

**A Work Project presented as part of the requirements for the Award of a Master
Degree in Management from NOVA – School of Business and Economics.**

**WAS DOTT BUILT BASED ON A MOBILE FIRST APPROACH? AN ANALYSIS
ON THE IMPACT IT MAY HAVE**

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**A Project carried out on the Master in International Management Program, under the
supervision of: Professor João Castro**

Lisbon, 3rd January 2020

Acknowledgments

This Work Project could not have been possible without the collaboration of some people and thus, I would like to thank them for their crucial role in this past few months.

Foremost, I would like to begin by thanking Professor João Castro for his support throughout this study, providing the necessary guidance, commitment and freedom to learn and to grow from this experience.

Secondly, I would like to show my gratitude to all DOTT's team, who provide me this enriching opportunity of being part of the beginning of DOTT and who also supported me along this journey, by helping me understand some decisions and by sharing some indispensable knowledges for the conclusion drawn.

On the same note, I would like to express my deepest gratitude to my family and friends for their constant encouragement and motivation, and also for their incessant help in sharing my online questionnaire, to whom respondents I also sincerely thank having accepted to be part of this research.

Was DOTT build based on a Mobile First Approach? An analysis on the impact it may have

Abstract A Mobile First Approach was introduced in 2010 and came in response to the rising penetration of mobile devices throughout every digital activity. In 2019, it is believed that the majority of global e-Commerce sales will be made in a smartphone. In this sense, this paper was addressed to study DOTT, a Portuguese generalist marketplace launched in 2019, and to understand if it was developed based on a Mobile First Approach or not, analyzing also the impacts it may have. Through quantitative and qualitative methods, research indicated that DOTT was not taking the most advantage out of mobile devices, and further optimization of navigation and usability were suggested.

Keywords: DOTT; Mobile First Approach; Smartphone; Marketplace;

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

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1.INTRODUCTION

Digital transformation, technological innovations, and internet accessibility are reshaping the world and consumer's habits in a disruptive way. According to Nielsen (2018) "everyday 85% of users connect to the internet and spend, on average, six and a half hours online". Furthermore, the new challenging competitive dynamics linked with a more demanding customer, and with different habits have impacted almost every business industry, in special Retail. "Retail is in the midst of a radical transformation" stated Lipsman (2018).

Consumers seek ways to simplify their life relying mostly on personalization, making mobile technology crucial in this era. Web Design and page load speed are now features that mostly impact the core of consumers' joy and discontent while they are online (Medium 2017a).

Facing these fast-changing routines, two Portuguese companies sought an opportunity in the Portuguese digital commerce, as it was still underdeveloped, and hence DOTT was created, as a joint venture between Sonae and CTT. DOTT was established as a Portuguese marketplace enriched by the expertise of each one of its shareholders, aiming to become the largest marketplace in Portugal.

On the first of May of 2019, DOTT was officially launched with a mission to revolutionize the way of buy and sell online, turning it accessible to every Portuguese. DOTT wants to transmit proximity and convenience and to provide a great user experience, granting also a big support to local brands, unknown until then in the digital world (Observador 2019).

I am currently working at DOTT, being part of the Marketing Department and I have chosen to analyze if DOTT is focused in the proper extent on mobile devices as a key potential growth driver in the actual connected world we live in. Given I am working there, I have access to information that can supplement this study which will be complemented by a further qualitative and quantitative analysis, deriving from primary and secondary data collection.

The overall purpose of this dissertation is to understand if an online business, firstly focused on mobile devices, has a bigger impact in the performance and penetration of a player.

2.CONTEXTUAL BACKGROUND

In order to ground this Project, it is necessary to study and analyze several concepts and realities, and for this reason this section will present an overview about marketplaces, a benchmark analysis of a few e-Commerce websites, and then, a detailed presentation of DOTT. Additionally, device usage online and the online consumer preferences will also be considered.

2.1 E-Commerce Characteristics

The global retail market is estimated to reach 25 trillion U.S. dollars in 2019 and 14.1% of it will come from global e-retail sales, according to Statista (2019a). Shopping online is a top online activity worldwide, and its usage is becoming more prepotent everywhere. However, it significantly varies from geographical regions, as for instance in China 19% of retail transaction happens online, wherein Japan this value goes down to 6.7%. Besides geography, the product category is also a variable factor and the most popular online categories are apparel, shoes and consumer electronics (Lipsman,A 2019).

Thus, e-Commerce is the act of buying and selling products or services through electronic systems, such as the Internet and other networks, having revolutionized the traditional commerce practices over the past two decades. It can provide customers a broad choice of product or services, competitive prices, comfortable convenience, and a seamless experience, “Today’s consumers do not buy just products or services— more and more, their purchase decisions revolve around buying into an idea and an experience.” (Mckinsey 2017). In 2018, approximately 1.8 billion people have bought something online and e-Commerce grew on average 22.9% compared with the previous year. By the end of 2019, it is expected that it continues its rising path, growing by 20.7% (Statista 2019b).

It is possible to buy online through several electronic devices: the desktop is no longer alone in the run as mobile devices such as smartphones and tablets are also options. The latter have been on the rise recently, with customers valuing most their freedom and mobility, using increasingly more often mobile devices, in particular, smartphones to buy online.

Among the most used websites for online shopping it is possible to find not only online retailers, which are most likely to engage new-online customers, but also online marketplaces, which can easily attract repeated buyers. In the ranking of the most popular websites there are Amazon.com, JD.com, Apple.com, Suning.com and Walmart.com (Statista 2019c).

2.1.1. Marketplaces Overview

Following what was previously stated, it is expected that by 2020, more than 2 billion customers will buy online and that around 40% of the global online retail market will take place in online marketplaces (Ecommerce News 2015).

Online Marketplaces are virtual places where sellers and buyers have the opportunity to meet and proceed with transactions involving goods and/or services. They are a type of e-Commerce site, working as a two-sided-platform managed by a Marketplace operator, who processes every transaction and ensures safety, transparency and free-flowing traffic for every player, owning no inventory. The wide portfolio of products and services are provided by multiple sellers who intend to reach the broadest customer profile possible.

There are several kinds of marketplaces depending on the adopted business model and whom they want to satisfy. If a marketplace only sells alike and related products it can be considered Vertical, whereas if it aims to fulfill every different need of a single target, having varied types of products available it is Horizontal. However, it can also sell everything to everyone and be considered Global or Generalist or even offering not only third-party products but also their own, and thus possessing inventory, being in this case a hybrid marketplace, as for instance Amazon is (Forbes 2017).

