Incorporating Innovative ICT in Child-Oriented Marketing – A Retail Sector Case Study

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Abstract: The retail sector, although being primarily traditional is deconstructing and modernizing itself in order to keep up with the technological and digital enhancements. The Portuguese panorama is remarkably structured upon child-oriented marketing initiatives with the involvement of technological platforms, gamification and enrolment components. The scrutiny of existing applications of innovative ICTs focused on children’s marketing will serve as the basis for a new business campaign aimed at children and supported by digital marketing and innovative technological features that might trigger a future campaign’s success. In addition, we conducted a small survey to parents and subsequent potential campaign customers to understand the indulgence of a children’s marketing action and a triumphant social media advertisement. The in-store retail system has a huge competitor in the online configuration, in some product categories in conjunction with the privilege of buying anywhere and anytime. In what concerns child-oriented marketing, there is an understanding that actions need to focus on aspects such as interactivity, multimedia and personalized content, where the survey displayed a 99% approval in the creation and necessity of child-oriented marketing campaigns to retailers, and a 54% acclamation of a promotional social media action. This reveals that the online channel is a valid channel, and the in-store retailers, even still being preponderant, need to rethink the inclusion of an Omni-channel solution to solve the in-store versus online shopping retail system. Additionally, it is recommended the creation of child-oriented actions to convert customer loyalty from a younger age and influence family consumption.

Keywords: ICT, Children Marketing, Social Media, In-store Retail, Online Retail.

1. Introduction

As individuals and organizations emerge themselves in the most recent arguments behind the Information Society buzzword, the incorporation of information and communication technologies (ICTs) in their daily lives is also becoming not a desire, but a requirement (Gonçalves, Martins, & Rocha, 2016).

As a younger public becomes more relevant, mainly due to their technology savviness, organizations are altering the way they communicate with these new prospects and how they market their products or services (Xiang, Magnini, & Fesemraier, 2015). Confos and Davis (2016) argue that to be successful, marketing initiatives aimed at children and/or youngsters must include (innovative) technologies and platforms, such as Facebook and YouTube, gamification and enrolment components, though this is dependent on their age.

The retail sector is one of the most interested in reaching children and younger segments of prospects and, although being a typically traditional sector, the retail sector will have to modernize itself in order to keep up with the more digital requirements of its new customers (Stewart, Oliver, Cravens, & Oishi, 2017).

In what particularly concerns the retailing industry, the incorporation of ICT is changing the purchase experience process, where brick and mortar stores are progressively losing to their biggest competitor – the online stores (Galipoglu, Kotzab, Teller, Hüseyinoglu & Pöppelbuß, 2018).
The urgent transformation felt by technological growth, and its momentary status, reveals an extreme concern to pinpoint those with a longstanding stature, in serving marketing and business purposes. These ambitions are inspired through the smooth use of technological devices experienced by Generation Y and Generation Z, and with the prominence of social media platforms. Therefore, it is necessary to take into consideration customers’ reactions in order to enhance customer service (Verhoef, Kannan & Inman, 2015).

Mobile technologies are empowering customers with more information about the products, providing them with the choice of finding information at their convenience and easily choosing between an online or physical store (Grewal, Motyka & Levy, 2018; Martins, Gonçalves, Branco, Barbosa, Melo & Bessa, 2017).

This paper pretends the inclusion of an extensive reference foundation as an agenda to further guide research in the retail area, with the renewal of both society and organizations, alongside a straightforward analysis of recent child-aimed campaigns made by big retail organizations, hence allowing one to acknowledge that, despite being targeted at a younger public, these dynamics are enforced and stimulated by adults, either by interacting with others to exchange campaign-related artefacts or by installing and using the campaign-related software applications. As argued by Ritch and Brownlie (2016) and Del Bucchia and Peñaloza (2016), this active parent participant is typically a consequence of social and familiar pressures that impel parents to avoid any type of negative or contrary action towards their children.

The first section includes an impact of the technological incorporation in consumer and organizational behaviour, succeeded by an understanding that retailers are a huge part of the global economy, while also trying to understand what the consequences will be concerning online implementations and the possible fusion of the offline and online in an Omni-channel future. The third section’s aspiration is to study the premeditation of children and young consumers as future clients and as a marketing and communication target, prospecting new machinery tools to collapse the traditional marketing barrier built over time. Finally, spotlighting a new practice being driven by Portuguese retail giants to get customer fidelity with child-aimed campaigns – collectible campaigns – using smartphone and desktop applications and webpages in order to enact a posterior influence in family purchase decisions.

