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SAKARYA UNIVERSITY  
GRADUATE SCHOOL OF BUSINESS**

**CONSUMER REVERSE SOCIALIZATION OF  
PARENTS AND ROLES OF CHILDREN IN THE  
CONTEXT OF TECHNOLOGY AND INTERNET**

**MASTER'S THESIS**

**Tuğba PAÇACI**

**Department : Business Administration**

**Subfield : Production Management and Marketing**

**Supervisor: Professor Remzi ALTUNIŞIK**

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**Supervisor:** Professor Remzi Altunışık  
*Sakarya University*

**Jury:** Professor Ekrem Tatoğlu  
*Ibn Haldun University*  
Assist. Prof. Semih Okutan  
*Sakarya University*

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Unvanı / Adı-Soyadı: Prof.Dr.Remzi ALTUNIŞIK

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## ABBREVIATIONS

<b>ANOVA</b>	: Analysis of Variance
<b>Approx.</b>	: Approximately
<b>B</b>	: Regression coefficient
<b>cont.</b>	: Continued
<b>df</b>	: Degrees of freedom
<b>e.g.</b>	: Example given
<b>Exp (B)</b>	: Exponentiation of B coefficient / odds ratio
<b>f</b>	: Frequency
<b>ICT</b>	: Information and Communication Technology
<b>KMO</b>	: Kaiser Meyer Olkin
<b>Max.</b>	: Maximum
<b>Min.</b>	: Minimum
<b>MLR</b>	: Multinomial Logistic Regression
<b>N</b>	: Number
<b>n</b>	: Sample size
<b>p</b>	: Proportion of a sample with a given characteristics
<b>Sig.</b>	: Significance
<b>SPSS</b>	: Statistical Package for Social Sciences
<b>SE</b>	: Standard Error
<b>TUIK</b>	: Turkish Statistical Institute
<b>WHO</b>	: World Health Organization
<b><math>\chi^2</math></b>	: Chi-Square

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<b>Title of The Thesis:</b> Consumer Reverse Socialization of Parents and Roles of Children in the context of Technology and Internet	
<b>Author:</b> Tuğba PAÇACI	<b>Supervisor:</b> Professor. Remzi ALTUNIŞIK
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<p>Socialization defined as the process of learning the culture of the society who's lives in it. Consumer socialization is a process of acquisition of the abilities related to marketplace activities, and it starts from birth and continues a lifetime. In consumer socialization, the focus is usually children, and it is accepted that the individual's identity formed when someone reached adulthood period. While traditional consumer socialization continues this direction, emerging societal changes point out the opposite direction. 'Reverse' or 'Resocialization' of consumers does not carry negative meanings; besides, they are used to indicate directional change. This research aims to understand consumer reverse socialization and identify children's roles in this process in the context of technology and the Internet.</p> <p>Qualitative and quantitative methods applied in this research. After the literature review, two scales adapted, and one scale formed by the researcher and the supervisor considering previous qualitative research results. Participants reached by a convenience sampling method. Due to the pandemic, questionnaires were sent via online methods and collected in the same way. The only condition for participation was to have at least one child. Considering previous researches has no age classification, an exploratory approach was taken and the age of participation is not restricted. Five hundred eighty-six participants reached and 262 participants excluded from the research model due to mixed characteristics result in cluster analysis.</p> <p>The results showed that three children's roles identified: the teacher, the broker, and the expert, and according to these roles K-means cluster analysis applied. After clustering analysis, participants, who showed a dominant children's role in their cluster, were subjected to multinomial logistic regression. Predictor variables of the model are parental style, digital literacy, and family information of the sample. According to multinomial logistic regression, the increase in the responsiveness level of parents, and the age of the oldest child causes the increase in the odds of being all children role categories. The education level of participants is a significant predictor for the teacher and the broker role. Only the broker role of the children showed differences in age groups.</p>	
<b>Key Words:</b> Consumer Socialization, Consumer Reverse Socialization, Consumer Resocialization, Parental Style, Digital Literacy,	

<b>Tezin Başlığı:</b> İnternet ve Teknoloji Çerçevesinde Ebeveynlerde Tüketici Geri Sosyalleşmesi ve Çocukların Rollerini	
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<b>Anabilimdalı:</b> İşletme	<b>Bilimdalı:</b> Üretim Yönetimi ve Pazarlama
<p>Sosyalleşme kavramı yaşanan toplumun kültürünü öğrenme süreci olarak tanımlanmış, tüketici sosyalleşmesi ise doğumdan itibaren başlayan ve hayat boyu devam eden tüketimle ilgili yetenekleri edinme sürecidir. Tüketici sosyalleşmesi genellikle çocukları incelemekte ve yetişkinlik dönemine geçildiğinde bireyin kimliğinin oturduğu ve oluştuğu kabul edilmektedir. Geleneksel tüketici sosyalleşmesi bu yönde devam ederken hızla gelişen toplumsal değişimler tam tersi yönü işaret etmektedir. ‘Geri’, ‘Ters’ veyahut ‘Yeniden’ tüketici sosyalleşmesi negatif bir anlam taşımamakla birlikte bu yönün değişimini göstermek için kullanılmaktadır. Araştırmanın amacı teknoloji ve internet kapsamında tüketici geri sosyalleşmesini kavramak ve bu konuda çocukların rollerini ortaya çıkarmaktır.</p> <p>Araştırmada nicel ve nitel analiz yöntemleri seçilmiştir. Yapılan literatür taraması sonucu iki farklı ölçek Türkçe’ye adapte edilmiş ve bir ölçek araştırmacı ve danışmanı tarafından daha önceki nicel çalışmaları göz önünde bulundurularak hazırlanmıştır. Katılımcılara kolayda örnekleme yöntemiyle ulaşılmıştır. Mevcut pandemi durumu sebebiyle anket çevrimiçi ortamda gönderilmiş ve veriler aynı yöntemle toplanmıştır. Katılımcıların en az bir çocuk sahibi olmaları istenmiştir. Katılımcıların yaşları için, daha önce bu alanda yapılan çalışmalarda kesin bir sınıflandırma bulunmaması sebebiyle keşfedici bir yaklaşım seçilmiş ve bir yaş sınırı koyulmamıştır. 586 kişiye ulaşılmış ve kümeleme analizi sonucu karışık özellikler gösteren 262 kişi araştırma modelinden çıkarılmıştır.</p> <p>Araştırmanın bulgularında çocukların aldığı roller (öğretici, aracı ve uzman) belirlenmiştir ve bun roller baz alınarak K-means kümeleme analizi yapılmıştır. Ortaya çıkan kümeler sonucu baskın rollerin ortaya çıktığı katılımcılara multinominal lojistik regresyon uygulanmıştır. Modelin yordayıcı değişkenleri; ebeveynlerin çocuklarını yetiştirme tarzları (ebeveynlik stilleri), ebeveynlerin dijital okuryazarlık seviyeleri ve aile yapılarıdır. Multinominal lojistik regresyon sonuçlarına göre, ebeveynlerin duyarlılıklarındaki ve en büyük çocuğun yaşındaki artış, tüm çocuk rolleri kategorilerinde bulunma şansının artmasına sebep olmaktadır. Katılımcıların eğitim düzeyleri çocukların aracı rolü ve öğretici rolü açısından önemli bir yordayıcı değişkendir. Yalnızca çocukların aracı rolü yaş gruplarına göre farklılık göstermiştir.</p>	
<b>Anahtar Kelimeler:</b> Tüketici Sosyalleşmesi, Tüketici Geri Sosyalleşmesi, Tüketici Yeniden Sosyalleşmesi, Ebeveynlik Stilleri, Dijital Okuryazarlık,	

## INTRODUCTION

The roles of children have received increased attention across several disciplines. Marketing is an emerging field of study for children. In the earlier stages of the marketing discipline, researchers studied children's influence on parents' buying behavior. The following studies tend to focus on understanding the socialization process of the children, which led to the development of the Consumer Socialization Theory. The concept of consumer socialization has defined as "the process by which young people develop consumer-related skills, knowledge, and attitudes" (Moschis and Churchill, 1978). A decade after, the effects of parental styles on consumer socialization gained significant importance and helped explain a lot of unknown (Carlson and Grossbart, 1988).

Since the beginning of consumer socialization, the process has discussed mostly parent-to-child direction. However, changing norms and values propound the approach of a two-way path is necessary. The need for the understanding of child-to-parent socialization is emerging, especially in the subject of technological developments. Few studies have examined how parents see their children as a socialization agent. This specific field of study is called *consumer reverse socialization* and continues to gain attention as time goes on.

### **Research Objective**

To date, consumer reverse socialization has not widely studied. This study aims to contribute to the understanding of consumer reverse socialization in the context of the Internet and technology. Recent studies show that children may play the role of a broker, a teacher, an informant, an expert, and a lifestyle influencer in the context of consumer reverse socialization (Ekström, 2007; Grossbart et al., 2002). It is observed that most of the studies on consumer reverse socialization tend to approach the issue by using qualitative methods with small sample sizes. Hence, in this study, we wanted to examine the role of parental styles and usage of technology on consumer reverse socialization with a quantitative approach designed considering the literature.

In light of this objective, there are several questions to be answered in this thesis. These research questions mainly focus on the changing role of children in the consumer reverse socialization process, considering different parental styles within the context of

technology products. In literature, Baumrind's parental styles theory more frequently referred to in discussing consumer socialization topics. Most studies provided insights into our understanding of the relationship between parenting styles and consumer socialization (Carlson and Grossbart, 1988; Kim, Yang, and Lee, 2015; Mikeska et al., 2017; Rose, 1999). The same relationship is also observable in reverse socialization (Gentina and Muratore, 2012; Grossbart et al., 2002). Hence, in this thesis, there are three questions seeking answers. The first important question is related to the roles of children in consumer reverse socialization in the context of the Internet and technology. The second question is associated with the relationship between parenting styles and the role of children as a socialization agent to their parents. Last but not least important, the question is related to the function of the knowledge level and the ability to use technology on consumer reverse socialization.

### **Research Significance**

There are several important areas where this thesis makes authentic contributions. Previous studies of consumer reverse socialization had carried out in interviews. From this aspect, the first contribution to literature is applying quantitative research methods. Chosen methods support the exploratory side of this study. The second contribution is using descriptive approaches to identify different children's roles and relationships between parenting styles and the use of technology. The last input is taking into consideration technology knowledge in this research area.

### **Research Method**

The data for this study were collected using a survey that includes Likert type scales and demographic questions. In the first part, the digital literacy scale is adapted by Ng (2012) to measure the knowledge level of parents. After the pilot study, two statements extracted from the original scale. The second scale adapted from Kim, Yang, and Lee (2015) to identify parental style dimensions. The final scale, which also adjusted after the pilot study, is formed by the researcher and supervisor, considering previous interviews in consumer reverse socialization (Ekström, 2007; Grossbart et al., 2002).

### **Research Constraints**

There are several constraints to this study. First, due to budget and time constraints, the study was limited to a sample covering a small area in Turkey. Initially, the data collection process was planned for a face-to-face approach, reaching people had been challenging because of the pandemic of 2020. Therefore, the convenience sampling method is chosen. Questionnaires were sent to participants via online methods, and answers were collected in the same way.

### **Structure of the Thesis**

This thesis consists of four chapters. The first chapter gives an overview of the literature on consumer socialization, parental styles, consumer reverse socialization, and digital literacy. The second chapter will consider both the sources and methods of the study. Chapter three includes analyses of the results gathered from the survey data. The final chapter contains the interpretation of the results, limitations of the study, and the areas for further research.

## **CHAPTER 1: LITERATURE REVIEW**

In this chapter, literature will be discussed on consumer socialization, parental styles, consumer reverse socialization, and digital literacy.

### **1.1. Children in Marketing**

Since the very early stages of marketing, children subjected to the field in various aspects. An extensive amount of literature has published focused on children. The first main focus was the role of children on the family purchase decisions and the relative influence of children on this process. Later studies, with Ward's theory of Consumer Socialization, the emphasis has been on the understanding of children as consumers. Thus, the importance of children has gained attention increasingly.

Thanks to societal and cultural changes, children became crucial in purchase decision-making day after day. As a result of this change, marketers shifted their strategies to reach children. Due to the changing nature of social sciences, researches also shifted their primary focus to understanding children. The first McNeal (1964) mentioned the idea of the child as a consumer then, popularized after the mid of '70s. Since then, there are a considerable amount of researches, and it is well established that what children know about the marketplace and their roles as consumers (John, 1999).

### **1.2.Children Market**

The most well-known framework for categorizing children's market activities proposed by McNeal (1964) divides children's market into three different markets.

The first one is *the primary market* that is constituted by children's direct spending of their money. The second one is *the future market* indicates that children are potential consumers for the future. The last but the most significant one is *the influencer market* that expresses children are impressive influencers to direct others' decisions, especially family purchase decisions (McNeal, 2007).

#### **1.2.1. Children as Primary Market**

In 2018, The Power of Gen Z Report estimated that 7-11 age range children direct spending based on weekly allowance is approximately \$5,8 billion. According to the same

calculation, Gen Z (7-21 years) has a direct spending power of \$43 billion. When adding earned income for those 16-21 years old's which is \$100 billion, the total direct spending of Gen Z equals \$143 billion. The figures are increasing exponentially and show the buying power of children, adolescents, and the young of today. Although this report shows situations in the United States, the results are pretty accurate in most of the countries. Another estimation is Gen Z will represent 40 percent of all consumers by the end of 2020.

While children directly spend their money, some certain products are mainly targeted and marketed for them, such as; confectionery, soft drinks, snack foods, toys, and so on. Consequently, marketers spend more to advertise these specific products, considering \$5.8 billion and potential growth mentioned above.

Increasing with age, children connect with brands more deeply. The development of self-brand connections starts in middle childhood through early adolescence (Chaplin and John, 2005). First, the relationship based on concrete associations like owning or buying branded items. Later on, self-brand connections are up to match between brand personality and user characteristics, or reference group affiliation (Chaplin and John, 2005). Children's use of brand symbols plays a significant role in their social relations and cultural lives (Nairn, Griffin, and Wicks, 2008).

As the buying power of children increased, their exposure to advertisements also increased. There are certain pieces of evidence that childhood obesity is growing globally and affected by the marketing of foods and beverages high in saturated fat, salt, and sugar (WHO, 2016). Organizations like WHO recommends reduce and restrict children's exposure to marketing activities of those unhealthy foods and beverages. Although there is an ethical issue that children age under eight cannot understand, the intentions of advertising, foods, and beverages advertised during children's television programming are poor of nutritional quality. These advertisements increased nine percent in the United States despite all regulations between 2012 and 2018 (Reat, Ribakove, and Wootan, 2019).

### **1.2.2. Children as Future Market**

Today's children constitute a promising market for most goods and services in the time to come. As children are grown, their consumption patterns and expenditures will evolve



with increasing age. Moreover, they become primary consumers in the future. Children usually subject to brand-related topics while studying future market understanding. When considering the fact that rivalry in marketing is positioning in consumers' minds, marketers make an effort to be imprinted on children's minds at a very early age.

Up to now, several studies have analyzed the accuracy and precision of brand awareness of children. Undoubtedly, building a positive brand image is an investment for companies' future success. A pivotal study to understand the importance shows that first acquired brand names are recognized more quickly than later acquired brands. Moreover, the age of acquisition effect extends to accessing semantic knowledge about brands (Ellis, Holmes, and Wright, 2010).

Once a brand positioned in someone's mind, autobiographical advertising could use to receive benefits. Autobiographical memory can be defined as long-term memory of personal experiences and knowledge of the past. Marketers use autobiographical memory to direct consumers evoked set to focus on their feelings and memories instead of rational product evaluations. Childhood memories of the brand and the brand experiences contribute a large part of an individual's brand choice decisions (Braun, Ellis, and Loftus, 2002). A study shows that the reference group, advertising, and product attributes are the antecedent of autobiographical memory, which forms the brand image factors (Kurniawan and Haryanto, 2011).