Despite its type, the purpose beyond marketplaces is the same and it is to provide ease, convenience and relevance, three pillars that succeed and lead the customer experience while shopping (Marketplacer 2019). Hence, it is aimed to maximum reduce friction on both sides: buyers and sellers, to strongly engage customers with high levels of confidence, by also developing proactive and reactive mechanisms to solve imminent upcoming situations between participants, and, finally, to encourage participation (Forbes 2017).

Any marketplace must follow a customer centric approach, as sellers and buyers must feel equally well identified to generate traffic and conversion. Hence, the main challenges they face are competitive differentiation, that when low places the main reason for sellers disengagement (about 46%), buyer acquisition and retention, social media engagement and an extraordinary user experience, with meaningful and needed touchpoints (ReadWrite 2018).

Aside with a compelling customer experience, marketplaces optimize the mental availability of their portfolio, which turns out to be as important as their cost efficiency, as they maximize their offers according with their own and buyer's preferences (Medium 2018).

2.1.2. Benchmark Analysis

To best understand how online commerce behaves, a benchmark analysis was executed, which consists on the search for industry best practices that lead to superior performance (Camp, R.C. 1998). This analysis was restricted to common characteristics of e-Commerce websites, by retrieving conclusions from secondary data collected from the company's annual reports and from 2 online platforms: SimilarWeb¹ and PageSpeed Insights². The analysis was performed on 23 selected companies that are well represented worldwide or in Portugal (Appendix 1) and a summary of its insights can be observed in Table 1 below and on Appendix 2. From the 23 companies, it was considered the Portuguese website's domain, in case it exists.

¹ SimilarWeb.com – platform that tracks and analyses several performance metrics of websites and Apps;

² PageSpeed Insights on Developers.google.com– platform that overviews a webpage's content and measures its performance, providing suggestions to make it faster.

Table 1: Benchmark Insights overview

KPI	Description	Best Practices
Gross Merchandise Value (GMV)	GMV stands for the total value of merchandise sold through a transactional platform over a given period of time and can be used as a metric to evaluate the health of it, in raw terms, as it does not account any costs (Medium 2016a). In best practices, it is available the top 3 global performers, besides the top players among the 23 companies.	Worldwide: 1)Tabao - \$515Bn 2)Tmall - \$432Bn 3)Amazon - \$344Bn Portugal: 1)Amazon.com - \$86.7 M 2)fnac.pt - \$75.2 M
Monthly Visits	Monthly Visits accounts for the website traffic on average of all non-unique visitors during a month period of time.	Worldwide: Amazon.com - 2144Bn visitors Portugal: pt.Aliexpress.com - 213M visitors Sephora.pt - 238K visitors
Average Visit Duration	Average Visit Duration represents the average time each visitor spends on the website. It was retrieved in minutes and seconds (Web Analytics World 2013).	OLX.pt - 09:46s pt.AliExpress.com - 08:37s Booking.com - 07:52s Prozis.pt - 07:10s
Pages per Visit	Pages per Visit measures how compelling customers consider the website content and how well is it organized to navigate. It estimates the number of different pages which were visit on a single website.	Asos.pt - 11.08 pages OLX.pt - 10.02 pages Prozis.pt - 9.97 pages Leroymerlin.pt - 9.69 pages
Bounce Rate	Bounce Rate provides information on the number of customers who leave the website before interacting somehow with it. It defines the quality of website user's engagement and of its content state (BigCommerce).	Zara.pt - 27.80% OLX.pt - 29.05% Leroymerlin.pt - 30.11% Contiente.pt - 34.17%
Device Usage Distribution	This metric states the percentage of income traffic that came from desktop or mobile devices.	Mobile Distribution: Uber.pt - 75% Laredoute.pt - 67.50% Zara.pt - 63.80%
First Contentful Paint (FCP) (mobile/desktop)	FCP defines the time it takes the browser to deliver the first piece of content after a user begin the navigation on a web page. This metric is dependent on the device in use (Lighthouse Scoring Guide).	FCP in Mobile: Uber.pt - 0.6s Zalando.com - 1.2s Deltacafes.pt and fnac.pt - 2.3s Booking.com - 2.5s
Performance Grade	This performance score is "a log normal distribution derived from the performance metrics of real website performance data on HTTPArchive". The score is a number between 0 and 100, where 100 is the "best possible score which represents the 98th percentile, a top-performing site" (Lighthouse Scoring Guide).	Mobile Performance Grade: Uber.pt - 100 Zalando.com - 99 Deltacafes.pt - 86
Marketing Channels Overview	It presents the resorted marketing channels which generate traffic to the website. From the Marketing Channels, it is included: Direct, E-mail, Referrals, Social, Organic Search, Paid Search and Displayed Ads.	Direct: Ebay.com - 63.4% pt.aliexpress.com - 59.6%. Organic: deltacafes.pt - 77.77% Mbway.pt - 75.58%.

		Paid: DOTT - 58.77% Laredoute.pt - 29.2%.
Search Traffic	Indicates the distribution of organic and paid search traffic.	Organic search: deltacafes.pt and zalando.com - 100% Zara.pt – 99.76% Mbway.pt – 99.26%.

Source: Author, based on primary research

From the analysis conducted, it was observable a predictable positive interaction between the average visit duration and the number of pages visited per session. And thus, the tendency is the longer the time spent, the higher the number of pages visited, and of course the lower the bounce rate registered, as the impulse to leave is weak. Thus, OLX, AliExpress, Zara, Asos and Booking are all examples of above average visit duration and pages per session. Although not in every situation, but transmitting a tendency to happen, the proportion of users who came from organic search or direct channels increased the longer is their average visit.

Beyond this, the bounce rates collected did not apparently follow any other pattern, as every metric influenced it differently for each company, showing that qualitative metrics such as brand's maturity, engagement and loyal customers influence this rate a lot.

Additionally, about the performance grade it is necessary that at least one (desktop or mobile) has a high value in order to provide a long average visit duration or a small bounce rate. A better performance grade reflects a faster FCP.

Moreover, it was also studied if the 23 companies had a mobile App or not, and how frequently it is updated (available on Appendix 3). Hence, from the total of companies: Zalando, Sephora Portugal and Kinda Home do not have any mobile app; Delta Cafés and Fnac offer a non-transactional one; and, Continente, Leroy Merlin and Walmart all owned more than one app. Finally, Zara, Continente, AliExpress and Booking were the most recently updated apps and DOTT did not present any further update after its launch and first update on 13/08/2019.

2.1.3. DOTT example

Before getting to know DOTT, it is essential to learn about the Portuguese e-Commerce.

The Portuguese online shopping market is valued at 5 billion euros and it has been positively growing in the last years. In 2018, it reached an overall growth of 17%, 4.5 percentage points higher than in 2017. Almost half of the Portuguese population, 46%, buys online, which is in line with the Southern Europe average of 47%. This happened because Portuguese consumers started to trust more and recognize more advantages in this online activity and also because the offer of available and good websites increased (CTT 2019).

