



**The Influence of Hybrid Offerings in Customer Satisfaction: The “Just Walk Out”
Stores in Portuguese Retail Sector**

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Master's in Management

Supervisor:

Associated Professor Henrique O'Neill, Department of Marketing, Operations and
General Management,

ISCTE Business School

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Acknowledgements

I would like to start by saying that this dissertation was the biggest academic challenge of my 5 years journey at ISCTE-IUL as a student. It required me a lot of effort and persistence, and also a lot of time, which was very stressful at some points. However, I feel very happy with the result of this dissertation, and I couldn't feel more fulfilled.

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Abstract

Due to the fast growing of Digital Transformation, technology innovation is always a concern that companies should have in mind to keep their customers satisfied with their services and defend themselves from market disruptors. The Fast-Moving Consumer Goods (FMCG) sector is not an exception. One of the diverse strategies that companies can follow to fight against market challenges are the Hybrid Offerings. With it, companies can combine their old features with new ones, allowing them to innovate without losing their old customers at the same time they are trying to reach new ones.

Since there are limited studies about the impact of Hybrids Offerings on customers experience and company's performance, this thesis aims the understanding of the impact of Hybrid Technologies in the FMCG retail sector, using the technology "Just Walk Out" recently implemented in the stores Pingo Doce & Go - Nova SBE and Continente Labs.

The desired outcome of this thesis is to achieve a final theory in a framework format, that explains the relationship between the Hybrids Offerings, Customer Experience and Company's Performance. To achieve the desired outcome, the Grounded Theory method is followed, with the contribution of interviews from the studied companies (analyzed by NVivo program) and surveys to their customers (analyzed by SPSS software). At the end, the final framework is reached, and it is possible to notice that the referred system, represents a positive impact in the customers satisfaction and consequently in company's performance.

Keywords: Digital Transformation; Digital Disruption; Hybrid Offerings; Customer Satisfaction; Company's Performance

JEL Classification: M31 Marketing; 031 Innovation and Invention: Processes and Incentives

Resumo

Devido ao rápido crescimento da Transformação Digital, a inovação deverá estar sempre em mente das empresas para manter os seus clientes satisfeitos com os seus serviços e defender-se de possíveis disrupções do mercado. O sector dos Bens de Grande Consumo não é uma exceção. Uma das diversas estratégias que as empresas poderão seguir para lutar contra os desafios que o mercado apresenta são as Ofertas Híbridas. Ao seguir esta estratégia, as empresas podem combinar as suas antigas características com as novas, permitindo-lhes inovar sem perder os seus antigos clientes ao mesmo tempo que tentam alcançar novos.

Uma vez que não existem grandes estudos sobre o impacto das Ofertas Híbridas na experiência dos clientes e no desempenho das empresas, esta tese tem o propósito de compreender esse impacto no sector do retalho de Bens de Grande Consumo, utilizando a tecnologia "Just Walk Out" recentemente implementada nas lojas Pingo Doce & Go - Nova SBE e Continente Labs.

O grande objetivo desta tese é conseguir uma teoria final num formato de modelo, que explique a relação entre as Ofertas Híbridas, a Experiência do Cliente e o Desempenho da Empresa. Para alcançar esse objetivo, é seguido o método Grounded Theory. São também realizadas entrevistas às empresas estudadas (analisadas pelo programa NVivo) e inquéritos aos seus clientes (analisados pelo software SPSS).

É possível notar que o sistema referido representa um impacto positivo na satisfação dos clientes e consequentemente no desempenho da empresa.

Palavras-chave: Transformação Digital; Disrupção Digital; Ofertas Híbridas; Satisfação do Consumidor; Performance da Empresa.

Classificação JEL: M31 Marketing; 031 Inovação e Invenção: Processos e Incentivos.

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1. Introduction

1.1. Thesis Theme

Nowadays, the world's market is getting even more competitive, and it is getting harder and harder to meet the customers' needs. In the retail sector, the companies face a range of challenges in order to stay competitive and create value for their customers. Not only the number of retailers has grown exponentially in the last years, but so the information available to customers, which means, the customer has a lot of purchase options and they will end up choosing the ones which provide them the best experience. The better the experience between the customer and the retailer, the bigger are the chances to create customer's loyalty. In order to create this relationship with the customer, retailers need to find innovative ways to appeal the buyers and adapt to the rapid changes in the market.

The fast-moving consumer goods (FMCG) retail is a market that has been growing exponentially through the years, expected to reach USD 17.3 trillion in 2027 in USA, expanding at a compound annual growth rate of 5% from 2020 to 2027, according to Grand View Research, Inc report (Food & Grocery Retail Market Size, Share & Trends Analysis Report By Product (Packaged Food, Unpackaged Food), By Distribution Channel, By Region, And Segment Forecasts, 2020 – 2027, 2020). However, is still a market that is a target from all the retail challenges.

Besides Digital Transformation being a big alliance to the retail sector, since it enables the companies to improve their processes by finding right solutions, e-commerce is no longer a differentiator. Retailers are now in need to attract customers by delivering fun, convenient, and digital experiences, while creating sustainable business practices (Galer, 2022).

During the last decade, on-line FMCG retail has expanded more rapidly than brick-and-mortar stores. According to Trienekens et al. (2017), besides the facility of buying online, there are still customers that prefer to buy in store, which create to companies a need for innovation and using new systems to attend customer's needs.

1.2. Research Problem

Creating a good customer experience is one of the major objectives of a company (Lemon & Verhoef, 2016), and the retail sector is no exception. In order to increase their customer experience, keep customer loyalty, create value through customers and keep the company's position in the market, companies should be in constant innovation. However, some problems and challenges come with that established desire. One of the biggest challenges for those companies who are trying to innovate is the Digital Disruption. Digital Disruption of a business may be described as when new market entrants impact the value of already existent companies. To avoid this to happen, companies can follow a hybrid strategy, with the intuit of studying their new innovative system at the same time they are using the old one (Christensen, 2018). This strategy can help the company to grow and improve their customer experience. Therefore, the customer reaction and understanding of this type of strategy is still quite dubious, especially in the retail sector, which is having a big technology expansion (Wankhede et. al, 2018) through the years. Hence, research should be done to understand the relation between this strategy and the customer experience.

1.3. Research Objectives

An analysis of a hybrid strategy in the retail sector will proceed in order to fulfil the main objective of understanding the influence of this type of strategy in the customer experience. In a way of having more accurate data, a case study will be developed in FMCG Portuguese companies which practice this type of strategies, providing the technology based service "Just Walk Out". Therefore, the objectives that will be followed for the development of this thesis are:

- Validate the customer satisfaction and company's performance through the presence of a hybrid offering, by the development of a theory, which will be created by the collected information through articles, interviews and surveys;
- Understand what motivated companies to create the "Just Walk Out" technological service and how it contributed for company's performance

and customer satisfaction. This will be done, by collecting data from interviews;

- Obtain information to measure customer satisfaction, by performing surveys to the costumers of the referred service.

1.4. Research Questions

Before the execution of the analysis, it is important to know what took us here. What was the propose of this research and why we consider it important. In a manner of proceed to a more accurate case study of the mentioned companies, it is important to have in mind the following questions:

RQ1: What takes companies to create a hybrid system?

RQ2: How hybrids influence the customer experience through the service?

RQ3: Do the hybrid systems contribute positively to the company's performance?

It is expected with the realization of this thesis that all the research questions will be answered using the proposed objectives, with the help of the studied "Just Walk Out" service provided by the companies involved.

1.5. Motivation

The motivation presented in this thesis comes from the aroused interest from the modern retail technologies "Just Walk Out". Being this a new type of retail, especially in Portugal, there is still a lot to wonder, both in companies' performance and customer satisfaction. Also, since this type of retail can be considered as a hybrid strategy, which also has limited studies about the customer satisfaction overall, made sense to embrace this study using "Just Walk Out" stores to support it.

The possibility of contributing for a study that is barely in-depth by the existing authors, using a new type of retail technologies, drove me the enthusiasm to take this forward. In order to sustain the study, the research questions will be answered, and a

theory will be developed to sustain the relationship between the customer satisfaction and companies' performance with the presence of a hybrid strategy in the retail sector.

1.6. Structure

This dissertation is composed by five chapters.

The first chapter is composed by the introduction, where the thesis theme; the research problem, objectives, and questions; and the motivation are presented, in order to understand the intuit of the dissertation.

The second chapter contains the literature review, where all the main topics of this dissertation are examined in depth. The covered topics are the Digital Transformation in Modern Retail; Digital Transformation in Company's Performance; Digital Disruption Concept; Hybrids Offerings; Customer Experience; and Customer Experience and Company's Performance.

The third chapter is where the methodology used to develop the research is presented, as well as how the data will be collected and subsequently analyzed.

The fourth chapter presents the data analysis, where all the collected data is analyzed using the methodology referred in the methodology chapter. This chapter will allow the creation of the final theory.

The last chapter, the fifth chapter, is about the research conclusions. In this chapter the research questions will be answered and the limitations during the study will be displayed, as well as the recommendations for the studied stores.

2. Literature Review

During the literature review, the principal concepts that will sustain my theme, such as the Digital Transformation, modern retail and online retail, digital disruption, and customer experience with services, will be developed. Different definitions and approaches for each concept will be presented, as well as the references of relevant studies in the reached areas in order to interpret them during the state of art.

2.1. Digital Transformation in Modern Retail

According to Krymov et al. (2019) in the article “Digital technologies and transformation of modern retail”, Digital transformation transforms both human life and business completely, being a deep transformation of business, considering application of digital technologies to optimize business processes to meet customers’ needs and create a more comfortable customer interaction with the company. Most company managers defend that the success of their business mostly depends on their response to the market changes and their application of new technologies on their daily routine. The information technologies for the modern retail have become more important through the tendencies for digitalization. Nowadays, Information Technology (IT) in the retail sector focus on optimizing the supply chain within distribution channels, increasing effectiveness of commercial activity through optimized integration of technological and logistic processes in enterprise, and it is now a standard for a company to have a data base. Therefore, technologies provide retail owners enterprises with full control over retail processes and increased financial results. Digital information also allowed the integration of all the processes through the supply chain, once the companies were able to change and optimize their business models. This allowed all the supply chain participants to work in open structures, operating as a single organism, gaining competitive advantage and stable market, since the information shared between all the parts is transparent.