### **1.2.3. Children as Influencer Market**

Children have been observed to influence family product decisions such as holidays, movies, restaurants, and sometimes even houses to live. If there is one thing that should not underestimate about children, that is their power to direct the family decision-making process. Between 1997 and 2000, children under 12 years' influence raised \$188 billion to \$500 billion in family purchases (The Center for a New American Dream, 2002: cited, Dotson and Hyatt 2005, p.35).

Children play active and passive roles while influencing their parents (Kaur and Singh 2006). A significant report finding is that 93 % of the parents say that their children have at least some influence on their family's spending and household purchases (GlobeNewswire.com, 2015). With an active role, they direct their parents by requesting, hinting, and nagging. On the other hand, a passive role occurs when parents decide to

consider their children. Passive influence is difficult to measure by the complexity in nature (Geuens, Mast, and De Pelsmacker, 2002). Sometimes, even parents are unaware of the passive influence that occurs in the subconscious.

Palan and Wilkes (1997) studied family decision-making strategies and classified them children influence strategies as bargaining, persuasion, emotional, and request and parental response strategies as an expert, legitimate, and directive.

Bargaining strategies include offers, deals, negotiations, and logical reasoning (Palan and Wilkes, 1997). For instance, children cleaning their rooms in exchange for purchases. Sometimes children offer to pay for all or part of the purchase with their limited income.

Persuasion strategies may change according to children's age. Little children are usually begging, whining, nagging, whereas older children generally use manipulations and reasonable requests. Children ask repetitively with or without irritate their parents until they get what they want. One persuasion statement general among children is referring to other friends' possession of that product.

Emotional strategies are the use of emotions intentionally while making family purchase decisions (Palan and Wilkes, 1997). Showing temper, yell, crying, guilt trip, and silent treatment are negative emotional strategies. On the other part, children may use humor and sweet talk to influence their parents.

Request strategies are associated with direct ask for purchase without emotions and reasons (Palan and Wilkes, 1997). Purchase requests usually like "I want it, I need this" without stating any reason, direct and precise demands.

Parental expert power is an influencing strategy that aims to teach consumer-related skills intentionally to solve conflicts. Other parental strategies based on parental authority. Legitimate strategies are; finding too expensive "can't afford tactic", delaying purchase by saying "We'll see" which means no even for later, and simple answers "yes" or "no" indicates the authority of parents position to make purchase decisions (Palan and Wilkes, 1997). Unlike legitimate strategies, parental directive strategies go beyond simple answers. Directive strategies include asking opinions and deciding if a child really needs or merely wants an item (Palan and Wilkes, 1997).

The unignorable influencing strategy of children is the use of their knowledge and information. As the child gets more knowledge and information, their influence increases over purchase decisions (Thomson, Laing, and McKee, 2007). Many of the children unite and make coalitions with other siblings to exert influence (Thomson et al., 2007). Usually, common interest or need for a product gathers siblings and starts with private discussion before putting suggestions to parents (Thomson et al., 2007).

### **1.3. Consumer Socialization Theory**

#### **1.3.1. Definition**

Socialization is a process that acquiring cultural values, skills, and knowledge by young people to perform effectively in that culture (Baumrind, 2012). For a long time, a large and growing body of literature has investigated socialization in the context of marketing. Ward (1974, p.2) identified consumer socialization “as processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace”.

There are particular distinctions between the broad meaning of socialization and consumer socialization. Firstly, consumer socialization aims mostly childhood socialization by taking into consideration that not all learning takes place during this period. Another difference is consumer socialization is limited to marketplace transactions. Last but not least, the distinction is necessary between skills, knowledge, and attitudes that whether directly relevant to consumer behavior or not (Ward, 1974).

Up to the present, a wide range of topics on children as consumers has been explored by researchers. Some of them are their knowledge of products, brands, advertising, shopping, pricing, decision-making strategies, and parental influence and negotiation approaches (John, 1999).

#### **1.3.2. Approaches to Consumer Socialization**

Consumer socialization research generally based on two approaches; Cognitive Development Model and Social Learning Model (Moschis and Moore, 1979). This state still valid in literature.

##### **1.3.2.1. Cognitive Development Model**

The cognitive development model bases the age of children according to Piaget's theory of cognitive development. Although there is a debate on the validity of the theory of cognitive development among psychologists (Feldman, 2004), his argument still has such a tremendous impact, and only one that was studied to explain cognitive development in consumer socialization.

According to Piaget, the individual uses two processes to adapt the development; assimilation and accommodation. Assimilation is the process of changing the environment to match preexisting cognitive structures. Accommodation is the process of altering cognitive structures to accept something from the environment (Huitt and Hummel, 2006).

Piaget's cognitive development theory consists of four sequential stages: sensorimotor, preoperational, concrete operational, and formal operational stages. In the *sensorimotor stage* - from birth to 2 years, a child lacks perspective and is incapable of separating thought from the action (Bolton and Hattie, 2017). In the *preoperational stage* - from 2 to 7 years, a child is egocentric and having difficulties in considering other's points of view (Feldman, 2004). In the *concrete operational stage* 7 to 11 years, egocentric thoughts decrease, and a child starts to use logical reasoning to tangible objects according to their number, length, shape, volume, etc. (Huitt and Hummel, 2006). In the *formal operational stage* - 11 to 16 years, a child's cognitive process is abstract and hypothetical (Bolton and Hattie, 2017).

Table 1 includes consumer socialization stages and its contents aggregated in John's (1999) retrospective research of twenty-five years of consumer socialization of children. Even if one age can cause a distinctive difference, the age ranges between stages are approximations and based on general tendencies of children in that group.

- *Perceptual Stage* (3-7 years); is a period that children usually stay in the surface level of marketplace activities. They can recognize brands or ads but not the intentions behind them. The complexity of this level is simple and one-dimensional. Decisions, generally, are made with single attributes such as size (John, 1999).
- *Analytical Stage* (7-11 years); between these ages, children start more logical reasoning. Enormous changes take place in terms of consumer knowledge and

skills. They can make a deduction at the beginner level. Since children's perspectives become dual, their ability to negotiate or influence others more adaptive than the perceptual stage (John, 1999).

- *Reflective Stage* (11-16 years); more complex and sophisticated information processing and social skills expected. The highest level of understanding and reasoning of the consumer marketplace as a child. A need to shape their own identity and meet social expectations results in more attention to being a consumer, making choices, and consuming brands (John, 1999). Attitudes towards advertisements are more skeptical.

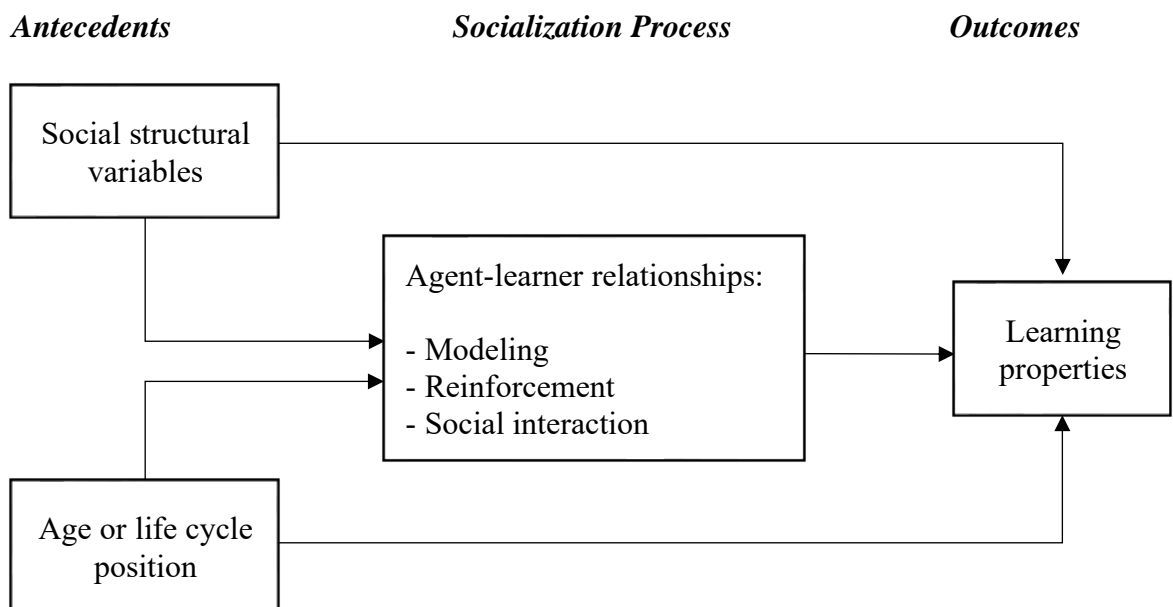
**Table 1: Consumer Socialization Stages of Children**

<b>Characteristics</b>	<b>Perceptual Stage 3-7 years</b>	<b>Analytical Stage 7-11 years</b>	<b>Reflective Stage 11-16 years</b>
<b>Knowledge Structures</b>			
<i>Orientation</i>	Concrete	Abstract	Abstract
<i>Focus</i>	Perceptual features	Functional/underlying feature	Functional/underlying features
<i>Complexity</i>	Unidimensional Simple	Two or more dimensions Contingent ("if-then")	Multidimensional Contingent ("if-then")
<i>Perspective</i>	Egocentric (own perspective)	Dual perspectives (own + others)	Dual perspectives in a social context
<b>Decision-making and Influence Strategies</b>			
<i>Orientation</i>	Expedient	Thoughtful	Strategic
<i>Focus</i>	Perceptual features Salient features	Functional/underlying feature Relevant features	Functional/underlying feature Relevant features
<i>Complexity</i>	Single attributes Limited repertoire of strategies	Two or more attributes Expanded repertoire of strategies	Multiple attributes Complete repertoire of strategies
<i>Adaptivity</i>	Emerging	Moderate	Fully developed
<i>Perspective</i>	Egocentric	Dual perspectives	Dual perspectives in social context

**Source:** John, 1999: 186

### 1.3.2.2. Social Learning Model

Social learning is the ability to learning by modeling and observing others. It is neither random nor indiscriminate. The classical model by Bandura (1977) states that the individual learns by modeling, observation, and reinforcement. After intensive research and observations, Bandura expanded his theory as Social Cognitive Theory, which indicates the significance of mass media (Bandura, 2001; Nabi and Prestin, 2017). In social cognitive theory, individual learning is highly motivated and regulated by self-influence (Bandura, 1991). However, consumer socialization literature includes the traditional social learning model.



**Figure 1:** A Conceptual Model of Consumer Socialization

**Source:** Moschis and Churchill, 1978: 600

Figure 1 shows the transmission of a consumer socialization model in terms of social learning. This model consists of five types of variables; socialization agents, learning process, social structural variables, age or life cycle, and content of learning (Moschis and Moore, 1979). Usually, families, peers, and media are seen as socialization agents, because of the direct influence and frequency of contact.

When a socialization agent encounters a child, then the learning process begins. The learning process can be classified into three categories. The first one is modeling, which

also known as observational learning, here the learner imitates the socialization agent. The second one is reinforcement, which can be a reward or punishment. The third one is social interaction and includes any relationship between two or more individuals. The next variable in this model is social structural variables that environmental factors determine the position of the learner in society. It affects outcomes both directly and indirectly. Age or life cycle indicates the learner's life cycle or cognitive development stage, which is the primary variable in the cognitive development model. It also affects the process of socialization and outcomes. The last variable in this model is learning properties and refers to acquirements through the socialization process (Moschis and Moore, 1979).

### **1.3.3. Socialization Agents**

#### **1.3.3.1. Peers**

Peer is “a person who is the same age or has the same social position or the same abilities as other people in a group” (Cambridge Dictionary, April 10, 2020). Peer involvement depends on a child's interaction with the external environment. As a result of that, peers' importance usually observed when the child goes to school or kindergarten. Due to changes in the way of communication and convenience of children access to the internet and social media, peers are influential more than ever (Mishra et al., 2018; Shin et al., 2020; Wang, Yu, and Wei, 2012). Marketers started to encourage peer-to-peer marketing by fostering peers to endorse brands and share branded content (Potvin Kent et al., 2019). In recent years, there has been an increasing number of studies in peers as socialization agents. However, there are still lots of unknowns in that area.

#### **1.3.3.2. Media**

Media have significant socialization influences across a wide range of domains, such as aggression, stereotyping, education, identity development (Prot et al., 2014). The relationship between media and children has widely investigated in consumer socialization. Almost every research in this topic finds out children's understanding of media tools is positively correlated with the age of the learner (Lawlor and Prothero, 2003; Moore and Lutz, 2000).

In favor of the internet and its concomitants, exposure to media has been growing exponentially. Internet is not only a powerful media tool, but also it is functioning as a bridge to peer communication. Social Media is the one that affects children dramatically. Benefits of children and adolescents using social media; socialization and communication, enhanced learning opportunities, and accessing health information whereas risks of youth using social media; cyberbullying and online harassment, sexting, and Facebook depression (O’Keeffe and Clarke-Pearson, 2011).

As mentioned before, children age eight and under are vulnerable to the advertisement’s intentions. A report shows that among 0 to 8 years old, access to a type of smart mobile device has increased from %52 to %75 only in two years (Rideout, 2013). In addition to accessing these devices, the use of mobile devices doubled, and the average time spent on using tripled (Rideout, 2013). When reviewing 8 to 18 years old, results are striking again. In 2010, young people were spending their time-consuming media about seven and a half hours daily (Rideout, Foehr, and Roberts, 2010).

Shifting from traditional media to digital media affected marketing activities targeted children. Some special promotional techniques are used through online and social networking sites that aim to reach and engage young people. Such as; banners and video advertising, direct consumer-brand interactions using corporate social media accounts, and encourage peer-to-peer marketing by giving incentives or using influencers (Potvin Kent et al., 2019).

In recent years a new concept originated in digital media, which is gamification. It defined as “a process of enhancing a service with affordances for gameful experiences to support user’s overall value creation” (Huotari and Hamari, 2012 p:19). Thanks to smartphones and mobile Wi-fi, these games are playable everywhere. Portable games are functioning as sources of information and guidance. A typical example of gamification is the Nike+ app, which tracks exercises, allows challenges to compete with friends (Reid Chassiakos et al., 2016). Yet another example is the Duolingo app that encourages users to learn new languages by setting goals and enables users to translate websites and documents. Gamification serves to reinforce healthy behaviors (Reid Chassiakos et al., 2016) and gives positive developmental outcomes.



Indeed, the media plays a crucial role in children's developmental process. The wideness and complexity of digital media possibly get special attention as a social agent in future researches.

### **1.3.3.3. Family**

Even if the family is not the only socialization agent, it is considered as the primary area for socialization (Maccoby, 1992). Family-specific characteristics such as parental style, family's sex-role orientation, and patterns of communication play crucial roles (Kaur and Singh, 2006). Once a child becomes an adult, then they likely will become parents to their children. This process is a never-ending loop. Parents in the socialization process are as significant as children. Since the main subjects in this research are parents and parental consumer learning, topics will be discussed in detail later.

## **1.4. Parental Styles**

Parents are considered as the most influential socialization agent because parents have control over media that target children, and consumer socialization begins very early age. Researches up to date tried to explain consumer socialization subjected to parents in two approaches; family communication patterns and parental styles (Bao, Fern, and Sheng, 2007; Rose, 1999; Rose, Boush, and Shoham, 2002). A meta-analysis shows that family communication patterns and parental styles have similar results (Mikeska et al., 2017).

In 1988, Grossbart and Carlson were the first researchers who highlighted the relationship between parental styles and consumer socialization of children. Parental styles established in two main dimensions, which are *demandingness* and *responsiveness*.

**Demandingness** also stated as parental control or behavioral control. Parental demandingness is more complicated than parental responsiveness. Demandingness argues that to be mature and competent, children need some rules and boundaries applied by parents (Doinita and Maria, 2015). Parents make an effort to integrate their children into the family.