The Portuguese consumer consider as top explanatory reasons for their online purchases competitive price and promotions, easiness to shop, a wide and varied portfolio of products, and, finally, simple and fast deliveries provided (Google 2019a). During 2018, the national e-buyer rose his purchase frequency to 13.8 times a year with an average of goods per order of 3 items and an order average value of 39.7 € (CTT 2019).

In pair with global trends the most popular category is clothes and shoes, however, Portugal behaves differently by having “ready-to-eat meals” and groceries in the top purchased categories (Google 2019a). Furthermore, Portugal is the second European country with the highest volume of online purchases made through foreign websites, which accounted for 82% of the total volume of Portuguese e-Commerce, being the leading websites Aliexpress.com, eBay and Amazon.com (CTT 2019).

In order to exploit the Portuguese e-Commerce market, DOTT was launched in May of 2019, as a joint-venture of two mature and well-established Portuguese companies: Sonae, which is a retail and FMCG specialist, and CTT, specialized in express and parcels distribution.

Hence and by combining secondary research and inside information provided by DOTT’s Team, it was possible to analyze the behavior of the brand as well as its goals. Thus, DOTT assumes itself as a generalist marketplace that joins every seller and buyer, from the most known international companies and the baby-boomers, to the local grocery store and the

millennials. It has 17 product categories, priming from a diversified portfolio with yet more than 1.5 million products at competitive prices and from relevant brands.


Additionally, DOTT offers an experience of proximity, focused on convenience, aiming to become the first Portuguese choice for online shopping. To sellers, it charges no setup fees and lower commissions when compared to other marketplaces, and besides, it guarantees an effective logistics process, with a committed customer service.

By now, DOTT’s main competitors are undoubtedly Amazon, eBay and AliExpress, as they are the leading marketplaces and e-Commerce websites operating in Portugal for the last few years, but there are more: Worten, Fnac, LaRedoute and Sephora also represent competition and other brand’s websites can also play this role (Statista 2019d).

Although, DOTT is working hard to provide an omnichannel experience for their customers, it has other challenges ahead as it still needs to educate the Portuguese population to shop online more frequently, and also to choose DOTT in its buying activities. Thus, there is an incremental necessity to show its benefits in comparison to international players which lead in Portugal. However, by promoting an integrated experience through its website and app, with a personalized customization, DOTT is developing some differentiating aspects. Gaspar D’Orey, DOTT’s CEO, stated in an interview that “DOTT wants to become the catalyst of the digital transformation process of Portuguese companies”.

The benchmark analysis presented in the previous section was also conducted on DOTT, and from the analyzed aspects, its performance so far can be summarized in Table 2 below.

Table 2: DOTT’s Benchmark Insights

Gross Merchandise Value (GMV)		Marketing Channels Overview	Direct – 21.98% Paid Search – 58.77% Organic Search – 11.83%
Monthly Visits	490415 visits	First Contentful Paint (FCP) (mobile/ desktop)	6.2s
Average Visit Duration	02:06s	Performance Grade	Mobile - 14 Desktop - 32

Pages per Visit	4.18	Device Usage Distribution	Mobile – 73.32%
Bounce Rate	49.11%	Search Traffic	Organic – 17.59%

Source: Author, based on primary research

According to this table, some novelty effects are felt as paid search overpasses all other marketing channel and when compared with all sample, this metric registered one of the highest values. Additionally, its average time per session is still below the average and the same happen with pages per visit, which might be affected by the longer FCP. Moreover, its performance grade in both devices are not high evaluated, but still DOTT does not present the lowest values, and even with a low performance grade, customers keep using mobile devices to shop on it.

2.2. Device Usage Online and Consumer Preferences

A new digital landscape requires new types of interactions between customers, brands and retailers. Developments in mobile technology linked with a higher internet penetration and a continued digital innovation and transformation made smartphones the most valuable asset of any customer (Nielsen 2018). According to Statista (2019e), the global mobile population reached 4 billion unique users and 48% of global website traffic happened on mobile devices.

Mobile usage is fourfold higher than desktop and on average people check their smartphones 74 times a day, or 300 times if they are Millennials. A behavior highly impactful by the continued progression of social media culture, which changed drastically the online interaction with brands. Consumer preferences are constantly shifting, being mostly valued convenience, speed and credibility as customers are becoming much more curious, demanding and impatient (Google 2019b).

Mobile commerce, defined as the purchases made through smartphones or tablets, is a rising trend, accounting in 2019 for 51.65% of total e-Commerce sales. Mobile is instinctively in the heart of people’s decisions and thus it must be the focus of company’s digital strategies, in the sense that it “extends, augments and transforms the digital commerce customer

experience” (Accenture 2016). The essence of customer satisfaction is the website’s design as a poor mobile experience would make a return less likely to happen. In fact, 61% of customers would hardly comeback to a problematic access website and even 40% of them would prefer a competitor’s website instead (TheRecord 2019). Hence, owning a website that is built for mobile instead than desktop is a considerable consumer trend to follow in the near future.

Moreover, customers are more likely to engage with a brand at a higher frequency on a smartphone than on a computer, and also, it is considered that mobile shopping influences purchases on other digital channels, promoting a 19% impact on revenues (Qubit 2019). Also, through a mobile device, users have two ways to interact with brands: website and app.

A Mobile-First approach is a web design strategy, proposed by Google in 2010, that privileges mobile devices as the principal usage device, developing a design that fits and adjusts the website to every display size used to access it, maximizing a satisfactory user experience (Medium 2016b). This focus on mobile devices includes configuration of every feature, enhancing quality content position and page speed, which can also be advantageous for SEO (search engine optimization). Page speed plays a critical role as it affects the customer experience, and also SEO ranking, costs with ads and operational costs (Patel 2018).

The most common designs used in a Mobile First strategy are Adaptive and Responsive.

An Adaptive Design relies on the browser environment and not necessarily in the browser’s size. It develops several interpretations for the same design, one for each size, linked each one to a standard dimension, that defines the used layout, downloading only the needed content. This method provides fully control of the design, measuring the performance of every touchpoint, and also a good load time performance, optimizing the online traffic. It operates better when mobile and desktop intent is different.

On the other hand, the Responsive Design relies on the browser’s size, being this factor what defines the outcome layout. It works well in websites with an equal purpose for desktop

and mobile devices as users intend to have a similar experience in both. This design is easier to implement and preserve and tends to be cheaper, although it offers less control and minor personalization possibilities (Medium 2017a).