The retail function is central to all economies, and it is a part of the value chain (Coughlan et al., 2006). While traditional retailers (the ones selling in brick-and-mortar stores) are challenged to participate in online trades via multichannel strategies, a significant part of the online trades volume goes to the most recent and online companies, mostly to Amazon (Keyes, 2018). As the CEO of Rocket Internet, Oliver Sawmer, says “Stores only existed because the internet hadn’t been invented”. The internet-based retailing gave birth to better information about products; larger assortments; greater

transparency across vendors; and lower-cost operations that consequently create lower trade prices (Reinartz et al., 2019).

Thanks to Digital Transformation, new ways of value creation were enabled since the fulfilment of long-standing consumer needs is now allowed by a combination of automated, individualized, interacted and transparent and controlled processes (Reinartz et al., 2019). Automated activities refer to all the processes and activities that operate automatically, without human intervention (Vàmos, 2009), offering value to the chain. Automated communications (such as reminders, in-stock alerts, chatbots) offers customers real time information and responses, and automated consumer processes (re-purchase) simplifies the consumer routine. In addition, individualization refers to the customization and personalization of marketing efforts that are tailored to an individual's current needs and preferences (Riecken, 2000). Furthermore, Digital Transformation facilitates the collection of individual customer data, creating additional customer value closely matching preferences (Chen & Iyer, 2002). The interaction is also much easier thanks to Digital Transformation, enriching traditional interactions or creating new ones along the entire consumer decision and use process, creating value beyond the product exchange (Ramaswamy & Ozcan, 2018). Lastly, transparency and control refer to processes and activities that provide customers with superior information, education, and product use, where the Digital Transformation simplifies the customer access to that information, creating value through giving customers greater command over their choices to make better decisions (Verhoef et al., 2017).

2.1.2. Digital Transformation and Company's Performance

Company's hope to improve operating efficiency or reduce costs by using Digital Transformation, and many studies tend to show that Digital Transformation actually helps to improve services, sales, and supply chains (Guo and Xu, 2021). It is important to refer that the process of digitalization in a company requires a big investment, and the companies have the obligation to manage in order to have profit with it, instead of loss. "Technological innovation needs to develop with the integration of resources across organizational and industrial boundaries. Otherwise, it may fall into repeated investment and fail to achieve a better transformation result" (Xue et al., 2022). Thus, if the company is able to establish an effective valued ecosystem based on customer demand, suppliers and competitors, the process of digitalization allows companies to gain a more favorable

competitive position in the market and obtain a sustainable competitive advantage (Xue et al., 2022).

2.2. Digital Disruption Concept

Digital Disruption is a transformation caused when the emergence of Digital Transformation and business models impact the value of already existing products and services offered and causes the need of re-evaluation.

Digital disruption is often framed as a type of environmental turbulence induced by digital innovation that leads to the erosion of boundaries and approaches that previously served as foundations for organizing the production and capture of value, shaking the core of every industry (Skog et al., 2018). Digital disruption is generally perceived from the perspective of firms that are heavily invested in old conditions and whose typical or planned course of development is interrupted (Skog et al., 2018) by the emerging of new technology participants, having pressure to be responsive and change their operations and processes. However, the digital disruption may also bring new opportunities. Disruptors might enter the market at all entry points in terms of price and quality, and incumbent firms might not necessarily exit the market, but transforms their business models to be more competitive, facilitate the interactions and transactions with customers, and consequently creating value for the chain (Evanschitzky et al, 2020).

Digital disruption might be quite ambiguous since a specific technology can be disruptive or innovative in an organization. Disruptive technologies not only alter business models, processes and organizational structures, but also trigger confusion in organizational identities. For example, the disruption of digital media drove all the newspapers organizations to experiment digital newspapers and progressively leaving the paper format, leading them to an identity crisis (Utesheva et al., 2015).

2.2.1. Disruption Theory- The Disruptive Innovation Model

Digital Transformation is nowadays every business objective, and if that transformation is successful, digital disruption can be set as the new goal (Bauriedel, 2021).

Christensen (1997), after a study of disk-drive industry, observed that when an innovation emerged that improved performance on dimensions that customers historically valued, market incumbents tended to lead commercialization and to maintain their market position. On the other hand, when an innovation emerged that did not improve the customer performance demand (although has introduced innovative attributes), new entrants led development while incumbents fail. After this understanding, Christensen (1997) considered three principal components for disruptive innovation. The first component is explained in the Disruptive Innovation Model (Figure 1). This model was created in order to pace the progress outstrips customers' demand for higher-performing technologies, where incumbents can overshare the market by producing more advanced to reach the customer's needs. This leaves a gap between improvement in performance that customers can utilize and the improvement that the innovating companies provide and provides an opening for entrants (Christensen et al., 2018). The second component defends that the industries create sustainable innovations for their business in order to improve their products/services along dimensions that customers care about. These innovations enable incumbents to sell more to their existing customers at higher margins and higher profitability. However, it is hard to make those innovations turn disruptive since they mainly are inferior to incumbent products/services in performance dimensions, but they offer new attributes that appeal the customers. The last segment defends that existing customers and established profit models constrain established companies' investments in new innovations. Hence, the investments that are not attractive for incumbents, may be for entrants, which provide them an opportunity to grow in the market and gain customers. This creates "fear" from incumbents to develop disruptive innovation, since they don't want to lose their market position.

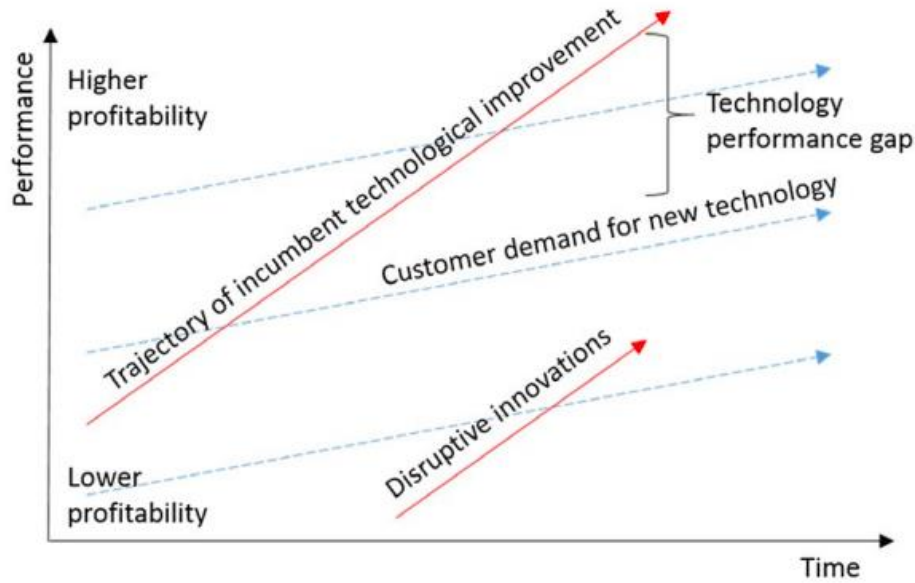


Figure 1- The Disruptive Innovation Model

2.2.2. Hybrid Offerings: Sustainable or Disruptive Innovation

One of the problems of The Disruptive Innovation Model is that it does not show that disruptive is not an absolute phenomenon but a relative one. For some companies, innovation might be sustainable while for others is disruptive. For example, the appearance of the internet was disruptive for in-store retailers while was a sustaining innovation to mail-orders retailers, since enabled them to reach more customers and create more money (Christensen and Raynor, 2003). With this, it is defended that the disruption should be evaluated relative to a company's business model (Kapoor and Klueter's, 2015).

Hybrid Offerings combine features of an emerging innovation with existing offerings in order to create something new (Christensen, 2018), trying to achieve new customers keeping the usual ones at the same time. Therefore, hybrid offerings work as an effective response strategy since incumbents can keep their market position while learning about the new technology implemented (Furr and Snow, 2015), defending themselves from disruptive entrants.

Incumbents struggle to respond to technology discontinuity since they have inability to abandon their existent resources, and for that reason, they decide to combine their old and new technologies to avoid performance uncertainty (Henderson and Clark, 1990), creating the hybrids. Besides this being a strategy frequently used, the studies

about how the role of these hybrids play in incumbent's efforts to adapt to technology discontinuities are still limited (Furr and Snow, 2015). Despite the existence of cases where hybrids are used with association of organizational inertia, hybrid allows an organization to learn about an uncertain technology future. Those uncertainties may be caused by the customer preference changes with the appearance of a new technology (Adner and Snow, 2010) or when the incumbents leap too early into a technology before market takeoff (Gilbert, 2005). One example of this, was when the hybrid 2.5G mobile networks allowed mobile operators to bridge the market uncertainty to move from 2G networks to 3G networks (Ansari and Garud, 2009). Using hybrid strategy, the incumbents can avoid wasting their resources while potentially borrowing knowledge from the new technology that may improve the company's existing offerings and may increase their ability to compete in the next technology generation (Furr and Snow, 2015). Hybrids are increasingly important organizational forms that embrace a central paradox of simultaneous pursuit of social missions and financial objectives (Battilana and Lee, 2014), and even they are a good way to "study the field", studies reveal some challenges of growth in terms of entering new markets, acquiring new clients, and expanding the scale and scope of operations (Lumpkin et al., 2013). Some hybrids pursue slower growth, seeking to achieve just enough growth to be economically viable (Boyd et al., 2009), others may be constrained by resources that are not available in large quantities (Lee and Jay, 2015), while others have faster growth since sales correlate with the degree to which they can pursue their social mission. However, fast growth can imply loss of social identity and "mission drift" (André and Pache, 2016). The impact of a hybrid on organizational adaptation to a discontinuity may depend on the degree of relevant learning a hybrid generates to the potential future discontinuity. The successful learning can be about supply, demand, or timing dynamics and it is dependent of the integration of relevant technologies; the future technologies investment; and the time they are invested (Furr and Snow, 2015).

2.3. Customer Experience

The customer experience is defined by all the events experienced by the customer through all the process of goods purchase or services, always affected by emotions by their service perception. In order to know their clients and to contribute for their best journey, companies should adopt a Customer Relationship Strategy (Andajani, 2016).

Customer experience takes a multidimensional view and identifies five types of experiences, such as sensory; affective; cognitive; physical; and social-identity experiences (Schmitt, 1999). Therefore, the consumption experience is divided in four stages: pre-consumption experience, which involves customer's forecasting and imagination of the experience; purchase experience, which involves the choice and payment (service encounter); core consumption experience, which includes the sensations and satisfaction/dissatisfaction; and remembered consumption experience (Carù and Cova, 2003)). Regarding the stage remembered consumption experience, if this one is positive, it is likely that the customer will repeat the experience with the company (Andajani, 2016), and define the quality of the offered service (Johns, 1999). In addition, the customer satisfaction results from a comparison of the actual delivered performance with customer expectations (Lemon & Verhoef, 2016).

