11) and (12) to determine whether the food company's reaction function is positively or negatively sloping, we acquire two conditions similar to those in equation (10). Lemma 2 implies that variation of γ significantly affects the food company's marketing strategy by inducing a change in the shape of its reaction function. As noted earlier, this finding is especially significant in contrast with the result of the children's reaction function. Food companies react to how consciously engaged parents are as consumer socialization agents, while parents play regardless of the level of parental concern for consumer socialization. This represents a main conclusion of this study.

3.2 Property of Equilibrium

To examine properties of the equilibrium, we superimpose the reaction function of one player on that of the other. Figures 1 to 3 show three cases depending on the relative slopes of both reaction functions. As explained by Lemmas 1 and 2, the children's reaction function is always negatively sloping, whereas the slope of the food company's reaction function depends on the value of γ . Figure 1 and 2 both illustrate cases with a stable equilibrium. Figure 3, however, represents an unstable equilibrium. The preceding explanation clarifies why these cases differ in stability. In the context of this study, the food company's marketing strategy is strongly affected by consumers' behavior, as the slope of the food company's reaction function varies with regard to changes in the value of γ . However, parents maximize their behavior regardless of how consciously they engage as consumer socialization agents. Furthermore, parents, as agents, react sensitively to a change in the amount of advertising by food companies. We find that food companies respond with great sensitivity to how deeply parents are engaged as consumer socialization agents.

4. CONCLUSION

We have examined an interaction between parents as agents of consumer socialization of children and food companies using microeconomic theory, in particular, game theory. We find that food companies are sensitive to the extent of parental concern for consumer socialization of children. Parents, on the other hand, behave independently of the significance of their concern for consumer socialization. We recognize that it is not necessarily optimal for parents to ignore food companies' marketing strategies. Parents as agents keenly react to the volume of advertisements food companies provide.



Our study has a number of defects and limitations. We focus solely only the amount of television commercials, without considering their content or quality. In light of recent marketing policy, we are certain that these factors are indeed crucial. Thus, such considerations remain to be taken up in future studies. Although we consider a two-period consumer time horizon, we focus exclusively on the behaviors at the beginning of the initial period. Following the work of Rose (1999), it would be useful to consider the entire developmental process of children in consumer socialization. Furthermore, to maximize a specific objective function, we implicitly presumed that it is preferable for children to make rational economic decisions rather than depend on food manufacturers' marketing strategies. Such an implicit assumption may be controversial from a marketing perspective. These issues will be addressed in our future research.

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