Therefore, thinking about a shift from desktop to mobile focus, when comes to web design, becomes imperative, as customers are looking for better and more sophisticated options through their mobile devices and companies must be where their audience is, otherwise they cannot provide them a customer centric experience. Besides, although desktop still accounts for a higher conversion rate than mobile regarding device usage in online shopping, the tendency is for mobile performance to improve in the next few years and further it must also take into account that 70% of worldwide sales are considered cross device purchases (Capgemini 2019).

This rising mobile trend can be sustained as Google's tool to rank websites performance already evaluates the mobile version instead of the desktop one. Additionally, global mobile data traffic is expected to sevenfold until 2022, 5G will soon be accessible everywhere, affecting further company's investment in mobile media and technology. Finally, due to artificial intelligence (AI), with a mobile device it is easier to take the most out of voice assistance, the consumer experience path and more accurate consumer data (Wurmser 2018).

3. ADDRESSING THE WORK PROJECT TOPIC

3.1. Methodology

In order to address the Work Project objectives, the research methodology performed was a combination of three methodologies: a quantitative study based on secondary data collection from Google Analytics' reports, and a qualitative study based on primary data collection reached through in-depth personal interviews and an online questionnaire. Table 3 clarifies in more detail each of the research methods, as well as their respective objectives.

Table 3: Work Project Methodology, author

<p>1.DOTT’s performance analysis. Secondary data was collected from Google Analytics’ platform about traffic, audience, channels and conversion, covering DOTT’s performance since the beginning. This was a descripto-explanatory study realized to reach a clear picture of the reality in question, and so help achieve some further conclusions (Saunders, Lewis and Thornhill 2016).</p>	<p>Details: Real information about the website status since its release, possible to track and understand customers’ preferences. An overview of DOTT’s result is available from Appendix 4 to Appendix 11.</p> <p>Data Collection period: From May to November 2019</p> <p>Objectives: To quantify DOTT’s performance throughout the time, measuring and comparing different channels, devices and targeting approaches, among other characteristics.</p>
<p>2.In-depth personal interviews. The interviews were unstructured and flexible, allowing the interviewee to talk freely about the predefined topic of discussion (Malhotra, N. K. 2010). These personal informant interviews provided primary qualitative data that allows the explanation of emerging learnings (Gillham 2005). This method is a very appropriate research tool for exploratory research (Saunders, Lewis and Thornhill 2016).</p>	<p>Details: 9 interviews with different backgrounded industry experts, gathering knowledge from both inside and outside DOTT’s context. See sample characterization in Table 4, and more details about the interviews in Appendix 12.</p> <p>Data Collection period: From September to December 2019</p> <p>Objectives: To understand decisions that have been made in DOTT so far and also to learn different strategies followed by distinct companies in several departments.</p>
<p>3.Online quantitative questionnaire. A descriptive research, which is a type of conclusive research, in the form of an online survey was conducted to better understand the Portuguese e-Commerce reality. Quantitative research allows making more trustful and reasonable strategic and tactical recommendations (Keller 2013). The goal of conclusive research is to “test specific hypotheses and examine specific relationships” (Malhotra, N. K. 2010), hence a cross-sectional design questionnaire was created, with fixed alternative questions to elicit specific information from respondents.</p>	<p>Details: 356 total and suitable responses, of which 92% of all respondents had already bought something online. The questionnaire was done on Qualtrics and its link was shared in social media (Facebook, Instagram and WhatsApp’s Groups). A Summary of questions and answer is available from Appendix 15 to Appendix 38.</p> <p>Data Collection period: November 2019</p> <p>Objectives: To study the Portuguese perception related to e-Commerce and to understand the consumer shopping preferences regarding website functionalities and products’ types.</p>

3.2. Main Research Insights

According to the techniques presented above, several key and valuable insights will be reached. Firstly, they will be expressed based on their source, and afterwards they will be crossed, in order to reach some answers to the importance and consequently impacts of having or not a Mobile First Approach since the beginning of an Online Marketplace.

3.2.1. DOTT's performance analysis

Google Analytics (GA) is a digital data service that allows a narrow study of a specific website's audience, measuring its performance in some key metrics (Medium 2017b). Referring to the secondary data retrieved from GA about DOTT's website since its beginning (01/05/2019) until the end of November (30/11/2019), the following insights were reached.

In a 7-month period, DOTT accounted 2.9 million of users, 5.4 million of sessions and a GMV of █████. From its audience, 73.8% of all visitors were new and 26.2% returning ones; and on average, the number of sessions per user was 1.85 and the number of webpages visited per session was 2.71 (see Appendices 4 and 5). From this number of pages visited, returning visitors saw 2.94 pages per visit while new ones only saw 2.5, which directly impacted the average time spent on the website, being this value on average 01:33s (see Appendix 6).

The website's bounce rate was 66.57%, with new visitors behaving as more easily to leave with a bounce rate of 69.56%, and returning visitors registering a lower rate of 63.34%.

DOTT's customers when analyzed by gender³ showed a distribution of 56.1% female and 43.9% male. And regarding the target audience⁴ (see Appendix 7), the most common age range was from 35 to 44 years old, which represented 32.83% of total users, followed by the age range from 25 to 34, that accounted for 29.55% and then from 45 to 54, with 15.57%.

Moreover, the overall transaction conversion rate is 0.51%, which represents the percentage of sessions that ended up in a transaction and the average order value is 58.23€.

Concerning the device usage penetration (see Appendix 8), smartphone is the most resorted device with 69.66% of all consumers using it, then desktop occupies the second place with 27.16% of usage and finally, tablet is used by 3.17% of consumers. The bounce rate per device is higher on smartphone, accounting for 68.39%, followed by a 64.58% on tablet and then 61.60% on desktop. Additionally, the average visit duration also varies from device.

³ Accounts for 41.13% of total users

⁴ Accounts for 41.22% of total users

Desktop has a longer visit with an average duration of 02:22s, then tablet with 01:53s and finally comes smartphone with a quicker visit duration of 01:15s. The conversion rate from each device is the lowest on tablet, which values 0.32%, then on smartphone that registered 0.4% and finally desktop that accounted for 0.83%.

Lastly, 56.73% of the traffic came from paid search, being the marketing channel with the highest conversion rate the direct one, 1.54%, and finally, visitors brought from e-mail campaigns are the ones who have the highest quality sessions. Additionally, the quality of each session was ranked from 1 to 100, being measured by the probability of happening a transaction during each session, and 53.51% of all sessions were evaluated at 1, and only 2.92% had an evaluation above 51 (see Appendices 9 and 10).