The presence of technology in retail can significantly affect the customer experience, defined as the “customer's cognitive, emotional, behavioral, sensorial, and social responses to a firm's offerings during the customer's entire purchase journey” (Lemon & Verhoef, 2016). Also, companies can provide their customers with added value propositions to generate optimal customer experiences with the combination of virtual-physical touchpoints (Breidbach, Brodie & Hollebeek, 2014).

With the online retail appearance, many retailers had to transform their market strategies and distribution channels, which has reengineered their relationship with the customers. An online store is easy to use, has personalization, wide product range, clarity of information and pricing, shipping options, availability of products, order tracking, on-time delivery, customer support features, and hopefully a good design. All these features combined contribute for the customer experience with the service and the relationship between the customer and the client, even it is not face to face (Vakulenko et al., 2019).

Creating a good customer experience is one of the major objectives of a company. Nowadays, with the existence of multiple channels and touch points, the focus on customer experience is even bigger, since the customer interaction is more complex, and firms have less control in those interactions (Lemon & Verhoef, 2016). The touchpoints identified during the customer journey are divided into four categories: brand-owned, partner-owned, customer-owned, and external touchpoints. The brand-owned touch point refers to all the customer interactions during their experience that are designed and managed under the firm's control, using brand-owned media such as advertising, websites, and loyalty programs. Partner owned touch points are the same as brand-owned

touch points, but they are also under control and influence of the firm's partners. Customer-owned touch point refers to customers actions that are part of the overall customer experience, such as actions from their needs and desire, where firms and partners have no control. Lastly, external touch point represents one of the most important touch points where all the customers can influence or being influenced in their journey decisions through remembered experiences.

2.3.1. Customer Experience and Company's Performance

Most marketing researchers have tended to focus on studies where just the customer perception is studied, without focusing on subsequent financial outcomes (Williams & Naumann, 2011). However, previous research has explored the link between customer attitudes and business performance (Anderson and Sullivan, 1993), where the consensus was that higher customer satisfaction leads to higher levels of customer retention and loyalty, which leads to improved revenue, profitability, and cash flows (Ittner and Larck, 1998), which consequently create competitive advantages for the companies.

3. Methodology

Before the development of the work research, a methodology is necessary to be presented. The methodology is going to define what must be done, but also the order of

the required tasks to complete the study. Hence, the participant companies will be displayed, as well as the research design, where all the necessary procedures to answer the research questions will be detailed; the data that is going to be collected is identified; and how to treat that same data will be described. During the research design, the used qualitative research method (the Grounded Theory) will be displayed and carefully explained. The data collection and the data analysis will be developed following the Grounded Theory method, which will be explained in depth in the following chapters.

3.1. Research Context

The research context presented in this thesis is the hybrid technology “Just Walk Out” in the FMCG stores in Portugal. “Just Walk Out” technology in the retail was a type of retail firstly used by the company Amazon, with the creation of Amazon Go in U.S.A. This type of store was conceived by Amazon in a way of optimizing the retail at the same time they were delighting their customers. To enter in the store, customers must have the Amazon Go app. Then, they simply must grab what they want and just walk out, without waiting in lines or checking out. As soon as the customer leaves the store, the chased products are charged from their associated account and the receipt is automatically sent to the app.

Every time a customer enters the store, pick up a product or leaves the store, a photo is automatically taken and with the facial recognition and customer information together with sensors on shelves, the store system is able to add to each customer personal virtual shopping cart from their Amazon Go account User, their shopping list and then discount the money from it (Wankhede et. al, 2018).

In Portugal, some big retail companies have joined this innovative type of retail, such as Jerónimo Martins SGSP, S.A. with Pingo Doce and Go – Nova SBE; and Sonae with Continente Labs.

Continente Labs was the first European store opening with the “Just Walk Out” concept in 2021, using the Portuguese technological system created by the Portuguese start up Sensei, and it works in a similar way as Amazon Go. The store has around 200 cameras all over, that are used to detect who is inside the store. All the products are disposed in shelves that have a scale to know when a customer is picking up a product. To enter the store, is mandatory for customers to have the “Cartão Continente” App and

associate their debit/credit cards in it. The customer journey at the store starts by entering the store as a regular customer and open the App. As soon as the customer enters the store, the cameras installed in the store will scan the customer's face. After that, the customer just needs to grab the desired products from the store shelves which are automatically added to the shopping cart in the App. The App creates a QR code for the customer to scan in the tourniquets to leave the store, which will permit the customer to leave without any registration, processes, or check-outs. After the customer leaves the store, the check is automatically debited from the associated card and the invoice is sent to the client's associated email. This allows the customers to significantly reduce the shopping processes by avoiding time wasting, since it is possible to shop something there in just 5 seconds (Sonae source, 2022).

Pingo Doce & Go – Nova SBE also has the technology “Just Walk Out”, but the concept is quite different from the store Continente Labs, using a technology created by the company Jeronimo Martins itself since 2019. To enter the store, is mandatory for the customer to have the “Pingo Doce & Go” App and create an account with the phone number and debit/credit card associated. The customer starts to enter the store by passing through the tourniquets at the entrance, which are open to access the store. Once the customer is inside the store, the shopping process can start by choosing the products from all the disposed shelves. To register what it is being bought, the customer needs to scan the bar code with the app, from each desired product, which will automatically add the products to the app shopping cart. When the customer finishes the shopping, the payment is needed to be done inside the store by using the phone number (MB Way) or the debit/credit card associated. Once the payment is completed, the app will generate a QR code which will allow the customer to scan it in the tourniquets and leave the store, without having to wait in a queue. Since the store is located in a university campus, where students have limited time between the classes to buy their meals, the store was designed with the intuit of customers to realize the shopping process in less than one minute (Jerónimo Martins source, 2022).

3.2. Research Design

The main objective of this thesis is the understanding of the relationship between a hybrid offering and the customer experience, as well as the company's performance.

The Research Design through this study will be conducted by the use of a qualitative research method, the Grounded Theory (GT), which will provide the possibility of creating a theory that will respond to this dissertation Research Questions.

A multi-method qualitative study will be approached by a cyclic data collection. Firstly, the data will be collected during the state of art in order to develop the principal concepts of the study. Then, interviews (Appendices A and B) will be performed to the Just Walk Out FMCG companies in Portugal: Jerónimo Martins SGSP, S.A. with Pingo Doce and Go in Nova SBE, and Sonae with Continente Labs, in a way of collecting data closer to the reality; and finally, data will also be collected by targeting and realizing surveys to the customers (Appendixes C and D) that use with more frequency the offered services of the referred companies. Descriptive quantitative analysis will be developed to a better understanding of the collected data.

3.3. Research Methods

3.3.1. The Grounded Theory

The Grounded Theory (GT) is a research method suited to generate a theory that sustains what you want to prove (Noble and Mitchell, 2016). According to this method, the data collection and analysis occur simultaneously. The data is collected through a Theoretical Sampling (Glaser and Strauss, 1967) and it is next analyzed through three distinct stages: 1) Open Coding, where all the data is collected through all the used instruments along the data collection and is grouped by codes; 2) Axial Coding, where relationships are identified between the created codes, which will create a better understanding of those codes; 3) Selective Coding, where the core category of all the codes are identified and becomes the basis of the final theory, which means that after all the data collection and identified relationships a final theory can be created.

GT was the chosen method since this thesis covers an area that is not very explored yet and there is not enough theory to sustain it, which requires a cyclic data collection.

Being the main goal of this thesis to understand how the hybrids influence the customer experience and the company's performance through the study of "Just Walk Out" technologies, GT will be the conductor in this methodology to sum up with a theory.

3.4. Data Collection

As already referred, the first step to apply the GT method is the Theoretical Sampling, where the data collection and analysis occur simultaneously.

The data will be collected from the Literature Review, which represent the first instrument of the study, to identify the main concepts; from interviews to the companies representatives; and from surveys performed by the customers of the “Just Walk Out” FMCG stores of the Jerónimo Martins SGSP, S.A. and Sonae companies.

Interviews

The interviews are the second instrument used to get the final result of this study and create the theory. To use this instrument, was firstly needed to target the companies that use the “Just Walk Out” system in Portugal – Sonae and Jerónimo Martins SGSP, S.A (first step). Luckily, both companies which use the system in Portugal, were available to contribute for this study.

The second step for using this instrument is the development of the interviews itself. The main goal of interviews is “to find out things we can’t directly observe” (Patton, 1990), and it is important to have a structured guide prepared to respond to our main research questions (Hannabuss, 1996). Thus, the interviews are prepared to collect more data to posteriorly compare to the first collection made during the state of art, by the understanding of the “Just Walk Out” system in two distinct companies, as well as their purposes, objectives, and outcomes by having the referred system. Since the data collection using the GT method is made in a cyclic way, the interview’s questions were developed through the collected data from the state of art.

Surveys

Surveys are the third and last instrument used to collect data in this study. The use of this method validates the performance of the service, and it is important for the understanding of the customers satisfaction levels (Van Ryzin et al., 2007).

These surveys are especially intended to be realized for people who use with more frequency the “Just Walk Out” stores, to understand their level of satisfaction with the

service. For that reason, it was needed to target those customers. From the fact that the store Pingo Doce and Go from the company Jerónimo Martins is located in NOVA School of Business, the target was the students and workers from that school, mainly the ones who study and work there since the store is open (2019). For Continente Labs it was more difficult to target the customers of the store, once it is a store located in the city center. Since the main objective of the surveys is to target only people who use/used the store, I realized surveys to customers inside the Continente Labs store (authorized by the company), using a QR code directly linked to the survey for customers to answer.

In addition, since the data collection using the GT method is made in a cyclic way, the survey's questions were developed through the collected data from the state of art and the interviews.

4. Data Analysis

Using the GT, the Data Analysis is made in a cyclic way, which means that while the data is collected, it is analyzed at the same time. In this way, the data is always a step closer to shape the final theory.

As already mentioned, the Data Analysis during this method is divided in three distinct stages: Open Coding, Axial Coding and Selective Coding.

4.1. Open Coding

Open coding is the first stage of the data analysis and has the objective of grouping the main concepts of the study into codes, being one step closer to the creation of the final theory.

With the development of the Literature Review, it was possible to identify the main concepts of this study and group them, creating codes.