Some parental practices associated with demandingness have positive developmental outcomes, whereas others have adverse developmental outcomes on children (Alegre, 2011). Positive demandingness includes monitoring and behavioral control (Baumrind, 2012), and results are usually higher academic achievement, higher life satisfaction,

higher prosocial behavior, and higher confidence (Alegre, 2011). Negative demandingness is psychological control, inconsistent and punitive discipline, and harsh punishment that may result in lower emotional health, more moderate prosocial behavior, and cognitive anxiety (Alegre, 2011).

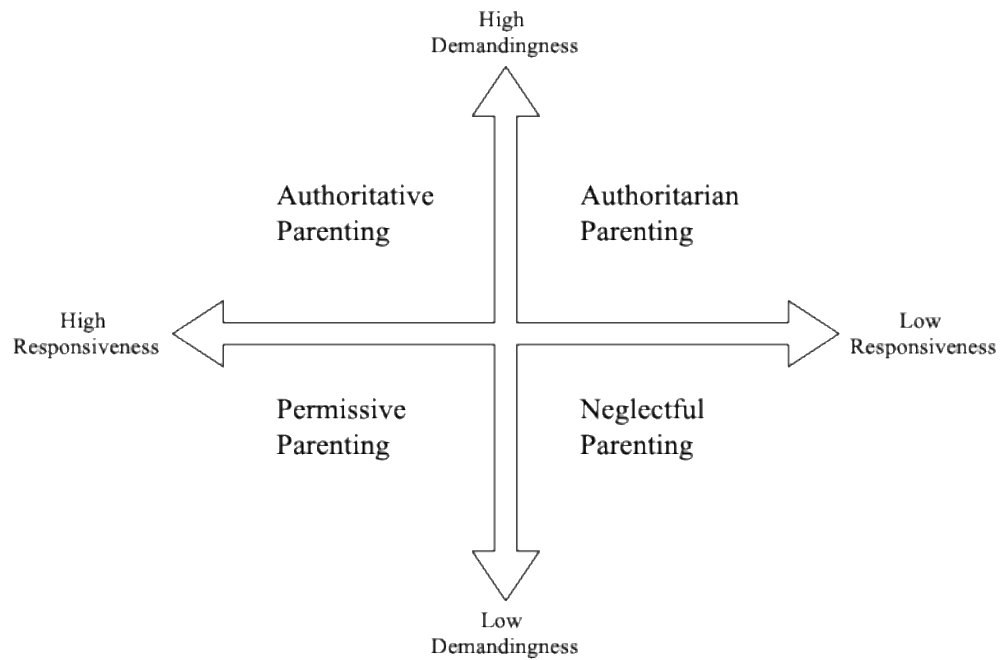
**Responsiveness** is also known as parental warmth, supportiveness, or acceptance. Children are vulnerable and need support while growing up. Parental responsiveness refers to the degree to which parents intentionally reinforce a child's behavior with warmth and confirmative way.

Responsiveness usually results in positive developmental outcomes, which are higher child self-regulation, higher self-esteem, better psychological adjustment, good relations with others, and safe emotional attachments (Alegre, 2011; Doinita and Maria, 2015).

The effect of parental responsiveness to the development of children is observable at a very early age. It is accepted that parental responsiveness predicts infants' exploratory and communicative behaviors (Tamis-LeMonda, Kuchirko, and Song, 2014). A study has shown that responsiveness can alter the pragmatic understanding of children and that the effect will result in learning languages in an easy way (Tamis-LeMonda et al., 2014).

According to these dimensions, there are four main parental styles; authoritative, authoritarian, permissive, and rejecting-neglecting (Baumrind, 1991). This typology is the most commonly used parental styles in the literature. Lots of research showed that authoritative parenting is the most effective style for socialization; in contrast, authoritarian parents associated with more negative outcomes (Yang et al., 2014).

As is seen in Figure 2, parental style differs according to parents' responsiveness or demandingness levels. High demandingness indicates restrictiveness, and low demandingness indicates the permissiveness of parents. On the other side, high responsive parents can be considered as warm, and low responsive parents can be regarded as hostile (Carlson, Laczniak, and Wertley, 2011).



**Figure 2:** Baumrind's Parenting Styles

**Source:** Baumrind, 1991

#### **1.4.1. Authoritative Parenting Style**

A parenting style that parents' demandingness and responsiveness is high. These parents accepted as more democratic than others. They see independence is essentially providing that is controlled by rules (Yang et al., 2014). Authoritative parents understand both sides' responsibilities and rights are complementary to each other (Carlson and Grossbart, 1988). They are warm, supportive, responsive, but also disciplined and demanding (Baumrind, 1991; Carlson and Grossbart, 1988; Yang et al., 2014). Authoritative parents explain the underlying reason for a rule, and they are open to communicating with their children (Carlson and Grossbart, 1988).

#### **1.4.2. Authoritarian Parenting Style**

A parenting style that combination of a high level of demandingness and low level of responsiveness. These parents expect obeying rules without questioning them (Baumrind, 1991) and try to control them by endorsing adult supremacy (Mikeska et al., 2017). They have strict rules, high level of control, and they punish willful behavior (Carlson and Grossbart, 1988). Authoritarian parents are autocratic, demanding, not responsive,

directive, restrictive, and judgmental (Baumrind, 1991; Yang et al., 2014). Their communication with children is not encouraging and emotionally distant.

#### **1.4.3. Permissive Parenting Style**

Permissive parents are high at responsiveness but low at demandingness. This style is also known as Indulgent Parenting. According to them, children have the right to do what they want, but they have few responsibilities. They are non-directive, lenient, warmth, protective (Baumrind, 1991; Carlson and Grossbart, 1988). Permissive parents' attitudes are affirmative and friendly, and they try to avoid any disagreement. They remove as many restraints as possible regarding risky situations that can be dangerous for the child (Carlson and Grossbart, 1988). Their children are independent individuals. Permissive parents' mission is guiding their child in the journey to be an adult, without shaping their personality.

#### **1.4.4. Neglectful Parenting Style**

Neglectful Parenting also is known as Uninvolved Parenting. These parents' relationship with children is distant and disconnected. They are neither demanding nor responsive to their children (Baumrind, 1991). Neglectful parents are lack of warmth and do not seek involvement in a child's development (Carlson and Grossbart, 1988). Communication between neglectful parents and their children is generally reluctant and minimum (Mikeska et al., 2017). Neglectful parents do not respond to their children's needs or want to expect basic needs like food, clothing, and shelter. Children in this family usually raise themselves and make decisions on their own. Other socialization agents like internet, media, and peers are essential to their development to become a consumer.

### **1.5. Cross-Cultural Consumer Socialization**

Consumer socialization studied in several contexts, especially in cultural differences. Despite the nations close to each other shape their culture similarly, at some point they start to look like, almost every nation has its own unique culture. At this point, every attempt to explain the difference in consumer socialization is unique in itself.

Several aspects were taken in cross-cultural studies such as developmental timetables (Rose, 1999; Rose, Dalakas, and Kropp, 2002), parental styles (Yang et al., 2014), ethnic

groups (Singh, Kwon, and Pereira, 2003), consumption autonomy (Palan, Gentina, and Muratore, 2010) and even subcultures (Kim, Yang, and Lee, 2009).

Although the model of consumer socialization and cognitive stages is universal, there are differences in a cultural context. For example, there are significant differences between the United States and Japan, whereas one is individualist, and the other one is a collectivist society. A study by Rose (1999) found that, contrary to American mothers, Japanese mothers expect late developmental timetables and restrict independent consumption, which is consistent with collectivist, interdependent society. Yet dividing nations into collectivist versus individualist is not enough to explain the complex structure of consumer socialization. For co-shopping, control TV viewing, and co-viewing differences found between parents from specific individualistic (the United States and Australia) and collectivist cultures (Greece, Japan, and India) (Rose, Dalakas, et al., 2002).

Some researchers (e.g., Lapierre and Rozendaal, 2018) have attempted to draw subtle distinctions between cultures. A considerable difference is media access and regulations that vary from country to country. In the Netherlands, there are strict limitations when and how products advertised to children in contrast to the United States. According to research, American children are 3.5 times more likely to have the television in their room, 2.3 times more likely to have a video game system there, and 3.7 times more likely to have a tablet computer. They nearly watch extra 360 hours of television in a year more than Dutch children (Lapierre and Rozendaal, 2018). The figures establish a precedent to examine consumer socialization on a country basis is necessary.

Another finding in the literature is the influence strategy of children is different in cross-cultural. A recent study shows that Chinese adolescents tend to behave more unilateral influence (playing on emotions, stubborn persuasion), whereas Canadian adolescents choose bilateral influence strategies (reasoning, bargaining). Chinese adolescents are also less susceptible to peer influence and have less impulse buying tendencies in contrast to Canadian adolescents. However, a comparison between countries' parental style orientation results in similar characteristics (Yang et al., 2014).

About all the efforts are taken in literature, basic concepts in consumer socialization are still valid, like parental styles, primary socialization agents, socialization processes, and

stages. Nevertheless, the relative importance of variables can change during the socialization process.

## **1.6. Cultural Transmission**

In 1970, Mead tried to explain the transmission of social and cultural experiences between generations comprehensively. According to the categorization of transmission between generations; it was *postfigurative* in the past, is *cofigurative* at that time, and will be *prefigurative* in the future.

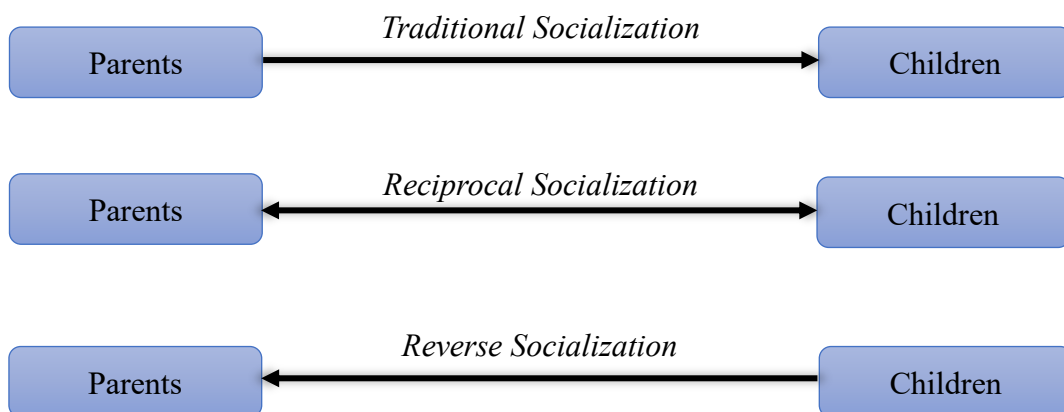
Nowadays, postfigurative culture is mostly seen in primitive societies like Australian Aborigines or conservative ones like Israeli-born in the kibbutz. Children learn primarily from their forebears. Change is slow in these societies, and elders are resistant to change. When growing up in a postfigurative culture, the only possible direction a child can take its ancestry's way (Mead, 1970).

Cofigurative culture is positioned between postfigurative and prefigurative culture. Both children and adults can learn from their peers. The new behaviors of new generations are up to approbation by elders. In a cofigurative culture, Mead (1970) identified parents are raising their children expecting "*change within changelessness*". For instance, Jews and Armenians raised their children to expect to learn new languages with protecting their cultural identity (Mead, 1970). Interruption of the transmission of past and present like migration, conquest, industrialization, and other events plays a crucial role in cofigurative culture (Sellar, 2013). By industrialization, parents move close to factories and move away from villages. Thus, nuclear families have emerged (Cammarota, 2009), cofigurative culture has increased more than ever.

The future direction of cultural transmission is prefigurative that children mainly learn from their peers and become a pioneer for their families. All people around the world are like immigrants who came to a new land. Youngs are more adaptive to change in contrast to elders (Mead, 1970). Prefigurative culture likely occurs when elders unfamiliar with innovation and have no experience from the past (Saparova and Kanagatova, 2018). In such circumstances, children have to learn from their peers. They have a part in training the older generations to prepare for the future (Dutch, 2013). Today's children know what their parents do not know. Mead (1970) mentioned future children as immigrants in time discovering the unknown future and interpreted the gap between generations as universal.

Even though today’s cultural transmission is not prefigurative entirely, it is seen strongly in some specific areas like information technology and social media. Now, the consequence of prefigurative culture is observable all around the world. In contrast to the traditional way, prefigurative culture constitutes a ground rule for child-to-parent direction in transmission.

Regarding Figure 3, the directions of Consumer Socialization coincide with the Mead’s Cultural Transmission. Early attempts in Consumer Socialization suggest that children primarily learn from their parents like cultural transmission in postfigurative cultures. The idea of a one-way parent-to-child direction of socialization is ancient in the modern world. As discussed above, it may be observed in primitive or conservative cultures.



**Figure 3:** Consumer Socialization Directions Between Parents and Children

Later on, it is accepted that the socialization process can be reciprocal between parents and children. In such a cfigurative culture, children teaching role may be limited in contrast to their parents. Even if reciprocal socialization and cfigurative cultures do not precisely match one to one, cfigurative cultures’ parents are more open to change, that is why they can accept their children as a socialization agent.

On the other hand, reverse socialization exactly overlaps with prefigurative culture. As in the prefigurative culture, reverse socialization states that children are the main socialization agents for their parents. Unlike the traditional socialization, the child-to-parent direction of socialization is possible now and likely in the future.

## **1.7. Consumer Reverse Socialization**

### **1.7.1. Definition**

As mentioned earlier, primary socialization agents are peers, media, and families. Regarding that, peer-to-peer direction is again a consumer socialization subject, and children-to-media direction is illogical, ‘Reverse’ statement stands for families. Since today’s family structure has shifted to nuclear families, which consist of parents and children, moreover the emergence of nuclear families all around the world, within this context, Consumer Reverse Socialization is mainly about parents.

Consumer Reverse Socialization is again a process to acquire skills, knowledge, and attitudes relevant to functioning as consumers in the marketplace, but in this case, learners are parents who know limited or nothing. In literature, several attempts have taken to name this kind of socialization such as the Consumer Reverse Socialization (Grossbart et al., 2002; Jiao and Wei, 2020), Consumer Resocialization (Easterling, Miller, and Weinberger, 1995; Gentina and Muratore, 2012), Secondary Consumer Socialization (Watne, Lobo, and Brennan, 2011) or Parental Consumer Learning and Retroactive Socialization (Ekström, 2007). In this research, the Consumer Reverse Socialization term chosen, and it refers to all the above.

There is a relatively small body of literature about the topic. However, especially developments in technology and changes in cultural structure will probably cause attention to this area of socialization. What we know about Consumer Reverse Socialization is mostly based on qualitative studies that usually include in-depth interviews. The existing literature shows some directions to researchers, but a clear construct does not exist. Specific research subjects of Consumer Reverse Socialization in literature;

- *Brand Attitude* (Jiao and Wei, 2020)
- *Environmental Concern* (Easterling et al., 1995; Gentina and Muratore, 2012; Gentina and Singh, 2015; O’Neill and Buckley, 2019)
- *Internet and Technology* (Bodkin, Peters, and Amato, 2013; Grossbart et al., 2002; Lapshin, 2018; Watne et al., 2011).



### 1.7.2. Children Roles in Consumer Reverse Socialization

As a socialization agent, a child can take several roles in the socialization process. Even though there are specific characteristics for the roles of children, unlike consumer socialization, it differs in particular fields. Up to date, two researchers try to identify children's roles.

Grossbart et al. (2002) chose to study the Internet and technology to identify different children roles that stated below;

- **Teacher;** Teaching is an essential assignment for all types of socialization processes. Mead (1970), and Grossbart et al. (2002) share the core idea that children are digital natives and share the same mission as immigrant children. Parents cannot follow up on the development or children pull ahead of their parents. Teaching is usually demanded by parents.
- **Broker;** Just as language brokering in immigrant families, children learn faster than their parents due to interactions in school and with peers. Instead of learning from children, parents usually prefer to make their children do tasks for themselves. McKenzie et al. (2019), define this process as the parent's border-crossing into digital culture. As a result of brokering, children may become decision-makers for their families. Sometimes, brokering occurs even if the parents have enough knowledge (Grossbart et al., 2002).