3.2.2. In-Depth Interviews

Regarding In-Depth Interviews, the interviewees were chosen according to their professional background and e-Commerce expertise in a broad range of industries:

Table 4 - Detailed List of Interviewed Industry Experts

Name	Company	Occupation
Gaspar D'Orey	DOTT	CEO
Ricardo Amaral	DOTT	CTO
Alexandre Pereira	DOTT	Marketing Performance Manager
Andreia Semedo	DOTT	Marketing Manager
Marta Lousada	Sephora	e-Commerce & Digital Manager
Tomás Rugeroni	Pestana Hotel Group/ Havas Media Group	Senior Digital Performance Manager
Sofia Grilo	NUTS Branding	UX/UI Designer
Cristiana Monteiro	MB Way	Digital Payments, Gamification, Partnerships & Performance Marketing SME
Francisco Salgado	Google	Mobile Lead Portugal

Source: Author, Primary research insights

From DOTT’s respondents, the main learnings achieved were that DOTT was projected based on a high demanding and promising first years of performance, and hence building the website and starting its activity was imperative to happen fast. Also, the Portuguese confidence level were growing at a hefty speed and the challenge was also to benefit from this increased trend since the beginning, entering in the Portuguese minds before any other additional player.

Thus, to develop the website the fastest it was possible and still guarantee a good performance and high-quality website, DOTT relied on an already existent marketplace's platform, named Izberg, which created DOTT's website upon its standards. This solution was faster than any other, however it came with some further difficulties specially on customization and flexibility. Alongside with this decision, DOTT also outsourced some functionalities' developments from Bright Pixel, as for example Layout, that are still under work until now. Likewise, since the beginning there was an intention to create a mobile optimized website, which was sometimes not easy to implement due to primarily the dependence on third parties' developers and again the limited time constraint, however, the development of the App was entirely DOTT's responsibility and it was created as a Progressive Web App (PWA) as the website already was. PWA is a fusion between mobile websites and mobile Apps that usually enable a great customer journey on the web (Google 2019b). DOTT's app was released on the 5th August of 2019.

Aside from the previous learnings, DOTT's Marketing strategy had a primary focus on generating awareness but always encouraging conversion, and for that reason a high bet on paid search and promotions was made since the beginning. Re-targeting campaigns, social media engagement, use of micro-influencers and also some A/B tests to better customize some approaches have been done. Until now, DOTT's paid search campaigns have been across all devices, being chosen target audience characteristics the decisive factor to match a profile.

From the industry experts' perspective, notable insights were also achieved. Firstly, Google's clear perception of smartphone as a leading device in the present and in the future, claiming that the majority of their evaluator algorithms already measure the performance of the mobile website version rather than desktop's one. Additionally, it was also stated that a key factor for customers' satisfaction and website's performance is its load time, which directly influence the costs of paid search and of ads' impressions and clicks. As Google Chrome is the

most popular Web Browser, not only globally but also nationally (Appendices 13 and 14), this sapience is extremely relevant.

Furthermore, the competition with foreign lead players who have a higher expertise and have been optimizing their performance for decades now, increased customers' expectations and minimum requirements acceptable to their customer journey, making it crucial for any other player the accomplishment of a fast, functional and contentful experience, as these lead players already provide. From the mobile's development side, as internet can come from several mobile networks, guarantee a lightweight website which can be well access no matter the quality of the internet source and still provide a good experience is also a key factor.

Moreover, the development of an app that is customer centric and thought in the most simple and usable way, guaranteeing at the same time functionality and safety has been successful to MB Way. The safety concerns when it is included a mandatory checkout procedure in the journey is decisive to customer satisfaction and return.

Additionally, the first user impact aside with the context and peers' feedback when positive, exponentially influence further new experiences, but when negative barely is overcome. The Portuguese Net Promoter Score (NPS) is 39, higher than the global average which equals 30. NPS is an engagement metric to measure customer satisfaction and loyalty to a specific brand (Google 2019a), meaning that Portuguese consumers when delighted with a specific brand are most likely to return and to recommend it to others.

The maturity of the brand was also stated as a leading and impulsive factor when concerns conversion. Social media strong presence aligned with campaigns and diverse communication is also often trusted by consumers. For instance, in Sephora's case, Instagram generates a large portion of mobile website's traffic.

Withal, in the interviews with Cristiana and with Tomás, they both mentioned that the time of the implementation also rules its further success, meaning that for instance MB Way

was first thought about in 2009 but only in 2016 it was launched, when the App and the service was optimal to use and customers were already prepared to introduce it in their lives and the same happened with Pestana Hotel Group, which only recently started to develop their website mainly focused on mobile devices, as they wanted to provide the maximum convenience and their audience mostly relied on smartphones.

Finally, the opinion of both the designer and the communication agency consultant were similar when asked about the design of a mobile website. According to them, it should be clean, communicative and intuitive, conveyed the right information and lead to a proceed of the journey with understandable touchpoints. All pages must be coherent and provide a meaningful experience, and to potentiate the maximum effectiveness, it should benefit from the smartphone's capabilities, as voice and face recognition, and hence collect better data, granting superior further customization.

3.2.3. Questionnaire Data Description

This section provides data description about the online questionnaire performed. The sample is composed by 356 individuals that completed the survey, from which 328 had already bought something online (see Appendix 15). From the total respondents, 97% were Portuguese and other 6 nationalities were found (see Appendix 16). Also, 54.49% were female and 45.51% were male (see Appendix 17). Since DOTT is a global marketplace, the sample must be as broad as possible, and it was accomplished as it included a balanced number of responses from both genders and also from 7 different age ranges, as it is shown in Appendix 18. The majority of the answers came from individuals between 18 and 24, 41%, followed by ages between 25 and 34 that represented 18%.

Despite 92% of respondents had already shopped online, physical stores were used more frequently than online ones. For instance, in a scale from 1 to 5, 64% claimed to use physical stores on a 4th or 5th level, whereas only 31% declared the same level to online stores (see

Appendix 19). In addition, the majority of the individuals (56%) asserted to buy online from 1 to 6 times per year and 31% claimed to shop online once a month (see Appendix 20).

Furthermore, the most valued aspects during an online shopping experience were considered: “competitive price” by 64% of respondents, “proper web design” by 45% and thirdly, “fast page load time”, considered by 39% (see Appendix 21).

Marketplaces and brand’s websites were both evaluated as frequently used to shop online (see Appendix 22), however, the product’s own website (45%) and Web browsers (32%) were the most answered options in a hypothetical scenario to look for further information about a product (see Appendix 23).

The top 3 product categories preferred to shop online were Flight Tickets with 77% of the preferences, Event Tickets with 64% and Consumer Electronics with 41%. Booking.com was considered the most used website, accounting for 56%, followed by Amazon and Fnac with 45% and 28% share of responses respectively (available in Appendices 24 and 25).

The most frequently used device to shop online was the desktop followed by mobile devices (see Appendix 26), and it was shown a tendency to cross-device usage in this activity. Also, the main reason to bounce a website was “difficulty to navigate” (64%), and in a M-commerce experience, 69% affirmed to use both websites and Apps (Appendices 30 and 31).