Below (Table 1), one of each code is listed and shortly explained by the main authors previously referenced during the state or art.

Table 1 – Codes, Authors and Description

Codes	Authors	Description
Digital Transformation	Krymov et al. (2019)	Digitalization optimizes business processes to meet the customer's needs and creates a better interaction with the customer.
Digital Disruption	Skog at al. (2018)	Is perceived when firms invest in old conditions and their planned course is interrupted by new technology participants, being pressured to change and innovate.
Sustainable Innovation	Christensen and Raynor (2003)	Happens when a company sees the digital disruption as an opportunity to innovate their business and reach more customers.
Hybrid Offerings	Christensen (2018)	When a firm combine features of an emerging innovation with the existing offerings in order to reach customer's preferences.
Knowledge	Adner and Snow (2010)	Hybrid Offerings allow companies to gain knowledge about an uncertain technology that they

Codes	Authors	Description
		want to implement, being able to meet the customer's preferences.
Customer Experience	Andajani (2016); Breidbach, Brodie & Hollebeek (2014)	Customer Experience is defined by all the events experienced by the customer through all the process of purchase or services, being extremely influenced by the presence of technology.
Customer Interaction	Ramaswamy & Ozcan (2018); Lemon & Verhoef (2016)	Digital Transformation makes customer interaction with the company easier by creating different types of touchpoints, enriching the process of exchange.
Service Customization	Riecken (2000)	Digital Transformation enables the possibility of individualizing and customize each customer experience.
Customer Loyalty	Ittner and Larck (1998)	Higher customer satisfaction leads to higher levels of customer retention and loyalty.
Company's Performance	Ittner and Larck (1998); Guo and Xu (2021)	By improving operating efficiency through the digitalization, customer satisfaction increases and leads to higher customer retention and loyalty, which leads to improved profitability.

Source: Author's elaboration.

Following the list of codes, it is important to mention that the codes are divided into main codes and sub codes. The sub codes represent the codes that are directly connected with the main codes, which was also possible to perceive during the Literature

Review. Thus, the following main codes were selected as the most important for this study: Digital Transformation; Digital Disruption, with Sustainable Innovation as sub code; Hybrid Offerings, with Knowledge as sub code; Customer Experience, with Customer Interaction, Customer Customization and Customer Loyalty as sub codes; and Company's Performance.

During the Literature Review, it was also possible the creation of several relationship hypotheses between the codes.

Hypotheses

- H1a: Digital Transformation positively relates with Customer's Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction.
- H1b: Digital Transformation positively relates with Company's Performance.
- H1c: Digital Transformation positively relates with Digital Disruption and consequently with Sustainable Innovation.
- H1d: Digital Transformation positively relates with Hybrid Offerings, and the acquired Knowledge.
- H2a: Digital Disruption positively relates with Hybrids Offerings, and the acquired Knowledge.
- H3a: Hybrids Offerings positively relates with Customer Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction.
- H3b: Hybrids Offerings positively relates with Company's Performance.
- H4a: Customer Experience positively relates with Company's Performance.

However, the created hypotheses are not enough to sustain a theory. Therefore, this understanding can be made in the next stage of the data analysis: The Axial Coding.

4.2. Axial Coding

Axial Coding is the second step used during the data analysis, where it will be perceived the existing relationships between the created codes.

The definition of the codes using the Literature Review as an instrument, has permitted the development of the next used instrument: the interviews.

As already referred, the interviews were developed with the intuit of attaining more accurate data during this study and to understand the relationships between the created codes during the state of art, from the companies' perception.

After following the first interviews' step referred in the Data Collection (the targeting), the second step of creating the interviews itself was possible due to the codes created during the state of art. The creation of that codes allowed the understanding of what we were looking to know from the studied companies (Sonae and Jerónimo Martins SGSP, S.A.) and the creation of the interviews, being one step closer to the final theory.

4.2.1. Interviews Analysis

The interviews' sample is composed by two interviews with representatives of the Sonae and of the Jerónimo Martins SGSP, S.A companies.. Besides the showed disposition from the companies to help with this study, for availability reasons, the interviews were made via email and were responded inline, each with the same thirteen questions (Appendices A and B).

To analyze each interview, a qualitative analysis was implemented using the qualitative data analysis computer software NVivo, with the purpose of analyze and organize the structured interviews of this study. With the NVivo software was possible to analyze which codes were most addressed during each interview, and consequently understand the most relevant ones. To do this, it was necessary to insert the codes in the program, which are the ones listed in the preview step Open Coding, and to insert each interview in the program as a file. Thereafter, the analysis begins by coding each interview – the coding. Firstly, the coding is made by using the human eye, where it is necessary to manually code each interview's answer with the respective code. In a more deeply way, for each interview's answer, the program user needs to understand which code/s should be applied. After the manual process, the program provides the coverage for each answer (in percentage) of each assigned code. The program also gives the possibility to export a table where all the coverages are shown. Below (Table 2) we can see the exported table, where interview 1 refers to Sonae interview and interview 2 refers to Jerónimo Martins SGSP, S.A. interview. In this table, we can observe the number of presences of each code in the files, which means that all the codes are referred in both

interviews, except the Service Customization. We can also observe the number of times that each code is referred in the files (interviews) and the respective percentage. Is it possible to verify that the code with bigger percentage is the main code Digital Transformation, with 29.6% of references in both files (interviews), followed by the main code Customer Experience, with 18.2%, and by the main code Digital Disruption, with 11.4% of references in both files. The main code Hybrid Offerings is the less referred of all the main codes, with 4.5%. Although, the sub code Knowledge is the code with bigger percentage of all the sub codes, presenting 11.4% of references in both files, which contributes for the importance of the main code Hybrid Offerings.

In the exported table, we can also check the coverage of each code in both interviews. We can notice that the main code Digital Transformation is the code with more presence in each interview, presenting 36.66% of coverage in interview 1 (Sonae) and 88.42% of coverage in interview 2 (Jerónimo Martins SGSP, S.A.).

Table 2 – Listed codes and the respective presence in each interview

Code Name	Files Presence	References		Coverage		
		Number	Percentage	Interview w 1	Interview 2	Total
Company's Performance	2	3	6.8%	12.94%	22.66%	35.60%
Customer Experience	2	8	18.2%	3.30%	64.14%	67.44%
Customer Interaction	2	3	8.8%	4.33%	21.72%	26.05%
Customer Loyalty	2	2	4.5%	7.00%	5.10%	12.10%
Service Customization	1	1	2.2%	-	8.89%	8.89%
Digital Disruption	2	5	11.4%	31.16%	15.39%	46.55%
Sustainable Innovation	2	2	4.5%	11.21%	15.39%	26.60%
Digital Transformation	2	13	29.6%	36.66%	88.42%	125.08%
Hybrid Offerings	2	2	4.5%	10.27%	8.89%	19.16%
Knowledge	2	5	11.4%	20.69%	19.76%	40.45%

Source: Author's elaboration.

The interviews are not enough contribution for an accurate analysis of this study. Therefore, surveys were developed to customers of the studied stores (Jerónimo Martins

SGSP, S.A. and Continente Labs) to a better understanding of each created code from a customer perception.

Hypotheses

Following the previously created relationship hypotheses between the codes during the Literature Review, presented in the Open Coding section, the interviews (Appendices A and B) will be used to sustain it. Each hypothesis will be analyzed and supported by both interviews, to be possible to reach forward a final theory. Since the interviews were developed in a way of supporting the hypotheses created in the Literature Review, all the questions were followed by a relation logic, and for that reason, it will be difficult to analyze each hypothesis individually.

H1a: Digital Transformation positively relates with Customer's Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction and H4a: Customer Experience positively relates with Company's Performance

The Sonae company, during the interview, has addressed that the new implemented technology in their new store allows “the customers to reduce significantly their shopping processes, avoiding time wasting, since it is possible to make a purchase in just five seconds”. With this, they mentioned that the level of customers' adherence to the new store's technological solutions is growing, which leads to a competitive advantage. They defend that much of this adherence comes from the Digital Transformation growth in the market, since nowadays, the customer is much more used to shop online. In addition, Sonae defends that these technological opportunities allow them to strengthen the relationships between brand and customer, contributing for the customer experience growth. Jerónimo Martins SGSP, S.A. also defends that their new store has been a success through their customers since the store “delivers on the promise of a fast and autonomous shopping experience”.

H2a- Digital Disruption positively relates with Hybrids Offerings, and the acquired Knowledge and H1c- Digital Transformation positively relates with Digital Disruption and consequently with Sustainable Innovation

The company Jerónimo Martins SGSP, S.A. has defended that new companies need to “act ahead of their time or adapt quickly to technological changes”, to not be affected by digital disruption. The creation of the new store using the new technology “Just Walk Out”, has permitted the creation of an experimental environment to obtain knowledge and to allow them “to scale disruptive solutions”. Sonae defends that the digitalization strategy used to create a sustainable innovation, contributes for a deep understanding “of the consumer buying journey that allows us to identify all areas where digital solutions can contribute to improving the customer experience”, avoiding possible disruptors.

H1d: Digital Transformation positively relates with Hybrid Offerings, and the acquired Knowledge and H1b: Digital Transformation positively relates with Company’s Performance and H3b: Hybrids Offerings positively relates with Company’s Performance

The company Sonae, during the interview, has reported that one of the major vectors of their evolution is the large investment in digitalization. However, innovation is always a risk, but they defend that “taking risks and experimenting is part of our culture, and we will continue to do so, always on the side of consumers”.

They had also reported that “the impact of space on technology called for agility and forced us to evolve to new solutions”, leading to the creation of their Hybrid Offering: Continte Labs.

Furthermore, the company Jerónimo Martins SGSP, S.A. defends that the acquired knowledge from the new technologies is always a competitive advantage “that helps this quick implementation when needed and required by our customers”, leading to company’s performance.

H3a: Hybrids Offerings positively relates with Customer Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction

Both companies link the knowledge acquired from their new stores to the customer experience. The company Sonae has defended that the learning process during the implementation of the store Continte Labs is a way to understand how to create solutions to improve the customer experience in their stores. From the company Jerónimo

Martins SGSP, S.A. perception, the new implemented technology is always under development and testing, and “it is deeply linked to what experiences customers seek at any given moment”.