Ekström (2007) approached consumer reverse socialization as a whole and generalized specific characteristics. Even though Ekström did not label these categories as roles, in this thesis, types are named to classify similarly as Grossbart et al. (2002).

- **Informant;** Children aware of new products and trends before their parents. These products can be new types of cereals as well as high-tech products (Ekström, 2007). With each passing day, some products only targeted to children due to their advisory role in families. Like in the Broker role of Grossbart et al. (2002), children are beyond their parents in knowledge. The main difference between the Informant and Broker role that parents assign some of the tasks to their children; in this respect Brokering role is unique.
- **Expert;** Children contribute information to their parents when they are making buying decisions. In some topics, children are seen as experts and have referent

power to direct decisions. An interesting finding of a study shows that children influence parents' hair-style and color (Ekström, 2007). Expert and referent power on mothers have more considerable influence than fathers (Foxman, Tansuhaj, and Ekström, 1989). In general, children are influential to their parent's decision making when their knowledge of the product category is more than their parents (Bodkin et al. 2013).

- **Instructor**; Due to the complexity of some technological products, parents usually need their children's assistance. In this case, children either know-how to use a product to show their parents or will learn to show how to use it. This role shows similar characteristics as the Teacher role in Grossbart et al. (2002). Examples of these products are; remote controls, cameras, televisions, computers, food processors (Ekström, 2007).
- **Lifestyle Influencer**; Children have the power to direct almost every decision, but in this specific role, children awaken environmental concerns, the tendency to healthy consumption, and value-oriented consumption for their parents (Ekström, 2007). Up to date, researches show that children have such a significant influence on their parents in sustainable consumption (Easterling et al., 1995; Gentina and Muratore, 2012; Gentina and Singh, 2015; O'Neill and Buckley, 2019). A recent study found that pester power could create a positive effect on raising awareness among mothers against breast cancer (Vel, Mathew, and Shirkhodae, 2017).

In conclusion, the roles of children are variable according to the subject of the study. In order to determine the effects of children in reverse socialization, it is significant to identify the roles of them.

### **1.7.3. Parental Styles and Consumer Reverse Socialization**

The existing literature highlight the significance of the relationship between parental styles and consumer reverse socialization (Gentina and Muratore, 2012; Gentina and Singh, 2015; Grossbart et al., 2002). Dissimilar to the consumer socialization approach to two-dimensional four different parental styles, researchers found a link between one single dimension -responsiveness of parents- and consumer reverse socialization.

**Table 2: Parental Style Classification**

<b>Warmer Parents</b>	Authoritative	Equity between parents and children Emphasis on self-expression and autonomy
	Permissive	Equal rights between parents and children No restraints, freedom
<b>Cooler Parents</b>	Authoritarian	Subordination and total obedience of their children
	Neglectful	Distant relations with children, no advice, no control

**Source:** Gentina and Singh, 2015: 7584

Table 2 includes parental style classification according to the responsiveness level of parents. In contrast to cooler parents, warmer parents have supportive and affirmative interactions with their children (Carlson and Grossbart, 1988). Narrow literature about consumer reverse socialization and parental styles point the same similar findings;

- Warmer parents are more receptive than cooler parents in both environmental concerns and technological developments (Gentina and Muratore, 2012; Grossbart et al., 2002).
- The brokering role of children is uncommon in cooler parents (Grossbart et al., 2002).
- Warmer parents' acceptance of children's transformation of information is unaffected of who is more knowledgeable (Gentina and Muratore, 2012; Grossbart et al., 2002).
- Contrary to warmer parents, cooler parents accept teaching from children only if they believe children's knowledge is equal or exceeds their own (Gentina and Muratore, 2012).

### **1.8. Digital Literacy**

Digital literacy or technology knowledge has never been studied in consumer reverse socialization. One estimated finding in this study changes in the level of parents' digital literacy will cause a shift in consumer reverse socialization.

For many years, literacy has subjected to different fields beyond its' notion, which is simply the ability to read and write (Buckingham, 2010). According to Eshet-Alkalai

(2004), digital literacy incorporating five types of literacy: *photo-visual literacy*; the ability of understanding from visual, *reproduction literacy*; the ability to use existing digital tools for creative work, *branching literacy*; the skill of reading and understand hypermedia, *information literacy*; the ability of search and find online information, *socio-emotional literacy*; the ability to be critical, analytical and mature in cyberspace.

Digital literacy is not only the ability to use software or operate a digital device. It also includes complex cognitive, motor, sociological, and emotional skills, which are a necessity to continue one's existence in the digital environment (Eshet-Alkalai, 2004). Being a digital literate is dependent on the ability to adapt new and emerging technologies quickly (Ng, 2012).

Today's children are seen as digital natives. According to Ng (2012, p.1066), "digital natives are born the digital age, which began in the late 1970s with the advent of the personal computer followed by the Internet and information 'explosion' in the 90s." In this case, considering people born from the 90s as digital natives instead of beginning the digital age would be appropriate because of the widespread around the world after the 90s.

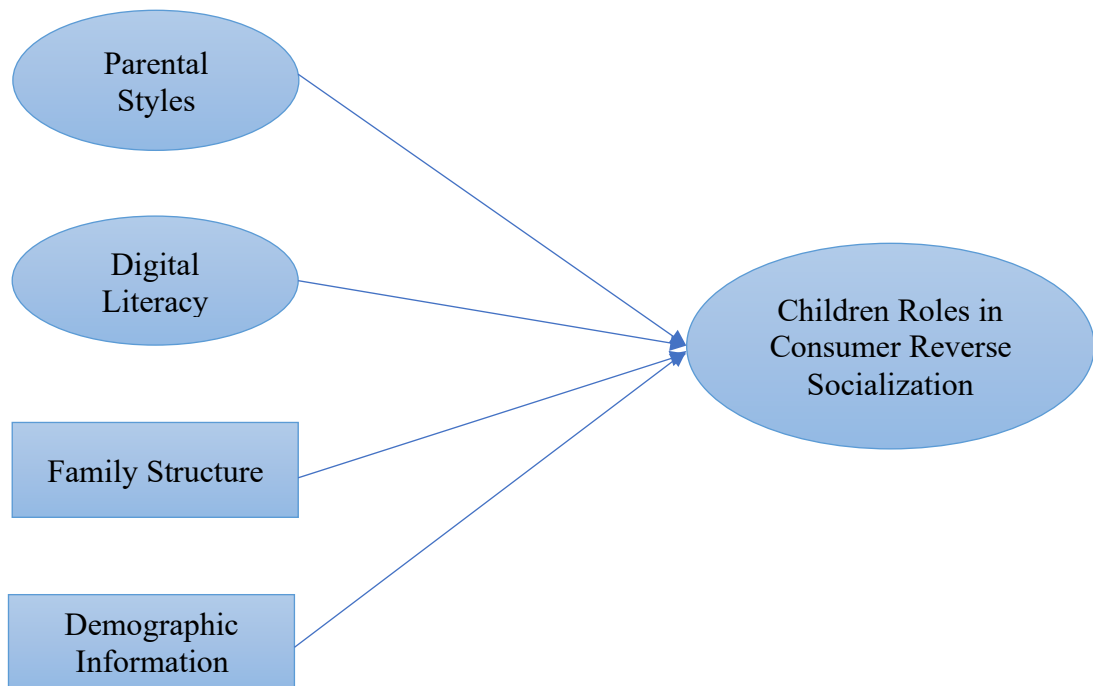
The ability of digital natives underlies embracing information and communication technologies (ICT) (Ng, 2012). ICT is "the use of computer and other electronic equipment and systems to collect, store, use, and send data electronically" (Cambridge Dictionary, April 24, 2020). In this context, conventional devices are; computers, smartphones, tablets, cameras, security systems, drones, printers, etc.

## CHAPTER 2: METHODOLOGY

In this chapter; research design, strengths and weaknesses of the research, population and the sample of the research, data collection, and data analysis process will be handled.

### 2.1. Research Design and Method

This research is designed by taking into consideration previous investigations and adding new insights to consumer reverse socialization. Previous studies are proof that the most useful topic to study consumer reverse socialization, is the field of technology and the Internet. In literature research, almost whole studies agree that there is a significant link between parental styles and consumer reverse socialization.



**Figure 4:** Model of the Research

The original primary value of this study is using a quantitative research method while collecting data, whereas most of the previous researches was qualitative. Two scales were adapted to measure parental styles (Kim et al., 2015), and digital literacy (Ng, 2012), and one scale conducted considering previous researches, which include depth interviews (Ekström, 2007; Grossbart et al., 2002).

Another original contribution to literature is determining participants' technology knowledge/adaptation by adding a digital literacy scale to the questionnaire. The expected outcome is participants' digital literacy level affects their involvement in the consumer reverse socialization process. Although the Internet and technological developments were subjected to consumer reverse socialization before, participants' level of knowledge and ability to use new technologies ignored.

To understand the process of consumer reverse socialization between parents and children, the most significant approach is determining the child's role in this process. Therefore, the dependent variable of the study formed to identify various children's roles in consumer reverse socialization in the context of technology and the Internet.

Both exploratory and descriptive methods were used in this research. Exploratory techniques are appropriate when there are lots of unknowns in the research area. Descriptive methods are adequate to describe the characteristics of relevant groups in estimating the particular behaviors of the population. Since consumer reverse socialization relatively new and emergent concept, firstly, observations, and interviews were made to prepare a pilot study. A pilot study helps the researcher to eliminate misunderstanding or misleading statements.

Quantitative and qualitative methods used to answer research questions. The qualitative portion of the thesis used focus group interviews to gather information to form the research questionnaire. Based on the literature, exploratory research, and pilot test, descriptive analysis was conducted to this thesis.

## **2.2. Strengths and Weaknesses of the Study**

There are strengths and also weaknesses of this study. The strengths of the study based upon two fundamentals; quantitative methods with large sample sizes and taking into consideration participants' digitalization level.

To date, consumer reverse socialization mostly studied in small sample sizes with qualitative methods like in-depth interviews. This research aims to generalize results to a large sample. Using quantitative methods allows to the generalizability of this study more accurate and credible way.

Internet and technology always be complicated to keep up. Notably, younger people usually show more adaptability to technological innovations. Thus, this specific area best fits consumer reverse socialization. Nevertheless, the participants' technological knowledge and capability of using new technologies have not taken into consideration. To understand the relationship and anticipated link, the digital literacy level of participants included in the research.

The one of the critical weakness of this study is collecting information from only parents. Since the consumer socialization process includes two parties like parents-children, media-children or peers-children, getting information from only one side of this process is the weakness of this study. To understand the children's side of the process, parental styles included in the research due to the previous investigations have accurate results that parental styles have an impact on children's behavior. However, only parental styles are not enough to estimate a child's behavior.

### **2.3. Population and Sample**

As mentioned before, consumer socialization studies' results have similarities as well as differences in a cultural context. Thus, this study primarily aims to reach the population of Turkey, where the sample is collected. However, generalizability to other cultures is possible according to previous researches in literature.

Since the study aims to investigate the children-to-parent direction of consumer socialization, the only condition for the sampling procedure was having at least one child. A significant part of the sample used in this study was recruited with the help of the supervisors' students through online methods.

According to previous researches, there is no restriction for participants' age, and this study also has no age restriction for participation in an exploratory manner.

### **2.4. Data Collection**

A convenience sampling, a non-probabilistic method, was used for data collection purposes. The essential of this method is counting in everyone who answers the questionnaire (Altunışık, Coşkun, and Yıldırım, 2017). This method allows the researcher to collect a high number of data easily and quickly. The data was collected between February to April of 2020 in various cities in Turkey.

The initial approach was a face-to-face survey method, which is appropriate considering the target audience of this research. After the COVID-19 pandemic crisis all around the world, collecting data becomes troublesome more than ever. First, an online survey conducted, and 104 questionnaires obtained in that way. The significant contribution of the supervisor of this study was receiving more than 500 questionnaires through his undergraduate students' families. After elimination and evaluation, 586 usable questionnaires collected in total. Thus, the amount of collected data had reached a considerable level.

## **2.5. Data Analyses**

While analyzing the collected data, the Statistical Package for Social Sciences (SPSS) 23.0 version was used. SPSS was used to analyze reliabilities, frequencies, factors, clusters, and testing the research model with multinomial logistic regression.

### **2.5.1. Cluster Analysis**

Cluster analysis primarily purposes that grouping objects based on the characteristics they possess (Hair et al., 2010). For reliable cluster analysis, two requirements are homogeneity within clusters and heterogeneity between clusters. Thus, the cluster members will be close to each other when plotted geometrically, and different clusters will be distant from each other (Hair et al., 2010).

Once the factor analysis reveals different children's roles in consumer reverse socialization, one of the purposes of this study was categorizing participants by the dominant children's role they have. For this reason, K-means cluster analysis applied. K-means cluster analysis is a nonhierarchical clustering method that categorizes the sample by dividing it into a predetermined number of clusters. It then iteratively continues until cluster distinctiveness met (Hair et al., 2010).

In this research, cluster distinctiveness achieved when dominant role of children appeared in each cluster. Moreover, the group that includes avoidance of each role of children constituted a base (reference category) for multinomial logistic regression.



### **2.5.2. Multinomial Logistic Regression**

Regression analysis aims to understand the relationship between two or more variables. The response variable is dependent on other independent variables. Regression analysis can be divided into two groups, the first explains the relationship in linear models, and the second describes the relationship in non-linear models (El-Habil, 2012).

Logistic regression is a non-linear, logit-based regression model which preferred when the linear model is not suitable. Logistic regression is less strict than linear regression, so it does not require normal distribution or does not assume homoscedasticity (El-Habil, 2012). Logistic regression is generally suitable for categorical data that includes two levels/outcomes. A dependent variable could take two values which are  $Y_i=0$  (event does not occur/failure) and  $Y_i=1$  (probability of occurrence/successful) (Altunışık, Coşkun, and Yıldırım, 2017).

The multinomial logistic regression is an extension of logistic regression that used generally effective where the response/dependent variable comes to more than two possible discrete outcomes (Prasad and Vaidya, 2016). Continuous variables cannot be used as response variables; however, explanatory variables could be continuous or categorical (El-Habil, 2012). Multinomial logistic regression uses maximum likelihood estimation to classify the chance of categorical associations (Ashok, Madhu, and Balasubramanian, 2014).

The explanatory variables predict the percent of the variance in the response variable in terms of odds ratios. If the odds ratio is greater than 1, then the increase in the predictive variable causes an increase in the probability of an event. If the odds ratio is less than 1, then the increase in the predictive variable causes a decrease in the probability of an event (Çokluk, 2010).

The success of the multinomial logistic regression can be evaluated by looking at the classification table. The classification table shows the correct and incorrect prediction of the model used. Goodness-of-fit tests are indicators for model appropriateness, likelihood ratio tests result in the significant contribution of independent variables, and the Wald statistic gives the significance level of individual independent variables (El-Habil, 2012).

The multinomial logistic regression makes predictions regarding the reference category. Reference usually accepted as zero-point or selected by looking absence of any other

dependent variables' characteristics. The comparison made according to predictive (independent) variables in the base of the reference category.

## 2.6. Reliability of the Scales

Achieving a reliable study provides internal consistency and assures consistent results for different samples with the same research instruments. The reliability of the measurement tools was analyzed by evaluating Cronbach's Alpha coefficient using SPSS 23.0. Values above 0,7 generally acceptable (Altunışık, Coşkun, and Yıldırım, 2017).

Table 3 shows the value of Cronbach's Alpha coefficient for dimensions and scales. Demandingness dimension of parental style is the only result that is below 0,7, which is the cut-off point for acceptable reliability. Still, it may be considered reasonably acceptable due to its closeness to the critical value of 0,7.

**Table 3: Reliability of Research Scales**

	<i>Components</i>	<i>Cronbach Alpha of Components</i>	<i>Cronbach Alpha of Scale</i>
<b>Digital Literacy Scale</b>	Digital Literacy	,843	,843
	<b>Parental Style Dimensions</b>	Demandingness	,624
	Responsiveness	,850	,757
<b>Children Roles</b>	Teacher	,843	
	Expert	,847	,895
	Broker	,815	

## CHAPTER 3: RESULTS

This chapter includes analyses of the results gathered from the survey data.