2. The incorporation of technology in consumer and organizational behaviour

According to Xiang, Magnini and Fesenmaier (2015) and Jorge, Teixeira, Correia, Gonçalves, Martins and Bessa (2018), understanding how ICTs impact consumer behaviour is crucial for organizations when developing marketing strategies. Most technologies are always in a transitory status, so there is a relevant importance in identifying those with the potential to serve long-term purposes.

In association with information technologies, a global environment has erupted in recent years, and as a matter of fact, the development of the Internet (which can be defined as a platform that facilitates technological innovations, new business practices, and a change in the competitive landscape of industry sectors) has transformed the nature of communication and marketing (Gonçalves, Martins & Rocha, 2016).

The adoption of a technological environment requires a solid perception of the long-term trends in the consumer market, rather than simply following a short-term soon-to-be obsolete technology. Capitalizing on the business environment changes is a requisite to sustained success denoting that these achievements enable opportunities for organizations to provide high-quality customer service leading to unceasing competitive advantages (Xiang, Magnini, & Fesenmaier, 2015).

As reported by Gonçalves, Martins and Rocha (2016) another concept has emerged – that of Social Networks – firmly transforming how one conducts business and affirming itself as a meaningful communication and marketing channel for goods and services, forcing institutions to seek new competitive advantages in the market.

The younger generations’ involvement, triggered by the handling of information and communication devices across the Internet and by the seeking of information from multiple sources – television, video and social media – makes them an online advertising responsive target. Social media and online communications are making such an impact due to photo and video tools and also due to social networking. This meaningful tendency presents a great opportunity for marketing and management specialists to identify viable routes to
value creation over the inclusion and combination of new revenue sources into their current business models (Xiang, Magnini, & Fesenmaier, 2015).

As for organizations, there is a necessity to merge their ongoing business models with technological innovations caused by Millennial market prospects, endorsed with technological competences. Business leaders must find not only a way to provide the best customer service, but also the motivation – for employees – to achieve maximum performance while fluctuating between online and offline retailing (Stewart, Oliver, Cravens & Oishi, 2017).

To understand the proliferation and behaviour change in the use of ICTs, a research conducted by ACEPI and IDC (2017) reports that 39% of the Portuguese businesses have an online presence, where 84% have their own website and 67% own social media pages, indicating a rising necessity of being permanently connected with prospecting online customers.

The interest in ICT is motivated by the urgency in achieving better integration of new technologies with business purposes, creating a dependency due to the direct impact in compartmental behaviours. However, Martínez, Vaszquez, Estrada, Santillan and Zaval (2016) admit that business models tend to not consider the technologies in organizational requirements, making it difficult to discern how technologies are useful to their aspirations, even though productivity pressures are urging business-to-business (B2B) customers to consolidate their purchasing procedures and therefore encouraging them to entrust digital technologies, where a wide variety of tools – websites, social media, mobile applications – can assist the purchasing processes and expediting decision-making.

Thus, the peculiar development of the Internet and of e-commerce made a huge impact on the way consumers live and settle their decision making, contrasting in online and offline behaviours (Deka, 2017).

3. The modernization of the retail sector and the in-store versus online conflict

The retail industry, as exposed by von Briel (2018), is configured as one influential element of the global economy, with predictions of attaining 31% of the global domestic product by the year 2019 (figure 1) with about 28 trillion US dollars in revenues.

When analyzing the retail sales evolution between 2010 and 2019, the traditional system is shown as the prevailing one. However, when regarding online sales, we see an uninterrupted flourish representing 0.6 trillion dollars in 2010 and an expectation of 3.6 trillion dollars in 2019 (figure 2) (Falke Information, 2016).

Traditional retailers currently face a very significant upsurge of new online competitors to whom they are progressively losing customers due to the customer conversion behaviour provided by digital technologies. In effect, when customers want to search for information about a new product, they conveniently use the gadgets they have – smartphones, laptops or tablets – remaining comfortably on their sofa without having to go to a brick and mortar store in the proximity (Grewal, Motyka & Levy, 2018).

*Figure 1: Gross Domestic Product Estimated Share (Source: Falke Information, 2016)*

![GDP Estimated Share](image)

In recent years, traditional marketing channels – sponsoring, print advertising or television commercials – have been supplemented by new digital options – social media, search engines or price comparison sites – leading
to a change in the way business and marketing is done within the retail sector, while also generating new forms of competition (Grewal, Motyka & Levy, 2018).