4.2.2. Surveys Analysis

The surveys constitute the last instrument used during this research, with the intuit of creating a better understanding about the created codes during the Literature Review and already supported by the interviews. The sample is composed by two surveys: one intended to Pingo Doce & Go – Nova SBE’ customers; and one intended to Continente Labs’ customers. Both surveys are composed by the same seventeen questions (Appendices C and D), being the description of each survey the only difference between them. The reason for the existence of one survey for each store instead of one survey for both stores, was the curiosity of the experience of each customer in each store, separately. Although they use the same system (“Just Walk Out”), it doesn’t work in a same way in both stores.

For each survey, a qualitative analysis was approached using the SPSS Statistics software to try to find the frequencies in both surveys, which will be a contribute to get to the final theory of the study.

Continente Labs Survey

Firstly, we will proceed with an analysis of the survey intended to the customers of Continente Labs, using the previews created codes as a guide. This survey is composed by forty answers, where nineteen are women (47.5%) and twenty-one are men (52.5%). The surveys were majority performed to customers with ages between eighteen and twenty-five years old (67.5%). The rest of the answers were performed to customers with ages between twenty-six and thirty-five years old (17.5%); to customers with ages between thirty-six and forty-five years old (12.5%); and with the minority, to costumers with ages with more than fifty-six years old (2.5%).

To begin this analysis about the customer experience in “Just Walk Out” stores, it is important to understand if the customers are familiarized with the concept or not. Hence, from the forty answers, 32.5% of the customers has answered that they didn’t

knew about the concept before trying Contimente Labs, while 67.5% were already familiar with it.

Moving to the customer experience with the concept itself, 90.0% responded that they are satisfied with the experience in store, while 10% are not. The customer loyalty can also be evaluated by the understanding of the frequency of visits by each customer to the store. From all the answers, 17.5% responded that they rarely frequent the store; 2.5% frequent between four/five times a week; 10.0% frequent two/three times a week; 22.5% frequent once a week; 10.0% frequent every day; and 37.5% only visited the store once. Those who only visited the store once, 78.3% answered that they pretend to visit the store again, while 21.7% answered that they will only visit the store again if they have no choice. However, no customer responded that they had no intentions to go back to the store (no missing values). It was also interesting to understand what took the customers to try the store. From the forty surveys performed, 52.2% registered that the customers tried the store for convenience; 22.5% tried it for being an innovative experience; 12.5% tried because the shopping process is faster than in traditional stores; and 12.5% tried it because they like to shop in Contimente's traditional stores and wanted to try the new one.

One of the most important statements reported by Sonae during the interview was "The implemented technology in Contimente Labs allow the customers to reduce significantly their shopping processes, avoiding time wasting, since it is possible to make a purchase in just five seconds.". Therefore, the level of agreement of the customers to this statement turns into a relevant factor to understand if the company's perspective coincides with the customers' perspective. From all the forty answers from the performed survey, 77.5% of the customers agree with the statement, while 7.5% disagree and 15.0% shares no opinion about it.

Following the same logic, and to further understand about the opinion of the customers regarding the store features, the customers were asked about their agreement level to it. Thus, 85.0% of the customers agree that the store Contimente Labs presents an innovative concept, while 10.0% disagree and 5.0% shares no opinion. 75.5% of the customers agree that the store has a faster shopping process, while 12.5% disagrees and 12.5% shares no opinion. Most of the customers find the store intuitive and easy to use (80.0%), while 10.0% disagree and 10.0% share no opinion. Regarding the level of convenience of the store, 87.5% agree that the store is convenient, while 5.0% disagree and 7.5% share no opinion.

Since the implemented system “Just Walk Out” by the store Continente Labs is a new and innovative type of retail, it was important to also understand if the customers believe that this type of retail will be the future retail. The majority has agreed (75.0%), while 15.0% shared no opinion and 10.0% disagreed.

To have a better understanding of the customers’ experience instore, customers were asked to identify their preference between this type of retail and the traditional stores. Then, 70.0% of the customers has responded that they prefer to shopping with this type of technology, while 30.0% has responded that they prefer the traditional stores.

To finish the understanding of the customer experience with the store, 90% of the customers are willing to recommend the store to someone, while 5.0% are not willing to recommend it and 5.0% has demonstrated no opinion.

Pingo Doce & Go – Nova SBE Survey

After the Continente Labs’ survey analysis, we will proceed with an analysis of the survey intended to the customers of Pingo Doce & Go – Nova SBE, using the previously created codes as a guide as well. This survey is composed by fifty-seven answers, where forty-four are women (77%) and thirteen are men (23%). It was also possible to notice that forty-four of the performed surveys were made to customers with ages between eighteen and twenty-five years old (95%) and only three were performed to costumers with ages between twenty-six and fifty years old (5%).

To start the analysis of the customer experience in “Just Walk Out” stores, it is important to understand if the customers are familiarized with the concept or not. Following up the customers of Pingo Doce and Go – Nova SBE, thirty-one were familiarized with the concept (54.4%), while the rest of the customers were not (45.6%). With this, we can conclude that the majority was familiarized with the concept.

Moving to the customer experience with the concept itself, 96.5% responded that they are satisfied with the experience in store, while 3.5% are not. The customer loyalty can also be evaluated by the understanding of the frequency of visits by each customer to the store. From all the answers, 24.6% responded that they rarely frequent the store; 21.1% frequent between four/five times a week; 14.0% frequent two/three times a week; 12.3% frequent once a week; 8.8% frequent every day; and 19.3% only visited the store once. Those that only visited the store once, 91.6% answered that they pretend to visit the store again, while 8.4% answered that they will only visit the store again if they have no

choice. However, no customer responded that they had no intentions to go back to the store (no missing values). Hereupon, it was interesting to also know what took the customers to try the store. From the fifty-seven surveys performed, 78.9% registered that the customers tried the store for convenience; 8.8% tried it for being an innovative experience; 8.8% tried because the shopping process is faster than in traditional stores; and 3.5% tried it because they like to shop in Pingo Doce's traditional stores and wanted to try the new one.

To understand more about the opinion of the customers regarding the store features, an analysis was also made presenting a feature and asking the customer's level of agreement. 98.2% of the customers agree that the store Pingo Doce and Go – Nova SBE presents an innovative concept, while 1.8% disagree. 96.5% of the users also agree that the store allows a faster shopping process, while 3.5% disagree. Most of the customers also agree that the store is intuitive and easy to use (87.7%), while 8.8% disagree. 94.7% of the users agree that the store is convenient, while 5.3% disagree.

Since the implemented system “Just Walk Out” by the store Pingo Doce and Go – Nova SBE is a new and innovative type of retail, it was important to also understand if the customers believe that this type of retail will be the retail of the future. The majority has agreed (79%), while 14.0% shared no opinion and 7.0% disagreed.

The preference of the customer between this type of retail and the traditional one was also possible to understand. 78.9% of the customers has responded that they prefer to shopping with this type of technology, while 21.1% has responded that they prefer the traditional stores.

To finish the understanding of the customer experience with the store, 98.2% of the customers are willing to recommend the store to someone, while 1.8% demonstrate no opinion.

Surveys' Conclusions

After analyzing both surveys from both stores (Continente Labs and Pingo Doce & Go – Nova SBE), it was possible to formulate some conclusions. Since the main theme of this dissertation is the influence of hybrid technologies in the customer experience, using the FMCG “Just Walk Out” stores in Portugal as a study, the customer perception of those stores' consumers turns into an important tool to succeed with the study purpose.

Therefore, during the surveys' analysis, it was possible to understand that in both stores, the ages between eighteen and twenty-five years old are the age group of customers with more adherence to the service. This possible happens from the fact that this age group constitutes the new generation, which are more familiarized with the new technologies. To support this, it was also possible to notice that most of the costumers that were already familiarized with the concept were also from the age group between eighteen and twenty-five years old in both stores (Appendices E and F).

From the studied samples, we were able to observe that the new concept stores are being a success, since most of the consumers agree to be satisfied with the service and are willing to recommend it to someone.

Regarding the asked stores' features during the survey, most of the customers has agreed that they find the stores convenient, which represents the major reason for customers to have tried the store; innovative; intuitive; and have a faster shopping process than in traditional retail stores. In addition, most of the customers agree that this type of retail might be the future retail.

During both surveys, customers were also asked to describe each store in one word, being almost all the words positive descriptions of the store (Appendices G and H) In both stores, most of the customers have responded that the store presents an innovative concept; is convenient; efficient; easy to use; faster; and is a store that represents the future, which one more time, shows the relevance of this store's features on the customer experience.

Most of the customers during the survey were visiting the store for the first time or only went there once. However, all of them are willing to come back, which proves customer loyalty.

To finish the analysis, we can prove one more time that this type of technology represents a success between the costumers since they prefer to shop using this type of technology than in traditional Pingo Doce and Continente stores.

4.3. Selective Coding

Selective Coding is the third and last step used during this analysis, where the final theory is created.

During the preview’s steps, it was possible to understand the relevance of each code and the hypotheses created during the Literature Review, further sustained by the interviews, which link the codes between each other.

4.3.1 The Framework

With the interviews’ instrument, it was also possible to notice that the created main codes have more relevance than the created sub codes, except for the subcode “Knowledge”, that constitutes an important influence in its main code “Hybrids Offerings”. Since the Digital Transformation code is the code with more references in both interviews and with more presence in each interview, we can assume that it constitutes the “mother code”, which means, the code that has the influence in every code. During the Literature Review, it was possible to take some hypotheses where possible relationships can be concluded between the codes. In those hypotheses it was also notorious that the main code Digital Transformation has an influence in all the codes, which one more time, sustains the assumption of that code as the “mother code”.

Therefore, the final theory is created presented by a structured framework, which is displayed below (Figure 2). This framework contains all the created main codes with the respective subcodes, linked by the formulated hypotheses.