In light of the consumer’s habits, according to the frequency they shop online, brand’s websites are more popular when compared to Marketplaces, however monthly users ranked both as equally beloved, as well as those who shop once a year do. Beyond that, the habit of relying only on smartphones to shop online became more prevalent the higher the frequency of shopping. 88.5% and 82.5% are the percentage of consumers who shop online once a week and once a month, respectively, who affirmed to use only a smartphone to shop.

From the overall sample, 40% declared to know DOTT already, however only 25% of them had bought something through it, accounting for 9.8% of the total sample (Appendices 33

and 34). “Filters” and “Search” were considered the worst aspects in DOTT’s journey, but on the other hand, “ease to shop”, “delivery and return information” and “delivery process” were much valued (Appendix 35). DOTT’s customers mainly shop online once a month (60%), however, 22.8% of them are more recurrent online shoppers, buying once a week.

While shopping at DOTT, 57% used a mobile device resorted mainly on DOTT’s website (Appendices 36 and 37), and from those only 45% considered their journey mobile friendly (see Appendix 38). These respondents mostly shop online once per month and used frequently their smartphones to do it. They also considered “filters” and “search” as the worst elements of their journey, although on the overall they perceived their experience above or equal to 4 on a 1 to 5 scale. They preferred mobile websites to Apps.

3.2.4. Cross-Strategy Insights

From the aforementioned data collected, several observations can be prompted in order to better answer the analyzed question about DOTT’s creation approach.

According to the online questionnaire, it is shown that online shopping is already reasonably implemented in the Portugueses’ minds, although it is not considered a habit yet, since the majority of respondents either shop online from 1 to 6 times a year or in a less representative portion shop once per month. This behavior remains behind the consumption habit in physical stores, which meets what Marta Lousada said about Sephora’s income origin in Portugal, as digital stores could generate a lot of traffic, however what converted the most were undoubtedly the physical ones.

From this low frequency activity, DOTT’s audience can also be partially understood, as firstly many potential buyers possibly were never impacted by DOTT’s ads or campaigns⁵, and even if they were, probably it was not enough to make the more online-conservative buyers, who rarely shop online, to go visit it, since they mostly resort on physical stores. Additionally,

⁵ According to GA, 56.53% of DOTT’s traffic came from paid search

as 56% of the respondents only shop from 1 to 6 times a year, in a 7-month period, even if they had already visited once the website, they are still in their in-between online orders time.

However, besides the previous point, the average number of sessions per user is low, 1.85, and the overall bounce rate is considerably high, 66.57%, transmitting a tendency of incapacity to retain customers. This tendency can be likely explained by a weak or under expected overall experience, which can either just not add any value to the customers' routines or can be poor in usability concerns.

In overall terms, the most appreciated characteristics while online shopping were “competitive prices”, “proper webpage design” and “fast page load time”, and the majority of respondents considered “difficulty to navigate” the main reason to leave a website when shopping through a mobile device. By the same token, filters and search were considered the worst components of DOTT's journey, and according to GA's report approximately 80% of all sessions were ranked from 1 to 5 up to a scale of 100 according their likelihood to promote a transaction, which may happen due to a non-intuitive and non-lead-to-action webpage design. Also, 68% of all sessions lasted until 10 seconds, which revealed a feeble first impression (see Appendix 11). Thus, an usability friction is felt which affects the overall journey perception.

When talking about the MB Way's App, Cristiana Monteiro explained its mainly focus on usability and security, stating that it was imperative for MB Way to launch an App which was clean, intuitive and that transmitted security, as users would never engage and connect their bank's card if they did not feel riskless. These concerns are also applied to every business which depends on checkout processes.

Moreover, devices' penetration was not equally distributed, and smartphones led as the most popular device to shop online, however it recorded the shortest average visit duration when compared to other devices, only 01:15s, and also the lowest amount of pages visit per session, 2.46. Additionally, from those who had already bought on DOTT and used a mobile

device, only 45% of them recognized their experience as mobile-friendly, which may probably explain the lower conversion rate this device registers.

4.DISCUSSION AND MAIN IMPACTS

The purpose of this research is to understand if DOTT was developed based on a Mobile First Approach and to analyze the impacts it may have. According to the previous findings, it was suggested that the overall DOTT's customer experience was not getting the most out of mobile users, and hence was not effective. Thus, three challenges were identified: Awareness, Performance and First Impression Content, and this analysis will start by focusing on them.

Despite having to create awareness and further engagement due to its novelty, DOTT also needs to transmit security and quality in order to compete with mature players already rooted in the Portuguese market, including some global market leaders, such as Amazon and AliExpress, who had been customizing users to very positive and trustful experiences. According to Google (2019a), the Portuguese consumers are loyal to only $\frac{1}{4}$ of the stores they know, and thus more than becoming known, it is critical to also transmit where DOTT adds value in order to become part of the small portion of stores where consumers purchase.

As it was previously introduced, customers are becoming more demanding, curious and impatient, and smartphones are now ubiquity, having both factors made mobile commerce a present trend in rise. Not only an increase in mobile penetration is felt in Portugal but also this behavior is felt through DOTT's users, as it is the most used device to navigate within DOTT. Therefore, guaranteeing an excellent mobile performance is a crucial goal to achieve, and timing is also critical, as first impressions are determinants to conquer a new user and more importantly, the path to make is even bigger if DOTT stays behind all its competitors.

Gathering all the previous insights, it is possible to state that DOTT's mobile version performance is not optimized at its maximum potential as it was initially desired, being this a consequence of its fast conception need and of the company's internally defined strategy.

This weak mobile performance is mostly perceived on some difficulties while navigating as although the landing page is very dynamic and appealing, easily captivating the consumers' sight, some features made the experience less functional, as for example, a few freezing seconds often happen, the categories menu is vast and massive, being required several touches to find a product by its category and when a product is chosen the path to conclude the order is not intuitive. Additionally, search and filters were also considered below customers' expectations, as search is very sensitive to every character written, being rejected some inquiries due to spelling errors, for example. And filters are positively broad, however, they are not fast to use or to find and sometimes when used they generate a freezing moment.

Hence, this experience does not privilege the discovery of a product and so can dictate the observed fast average visit duration on mobile, the low number of visited pages per session and the high bounce rate recorded, as the customers' first task in the website is not facilitated.

Furthermore, taking again into consideration the mobile's device penetration at DOTT, it is feasible to assume that the first impression provided by both DOTT's mobile website and App does not engage enough, as the majority of all sessions ended up before 10s and had less than 5% of conversion probability, according to GA. As reported by Sweor (2019), 94% of first impressions felt are related to design, being necessary only 2.6s for a user to develop a conscious opinion about a webpage, and additionally, it is also proclaimed that 38% of consumers stop engaging if the content or the layout is unattractive.