As reported by Johansson and Kask (2016), retailers are facing a labyrinthine question of the inclusion or non-inclusion of e-commerce as a part of the retail amalgamation, in which the understanding in judging the appropriate retail configuration of whether to have a virtual or a physical store is of an extreme strategic relevance for the competitive advantage of a firm. Apart from the decision of the retail format, another vital aspect is the organization of the market standing to engage and maintain customers, either by offering lower prices than competitors or by differentiating themselves and earning a premium compensation (Hoehle, Aloysius, Chan & Venkatesh, 2017).

**Figure 2: Retail Sales Evolution (US$ trillions) (Source: Falke Information, 2016)**

The exponential increase of online shopping, like many other information technology activities, is bouncing in-store shopping rates and making potential niches emerge for virtual and physical shopping-related travel (Lee, Sener, Mokhtarian & Handy, 2017). Johansson and Kask (2016) argue that the implementation of an e-commerce solution is a root condition to achieve agile growth in the retail sector, and the consolidation of different communication channels – incorporating online and offline measures – may lead to sympathetic odds of triumph.

Online or in-store shopping decisions, as emphasized by Lee, Sener, Mokhtarian and Handy (2017) and later by Galipoglu, Kotzab, Teller, Hüseyinoglu and Pöppelbuß (2018) depend on different factors based, for example, on the momentum of the customer – the preference for shopping online instead of driving to get to a physical store – but also on the kind of product being purchased – the inclination to buy books online rather than food – where physical stores are still privileged crosswise multiple product categories. This authority is assumed due to the inability of inspecting online products in person, and although online shopping is on the rise, there are some identifiable disadvantages such as shipping costs and shipping wait times. Generally speaking, the periodically purchased products differ between: a) Online: purchase of non-daily products such as books, electronics or clothing; b) Offline: acquisitions of maintenance items such as gasoline or perishable goods (Statista, 2017).

The previously referred modernization occurs in the decision of retailers to merge themselves with technological and digital tools to meet customers’ requirements. Online shopping can influence customer shopping travel through three systems: a) Substitution: the reduction of the overall travel replacing a piece of in-store by online shopping; b) Complementarity: the online shoppers stimulation to an additional shopping-related travel to a physical store in order to inspect or acquire a product; c) Modification: the manifestation that some condition in the shopping travel has changed – time of day or visited store – without affecting the decision to make the travel itself. These mechanisms do not act unilaterally, so as online shopping influences physical retailers, in-store shopping may impact virtual retailers – the customer can purchase the main item in-store and purchase the accessories online or vice versa (Lee, Sener, Mokhtarian & Handy, 2017).

Given the conjectured interdependencies between online and offline, Lee, Sener, Mokhtarian and Handy (2017) tried to understand which were the variables included in the shopping frequency decision. Customers bear dissimilar behaviours when debating about shopping decisions, since consumers with functional concerns – price, selection and convenience – tend to shop online, and although online shopping may substitute the act
of acquiring a product, it is – in the meantime – incapable to provide the social or psychological benefits that in-store shopping offers (Deka, 2017).

A broad solution is debated by Wang and Goldfarb (2016) pointing to the online channel not as an alternative or a substitute of the offline retailing, but rather as second thought complementary processes, exerting that the in-store experience must find a balance between the two channels.

Inman and Nikolova (2017) described the most disruptive retail technologies across recent decades, identifying those with the most impact in the industry (table 1).

**Table 1**: The most disruptive retail technologies across recent decades

<table>
<thead>
<tr>
<th>Past Retail Technologies</th>
<th>Present Retail Technologies</th>
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<tbody>
<tr>
<td>Barcode Scanning (1974)</td>
<td>Mobile Apps</td>
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<td></td>
<td>Personalized Promotions</td>
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<td></td>
<td>Scan and Go (2013)</td>
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<td>In-Store CRM (2013)</td>
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In addition, the appearance of a generation which exhaustively uses ICT contributes to the expeditious development of e-commerce (Knežević, Šipek & Jaković, 2017).