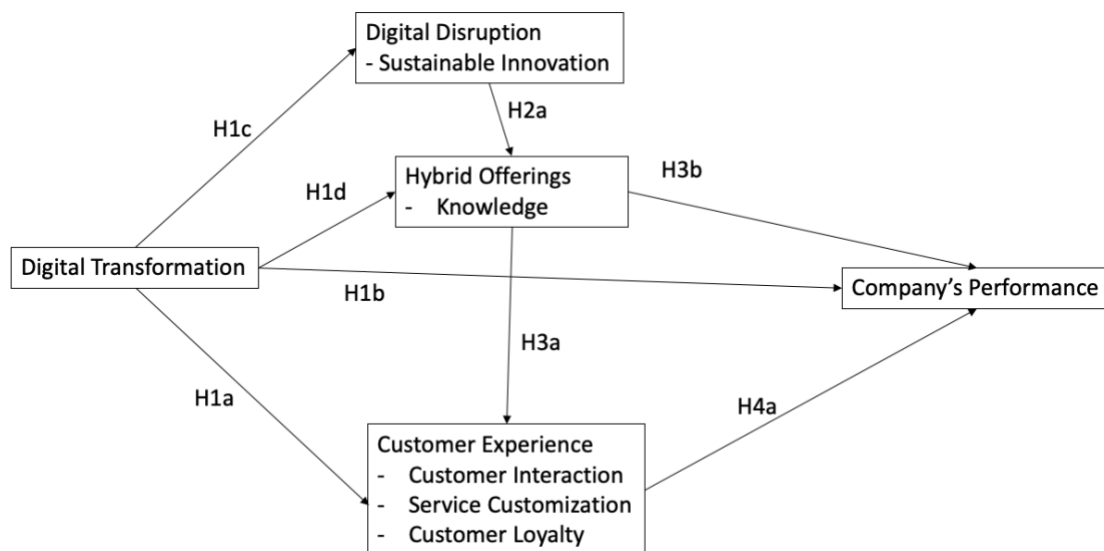


Figure 2 – The Framework

As we can observe in the created framework above, which sustains the final theory, the code Digital Transformation links to all the other codes since is the “mother

code”, for the reasons previously explained. Thus, all the codes and respective subcodes are connected by the proved hypotheses, which will lastly link to the last code: The Company’s Performance. Just to remember those hypotheses:

- H1a: Digital Transformation positively relates with Customer’s Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction.
- H1b: Digital Transformation positively relates with Company’s Performance.
- H1c: Digital Transformation positively relates with Digital Disruption and consequently with Sustainable Innovation.
- H1d: Digital Transformation positively relates with Hybrid Offerings, and the acquired Knowledge.
- H2a: Digital Disruption positively relates with Hybrids Offerings, and the acquired Knowledge.
- H3a: Hybrids Offerings positively relates with Customer Experience, providing Service Quality; Customer Loyalty; Service Customization; and Customer Interaction.
- H3b: Hybrids Offerings positively relates with Company’s Performance.

H4a: Customer Experience positively relates with Company’s Performance.

5. Conclusions, Limitations and Recomendations

5.1. Conclusions

At the end of this thesis, it was possible to reach a final theory where it proves the relationship of all the codes inserted in the thesis theme. To sum up how the final theory was achieved, it is important to remind the method used during this research: the Grounded Theory. Following this method, which collects the data in a cyclic way, we firstly started to create codes and hypotheses to relate those codes from the Literature Review’s instrument. Thereafter, with the help of the Interviews’ instrument, it was possible to understand the level of relevance of each code in this study, where we were able to analyze that the Digital Transformation code have the major impact, and to prove the created hypotheses. The Surveys’ instrument was also a relevant tool to understand how the implemented “Just Walk Out” system in the stores Continente Labs and Pingo

Doce & Go – Nova SBE affects the customer experience. At last, after all the data collection and analysis, it was possible to create a framework where all the codes are linked between the hypotheses.

Although the creation of the final theory was a big objective of this dissertation, we can only answer now to the research questions presented in the beginning of this thesis. Thus, after the development of the method GT, which was crucial to complete this thesis objectives, it is now possible to answer to the three placed questions:

RQ1: What takes companies to create a hybrid system?

Digital Transformation is a phenomenon that more than ever is happening all over the world, and consequently, to the companies. This phenomenon allows companies to become more competitive and for that reason, they need to be always prepared to innovate. One of the biggest challenges when a company is preparing to innovate is the potential market entrants, the disruptors. In order for a company to not be disrupted, they can create a sustainable innovation, which can be a hybrid offering. With a hybrid offering, a company can preserve their old and traditional features at the same time they are adding new ones. Hence, hybrid offerings allow companies to study their new market through their new and innovative features, while staying in their comfort zone, to make sure they will still reach their old customers and new ones.

Both Sonae and Jerónimo Martins SGSP, S.A., have decided to develop a hybrid offering – a FMCG “Just Walk Out” store, where they combine the old traditional retail stores with their new sustainable innovation. Therefore, they pretend to acquire knowledge and understand the customers reaction, with the intuit of turning the “Just Walk Out” stores the future retail.

RQ2: How hybrids influence the customer experience through the service?

As we could analyze over this dissertation, the hybrids offerings have a positive influence in the customer experience. The Digital Transformation not only has a positive impact in companies, but also in their customers. When a company decides to make an innovative change, the curiosity of the customer awakes and the willing to try the new service’s changes arises. When it comes to a hybrid, the customer tends more to try the new service, since they are already familiar to the traditional service and possibly loyal

to it. We can observe it in Continente Labs and Pingo Doce & Go – Nova SBE stores, where their clients wanted to try the new store for being an innovative experience but also because they were already familiar with the companies' traditional stores.

RQ3: Do the hybrid systems contribute positively for the company's performance?

As already referred above, hybrid offerings have a positive impact in the customer experience. The costumers' reaction through the new services is an important tool and indicator for the company to understand if their innovation is being a success or a failure. Once the hybrid offerings contribute for the company to gain knowledge about the innovation that they might want to full implement in the future, it is going to contributes for a possible competitive advantage and consequently for the company's performance.

As we were able to analyze during the study, most of the stores' consumers (Continente Labs and Pingo Doce & Go – Nova SBE) think that the "Just Walk Out" system in FMCG retail is going to be the future retail, which contributes for an assurance for the companies to continue with the presented service and move forward with it.

5.2. Limitations

This dissertation was intended to understand the influence of the hybrid's offerings in the customer experience and company's performance. In order to have a concrete analysis, a case study was developed around the "Just Walk Out" systems in Portugal, offered by the stores Continente Labs and Pingo Doce & Go – Nova SBE.

The understanding of the influence of the hybrid's offerings in the company's performance was possible through the interviews made to the owners' companies of the referred stores, Sonae and Jerónimo Martins SGSP, S.A.. However, the disposed time from them was not as desired, being the interviews made by email and responded inline. This has limited the study since it was not possible to develop and flow the interviews as desired, once both companies didn't show disposition and time to have a second contact. A second contact would be very helpful for a better understanding of the company's performance through the service.

The surveys analysis also presented some limitations to this study, since the number of covered people by them was not as big as planned (fifty surveys per store).

The survey destined to the Continente Labs' customers had less answers than the survey destined to Pingo Doce & Go – Nova SBE's survey, once it was much difficult to find people that used that store. This difficulty comes from the fact that it was more difficult to target the customers of the store Continente Labs. However, it was possible to make a reliable analysis since the answers in both surveys tended to point for the same answers.

The implementation of the Grounded Theory method was also a difficult part of this thesis. As already explained above, since this thesis theme is not very exploited by existing authors, the Grounded Theory was the method with a better fitting for this study. However, I was not familiar with it and it took me a lot of effort to develop it in a successful way. Trying to collect the information in a cyclic way to get to the final theory was a big challenge.

5.3. Recommendations

This section intends to give some recommendations and improvements for both companies in their stores. The success of the stores, Continente Labs and Pingo Doce & Go – Nova SBE were possible to notice with the help of the realized interviews and surveys. However, there are some possible further recommendations for each store that can contribute for the improvement of them.

Each company is aware of some of their own limitations in their stores, and that was possible to realize with each interview. Starting with the store Continente Labs, Sonae presents some of their technical store's limitations. The products always need to be disposed in the right shelves, otherwise the app will recognize the wrong product in the shopping cart; there is a minimum weight for the products, since the shelves cannot weight minimal products, which will reduce the product variety instore; and lastly, customers cannot pass the entrance at the same time, once the cameras instore can only scan one customer at a time. Jerónimo Martins SGSP, S.A. also presents some limitations facing their own store Pingo Doce & Go – Nova SBE. Since it is the customers who scan their own products, sometimes there are customers that leave the store with unpaid products, which is something difficult for the store to control. To have a little bit more control about that situation, the security of the store does random audits, i.e., he chooses randomly some customers along the day to check if everything is paid,

which can be uncomfortable for the customers. All these are limitations that should be overcome to improve the customer experience with the service in both stores.

Furthermore, the surveys represent one of the most important instruments used during this analysis, since it was possible to have a customer perception. Thus, it was asked to the customers in both surveys, in a voluntary question, what they think that could be improved in each store (Appendices I and J). Regarding the survey of the store *Continente Labs*, from the forty answers, seven customers have given their opinion (17.5%). From these seven customers, four have said that they would like the store to have more product variety; two have said that they would like the store to have more communication, i.e., someone available to explain how everything works; and lastly, one has said that would like the store to be possible to more than one person adding things to the same shopping cart. Moving on to the store *Pingo Doce & Go – Nova SBE*, from the fifty-seven answers, twenty-seven customers have given their opinion as well (47.4%). From these twenty-seven customers, nine have responded that the app should be improved, since it happens to show some bugs; seven have said that they would like the store to have more product variety; four customers have responded that they would like the store to have more support, i.e., someone ready to help the customers; three have said that they would like the store to have more security inside (to avoid robberies and consequently the random security audits); two customers have responded that they would like to have cheaper prices, once they defend that the prices in this store are higher than in regular stores; and one customer has said that he would like the store to have an intelligent basket, with no product's scanning need (like *Continente Labs*). In addition, one customer has also responded that he would like all the *Pingo Doce's* traditional stores to have the “Just Walk Out” system, which shows once again, the customer satisfaction with the service.

Besides the customers showing a very positive reaction about this hybrid strategy implemented by both stores, both *Sonae* and *Jerónimo Martins SGSP, S.A.* should be trying to achieve an even better customer satisfaction with the service. All these improvements pointed by the customers during the survey, should represent a guide for both companies, *Sonae*, and *Jerónimo Martins SGSP, S.A.*, to improve their stores and consequently increase the customer satisfaction. Since most of the customers see the “Just Walk Out” feature as the future of retail, it is important for both companies to respond to the customer's needs.

Digital Transformation is a revolution tool for every business, and the hybrid offerings are a great strategy to carefully improve it. However, one of the most important concerns while improving a service is to respond to every customer's needs, in a way to improve the customer satisfaction and the business success. The hybrid strategy allows companies to test and learn with their new technologies. Therefore, with the acquired knowledge, it turns easier to understand how to improve even more the offered service.

Hence, my biggest recommendation for both companies is to take a special attention to every improvement proposed by the customers during this thesis' surveys and improve the existing resources with the already acquired knowledge.