Therefore, concerning what was previously presented, it is possible to infer that DOTT was not successfully developed based on a Mobile First Approach, despite its first intentions to be so and its Responsive webpage design. The impacts it may cause are summarize below.

Table 5: Impacts of not being Mobile firstly focused

1. Low willingness to return
By not providing an outstanding experience since the first contact, customers' willingness to return will be low and even lower will be the customers' willingness to recommend (NPS), which directly impact the overall consumption, as happy customers spend twice at a store than unhappy ones (Google 2019a). In a long run perspective, an unsatisfactory experience is harder to surpass, making it difficult to reconquer a first poorly impressed user.

2. High Likelihood to leave the website faster
The page load time tends to be longer, which stresses the majority of consumers and make them leave the website faster. Smartphones are the most used devices to visit DOTT but are also the ones with the lower conversion rate and the shortest visit duration. It is expected that for every second delay in loading time, there is a 20% impact in mobile conversion (Google 2019b).
3. Negative impact on SEO ranking score
Mobile friendliness, user experience, content's quality and page speed are all factors that influence Google's SEO ranking, being the ranking negatively impacted by bad performances in the previous aspects. The SEO's ranking is extremely important as it is responsible for the website's position on the search engine results page, showing off the relevance of the website to a specific search, promoting organic traffic to the website. A bad SEO score linked with a slow webpage load time makes paid ads, for impressions or clicks, more expensive, as it requires a bigger boost to promote the website to a position of relevance, fighting with better SEO ranked websites. At this moment, DOTT's traffic mainly came from paid search, being this impact already felt.
4. Security objections
A slow load time linked with usability concerns can transmit security objections to users, which might jeopardize the trust in checkout processes and the functionality of mobile integrated wallets.
5. Low social media engagement
Social media usage relies mainly on mobile devices and peer's opinion is still much valued, which makes a below expectation mobile performance a lost opportunity to be shared through social media and more as DOTT is currently investing on micro-influencers, it also does not make the most return out of the marketing investment (Accenture 2016).
6. Weak data collection
A weak implementation of a mobile website makes data collection not optimized, as well as a poor benefit from mobile AI features such as voice and image recognition, which may compromise further possible customization (Qubit 2018).

5.RECOMMENDATIONS

Based on the previous insights, the coming recommendations were designed for DOTT to mitigate the possible impacts and to enrich its performance in the main challenges identified.

Having in mind that by 2021, mobile is expected to comprise 75% of all e-Commerce purchases, improving DOTT's mobile performance is crucial, to promote an overall conversion increase (App Annie 2019). Thus, working on an optimized and more intelligent search and on an easier way to sort filters are key steps to stimulate discovery and to enhance navigation.

A sophisticated discovery helps customers finding more easily what they are looking for, exploring a greater proportion of the portfolio, making them more likely to buy and to return (Qubit 2018). Moreover, implementing a search option through images, as Amazon and AliExpress already offer, will facilitate and engage more easily the product discovery process.

Additionally, and also concerning navigation, many DOTT's customers did not perceived their experience as mobile friendly, which might be explained by some difficulties while navigate but also by a non-usability focus design. Thus, promoting an end-to-end oriented customer experience can not merely improve customers' seamless journey but also become a distinctiveness factor compared with other players, engaging customers to a longer experience, promoting a higher average visit duration, as well as a reduction of bounce rate. A new design must also promote an increase of the portfolio's mental availability and to better choose the implemented design, an A/B test should be carried out to find the preferred layout to shop.

Alongside with the previous measures, the content provided should be improved and images should keep being high quality, improving the customer's satisfaction level. However, any of these measures can compromise the implementation of a fast load and lightweight webpage, being this imperative to achieve, as it directly impacts the first impression contact.

By ensuring the preceding measures, the SEO ranking score will rise and so will the proportion of organic traffic income, making ads cheaper and thus a current cost saving.

In parallel to every measure, it is also needed to better customize every experience, providing only the essential content to everyone, making users' feel secure and engage with the overall experience. Customization works in favor of DOTT, as efforts can be better allocated.

In order to conclude, these suggestions are expected to turn customers more satisfied, making them spend more of their time and money on DOTT and also improving customer's loyalty. Hence, the aim is to reach the Portuguese online purchase average frequency of 13.8 order per year, increasing customer's retention.

Finally, the ultimate purpose is that DOTT differentiates itself by offering a seamless and omnichannel experience, sustaining high levels of efficiency, speed and agility, reducing this way the 82% total Portuguese e-Commerce volume from foreign websites.

6.MAIN WORK PROJECT LIMITATIONS

- 1) This research finds some traditional limitations of qualitative research in the extent that participants' expectations can be biased by their social context and the industry they work in (e.g. some of the interviewees worked at or for DOTT).
- 2) DOTT's novelty can be considered a limitation as its performance cannot be compared to previous homologous periods, being still hard to measure some impacts and strategies followed;
- 3) Insights taken from the online survey can be considered biased, because, regarding DOTT's User Experience the sample who purchased on DOTT was very small, and also, evaluating subjective concepts as interests and opinions on a scale from 1 to 5 is delicate, as people do not perceived the same actions in the same scale.
- 4) Analysis conducted as the benchmark and GA have in consideration metrics of specific platforms that are not globally calculated in just one way, being these values adjusted to the platform that is used.

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**A Work Project presented as part of the requirements for the Award of a Master Degree
in Management from NOVA – School of Business and Economics.**

**WAS DOTT BUILT BASED ON A MOBILE FIRST APPROACH? AN ANALYSIS
ON THE IMPACT IT MAY HAVE**

Appendices

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Student Number 24165

**A Project carried out on the Master in International Management Program, under the
supervision of: Professor João Castro**