### 3.1. Demographic Information of the Sample

In this title, the observed variables of the study gathered to show the characteristics of the sample and draw a distinction between variables.

**Table 4: Gender, Education and Income Levels of Participants**

		<b>f</b>	<b>%</b>
<b>Gender</b>	Woman	342	60,7
	Man	221	39,3
	Total	563	100
<b>Level of Education</b>	Elementary	159	28,1
	High School	201	35,5
	College and further	206	36,4
	Total	566	100
<b>Household Income</b>	2.500 TL and below	41	7,3
	2.501 TL – 5.000 TL	212	37,6
	5.001 TL – 7.500 TL	153	27,1
	7.501 TL – 10.000 TL	89	15,8
	10.001 TL and above	69	12,2
	Total	564	100

Data for the study was collected from 568 participants in total. However, some participants had preferred not to answer some questions.

According to Table 3, 60.7% of participants are women, and the rest are men, which is normal considering man's attendance rate to questionnaires is low in general.

The education level of the sample is medium-high; more than 70 % of participants have a high school diploma, at least.

Considering the minimum wage in Turkey, which is 2.325 TL at this time, the sample's monthly income of the household is up to side income or wage income from another individual in the home. In both cases, the welfare level of the sample is medium in

Turkey's conditions. Only 7 % of the sample has a low level of income in contrast to 12 % of a high level of income.

**Table 5: Family Structure**

		<b>f</b>	<b>%</b>
<b>Family Type</b>	Single Parent Family	43	7,6
	Nuclear Family	479	84,3
	Extended Family	46	8,1
	Total	568	100
<b>Number of Children in the Family</b>	1	122	21,5
	2	291	51,3
	3 and more	153	27,2
	Total	567	100

In the questionnaire, a single-parent family defined as one parent and children; the nuclear family described as parents and children; extended family defined as parents, children, and elders.

In this research, the family type has chosen to classify families according to their size. Although the family type and family size do not match perfectly, for example, a single-parent family could consist of 4 people (1 parent, 3 children). In contrast, a nuclear family could consist of 3 people (2 parents, 1 child), the critical measurement, in this case, is how many parents and family elders there are in the family.

According to the Turkish Statistical Institute. (TUIK), Statics on Family 2018 report, family structure of the population is 8,9 % is single-parent family, 42,3 % is nuclear family, 15,8 % is extended family, and the rest is not subject to this research. In comparison to population statistics, our sample consists of 7,6 % single-parent families, 84,3 % nuclear family, and 8,1 % extended family. This difference is due to convenience sampling and targeting a specific group of people while collecting data.

Another data about family structure is how many children existed in the family unit. Approximately half of the sample includes families with two children. 21,5 % of the sample is families with one child, and the rest of them consist of families with three or more children.

**Table 6: Ages of Participants and Ages of the Oldest Child in the Family**

	Mean: 44,75	Min: 25	Max: 70
		<b>f</b>	<b>%</b>
<b>Participant's Age</b>	Below 30	30	5,3
	From 31 to 50	399	70,2
	51 and above	137	24,1
	Total	566	100
<b>Age of the oldest child</b>	n: 565	Mean: 19.56	Min :1      Max: 54

In the questionnaire, age is an open-ended question and grouped after regarding the definition of digital natives of Ng (2012). People 30 and below are representing the nation born after the explosion of the Internet and information globally in the 90s. This group is quite a small part of the data since the age range is low to have a child nowadays. People born after the 70s have defined as digital natives earlier by Ng (2012). 70 % of the sample's age is between 31 and 50, which is predicted according to the sampling procedure. Participants 51 and above are 24,1 % of the sample and expected low level of digital knowledge.

Since this research is exploratory and distinctive, there is no restriction about the age of the participant's child. In sum, 565 participants answered the question, and the average age of the oldest child is 20. The reason behind asking the oldest child age instead of the littlest is the anticipation of the older child will trigger parents' involvement in the consumer reverse socialization process in early time.

### **3.2. Participants' Attitudes Toward Technology and Internet**

In this research, seven items asked to measure the digital literacy level of participants. The highest mean is 3,8 and %72,2 of the participants feel confident while searching and obtaining information from the Web.

60 % of the sample believes that they can learn new technologies quickly, whereas one-third of the sample thinks they do not know about different technologies. Hence, one inference could be that sample knowledge of new technologies is limited; however, they believe that they can learn quickly.

More than half of the sample agreed that being familiar with issues like cybersecurity and plagiarism, keeping up with new technologies, being able to learn to use new technologies quickly, and being confident with search and evaluate skills online.

Around 30 % of the sample are indecisive about; having adequate skills in ICT, knowing a lot of different technologies, and knowhow to solve their technical problems.

Approximately one-fourth of the sample are unfamiliar with cybersecurity issues like plagiarism. Moreover, the same amount of the sample need assistance and do not know how to solve their technical problems.

As a result, the sample's attitudes toward digital literacy are in balance between agreement and indecision of choice. The vast majority agree with the items, and a small part strongly disagrees.

**Table 7: Level of Participation to Digital Literacy Scale**

<i>Item</i>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean*
1. I can learn to use new technologies easily	f	15	82	118	<b>265</b>	88	3,57
	%	2,6	14,4	20,8	<b>46,7</b>	15,5	
2. I keep up with important new technologies	f	24	111	144	<b>220</b>	68	3,34
	%	4,2	19,6	25,4	<b>38,8</b>	12	
3. I know how to solve my technical problems	f	41	103	160	<b>202</b>	62	3,24
	%	7,2	18,1	28,2	<b>35,6</b>	10,9	
4. I know about a lot of different technologies	f	35	153	<b>178</b>	157	45	3,04
	%	6,2	26,9	<b>31,3</b>	27,6	7,9	
5. I have adequate skills in Information and Communication Technology	f	26	107	174	<b>214</b>	47	3,26
	%	4,6	18,8	30,6	<b>37,7</b>	8,3	
6. I am confident with my search and evaluate skills in regards to obtaining information from Web	f	18	42	98	<b>284</b>	126	3,80
	%	3,2	7,4	17,3	<b>50</b>	22,2	
7. I am familiar with the issues related to web-based activities, e.g., cyber safety, search issues, plagiarism	f	40	100	100	<b>218</b>	110	3,45
	%	7	17,6	17,6	<b>38,4</b>	19,4	

Mean\*: 1. Strongly Disagree, 2. Disagree, 3. Neither agree nor disagree, 4. Agree, 5. Strongly agree

### **3.3. Participants' Attitudes Toward Parental Behaviors**

Table 8 includes parents' attitudes toward their children in terms of parental style dimensions. As mentioned before, demandingness and responsiveness are two dimensions that indicate parents' approach to their children.

Demandingness is known as parental control or parental behavior control. Items 1, 2, and 3 connected with demandingness. Only item 3 is below average. Although the sample seems too strict, they mostly believe their children have free will.

Responsiveness indicates parental warmth and supportiveness. Items 4 to 11 are responsiveness indicators. Regarding the means of these items, the sample's responsiveness level is more than average. Therefore, the sample mostly consists of warmth and supportive parents.

56 % of the sample describes themselves as a strict parent, and 25 % of the sample think the exact opposite. 85 % of the sample expects obedience to the family rules. One-fourth of the sample are indecisive about making most of the decisions about what their child is allowed to do.

Items 4, 5, and 9 results close in participation to each other. The parallel results are appropriate according to the items' meaning. Item 9 encourages the child to talk about things, item 5 explains the reasons behind rules, and item 4 explains the reasons behind requests. All three items include communicative interferences.

Item 6, 8, and 10 gives parallel results according to their agreement which is more than % 90. The meaning of these items infers supportive parenting, which a child count on, gets praises, and has a right to his/her point of view.

Item 7, and 11 is about sharing time as a parent and a child.  $\frac{3}{4}$  of the sample agree about spending time just talking or doing fun things together. These items are a sign of parental commitment, and these participants spare time for their children.

Overall, the sample's participation in parental behaviors mostly positive. The profile of the sample seems upper intermediate level in demandingness items (1 to 3) and high level in responsiveness items (4 to 11).

**Table 8: Level of Participation in Parental Behaviors**

<i>Item</i>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean*
1. I would describe myself as a strict parent	f	31	118	100	<b>217</b>	102	3,42
	%	5,5	20,8	17,6	<b>38,2</b>	18,0	
2. I really expect my child to follow family rules	f	3	35	49	<b>283</b>	198	4,12
	%	0,5	6,2	8,6	<b>49,8</b>	34,9	
3. I make most of the decisions about what my child is allowed to do	f	57	<b>209</b>	154	106	41	2,76
	%	10,1	<b>36,9</b>	27,2	18,7	7,2	
4. When I want my child to do something, I explain why	f	8	19	56	<b>262</b>	223	4,18
	%	1,4	3,3	9,9	<b>46,1</b>	39,3	
5. I usually tell my child reasons for rules	f	9	21	50	<b>277</b>	211	4,16
	%	1,6	3,7	8,8	<b>48,8</b>	37,1	
6. My child can count on me to help him/her out, if s/he has some kind of problem	f	3	10	25	181	<b>349</b>	4,51
	%	0,5	1,8	4,4	31,9	<b>61,4</b>	
7. I and my child do fun things together	f	8	24	92	<b>226</b>	218	4,09
	%	1,4	4,2	16,2	<b>39,8</b>	38,4	
8. I praise my child if s/he does things well	f	5	6	20	181	<b>356</b>	4,54
	%	0,9	1,1	3,5	31,9	<b>62,7</b>	
9. I encourage my child to talk with me about things	f	4	18	49	204	<b>289</b>	4,34
	%	0,7	3,2	8,7	36,2	<b>51,2</b>	
10. I believe my child has a right to his/her own point of view	f	3	14	27	212	<b>310</b>	4,43
	%	0,5	2,5	4,8	37,5	<b>54,8</b>	
11. I spend time just talking to my child	f	18	36	82	<b>264</b>	168	3,92
	%	3,2	6,3	14,4	<b>46,5</b>	29,6	

Mean\*: 1. Strongly Disagree, 2. Disagree, 3. Neither agree nor disagree, 4. Agree, 5. Strongly agree



### **3.4. Participants' Attitudes Toward Consumer Reverse Socialization**

Table 9 includes participants' attitudes toward children's assistance in technology and the Internet. Three items have means of more than 4, which indicates an agreement. %89 of the sample agreed that "I consult my child If I am not sure or do not know or could not understand about technology". The other highest items are "When I buy a new technological product, my child helps me to use it" and "I get my child's opinion when I buy technologic product". Average %80 of the sample agreed with items associated with technology product buying and using.

Items 1, 2, 3, and 4 generate the teacher role of the children. All items' results are similar to each other. The first three items were fictionalized according to the need for teacher roles in a different situation. Item 4 is associated with superior knowledge that possessed by an abreast.

Items 5, 6, and 7 constitute the expert role of the children. When someone is seen as an expert, others consult, ask for help, and get an opinion from them. In this aspect, items were put to measure the expert role of the children. All three items' results are identical to each other and result in a high level of agreement.

Items 8, 9, 10, and 11 are placed to identify the broker role of the children. Half of the sample does not see any harm to vest responsibility of specific technology products completely. In contrast, 30 % of the sample thinks otherwise, and 20 % is indecisive about giving control to their child.

43 % of the sample disagree to get their simple online transactions done by their children. Interestingly enough, the disagreement drops to 31 % if the transaction is too long. Moreover, the disagreement drops to 25 % when they are in a rush. Therefore, being in a rush, and have to wait, change participants' approach to let their children make their tasks.

**Table 9: Level of Participation in Children Roles in Technology and Internet**

<i>Item</i>		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean*
1. I want my child to do and teach me, my online transactions (online banking, paying bills etc.) under my watch	f	63	103	59	<b>222</b>	119	3,40
	%	11,1	18,2	10,4	<b>39,2</b>	21	
2. When I encounter a problem while online shopping (return, cancel, etc.), I want my child to show me the solution	f	43	82	59	<b>235</b>	148	3,64
	%	7,6	14,5	10,4	<b>41,4</b>	26,1	
3. I want my child to teach me that I am unfamiliar about social media e.g. creating profile, sharing content	f	43	77	57	<b>239</b>	150	3,66
	%	7,6	13,6	10,1	<b>42,2</b>	26,5	
4. I think that I can't keep up with technologic developments like my child do	f	41	88	75	<b>210</b>	154	3,61
	%	7,2	15,5	13,2	<b>37</b>	27,1	
5. I consult my child, If I am not sure or do not know or could not understand about technology	f	11	21	28	232	<b>275</b>	4,30
	%	1,9	3,7	4,9	40,9	<b>48,5</b>	
6. When I buy a new technological product, my child helps me to use it	f	13	36	54	227	<b>237</b>	4,12
	%	2,3	6,3	9,5	40	<b>41,8</b>	
7. I get my child's opinion when I buy a technologic product	f	16	36	69	220	<b>227</b>	4,06
	%	2,8	6,3	12,1	38,7	<b>40</b>	
8. I do not see any harm to let, some technological products usage completely to my child	f	61	112	106	<b>172</b>	117	3,30
	%	10,7	19,7	18,7	<b>30,3</b>	20,6	
9. I ask for my child to do my simple online transactions	f	72	<b>166</b>	82	161	87	3,04
	%	12,7	<b>29,2</b>	14,4	28,3	15,3	
10. My child can do my online transactions when I am in a rush	f	51	81	57	<b>227</b>	150	3,60
	%	9	14,3	10,1	<b>40,1</b>	26,5	
11. I sometimes made my child do my online transactions that are long and requires waiting	f	65	115	82	<b>194</b>	112	3,30
	%	11,4	20,2	14,4	<b>34,2</b>	19,7	

Mean\*: 1. Strongly Disagree, 2. Disagree, 3. Neither agree nor disagree, 4. Agree, 5. Strongly agree

### 3.5. Factor Analyses

In this title, variables were subjected to factor analysis to reduce many individual items into a fewer number of dimensions.

#### 3.5.1. Digital Literacy

In literature, the original scale formed to measure students' adoption of unfamiliar technologies into their learning (Ng, 2012). In this research, to measure the participants' level of digital literacy skills, eight items were used in the questionnaire.

**Table 10: Feasibility of Digital Literacy Scale**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	<b>,848</b>	
Approx. Chi-Square	1499,729	
Bartlett's Test of Sphericity	df	21
	Sig.	<b>,000</b>

As a prerequisite for factor analysis, KMO and Bartlett's test results evaluated. Before starting factor analysis, the item's KMO values reviewed in anti-image correlation matrices. All items have sufficient KMO value individually. In total, 0,8 and above KMO value generally accepted as high (Altunışık, Coşkun, and Yıldırım, 2017) and in this case, KMO value is satisfactory. Bartlett's test of sphericity also approves all correlations in correlation matrices are significant.

According to previous research, all extraction methods have similar results after rotation, and the main objective is to achieve the highest level of variance explanation or minimize the residual variance (Büyüköztürk, 2002). As an extraction method, the principal component analysis was chosen, which has the highest degree of variation explained. Only one item excluded from the analysis due to low factor loading and a negative effect on the total variance explained. After all, the analysis concluded a one-component solution of digital literacy, and Table 11 shows items and its loading to the component.

**Table 11: Exploratory Factor Analysis Result of Digital Literacy**

Cronbach Alpha: ,843	
Total Variance Explained: 52,8 %	
<i>Item</i>	<i>Component Loading</i>
I can learn to use new technologies easily	,812
I keep up with important new technologies	,764
I know how to solve my technical problems	,762
I know about a lot of different technologies	,759
I have adequate skills on Information and Communication Technology	,756
I am confident with my search and evaluate skills in regards to obtaining information from Web	,680
I am familiar with the issues related to web-based activities e.g. cyber safety, search issues, plagiarism	,515

### 3.5.2. Parental Styles

Parental styles scale includes 24 items and two dimensions, which are 9 items demandingness and 13 items responsiveness (Kim et al., 2015). However, more than half of the items discarded from analysis due to their disharmony to previous study results.