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Appendices

Appendix A – Interview 1 (Sonae)

- **How does your Just Walk Out System really work?**

“The Continente Labs store was the first store opening by a European brand that uses a technological concept where there is no need of any kind of registration or product scanning during and after the purchase. At the entrance, the client should open the Cartão Continente App that will generate a QR code for the customer to pass at the tourniquets when leaving the store. While starting the purchase process, the client just needs to grab what he wants from the shelves and leave the store, without checking out. This new technology, in my opinion, has permitted the reduction of the shopping process, economizing time and reducing interactions inside the store. It only takes 5 seconds to bring something from the store. With the technology of the Portuguese start-up Sensei, the store system has privileging information about the products that are taken from the shelves, giving the information to the collaborators which products need to be restocked.”

- **Why the chosen locations for the system? What took you to create the new retail system?**

“The Continente Labs store has implemented 230 cameras and artificial intelligence software that detects the removal of items from the shelf by each customer, creating their individual virtual cart. Supported by computer vision, the technology also

uses around of 400 shelf sensors to have greater confidence about the customer's actions - i.e., through the weight that is subtracted from the shelf when removing the product, or the weight that the shelf receives if the customer changes his or her mind and puts the product back down. In this way, the customer has almost total freedom of movement in the store, as they can return the item to any shelf to no longer be counted in their shopping cart and not be charged. Customers can bring their own bags or buy one of the bags that are on sale in the store.

We also have a hot beverage machine - like a vending machine, in terms of appearance - which allows the selection of one of six hot drinks with automatic counting of the cost of the item, as if it were another cereal box taken off the shelf.”

- **Do you consider your new system as a sustainable or disruptive innovation?**

“To enter and purchase you just need to have the Continente Card app with Continente Pay and electronic invoice active - nothing else. Customers can, after entering the store, remove products from the shelves and leave when they have finished collecting the products, without having to go through any checkout or register/scan them. Then they receive the transaction confirmation and the electronic invoice via the app on their cell phone. That is all.

MC has a vast experience in opening stores in Portugal, but the impact of space on technology called for agility and forced us to evolve to new solutions. The ceiling, the shelves, the aisles, the product range, the communication, even the lighting in the space, everything was reinvented by several teams over 2 years. Although the project was led by Sonae MC's Innovation and Digital Transformation team, more than 100 people from various areas of the company were involved, from architecture to the employees of our stores.

All this work comes to life when interacting with the system of our external partner, Sensei, who had the competence and foresight to bring it to this point of maturity.

Regardless of not having cashiers, the opening of the Continente Labs store created, with 150 m2, 6 jobs because there is always the need to replenish products and to manage the operation and normal flow of the store, with cleaning, security, customer support, etc.”

- **Do you consider your system as a hybrid offering?**

“The level of customers' adherence to Continate's technological solutions is growing, very much associated with the (also growing) convenience needs of Customers. Not only do we see a more intense use of each of the services we provide, but also an increase in joint and cross-use, where, for example, the customer buys online through the Continate app, picks up the order in a physical store and returns it in that store.

The key is to always consider that, regardless of the channel used, the customer is unique. It is precisely this characteristic that reinforces the absolute need to focus on the customer, being very important to maintain communication with our audience and to be present in the lives of our customers, wherever they are, whatever the moment they are going through and whatever their needs are.”

- **Do you think that the new system was able to improve the existing company offerings?**

“Yes, we constantly evaluate the consumer's buying journey and understand how digital tools allow us to simplify their lives, in a way that is distinctive from what other brands try to do. It is essential to continue to respond to customer needs and to be present when and where they need us most, and these technological opportunities allow us to strengthen the relationship between brand and consumer.

In this particular case, we believe that these kinds of checkout solutions should become a regular presence in food retail. Part of the learning process in this laboratory store will be to understand when and how we can use this type of solution in our other stores and how to integrate the solution into more traditional shopping experiences.”

- **Do you think that the new system gave you knowledge to be prepared to compete in the next technology generation?**

“The digitalization strategy starts from a deep understanding of the consumer buying journey that allows us to identify all areas where digital solutions can contribute to improving the customer experience. These opportunities are prioritized to maximize the impact on this experience and the result is manifested in various actions and digital assets that we put at the service of our customers, from digital communication (social

networks, leaflets, personalized brochures and georeferencing of stores), the e-commerce website and app, the Continente Card app and the Continente Siga app.”

- **Do you think that this type of retail may be the future retail? Are you planning to expand?**

“At Continente and MC, we are always creating viable and innovative alternatives that speed up the purchasing process without taking away any benefit from the customer. Even before the crisis situation caused by Covid-19, customers were already starting to favor simpler checkout solutions (without an operator). It is a trend that we have been following, especially now that customers want to make purchases with greater speed, security, and convenience.

It is essential to continue to respond to customer needs and to be present when and where they need us most. These technological opportunities allow us to strengthen the relationship between brand and consumer and allow customers to shop in a quick and effective manner and always in safety. The Continente Labs store is the vehicle to explore this future in a controlled context involving our customers.”

- **Do you think the customers are satisfied with the new service?**

“Continente has been known for its high standards of quality, diversity and innovation, thus gaining the trust and preference of the Portuguese people. In fact, one of the major vectors of our evolution has been the investment in digitalization, with positive reactions. When you innovate, there is always the possibility of not getting it right, but taking risks and experimenting is part of our culture, and we will continue to do so, always on the side of consumers.”

- **Do you think the new system has contributed for customer loyalty?**

“The Continente Labs store is a huge pride for Continente, because it positions us as the first supermarket brand in the world to open a store with no cashiers, no lines, no product registration, no physical cash, and no paper.”

- **Do you think the new store has contributed positively for the company's performance? Is the new technology a Competitive Advantage for the company?**

“There are many emerging technologies that are already having a significant impact on consumer experiences and the operational processes that support them. From Artificial Intelligence to APR solutions or blockchain supported innovations, a retail operator that wants to stay competitive cannot ignore the impact of any one of them or several others that we could list.

The most important thing is to always ensure that we identify the best technology to address the specific problem we want to solve (either in customer experience or in the optimization of our processes) and not find a problem to apply the "trendy" technology. At Continente, technological innovation runs in our blood, and we face each wave of new solutions with the enthusiasm of those who know that this may be the solution to improve that experience or process that we haven't yet managed to bring to the level that our customers and co-workers deserve.

Technology is undoubtedly a strong ally of the retail sector and Continente, as until now, intends to remain at the forefront of innovation, being attentive to the creation and introduction of new tools and services in the sector. All for the sake of a simpler experience for our customers.”

- **Does your store present any limitations?**

“Yes, for example: the products always need to be disposed in the right shelves, otherwise the app will recognize the wrong product in the shopping cart; there is a minimum weight for the products, since the shelves cannot weight minimal products; and customers cannot pass the entrance at the same time, once the cameras instore can only scan one customer at a time.”

Appendix B – Interview 2 (Jerónimo Martins SGSP, S.A.)

- **How does your Just Walk Out System really work?**

“In a nutshell, our Just Walk Out System is based on product scanning by the customer and the basket payment directly through the app.”

- **Why in Nova SBE?**

“We decided to open our store at Nova SBE because we believe young students are more prone to go through innovative and disruptive experiences. Therefore, it is a safe environment to test new technology solutions.”

- **What took you to create the new retail system?**

“We used an Agile methodology to develop our store. It took us several months of designing and testing all the technologies.”

- **Do you consider your new system as a sustainable or disruptive innovation?**

“We were the first retailer in Europe to launch a Computer Vision (AI/ML) based experience directly available to customers, through our GO 24/7 solution, an unmanned shopping cabinet that is always available 24 hours a day, 7 days a week. We were also the first ones in Portugal to have a store completely built for a checkout-free experience.”

- **Do you consider your system as a hybrid offering?**

“We have alternatives to our primary shopping process, which is based on self-scanning + app payment. We also give our customers the possibility to pay through self-checkouts (although still a cashless option), when buying inside the store; or pay automatically through the app if buying in our GO 24/7 cabinet.”

- **Do you think that the new system was able to improve the existing company offerings? Do you think that the new system gave you knowledge to be prepared to compete in the next technology generation?**

“We learn a lot from measuring customer behaviors that we don’t usually capture in our traditional stores. The fact that we work on this “lab” environment allows us to be ready to scale disruptive solutions, when we feel the time is right.”

- **Do you think that this type of retail may be the future retail? Are you planning to expand?**

“The future of retail and its technologies is always under development and testing, and it is deeply linked to what experiences customers seek at any given moment. Technology will need to serve a reliable, consistent, resilient, and dynamic shopping experience without bumps or pain points that disappoint the customer. The spotlight is clearly on time and convenience, these days.”

- **Do you think the customers are satisfied with the new service?**

“Yes, we see it as a success as it delivers on the promise of a fast and autonomous shopping experience.”

- **Do you think the new system has contributed for customer loyalty? Do you think the new store has contributed positively for the company’s performance? Is the new technology a Competitive Advantage for the company?**

“Traditional companies need to act ahead of their time or adapt quickly to technological changes in their respective industries. Hence, knowledge about new technologies is always a competitive advantage that helps this quick implementation when needed and required by our customers. Ultimately, for traditional organizations, it is about “disrupting the disruptors” of their markets.”

- **Does your store present any limitations?**

“Sometimes customers leave the store with unpaid products. To try to reduce it, the security of the store does random audits”.

Appendix C – Sonae’s Survey

Before visiting the store Continente Labs, have you already heard about this type of technology implemented in FMCG retail?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	13	32.5	32.5	32.5
	Yes	27	67.5	67.5	100.0
	Total	40	100.0	100.0	

What is the better option to define your experience level instore?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unsatisfied, Indifferent	4	10.0	10.0	10.0
	Satisfied, Very Satisfied	36	90.0	90.0	100.0
	Total	40	100.0	100.0	

“The implemented technology in Continente Labs allow the customers to reduce significantly their shopping processes, avoiding time wasting, since it is possible to make a purchase in just five seconds.” – What is the better option to describes your agreement level facing the presented statement?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	6	15.0	15.0	15.0
	Agree, Totally Agree	31	77.5	77.5	92.5
	Disagree, Totally Disagree	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

With which frequency do you visit the store Contimente Labs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Only visited once	15	37.5	37.5	37.5
	Once a week	9	22.5	22.5	60.0
	2/3 times a week	4	10.0	10.0	70.0
	4/5 times a week	1	2.5	2.5	72.5
	Every day	4	10.0	10.0	82.5
	Rarely	7	17.5	17.5	100.0
	Total	40	100.0	100.0	

If you answer “Only visited once” in the previews question, do you pretend to come back to the store?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	45.0	78.3	78.3
	Yes, if I have no alternative	5	12.5	21.7	100.0
	Total	23	57.5	100.0	
Missing	System	17	42.5		
Total		40	100.0		

What is your opinion about the presented affirmations referring to Contimente Labs store?