The consideration of children as a communication and marketing target is made in two different ways, equivalently with the channels used to get the adults’ attention, with the modernization of the retail spectrum – in-store experience – in taking advantage of children’s creativity and straightforwardly turning to technology with the implementation of character-themed tech shops and fun-featured animated candy displays; or with the use of online media tools – online experience – with the retelling of social media incorporation in marketing campaigns for children, conceiving bi-directional channels between the brand and the young consumer (Confos & Davis, 2016)

4. **Children as a relevant target and child-oriented marketing techniques**

Digital media is becoming an integrated part of children’s lives (though we do recognize different behaviours and differentiated access to technology, according to a child’s age, national culture, and social and economic status, as dictated also by their parents) and digital marketing that uses new and innovative strategies to target children – where the engaging and immersive nature of online content shapes the perfect environment within which commercial messages can be camouflaged – blurring traditional lines between content and commercial messages (Livingstone, Mascheroni & Staksrud, 2017).

Everyday social media acceptance contributed to the change of customers’ buying methods, providing buyers with a great pallet of options. To store managers, it is a representation of a challenge where they need to maintain their focus. With the addition of promotions and related marketing and brand activity, the complexity is multiplied (Anderson, Steen & Stavropoulos, 2016) (Ramanathan, Subramanian & Parrott, 2017).

To speed up the online provenience options, war marketers exploit the fact that innumerable social network users post vast amounts of personal information on their profile pages – age, hobbies, brands or music – using technological tools to collect this “public” information and target them in their campaigns (Reijmersdal, Rozendaal, Smink, van Noort & Buijzen, 2017) (Livingstone, Mascheroni & Staksrud, 2017).

According to Confos and Davis (2016), children’s social media usage is relevant to advertisers, taking advantage of their technology affinity to invite them, for example, to connect a specific application to their accounts or to expose them to advergames (advertising through games) – serving advertisers as another communication tool – and engaging with customers through multiple digital platforms. Advergames are exceptionally difficult for children to understand – the persuasive intention – due to the fact that the first assignment is to play the game and the second one involves the distillation of the advertising message, where the second task becomes hidden behind the first one (Vanwesenbeeck, Walrave & Ponnet, 2016). As reported
by Vandevijvere, Sagar, Kelly and Swinburn (2017), websites targeting children focus on the presence of brand logos, characters, music and sound effects and animation during the advergames.

The disjuncture between online media and traditional media is made by characteristics such as: a) ubiquitous connectivity; b) personalization; c) peer-to-peer networking; d) engagement; e) immersion; f) content creation.

These components enable new digital opportunities for those who market to young consumers, addressing aspects like interactivity, multimedia content and personalized content to this target’s requirements (Confos & Davis, 2016). Websites are targeting children when they include fun, fantasy and adventure themes or games (Vandevijvere, Sagar, Kelly & Swinburn, 2017).

The younger ones created a “traditional marketing” barrier where in fact digital advertising – with the use of the above cited characteristics – proved to be strong to counter this inconstancy, impelling an immense number of organizations to use social media marketing to promote and engage Generation Z customers (Duffett, 2017).

4.1 Section IV – Social insertion in child-aimed campaigns

In 2018, the child-aimed retail campaigns are a powerful route to target not only children, but also adults. In Portugal, the retail giants are the most interested in segmenting these young consumers, working on customer loyalty since the beginning, confident of the technological incorporation with the introduction of tablet and mobile applications as well as a desktop participation to children and their parents. Some of the technological campaigns conducted in the last years are:

- “Super Animais 1”, “Super Animais 2” and “Super Animais 3” by Pingo Doce: Both campaigns require the collection of cards – given after the acquisition of in-store products – where children can digitalize the cards using a mobile application, letting them play afterwards.
- “Super Gangue dos Frescos” by Lidl: Like the one above, it inspires the customer to acquire products, where in change there are eight collectible dolls and also a dedicated campaign webpage with eight interactive games allusive to these dolls.
- “Stikeez” by Lidl: Likewise, the same purchasing typology; it affiliates an android and iOS application.
- “Super Dicas” by Continente: Continente used their webpage “Kasa” tab including some DIY hints, so children may, for example, make their own personalized balloons or ice cream;
- “Turma das Sementinhas” by Jumbo: In a partnership with the Portuguese scientific toys producer Science4you, a children campaign was created, where children have access to a totally free downloadable application for iOS or android.

Another common point between these campaigns – other than the technologic embodiment – explained by Ritch and Brownlie (2016) and Del Bucchia and Peñaloza (2016) is the kid-friendly education, focusing on the fact that children need to learn something from them, either in the education or social fields, where parents are another agent particularly interested in these kinds of projects, and the ideal campaign to explain the propensity is the Super Animals from Pingo Doce.