Table 12 shows that the results of KMO and Bartlett's test are satisfactory for factor analysis. Items individual KMO values were examined in anti-image correlation matrices, and all of them were greater than 0,5. In this research, items were extracted from analysis to obtain the best results regarding components' coherence and literature. Component loadings below than 0,5 eliminated from the study.

**Table 12: Feasibility of Parental Style Dimensions**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		<b>,851</b>
	Approx. Chi-Square	1879,294
Bartlett's Test of Sphericity	df	55
	Sig.	<b>,000</b>

Optimum variance explanation was provided from the principal component analysis. 52,8 % of the variance explained. After extraction, the final results of the components are in Table 13.

**Table 13: Exploratory Factor Analyses Results of Parental Style Dimensions**

	Cronbach Alpha: ,757
	Total Variance Explained: 52,8 %
<b>Demandingness</b>	Cronbach Alpha: ,624
	Variance Explained: 16,1 %
<i>Item</i>	<i>Component Loading</i>
I would describe myself as a strict parent	,805
I really expect my child to follow family rules	,735
I make most of the decisions about what my child is allowed to do	,707
<b>Responsiveness</b>	Cronbach Alpha: ,850
	Variance Explained: 36,7 %
<i>Item</i>	<i>Component Loading</i>
When I want my child to do something, I explain why	,791
I usually tell my child reasons for rules	,764
My child can count on me to help him/her out, if s/he has some kind of problem	,740
I and my child do fun things together	,730
I praise my child if s/he does things well	,712
I encourage my child to talk with me about things	,673
I believe my child has a right to his/her own point of view	,619
I spend time just talking to my child	,586

### 3.5.3. Roles of Children

**Table 14: Feasibility of Roles of Children**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		<b>,890</b>
	Approx. Chi-Square	3200,826
Bartlett's Test of Sphericity	df	55
	Sig.	,000

To measure different roles of children, a scale formed considering previous works in literature and the pilot study. In the end, 14 items selected. However, after adjustment to find the best fitting results, three items discarded from analysis due to their disharmony.

According to the KMO result, which is 0,89, the sample has quite high adequateness. Bartlett's test result is significant, that is a sign for all items that are correlated, and they are convenient for factor analysis.

**Table 15: Exploratory Factor Analysis Results of Children Roles**

Cronbach Alpha: ,895	
Total Variance Explained: 70,9 %	
<b>Teacher Role</b>	Cronbach Alpha: ,843 Variance Explained: 25,4 %
<i>Item</i>	<i>Component Loading</i>
I want my child to do and teach me, my online transactions (online banking, paying bills, etc.) under my watch	,882
When I encounter a problem while online shopping (return, cancel, etc.), I want my child to show me the solution	,815
I want my child to teach me that I am unfamiliar about social media, e.g., creating a profile, sharing content	,741
I think that I cannot keep up with technologic developments as my child does	,558
<b>Expert Role</b>	Cronbach Alpha: ,847 Variance Explained: 23,1 %
<i>Item</i>	<i>Component Loading</i>
I consult my child, If I am not sure or do not know or could not understand about technology	,842
When I buy a new technological product, my child helps me to use it	,803
I get my child's opinion when I buy a technologic product	,756
<b>Broker Role</b>	Cronbach Alpha: ,815 Variance Explained: 22,3 %
<i>Item</i>	<i>Component Loading</i>
I do not see any harm to let some technological products usage entirely to my child	,783
I ask for my child to do my simple online transactions	,756
My child can do my online transactions when I am in a rush	,717
I sometimes made my child do my online transactions that are long and requires waiting	,679

For reaching the highest variance explanation, the principal component analysis applied. Table 15 includes teacher, expert, and broker roles of children as components of factor analysis.

### 3.6. K-Means Cluster Analysis Based on Children Roles

The means of different children’s roles, which derived from the confirmatory factor analysis, are used as clustering the sample. Teacher, broker, and expert role were the variables, and the number of clusters determined according to the purpose of the analysis. The cluster analysis in this study aimed to divide the sample to find groups that have dominant role of children.

The solution of 5 number clusters gives the best results for further analysis. At the 5 number clusters, three groups, which include each dominant role of children and the one group, which provides for avoidance of any children’s role, occurred. The one bunch showed mixed results according to the aim of this analysis.

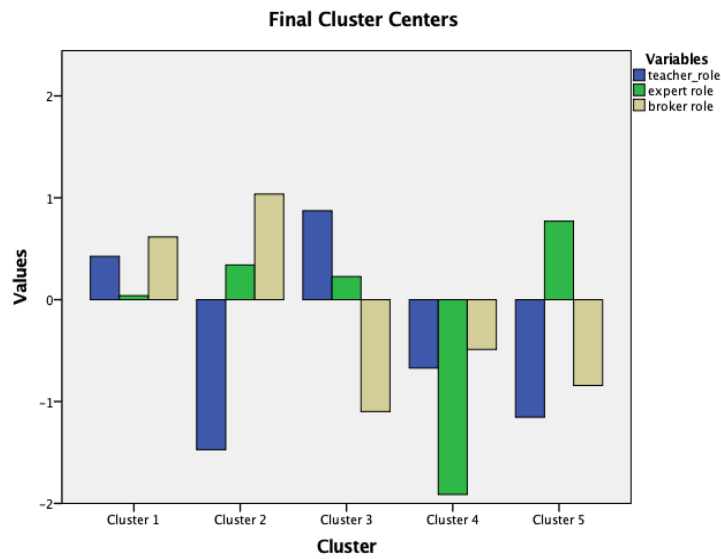
According to Table 16, teacher, expert, and broker role has a significant contribution to creating clusters.

**Table 16: ANOVA of Variables in Cluster Analysis**

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
Teacher Role	93.035	4	.335	554	277.313	<b>.000</b>
Expert Role	68.630	4	.512	554	134.124	<b>.000</b>
Broker Role	88.561	4	.368	554	240.795	<b>.000</b>

Figure 5 shows cluster centers regarding the variables. Cluster 1 is the only and mixed group, and it is difficult to decide any dominant role. The broker role of children dominates the group of participants in Cluster 2. Cluster 3 shows that the teacher role of children is dominant in this group of participants. Cluster 4 is a group of participants who are distant from any kind of children’s roles in consumer reverse socialization. In Cluster 5, the expert role of children is the only positive variable that forms this group.

All cluster names are given by regarding dominant children’s roles, except clusters 1 and 4. Cluster 1 is named ‘Mixed’ because none of the roles were dominant, and cluster 4 is titled ‘Anti-Role’, which indicates negative attitudes against all roles.



**Figure 5: Bar Chart of Cluster Centers**

As is seen in Table 17, almost half of the sample has complicated behaviors according to the dominant children’s role in the group. The reasons behind the occurrence of mixed groups are roles of children in consumer reverse socialization have similarities in each other, and parents could accept more than one role at the same time.

**Table 17: Number of Cases in each Cluster**

Cluster	N	Cluster Name
1	262	Mixed
2	51	Broker Role
3	108	Teacher Role
4	59	Anti-Role
5	79	Expert Role

### 3.7. Multinomial Logistic Regression

The sample is reshaped as a result of cluster analysis. Since the main object of this research is the understanding of the difference between different children’s roles in consumer reverse socialization, the group of participants that showed a mixed approach eliminated before multinomial logistic regression.

Table 18 includes the distribution of the categorical variables in the model. One of the conveniences of multinomial logistic regression does not require normally distributed



variables. Therefore, categorical variables might show skewness and kurtosis according to their distributions.

In the model, the teacher role has the highest member of all others. The other roles have close to each other in numbers.

The education level of the model shows a rising trend. 20 % of the sample graduated from elementary school, whereas two times of the sample graduated from college and further level.

Single-parent families and extended families are equal in number and relatively small part of the sample. Nuclear families consist of 83 % of the sample.

The smallest part of the sample belongs to participants who are 30 years old and below group due to having at least one child condition. Age group between 31 and 50 is the easiest group that can be reached in this research by convenience sampling. 20 % of the sample consists of people 51 years old and above.

**Table 18: Case Processing Summary**

		<b>N</b>	<b>%</b>
<b>Roles of Children</b>	Broker Role	50	17,0 %
	Teacher Role	106	36,1 %
	Expert Role	79	26,9 %
	Anti-Role	59	20,1 %
<b>Education Level</b>	Elementary	60	20,4 %
	High School	111	37,8 %
	College and further	123	41,8 %
<b>Family Type</b>	Single Parent Family	24	8,2 %
	Nuclear Family	246	83,7 %
	Extended Family	24	8,2 %
<b>Age Groups</b>	Below 30	21	7,1 %
	31 to 50	212	72,1 %
	51 and above	61	20,7 %
<b>Total</b>		294	100 %

Table 19 includes the values of model fitting information of the estimated research model. According to model fitting information (MLR  $\chi^2 = 162,720$ ;  $df = 33$ ;  $p = ,000$ ), the relationship between the dependent and combination of independent variables is statistically significant based on the final model chi-square.

**Table 19: Model Fitting Information**

<b>Model</b>	<b>-2 Log Likelihood</b>	<b><math>\chi^2</math></b>	<b>df</b>	<b>p</b>
Intercept Only	790,571			
Final	627,851	162,720	33	,000

Regards to goodness of fit, Pearson ( $\chi^2 = 846,012$ ;  $df = 825$ ;  $p = ,298$ ) and deviance ( $\chi^2 = 627,851$ ;  $df = 825$ ;  $p = 1,000$ ) results show that the data fits well to the model. The accepted value of significance is greater than the 0,05 level. Chi-square values divided by degrees of freedom give a parameter to understand whether there is an overdispersion or not. Values close to 1 generally accepted as there is no overdispersion in the model. Regarding Table 20, the observed variance of the dependent variable is not greater than the expected variance of the dependent variable.

**Table 20: Goodness of Fit**

	<b><math>\chi^2</math></b>	<b>df</b>	<b>p</b>
<b>Pearson</b>	846,012	825	,298
<b>Deviance</b>	627,851	825	1,000

Pseudo  $R^2$  values are the estimation of the amount of variation in the dependent variable. Unlike linear regression analysis'  $R^2$ , Pseudo  $R^2$  is not the coefficient of determination (El-Habil, 2012). However, the model with the largest Pseudo  $R^2$  accepted as the best according to measures. These results suggest that between 42,5 % and 45,6 % of the variability explained by independent variables used in the model. In literature, researches usually accepted Nagelkerke  $R^2$  for easiness of interpretation cause Cox and Snell  $R^2$  never reach 1 (Çokluk, 2010). Values of 0,2 to 0,4 for McFadden  $R^2$  represent an excellent fit (McFadden, 1978), so the model has an excellent fit.

**Table 21: Pseudo R<sup>2</sup>**

<b>Cox and Snell</b>	0,425
<b>Nagelkerke</b>	0,456
<b>McFadden</b>	0,206

In multinominal logistic regression, classification accuracy is a more useful measure to assess the utility of the model (Ashok et al., 2014).

The proportional by chance accuracy rate is computed by calculating the proportion of cases for each dependent variable (broker role, teacher role, expert role, and anti-role) and based on the number of cases in and then squaring and summing the proportion of cases in each group (Bayaga, 2001).

**Table 22: Prediction Accuracy Classification**

Observed	Predicted				Percent Correct
	Broker Role	Teacher Role	Anti-Role	Expert	
Broker Role	<b>18</b>	20	5	7	36,0 %
Teacher Role	8	<b>74</b>	8	16	69,8 %
Anti-Role	3	8	<b>38</b>	10	64,4 %
Expert Role	3	35	12	<b>29</b>	36,7 %
Overall Percentage	10,9 %	46,6 %	21,4 %	21,1 %	<b>54,1 %</b>

Number of cases are 50 for broker role, 106 for teacher role, 79 for expert role and 59 for anti-role. Marginal percentages are 17% for broker role, 36,1% for teacher role, 26,9% for expert role, and 20,1% for anti-role. First, squared and summed the proportion of cases in each group and found 0,271 ( $0,170^2 + 0,361^2 + 0,269^2 + 0,201^2$ ). Then, multiplied by criteria for proportional by chance accuracy which is 25 %. The final criteria would be 0,339 ( $1,25 * 0,271$ ).

The overall classification percentage computed by SPSS is 54,1%. The model's overall predictive accuracy is greater than the proportional by chance accuracy criterion, which is 33,9% suggests that the model is useful. The criterion for classification accuracy is satisfied.

Table 22 shows that the model makes 18 correct predictions and 36 % is accurate totally for broker role, 74 correct predictions and 69,8 % is right totally for teacher role, 38 correct predictions, and 64,4 % is correct totally for the anti-role category, and 29 accurate predictions and 36,7 % is correct totally for the expert role. Therefore, the model is more powerful when estimate teacher role and anti-role categories in contrast to broker and expert role.

**Table 23: Likelihood Ratio Tests**

<b>Effect</b>	<b>-2 Log Likelihood of Reduced Model</b>	<b><math>\chi^2</math></b>	<b>df</b>	<b>p</b>
Intercept	627,851 <sup>a</sup>	,000	0	.
Digital Literacy	639,232	11,380	3	<b>,010</b>
Responsiveness	666,183	38,332	3	<b>,000</b>
Demandingness	629,824	1,973	3	,578
Age of the Oldest Child	678,396	50,544	3	<b>,000</b>
Number of Children in the Family	632,420	4,569	3	,206
Level of Education	652,667	24,816	6	<b>,000</b>
Family Type	642,248	14,397	6	<b>,026</b>
Age Groups	646,641	18,790	6	<b>,005</b>

Likelihood ratio tests show the contribution of each independent variable to the model. The significance of each independent variable in the model is evaluated in the likelihood ratio test, while the Wald test value gives differentiation between groups. Referring to Table 23, digital literacy ( $p < 0,010$ ), responsiveness of parents ( $p < 0,000$ ), age of the oldest child ( $p < 0,000$ ), level of education ( $p < 0,000$ ), family type ( $p < 0,026$ ), and age groups ( $p < 0,005$ ) are statistically significant variables related to different children roles in consumer reverse socialization. On the other side, the demandingness of parents ( $p > 0,578$ ), and the number of children in the family ( $p > 0,206$ ) does not affect the model significantly.

In multinomial logistic regression, the reference category usually accepted as zero points to compare another dependent variable. The reference category for the model is the dependent variable, which was labeled as Anti-Role before. Choosing Anti-Role as a reference category is appropriate to the aim of this analysis and makes it easy to

comparison between other children's roles. All significant results basis for the Anti-Role group.

According to parameters that estimate the dependent variable, digital literacy and the demandingness of parents do not affect the occurrence of any roles of children in contrast to the Anti-Role category.