[Innovative Concept]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	2	5.0	5.0	5.0
	Agree, Totally Agree	34	85.0	85.0	90.0
	Partially Disagree, Disagree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

What is your opinion about the presented affirmations referring to Contimente Labs store? [Faster Shopping Process]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	5	12.5	12.5	12.5
	Agree, Totally Agree	30	75.0	75.0	87.5
	Partially Disagree, Disagree	5	12.5	12.5	100.0

Total	40	100.0	100.0
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What is your opinion about the presented affirmations referring to Continente Labs store?

[Intuitive/Easy to Use]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	4	10.0	10.0	10.0
	Agree, Totally Agree	32	80.0	80.0	90.0
	Partially Disagree, Disagree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

What is your opinion about the presented affirmations referring to Continente Labs store?

[Convenient]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	3	7.5	7.5	7.5
	Agree, Totally Agree	35	87.5	87.5	95.0
	Partially Disagree, Disagree	2	5.0	5.0	100.0
	Total	40	100.0	100.0	

What is your opinion about the presented affirmations referring to Continente Labs store?

[Future of Retail]

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither Disagree nor Agree	6	15.0	15.0	15.0
	Agree, Totally Agree	30	75.0	75.0	90.0
	Partially Disagree, Disagree	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

What took you to try Continente Labs?

		Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	I like to do shopping in Contiente's traditional stores and wanted to try the new store	5	12.5	12.5	12.5
	For beeing an innovative experience	9	22.5	22.5	35.0
	For convenience	21	52.5	52.5	87.5
	Because the shopping process being faster than in traditional retail stores	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

On a scale from 1 to 5, where 1 "I don't recommend" and 5 "Totally Recommend", what is the better option to describe your recommendation level to someone?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I don't recommend	2	5.0	5.0	5.0
	Neither recommend nor not recommend	2	5.0	5.0	10.0
	Recommend	5	12.5	12.5	22.5
	Partially recommend	15	37.5	37.5	60.0
	Totally recommend	16	40.0	40.0	100.0
	Total	40	100.0	100.0	

Identify your preference.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I prefer shopping with this type of technology than in traditional retail shops	28	70.0	70.0	70.0
	I prefer to shop in traditional retail shops	12	30.0	30.0	100.0
	Total	40	100.0	100.0	

		Gender.			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	19	47.5	47.5	47.5
	Male	21	52.5	52.5	100.0
	Total	40	100.0	100.0	

		Age.			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25 years old	27	67.5	67.5	67.5
	26-35 years old	7	17.5	17.5	85.0
	36-45 years old	5	12.5	12.5	97.5
	More than 56 years old	1	2.5	2.5	100.0
	Total	40	100.0	100.0	

Tables exported from SPSS statistics.

Appendix D – Pingo Doce & Go -Nova SBE's Survey

Before visiting the store Pingo Doce & Go – Nova SBE, have you already heard about this type of technology implemented in FMCG retail?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		100	63.7	63.7	63.7
	No	26	16.6	16.6	80.3
	Yes	31	19.7	19.7	100.0
	Total	157	100.0	100.0	

What is the better option to define your experience level instore?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		100	63.7	63.7	63.7
	Unsatisfied, Indifferent	2	1.3	1.3	65.0
	Satisfied, Very Satisfied	55	35.0	35.0	100.0

Total	157	100.0	100.0
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With which frequency do you visit the store Pingo Doce & Go - Nova SBE?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7
Only visited once	11	7.0	7.0	70.7
Once a week	7	4.5	4.5	75.2
2/3 times a week	8	5.1	5.1	80.3
4/5 times a week	12	7.6	7.6	87.9
Every day	5	3.2	3.2	91.1
Rarely	14	8.9	8.9	100.0
Total	157	100.0	100.0	

If you answer “Only visited once” in the previews question, do you pretend to come back to the store?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	146	93.0	93.0	93.0
Yes	10	6.4	6.4	99.4
Yes, if I have no alternative	1	.6	.6	100.0
Total	157	100.0	100.0	

What is your opinion about the presented affirmations referring to the store Pingo Doce & Go - Nova SBE? [Innovative Concept]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7
Neither Disagree nor Agree	1	.6	.6	64.3
Agree, Totally Agree	56	35.7	35.7	100.0
Total	157	100.0	100.0	

What is your opinion about the presented affirmations referring to the store Pingo Doce & Go - Nova SBE? [Faster Shopping Process]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7

Neither Disagree nor Agree	2	1.3	1.3	65.0
Agree, Totally Agree	55	35.0	35.0	100.0
Total	157	100.0	100.0	

What is your opinion about the presented affirmations referring to the store Pingo Doce & Go - Nova SBE? [Intuitive / Easy to Use]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7
Neither Disagree nor Agree	5	3.2	3.2	66.9
Agree, Totally Agree	50	31.8	31.8	98.7
Partially Disagree, Disagree	2	1.3	1.3	100.0
Total	157	100.0	100.0	

What is your opinion about the presented affirmations referring to the store Pingo Doce & Go - Nova SBE? [Convenient]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7
Neither Disagree nor Agree	3	1.9	1.9	65.6
Agree, Totally Agree	54	34.4	34.4	100.0
Total	157	100.0	100.0	

What is your opinion about the presented affirmations referring to the store Pingo Doce & Go - Nova SBE? [Retail of the future]

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7
Neither Disagree nor Agree	8	5.1	5.1	68.8
Agree, Totally Agree	45	28.7	28.7	97.5
Partially Disagree, Disagree	4	2.5	2.5	100.0
Total	157	100.0	100.0	

What took you to try the store Pingo Doce & Go - Nova SBE?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100	63.7	63.7	63.7

I like to do shopping in Pingo Doce's traditional stores and wanted to try the new store	2	1.3	1.3	65.0
For being an innovative experience	5	3.2	3.2	68.2
For convenience	45	28.7	28.7	96.8
Because the shopping process is faster than in traditional stores	5	3.2	3.2	100.0
Total	157	100.0	100.0	

On a scale from 1 to 5, where 1 "I don't recommend" and 5 "Totally Recommend", what is the better option to describe your recommendation level to someone?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither recommend nor not recommend	1	.6	1.8	1.8
	Recommend	4	2.5	7.0	8.8
	Partially Recommend	15	9.6	26.3	35.1
	Totally Recommend	37	23.6	64.9	100.0
	Total	57	36.3	100.0	
Missing	System	100	63.7		
Total		157	100.0		

Identify your preference.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		100	63.7	63.7	63.7
	I prefer shopping with this type of technology than in traditional retail shops	45	28.7	28.7	92.4
	I prefer to shop in traditional retail shops	12	7.6	7.6	100.0
	Total	157	100.0	100.0	

		Age.			Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid		100	63.7	63.7	63.7
	18-25 years old	54	34.4	34.4	98.1
	26-35 years old	2	1.3	1.3	99.4
	46-55 years old	1	.6	.6	100.0
	Total	157	100.0	100.0	

Tables exported from SPSS statistics.

Appendix E – Sonae’s Survey Crosstabs

Age * Before visiting the store Continente Labs, have you already heard about this type of technology implemented in FMCG retail? Crosstabulation

Count

		Before visiting the store Continente Labs, have you already heard about this type of technology implemented in FMCG retail?		
		No	Yes	Total
Age	18-25 years old	8	19	27
	26-35 years old	2	5	7
	36-45 years old	3	2	5
	More than 56 years old	0	1	1
Total		13	27	40

Table exported from SPSS statistics.

Appendix F – Pingo Doce & Go – Nova SBE’s Survey Crosstabs

Age * Before visiting the store Pingo Doce & Go – Nova SBE, have you already heard about this type of technology implemented in FMCG retail? Crosstabulation

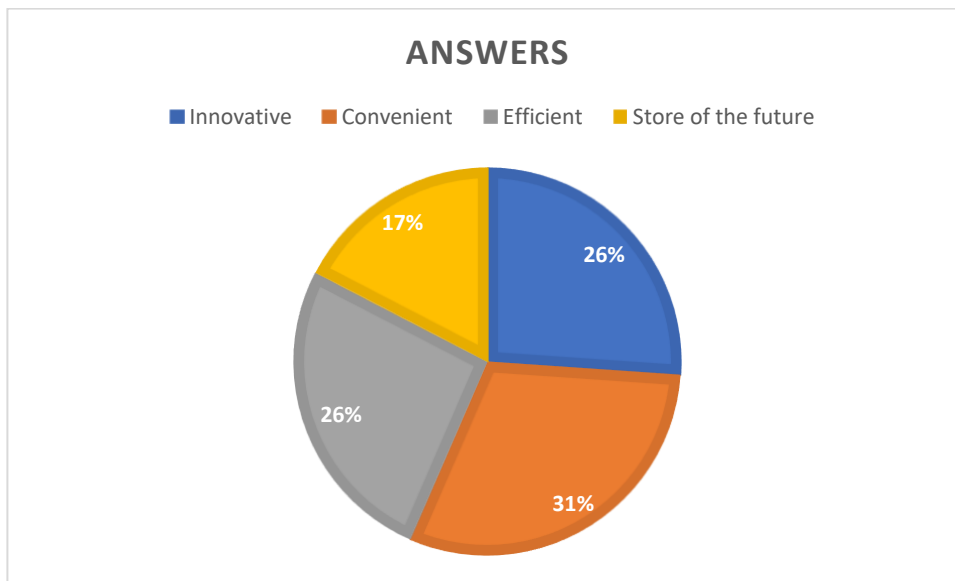
Count

		Before visiting the store Pingo Doce & Go - Nova SBE, have you already heard about this type of technology implemented in FMCG retail?		
		No	Yes	Total
Age		100	0	100

18-25 years old	0	26	28	54
26-35 years old	0	0	2	2
46-55 years old	0	0	1	1
Total	100	26	31	157

Table exported from SPSS statistics.

Appendix G – Sonae’s Survey Features



T= 23 (customers who have responded to the voluntary question).

Appendix H – Pingo Doce & Go – Nova SBE’s Survey Features



T= 52 (customers who have responded to the voluntary question).

Appendix I- Sonae's Survey Recommendations



T= 7 (customers who have responded to the voluntary question).

Appendix J- Pingo Doce & Go – Nova SBE's Survey Recommendations



T= 26 (customers who have responded to the voluntary question).