The first edition was doubtless the one that made the biggest impact on Portuguese society. With the use of social media platforms such as Facebook, people created totally dedicated groups to trading and selling the cards, while also selling advertising on pages like OLX (an online C2C/B2C e-commerce platform). The relevance of these social groups is that people looking for and selling the cards where not children at all – adults, parents or grandparents – interacting to complete the collection.

Besides these groups, thanks to this campaign the prosperity of social interactions between people with the same objective prevails. Trying to finish the collection of all the cards becomes easier and at the same time they get a feeling of satisfaction together with their children; not to mention the people trying to resell their duplicates, and thus earning some money. From a customer’s point of view, this is an approbation of technological development from children, an acceptable practice in today’s society.
In order to inquiry prospects of a potential child-aimed campaign, we conducted a survey (n= 71) to parents and the results, according to the above cited campaigns convinced us of the importance of these projects to prospect children and their families.

The first question highlights, as expected, the importance of these actions, where 70 people answered “yes” and only one answered “no”, however pointing that that answer would easily become a “yes” depending on the construction of the campaign (figure 3).

**Figure 3: Recognizing the importance of a child-aimed campaign**

The second and most relevant question tried to understand the social media relevance in advertising, and in a multiple answer question we asked where in preference should the campaign promotional content be created and displayed. Even if 48 people answered “television” as a preferred way of communication, social media was chosen by 38 of them, thus calling attention to it through its overwhelming character among the rest of the choices (figure 4).

**Figure 4: Advertising preference in a child-aimed campaign**

The third question intends to understand the themes that children mainly up to ten, or in some cases up to twelve years old prefer, according to their parents.

As displayed below (figure 5), food, and mainly healthy eating is an argument that parents think their children would enjoy the most in an action, followed by a physical toys campaign and an animal campaign (such as Pingo Doce, Super Animais action).

The above question is, of course, the parents’ perspective of how a marketing campaign could be successful, however, this is not an exact science; in some cases, a child around the age of ten can be amazed by this kind of campaign and a twelve-year-old might prefer music-related content and social media interactions, so a target segmentation is a major question that can predict a marketing action success or failure.
Figure 5: Children preferences in child-aimed campaigns

These inquiries, although represent only three questions, show that an action oriented towards children is a valid option as social media is a communication channel praised by parents and children in advertising those contents. As argued by Ritch and Brownlie (2016), children have an influence on family consumption and this is an increasing trend, which in turn is making retailers and marketers focus on attitudinizinig with these child-oriented projects, situating the child’s needs on top of parental decision making.

5. Conclusions and outlook

This paper explores the question of technological incorporation in retailing, more exactly in child-oriented marketing campaigns, and reunites a contextual vision analysis of an increasing number of articles, demonstrating an outstanding interest in technological development. It also includes a generic picture of the technological sample in the retail field, mentioning some of the old technologies, which were once innovative, and some others considered innovative in some countries, but outdated in the technologically advanced countries. Humankind is caught in a dizzying, fast-paced technological growth, and long-term solutions are required to keep up this constant upgrade, not only in retailing but in all activity sectors.

Particularly in retailing, all trends work in an all-speed acquisition method, since people have less shopping availability, and online is continuing to grow; yet, a majority of people still prefer in-store shopping, so opportunities are still there for retailers to take advantage of. The best option remains the kind of business in operation and the product being sold (Galipoglu, Kotzab, Teller, Hüseyinoglu & Pöppelbuß, 2018).

Choosing between online and offline is not a simple task, although online stores grant opportunities that offline stores cannot provide to customers. An Omni-channel is probably the forthcoming tendency where customers will be able to interact with retailers across a huge diversity of platforms and devices, with the implementation of an online and offline experience at the same time (Hoehle, Aloysius, Chan & Venkatesh, 2017).

A younger public reveals as a relevant economic target to organizations due to its technological appetences, forcing organizations to change communication and marketing strategies in the implementation of campaigns and projects – particularly in the Portuguese landscape – aimed at children, and approved by parents and grandparents (Xiang, Magnini, & Fesenmaier, 2015). Such actions, as argued by Confos and Davis (2016), need to be interactive and have multimedia and personalized driven content in order to get a successful status, while also using social media platforms and innovative advertisement processes like advergames.

Finally, a child-oriented campaign action will prevail if its objective is the encouragement of social synergy, where education performs a major role in giving children access to new information – technological and non-technological – at the same time as they delight themselves with some – persuasive – retailing content.

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