**Table 24: Parameter Estimates**

		<b>B</b>	<b>SE</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Broker Role	Intercept	-7,047	1,650	18,242	1	,000	
	Digital Literacy	,419	,274	2,338	1	,126	1,521
	Responsiveness	1,178	,277	18,065	1	<b>,000</b>	3,247
	Demandingness	-,254	,225	1,271	1	,260	,776
	Age of the Oldest Child	,326	,053	37,179	1	<b>,000</b>	1,385
	Number of Children in the Family	-,751	,378	3,956	1	<b>,047</b>	,472
	Education Level-1 ( <i>Elementary</i> )	2,067	,882	5,488	1	<b>,019</b>	7,899
	Education Level-2 ( <i>High School</i> )	,341	,556	,375	1	,540	1,406
	Education Level-3 ( <i>College and further</i> )	0 <sup>b</sup>	.	.	0	.	.
	Family Type-1 ( <i>Single Parent</i> )	-2,046	1,339	2,334	1	,127	,129
	Family Type-2 ( <i>Nuclear</i> )	,316	,971	,106	1	,745	1,372
	Family Type-3 ( <i>Extended</i> )	0 <sup>b</sup>	.	.	0	.	.
	Age Group-1 ( <i>Below 30</i> )	4,687	1,332	12,388	1	<b>,000</b>	108,541
	Age Group-2 ( <i>From 31 to 50</i> )	2,819	,861	10,717	1	<b>,001</b>	16,768
	Age Group-3 ( <i>51 and above</i> )	0 <sup>b</sup>	.	.	0	.	.
Teacher Role	Intercept	-3,998	1,348	8,799	1	,003	
	Digital Literacy	-,292	,231	1,599	1	,206	,747
	Responsiveness	1,119	,231	23,458	1	<b>,000</b>	3,061
	Demandingness	-,013	,200	,004	1	,948	,987
	Age of the Oldest Child	,224	,046	23,288	1	<b>,000</b>	1,251
	Number of Children in the Family	-,297	,308	,930	1	,335	,743
	Education Level-1 ( <i>Elementary</i> )	2,453	,797	9,477	1	<b>,002</b>	11,622

Table 24 cont.		<b>B</b>	<b>SE</b>	<b>Wald</b>	<b>df</b>	<b>Sig.</b>	<b>Exp(B)</b>
Teacher Role	Education Level-2 (High School)	1,496	,475	9,932	1	<b>,002</b>	4,463
	Education Level-3 (College and further)	0 <sup>b</sup>	.	.	0	.	.
	Family Type-1 (Single Parent)	-1,987	1,053	3,560	1	,059	,137
	Family Type-2 (Nuclear)	,299	,772	,150	1	,699	1,348
	Family Type-3 (Extended)	0 <sup>b</sup>	.	.	0	.	.
	Age Group-1 (Below 30)	1,945	1,120	3,018	1	,082	6,994
	Age Group-2 (From 31 to 50)	,956	,688	1,931	1	,165	2,602
	Age Group-3 (51 and above)	0 <sup>b</sup>	.	.	0	.	.
Expert Role	Intercept	-2,028	1,268	2,557	1	,110	
	Digital Literacy	,012	,225	,003	1	,959	1,012
	Responsiveness	1,119	,230	23,679	1	<b>,000</b>	3,061
	Demandingness	-,059	,195	,091	1	,763	,943
	Age of the Oldest Child	,209	,046	20,782	1	<b>,000</b>	1,233
	Number of Children in the Family	-,391	,308	1,612	1	,204	,676
	Education Level-1 (Elementary)	,927	,836	1,230	1	,267	2,526
	Education Level-2 (High School)	,621	,465	1,786	1	,181	1861
	Education Level-3 (College and further)	0 <sup>b</sup>	.	.	0	.	.
	Family Type-1 (Single Parent)	-1,999	,951	4,417	1	<b>,036</b>	,135
	Family Type-2 (Nuclear)	-,793	,686	1,335	1	,248	,452
	Family Type-3 (Extended)	0 <sup>b</sup>	.	.	0	.	.
	Age Group-1 (Below 30)	1,446	1,092	1,751	1	,186	4,244
	Age Group-2 (From 31 to 50)	,738	,685	1,163	1	,281	2,092
	Age Group-3 (51 and above)	0 <sup>b</sup>	.	.	0	.	.

**Broker Role Category Results;** First part of the table describes the factors associated with the occurrence of the broker role of children in contrast to avoidance of any children's roles in the consumer reverse socialization. According to results, the responsiveness of parents, age of the oldest child, and age groups of respondents have a

statistically significant relationship for the broker role of children. The education level 1, which is elementary level, in contrast to education level 3, which is college and further, has a positive effect on the broker role of children. The number of children has significant results in parameter estimates. However, it has not overall relationship to the dependent variable in the likelihood test. For this reason, the significance is not suitable for interpretation.

Regarding the results for each unit increase in the responsiveness of parents, the odds of being in the broker role category 3,25 increases. As anticipated before, the older children's parents get, the sooner consumer reverse socialization occurs. One age increase result 1,38 odds increase in the broker role of children. Elementary level of education positively affects the to be in the broker role category in comparison to college level and further. However, the same difference could not be found between high school level and college and further level. According to age group levels, Group 1 (< 30) and Group 2 (31-50) are significant referencing Group 3 (> 51). The odds of being a broker role category are 108,5 for Group 1 and 16,7 for Group 2.

**Teacher Role Category Results;** Second part of the table includes the effects of independent variables on the teacher role of children in contrast to avoidance of any children's role in consumer reverse socialization. Responsiveness of parents, age of the oldest child, and the education level of respondents are statistically significant at the 0,05 level.

For each unit increase in the responsiveness of parents, the odds of being in the teacher role category will increase to 3,06. As much the same age of the oldest child increases, the odds of being in teacher role category 1,25 times. In this category, education levels differ from Level 1 (elementary) and Level 2 (high school) by referencing Level 3 (college and further).

**Expert Role Category Results;** Last part of the table indicates the factors that affect the occurrence of the expert role of children in contrast to avoidance of any roles of children in consumer reverse socialization. Regarding Table 24, the responsiveness of parents, age of the oldest child, and Family Type 1, which is single-parent families have significant results for the expert role of children.

As in the other categories, the responsiveness of parents increases, the odds of being in the expert role category 3,06 increases. For each age increase in the age of the oldest child variable, the odds of being in the expert role category increase 1,23 times. For the expert role category, Family Type 1 (single-parent family) differs from the reference category, which is Family Type 3 (extended family). The odds of being in the expert role category is 86,5 % less likely ( $0,135 - 1,0 = - 0,865$ ) single-parent families by referencing extended families.



## **CHAPTER 4: DISCUSSION**

This chapter contains the interpretation of the results, limitations of the study, the areas for further research, and managerial implications.

### **4.1. Interpretation of Results**

In this study, children's roles in consumer reverse socialization and determiners of those roles were investigated in the context of technology and the Internet. First of all, the separation of children's roles from each other is difficult. However, each role is unique in a way that affects parties of the socialization process.

In literature, previous researches identified the teacher and the broker role (Grossbart et al., 2002) in technology and the Internet; the informant, the expert, the instructor, and the lifestyle influencer role (Ekström, 2007) in general. Nevertheless, studies conducted in qualitative methods. In the scope of this finding, parts of children studied in quantitative methods, and previous roles harmonized to embrace overall. The informant role was similar to the broker role, and the instructor role was similar to the teacher role. The expert role of children added in technology and the Internet area in addition to the teacher and the broker role. Only the lifestyle influencer role excluded due to the appropriateness of special topics like health and environmental concerns.

After identified three leading roles of children consumer reverse socialization, the main aim of this research is to reveal the differences between them. Although different roles of children in consumer reverse socialization have been identified up to today, determiners of those roles weakly investigated.

First of all, K-means cluster analysis was applied to the sample considering the roles of children as variables. The clustering of the sample aimed to achieve a dominant role of children in each cluster, then labeling that cluster with the dominant role of children. However, the desired cluster profile achieved at five number clusters, and the first cluster showed mixed results in differentiating the roles from each other. As is mentioned, the separation of roles from each other is difficult. At some point, roles share similar characteristics. Moreover, participants could incline more than one role at the same time. In the end, the mixed cluster extracted to continue the further analysis to draw a distinctive line between roles.

Compatible with the research aim, multinomial logistic regression was applied to the collected data, due to more than two levels of outcomes and convenience to the comparison between groups. Table 25 includes significant results which are based on Anti-role category.

**Table 25: Summary of Significant Results of Multinomial Logistic Regression**

	Broker Role	Teacher Role	Expert Role
Responsiveness of parents	✓	✓	✓
Age of the Oldest Child	✓	✓	✓
Education Level-1 (Elementary)	✓	✓	
Education Level-2 (High School)		✓	
Education Level-3 (College and further) *			
Family Type-1 (Single-parent Family)			✓
Family Type-2 (Nuclear Family)			
Family Type-3 (Extended Family) *			
Age Group-1 (below 30)	✓		
Age Group-2 (from 31 to 50)	✓		
Age Group-3 (51 and above) *			

\*Comparison group to other categories

The first independent variable in this research was the parental style following the literature. The literature findings show that parental style has a tremendous effect almost every research includes parental style in the area of consumer socialization and consumer reverse socialization (Bao et al., 2007; Carlson et al., 2011; Gentina and Singh, 2015; Kaur and Singh, 2006; Mikeska et al., 2017; Rose, 1999; Yang et al., 2014). Therefore, the parental style was an inevitable variable for this study.

In this research, parental style investigated in two dimensions, which are demandingness and responsiveness. According to research findings, the responsiveness level of the parents affects all three roles of children. The responsiveness of parents is concerned with

parental warmth and supportiveness. This result coincides with the previous studies, which argue that warmer parents (high-responsiveness) are more receptive in contrast to cooler parents (low-responsiveness).

The increase in the responsiveness of parents causes the same increase for the odds ratio of the expert and the teacher role. However, the broker role's odds ratio increases a little more. The reason behind the difference could be that the broker role requires more independence than other roles. In the broker role, the child is a mediator in the process. In fact, he/she can be a decision-maker to their parent's needs and want.

On the other hand, the demandingness level of parents does not affect any change in the categories of roles of children. Demandingness is related to parental strictness and control. Accordingly, the level of parental authority or the number of rules established is not related to consumer reverse socialization.

One of the original contributions of the research was the anticipated link between digital literacy and the roles of children in consumer reverse socialization. The expected result was decreasing in digital literacy would cause an increase in the odds of being in the category of children's roles in the model.

Considering the results of the multinomial logistic regression, none of the children's roles have significantly affected according to the change of digital literacy level of participants. Yet, digital literacy has a significant contribution to the research model according to likelihood ratio tests. Therefore, digital literacy contributes to the model but does not differ from the avoidance of any role (reference category) and other roles of children.

Even though digital literacy has no difference in categories of children's roles, the age of participants grouped according to the definition of digital natives by Ng (2012), has significant results for the broker role. Participants who were born before the 70s were reference category (group 3) and have limited digital skills. Participants who were born after the 70s (digital era) were group 2, and participants who were born after the 90s (digital era globally) were group 1. In the broker role, the odds of being in group 1 and group 2 are more likely than group 3. This result might be the unexpected one when considering consumer reverse socialization linked to older people. However, the broker role requires more independence and is not related to the level of digital knowledge.

One of the expected results of this research was the age of the oldest child will trigger parents to involve consumer reverse socialization more than parents' age. As is seen in parameter estimates, an increase in the age of the oldest child variable increases the odds of being in all children's role categories. The determiner of this result is the child's age, not the parents. This result could lead to search consumer reverse socialization in older people. However, this would be the wrong conclusion; an example to see the difference is a 30 years-old female could have a 10 years-old child or a newborn baby or no child at all. The difference could occur in cultural reasons, personal reasons, or maybe health-related reasons. Thus, the age of the oldest child is a significant predictor for all roles of children in consumer reverse socialization.

The education level of participants was measured in three (low-medium-high) categories, which are elementary (level 1), high school (level 2), and college and further (level 3). Education level has a significant difference in the teacher role and the broker role of children. In the teacher role, the odds of being in level 1 and level 2 are more likely than level 3. An interpretation for this result, as the education level of participants, decreases the probability of approaching the teacher role of children increases. In the broker role, the odds of being in level 1 is more likely than level 3. However, the same link could not be found between level 2 and level 3.

Last but not least important variable is the family type classified regarding the number of parents and family elders in the family unit. According to the number of elders in the family, single-parent families are type 1, nuclear families are type 2, and extended families are type 3. The results show that family type has a significant effect on the expert role. In the expert role category, the family type is 85 % less likely single-parent families in comparison with extended families. Extended families are more suitable for the occurrence of the expert role. Family elders usually need assistance and guidance while buying, decision-making, or using new technologies. They might see their grandchildren as experts in those new technologies. Thus, parents could be impressed by the ability of their children. Another explanation for this result might be that parents could not find time for engaging in new technologies while taking care of family elders, so they prefer to consult their children and see them as an expert.

## **4.2. Limitations of The Research & Implications for Further Research**

Research has been done with 568 participants from Turkey, and almost half of the sample was eliminated to reach distinctive groups in terms of children's roles. Different countries and cultures might result in new findings in the understanding of the consumer reverse socialization.

The topic of this research is emerging and relatively new for the literature, and correspondingly there are many unknowns in this area. As technology improves, the importance of this area will also gain attention. The pandemic all around the world made it impossible to reach face-to-face data collection.

The method of this research could be revisited, and the children's side of the story could be added to the equation. Although consumer reverse socialization is a reciprocal process, most of the studies collected their data only from one party, which is parents. Information that could be obtained from children is as important as parents. Undoubtedly, that collecting data from both parties will bring new insights to the understanding of the process.

Another further research topic could be examining consumer reverse socialization's roles of children in the consumer purchase decision process. Such an argument could reveal which role is more effective in which stage.

This study accepted that today's culture is prefigurative in advance. Topics of this research, which is the technology and the Internet, make it possible. Nevertheless, some societies have postfigurative and cofigurative cultures all around the world. Various topics can be studied according to the societal background.

## **4.3. Managerial Implications**

This study can provide insights to marketers while developing marketing strategies connected with technology and the Internet area. The research shows that taking the child into consideration is as significant as the parent into consideration. As a consequence of findings, the target should be both parents and children, especially in technology.

There are three roles identified, which are the teacher, the broker, and the expert role of children. All roles have different effects on parents, and the mixed group in the cluster analysis shows that parents can embrace different roles at the same time. However, each

role has unique characteristics, and the balance of power can change while purchase decision-making.

For the broker role, children have such a strong influence on their parents so they can make their parents' purchase decisions by themselves. For the teacher role, children give information, and the final decision is up to their parents so they can be mediators in the decision-making process. For the expert role, children are sophisticated in the decision area, so their parents consult them.

As each increase in the child's age, the potential effect of reverse socialization also increases regardless of the individual's age. Thus, for reverse socialization, marketers should look for those who have an older child.

Another indicator of reverse socialization is the responsiveness of parents. When targeting according to reverse socialization, it is clear that the target group consists of high responsive parents. Therefore, efforts must be sentimental and sincere.

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## APPENDICES

### Appendix 1- Questionnaire in English

#### CONSUMER REVERSE SOCIALIZATION AND ROLES OF CHILDREN

Dear Participant,

This study is conducted to understand the consumer reverse socialization and the roles of children in this process regarding emerging and evolving technology that requires adaptation. Data collected from this questionnaire will be used in a master degree thesis at Sakarya University Graduate School of Business. Your answers will be used only for scientific purposes. Thank you for your valuable time.

Tuğba Paçacı  
tugba.pacaci@ogr.sakarya.edu.tr

Prof. Dr. Remzi Altunışık  
Supervisor

*Information and Communication Technologies:* the use of computers and other electronic equipment and systems to collect, store, use, and send data electronically. Common devices; computers, smart phones, printers, tablets, cameras, drones, security systems, etc.

Please sign the box with X, according to your participation of the items related to digital literacy

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I know how to solve my own technical problems	(...)	(...)	(...)	(...)	(...)
2. I can learn new Technologies easily	(...)	(...)	(...)	(...)	(...)
3. I keep up with important new technologies	(...)	(...)	(...)	(...)	(...)
4. I know about a lot of different technologies	(...)	(...)	(...)	(...)	(...)
5. I have the adequate skills in Information and Communication technology	(...)	(...)	(...)	(...)	(...)
6. I am confident with my search and evaluate skills in regards to obtaining information from Web	(...)	(...)	(...)	(...)	(...)
7. I am familiar with the issues related to web-based activities, e.g., cyber safety, search issues, plagiarism	(...)	(...)	(...)	(...)	(...)
8. I frequently obtain help from my friends over the Internet e.g. WhatssApp, Facebook, Instagram	(...)	(...)	(...)	(...)	(...)

Please sign the box with X, according to your participation of the items related to parental behavior.

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I would describe myself as a strict mother (father)	(...)	(...)	(...)	(...)	(...)
2. I really expect my child to follow family rules	(...)	(...)	(...)	(...)	(...)
3. I make most of the decisions about what my child is allowed to do	(...)	(...)	(...)	(...)	(...)
4. It really does not matter to me whether or not my child does the chores I ask him/her to do	(...)	(...)	(...)	(...)	(...)
5. I let my child do pretty much what s/he wants without questioning his/her decisions	(...)	(...)	(...)	(...)	(...)
6. I sometimes tell my child that my decisions should not be questioned	(...)	(...)	(...)	(...)	(...)
7. I want to know exactly where my child goes at night	(...)	(...)	(...)	(...)	(...)
8. I want to know what my child does with his/her free time	(...)	(...)	(...)	(...)	(...)
9. I want to know what my child spends his/her money for	(...)	(...)	(...)	(...)	(...)
10. I expect my child to tell me when s/he thinks a rule is unfair	(...)	(...)	(...)	(...)	(...)
11. I encourage my child to look both sides of an issue	(...)	(...)	(...)	(...)	(...)
12. I encourage my child to talk with me about things	(...)	(...)	(...)	(...)	(...)
13. I do not believe that I should have my own way all the time any more than I believe my child should have his/hers	(...)	(...)	(...)	(...)	(...)
14. I expect my child to do what I say without having to tell him/her why	(...)	(...)	(...)	(...)	(...)
15. I believe my child has a right to his/her own point of view	(...)	(...)	(...)	(...)	(...)
16. I take an interest in my child's activities	(...)	(...)	(...)	(...)	(...)
17. I usually tell my child reasons for rules	(...)	(...)	(...)	(...)	(...)
18. I praise my child if s/he does things well	(...)	(...)	(...)	(...)	(...)
19. I and my child do fun things together	(...)	(...)	(...)	(...)	(...)
20. I spend time just talking to my child	(...)	(...)	(...)	(...)	(...)
21. My child can count on me to help him/her out, if s/he has some kind of problem	(...)	(...)	(...)	(...)	(...)
22. When I want my child to do something, I explain why	(...)	(...)	(...)	(...)	(...)

Please sign the box with X, according to your participation of the items related to technology use.

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. I consult my child, If I am not sure or do not know or could not understand about technology	(...)	(...)	(...)	(...)	(...)
2. When I buy new technological product, my child helps me to use it	(...)	(...)	(...)	(...)	(...)
3. I get my child's opinion when I buy technologic product	(...)	(...)	(...)	(...)	(...)
4. I am thinking that I can't keep up with technologic developments like my child do	(...)	(...)	(...)	(...)	(...)
5. I see my child more knowledgeable than me in technology	(...)	(...)	(...)	(...)	(...)
6. I want my child to do and teach me, my online transactions (online banking, paying bills etc.) under my watch	(...)	(...)	(...)	(...)	(...)
7. When I encounter a problem while online shopping (return, cancel, etc.), I want my child to show me the solution	(...)	(...)	(...)	(...)	(...)
8. I want my child to teach me that I am unfamiliar about social media e.g. creating profile, sharing content	(...)	(...)	(...)	(...)	(...)
9. Sometimes, when I buy new technology products, first my child learns to use then shows me how to do	(...)	(...)	(...)	(...)	(...)
10. I sometimes want my child to do my online transactions due to s/he is faster than me	(...)	(...)	(...)	(...)	(...)
11. I sometimes made my child to do my online transactions that are long and require waiting	(...)	(...)	(...)	(...)	(...)
12. I ask for my child to do my simple online transactions	(...)	(...)	(...)	(...)	(...)
13. I do not see any harm to let, some technological products usage completely to my child	(...)	(...)	(...)	(...)	(...)
14. My child can do my online transactions when I am in rush	(...)	(...)	(...)	(...)	(...)



*Personal Information*

Sex	Female (...)	Male (...)
Age		(.....)
Number of children you have		(.....)
Age of your oldest child		(.....)
Family Type	Single-Parent Family (Only mother or father and kids)	(...)
	Nuclear Family (mother, father, and kids)	(...)
	Extended Family (mother, father, kids, and family elders)	(...)
Level of Education	Elementary School	(...)
	High School	(...)
	College and further level	(...)
Monthly Income of the Household	2.500 TL and below	(...)
	2.501 TL – 5.000 TL	(...)
	5.001 TL – 7.500 TL	(...)
	7.501 TL – 10.000 TL	(...)
	10.001 TL and above	(...)

## Appendix 1- Questionnaire in Turkish

### EBEVEYNLERDE TÜKETİCİ GERİ SOSYALLEŞMESİ VE ÇOCUKLARIN ROLLERİ

Değerli Katılımcı,

Bu çalışma, sürekli gelişen ve yeniden adapte olma ihtiyacı duyulan teknoloji sonucu, ebeveynlerde yaşanan tüketici geri sosyalleşmesi ve bu sosyalleşmede çocukların rollerini ortaya koymak üzere hazırlanmıştır. Katılmak üzere olduğunuz anket çalışması sonucu elde edilen veriler, Sakarya Üniversitesi İşletme Enstitüsünde bir yüksek lisans tezinde kullanılacaktır. Cevaplarınız sadece bilimsel amaçlarla kullanılacaktır. Vakit ayırdığınız için teşekkür ederiz.

Tuğba Paçacı  
tugba.pacaci@ogr.sakarya.edu.tr

Prof. Dr. Remzi Altunışık  
Danışman

*Bilgi ve iletişim teknolojileri:* Verilerin elektronik ortamda toplanması, saklanması, kullanılması ve gönderilmesi amaçlı cihaz ve sistemlerdir. Bu bağlamda yaygın kullanılan araçlar; bilgisayarlar, akıllı telefonlar, yazıcılar, tabletler, kameralar, insansız uçaklar, güvenlik sistemleri, vb.

Dijital Okuryazarlık ile ilgili aşağıdaki ifadelere ne derece katıldığınızı ilgili yerlere X işareti koyarak belirtiniz.

İfadeler	Hiç Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Kullandığım teknolojilerle ilgili karşılaştığım teknik problemleri nasıl çözeceğimi bilirim.	(...)	(...)	(...)	(...)	(...)
2. Yeni teknolojileri kullanmayı kolayca öğrenebilirim.	(...)	(...)	(...)	(...)	(...)
3. Teknolojik yenilikleri takip ederim.	(...)	(...)	(...)	(...)	(...)
4. Birçok farklı teknoloji hakkında bilgi sahibiyim.	(...)	(...)	(...)	(...)	(...)
5. Bilgi ve iletişim teknolojileri konusunda yeterli becerilere sahip olduğumu düşünüyorum.	(...)	(...)	(...)	(...)	(...)
6. İnternette bilgi edinmek için yaptığım arama ve değerlendirmelerde kendime güvenirim.	(...)	(...)	(...)	(...)	(...)
7. Siber güvenlik, webde arama ve internette sahtecilik gibi konular hakkında bilgim var.	(...)	(...)	(...)	(...)	(...)
8. Gerektiği zamanlarda, arkadaşlarımla internet üzerinden (Örneğin; WhatsApp, Facebook, Instagram aracılığıyla) sıklıkla yardımlaşırım.	(...)	(...)	(...)	(...)	(...)

Ebeveyn davranışlarıyla ilgili aşağıdaki ifadelere ne derece katıldığınızı ilgili yerlere X işareti koyarak belirtiniz.

İfadeler	Hiç Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Kendimi otoriter bir ebeveyn olarak tanımlayabilirim.	(...)	(...)	(...)	(...)	(...)
2. Çocuğumun kesinlikle aile kurallarına uymasını beklerim.	(...)	(...)	(...)	(...)	(...)
3. Çocuğumun, neler yapıp yapamayacağı konusunda kararları genellikle ben veririm.	(...)	(...)	(...)	(...)	(...)
4. Çocuğumdan yapmasını istediğim günlük işleri yapıp yapmaması benim için hiç önemli değildir.	(...)	(...)	(...)	(...)	(...)
5. Genellikle, çocuğumun yapmak istediği şeylere sorgulamadan izin veririm.	(...)	(...)	(...)	(...)	(...)
6. Bazen çocuğuma kararlarımı <u>sorgulamaması</u> gerektiğini söylerim.	(...)	(...)	(...)	(...)	(...)
7. Çocuğumun gece dışarı çıktığında nerde olduğunu bilmek isterim.	(...)	(...)	(...)	(...)	(...)
8. Çocuğumun boş zamanlarında neler yaptığını bilmek isterim.	(...)	(...)	(...)	(...)	(...)
9. Çocuğumun parasını nerelere harcadığını bilmek isterim.	(...)	(...)	(...)	(...)	(...)
10. Çocuğumdan, bir kuralın <u>adil olmadığını</u> düşündüğü zaman bana söylemesini beklerim.	(...)	(...)	(...)	(...)	(...)
11. Çocuğumu bir olayı iki taraflı (olumlu ve olumsuz) değerlendirmesi konusunda cesaretlendiririm.	(...)	(...)	(...)	(...)	(...)
12. Çocuğumu her şey hakkında benimle konuşması konusunda cesaretlendiririm.	(...)	(...)	(...)	(...)	(...)
13. Her zaman için, <u>çocuğumdan fazla</u> söz hakkımın olması gerektiğini <u>düşünmüyorum</u> .	(...)	(...)	(...)	(...)	(...)
14. Çocuğuma bir şey söylediğimde, nedenini sormadan yapmasını beklerim.	(...)	(...)	(...)	(...)	(...)
15. Çocuğumun kendi bakış açısına sahip olması gerektiğine inanırım.	(...)	(...)	(...)	(...)	(...)
16. Çocuğumun yaptığı aktivitelerle ilgilenirim.	(...)	(...)	(...)	(...)	(...)
17. Herhangi bir kural koyduğumda çocuğuma bunun nedenini açıklarım.	(...)	(...)	(...)	(...)	(...)
18. Çocuğum bir şeyleri iyi yaptığı zaman, onu takdir ederim.	(...)	(...)	(...)	(...)	(...)
19. Çocuğum ve ben, birlikte eğlenceli şeyler yaparız.	(...)	(...)	(...)	(...)	(...)
20. Çocuğumla sadece konuşarak geçirdiğimiz zamanlar vardır.	(...)	(...)	(...)	(...)	(...)
21. Çocuğum herhangi bir sorunla karşılaştığında, bana güvenebileceğini bilir.	(...)	(...)	(...)	(...)	(...)
22. Çocuğumdan bir şey yapmasını istediğimde, ona nedenini açıklarım.	(...)	(...)	(...)	(...)	(...)

Teknoloji kullanımı ile ilgili aşağıdaki ifadelere ne derece katıldığınızı ilgili yerlere X işareti koyarak belirtiniz.

İfadeler	Hiç Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1. Teknolojik konularda, anlamadığım veya bilmediğim veya emin olmadığım durumlarda çocuğumun bilgisine başvururum.	(...)	(...)	(...)	(...)	(...)
2. Yeni teknolojik bir ürün satın aldığımda, kullanımı konusunda çocuğum bana yardımcı olur.	(...)	(...)	(...)	(...)	(...)
3. Teknolojik ürün satın alırken, çocuğumun fikrini alırım.	(...)	(...)	(...)	(...)	(...)
4. Teknolojik gelişmelere çocuğum kadar iyi ayak <u>uyduramadığımı</u> düşünüyorum.	(...)	(...)	(...)	(...)	(...)
5. Çocuğumun teknolojik ürünler konusunda benden daha bilgili olduğunu düşünüyorum.	(...)	(...)	(...)	(...)	(...)
6. Çocuğumdan, online bireysel işlemlerimi (bankacılık vb.) <u>benim</u> gözetimim altında yaparak <u>bana öğretmesini</u> isterim.	(...)	(...)	(...)	(...)	(...)
7. Online alışverişlerimde bir sorunla (iade, iptal vb.) karşılaştığımda çözüm yolunu çocuğumun <u>bana göstermesini</u> isterim.	(...)	(...)	(...)	(...)	(...)
8. Sosyal medya ile ilgili bilmediklerimi (profil oluşturma, paylaşım yapma vb.) çocuğumun <u>bana öğretmesini</u> isterim.	(...)	(...)	(...)	(...)	(...)
9. Bazen, yeni teknolojik bir ürün satın aldığımda, öncelikle çocuğum kullanımını öğrenip sonra bana gösterir.	(...)	(...)	(...)	(...)	(...)
10. Benden daha hızlı yapabildiği için, bazen online işlemlerimi çocuğumun yapmasını isterim.	(...)	(...)	(...)	(...)	(...)
11. Uzun ve bekleme gerektiren online işlemlerimi bazen çocuğuma yaptırırım.	(...)	(...)	(...)	(...)	(...)
12. Basit online işlemlerimi, çocuğumdan rica ederim.	(...)	(...)	(...)	(...)	(...)
13. Bazı teknolojik ürünlerin kullanımını tamamen çocuğuma bırakmakta bir sakınca görmüyorum.	(...)	(...)	(...)	(...)	(...)
14. Acelem olduğu zamanlarda, çocuğum benim yerime online işlemlerimi yapabilir.	(...)	(...)	(...)	(...)	(...)

### *Kişisel Bilgiler*

Cinsiyetiniz	Kadın (...)	Erkek (...)
Yaşınız		(.....)
Sahip olduğunuz çocuk sayısı		(.....)
En büyük çocuğunuzun yaşı		(.....)
Aile Tipiniz	Tek Ebeveynli Aile (...) (sadece anne yada sadece baba ve çocuklar)	
	Çekirdek Aile (...) (anne, baba ve çocuklar)	
	Geniş Aile (...) (anne, baba, çocuklar ve aile büyükleri)	
Öğrenim Durumunuz	İlköğretim	(...)
	Lise	(...)
	Üniversite ve sonrası	(...)
Hanehalkının Aylık Toplam Gelir Düzeyi	2.500 TL ve altı	(...)
	2.501 TL – 5.000 TL arası	(...)
	5.001 TL – 7.500 TL arası	(...)
	7.501 TL – 10.000 TL arası.	(...)
	10.001 TL ve üzeri	(...)

## Appendix 3- Ethics Committee Approval

Evrak Tarih ve Sayısı: 19/05/2020-E.4572



T.C.  
SAKARYA ÜNİVERSİTESİ REKTÖRLÜĞÜ  
Etik Kurulu

Sayı :61923333/050.99/  
Konu :23/17 Tuğba PAÇACI

Sayın Tuğba PAÇACI

İlgi : Tuğba PAÇACI 30/04/2020 tarihli ve 0 sayılı yazı

Üniversitemiz Sosyal ve Beşeri Bilimler Etik Kurulu Başkanlığının 06.05.2020 tarihli ve 23 sayılı toplantısında alınan "17" nolu karar örneği ekte sunulmuştur.  
Bilgilerinizi rica ederim.

**Prof. Dr. Arif BİLGİN**  
Sosyal ve Beşeri Bilimler Etik Kurulu  
Başkanı

17. Tuğba PAÇACI'nın "Ebeveynlerde Tüketici Geri Sosyalleşmesi ve Çocukların Rollerini" başlıklı çalışması görüşmeye açıldı.

Yapılan görüşmeler sonunda Tuğba PAÇACI'nın "Ebeveynlerde Tüketici Geri Sosyalleşmesi ve Çocukların Rollerini" başlıklı çalışmasının Etik açıdan **uygun** olduğuna oy birliği ile karar verildi.

Evrakı Doğrulamak için : <http://193.140.253.232/envision.Sorgula/BelgeDogrulama.aspx?V=BEKV7KJ0>

Etik Kurulu Esentepe Kampüsü 54187 Serdivan SAKARYA / KEP Adresi:  
sakaryauniversitesi@hs01.kep.tr  
Tel:0264 295 50 00 Faks:0264 295 50 31  
E-Posta :ozelkalem@sakarya.edu.tr Elektronik Ağ :www.sakarya.edu.tr



Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

## **CIRRICULUM VITAE**

Tuğba Paçacı graduated from Sakarya University's Foundation' College in 2010. In the same year, she enrolled Business Administration (in English) at Marmara University for a bachelor's degree. She attended English prep school for one year and a student exchange program for one semester. After that, she graduated from the bachelor's degree in February of 2016. She worked for private banks in finance sector and continues her trainee as independent accountant and financial advisor. In 2018, she attended Sakarya University's Graduate School of Business in Production Management and Marketing subfield and she is still a student there.