Lisbon, 3rd January 2020

List of Appendices

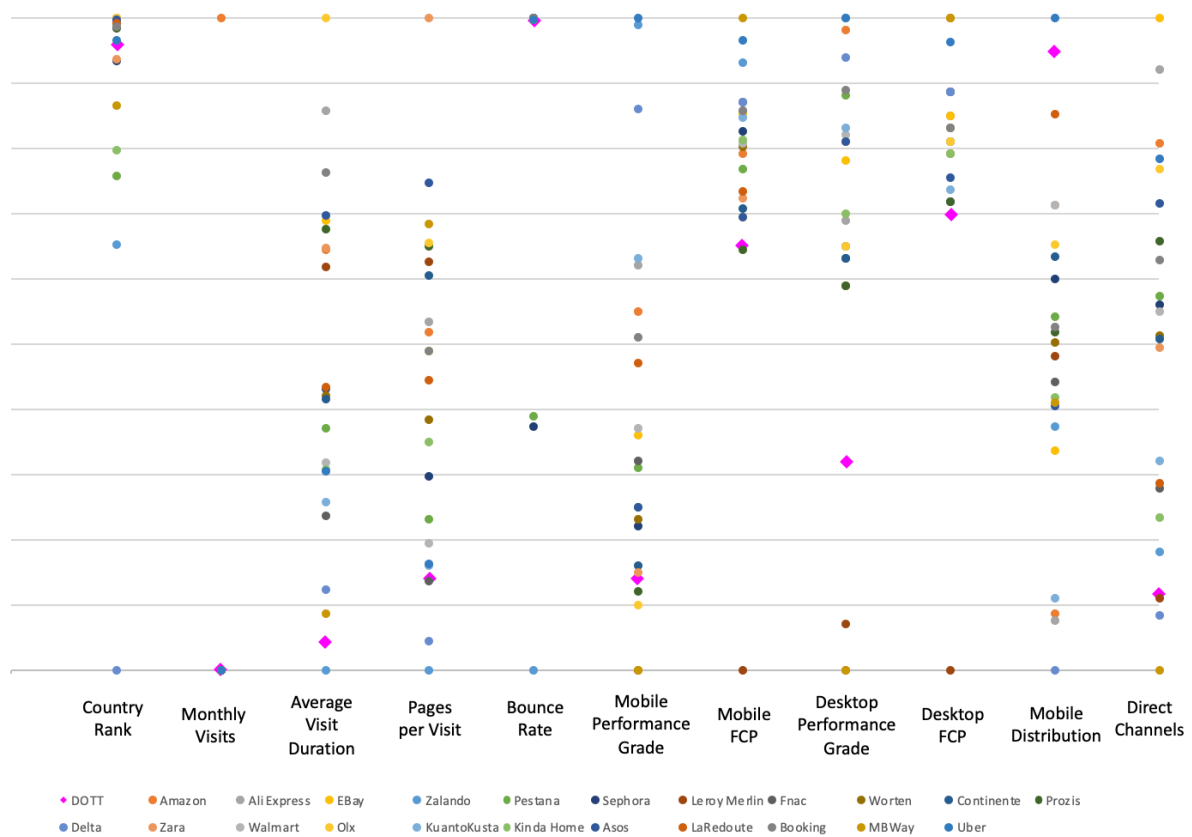
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Appendix 1: Companies considered for the Benchmark Analysis

Companies			
1	DOTT	13	Delta Cafés
2	Amazon	14	Zara
3	AliExpress	15	Walmart
4	EBay	16	Olx
5	Zalando	17	KuantoKusta
6	Pestana	18	Kinda Home
7	Sephora	19	Asos
8	Leroy Merlin	20	LaRedoute
9	Fnac	21	Booking
10	Worten	22	MB Way
11	Continente	23	Uber
12	Prozis		

Source: Work Project's Author

Appendix 2: Benchmark Analysis Summary



Source: Work Project's Author

Appendix 3: Benchmark Analysis of Mobile Apps

Company's Name	DOTT	Amazon	AliExpress	EBay	Zalando	Pestana	Sephora PT	Booking
APP	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Last Release	13/08/2019	11/11/2019	02/12/2019	29/10/2019		18/10/2019		03/12/2019
Launch Date	05/08/2019	10/12/2014	27/09/2012	17/02/2010		28/03/2019		04/02/2011
Rating - Play Store	3,6	4,1	4,7	4,4		3,8		4,8
Rating - AppStore	4,5	3,6	4,7	4,7		4,5		4,7
Comments								

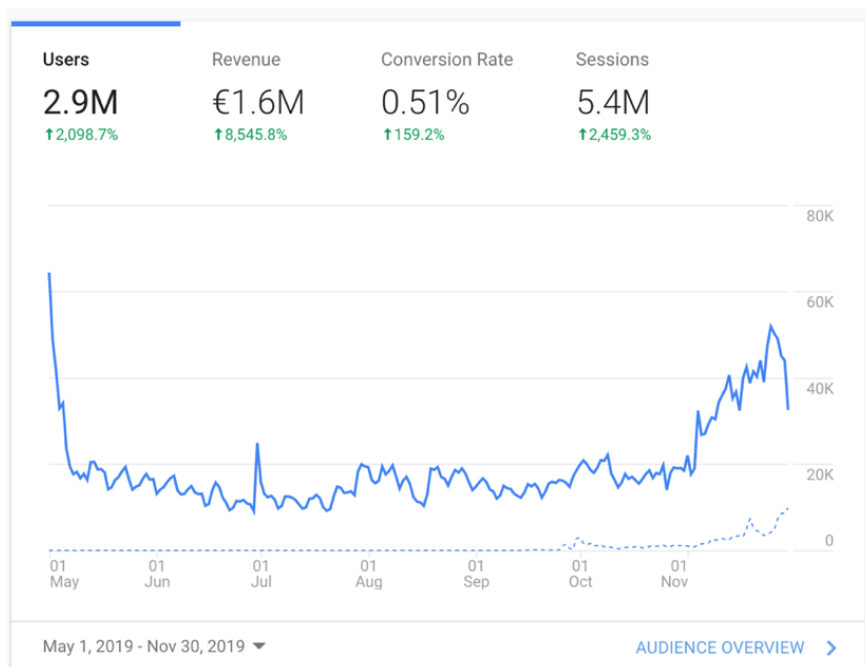
Company's Name	Delta Cafés	Zara	Walmart	Olx	KuantoKusta	Kinda Home	Asos	LaRedoute
APP	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Last Release	01/11/2019	04/12/2019		22/11/2019	27/11/2019		15/11/2019	21/11/2019
Launch Date	30/10/2019	11/10/2012		31/08/2012	17/12/2013		08/10/2013	08/02/2019
Rating - Play Store	-	3,9		4,5	4,1		4,8	4,3
Rating - AppStore	5	4,5		4,7	3		4,8	2,9
Comments	not transactional		More than 1					

Company's Name	Leroy Merlin	Fnac	Uber	Continente	Prozis	MBWay	Worten
APP	Yes	Yes	Yes	Yes	Yes	Yes	No
Last Release	04/04/2019	09/09/2019	20/11/2019		28/10/2019	22/11/2019	
Launch Date	16/07/2018	06/09/2019	28/10/2010		10/10/2018	27/10/2014	
Rating - Play Store	4	1,8	4		4,4	4,3	
Rating - AppStore	4,5	4,6	4,7		3,7	3,5	
Comments	not transactional	not transactional		More than 1			Worten the Age of Digital - not transactional

Source: Work Project's Author, Data Collected until 10/12/2019

Appendix 4: DOTT's Audience overview analysis - Part I

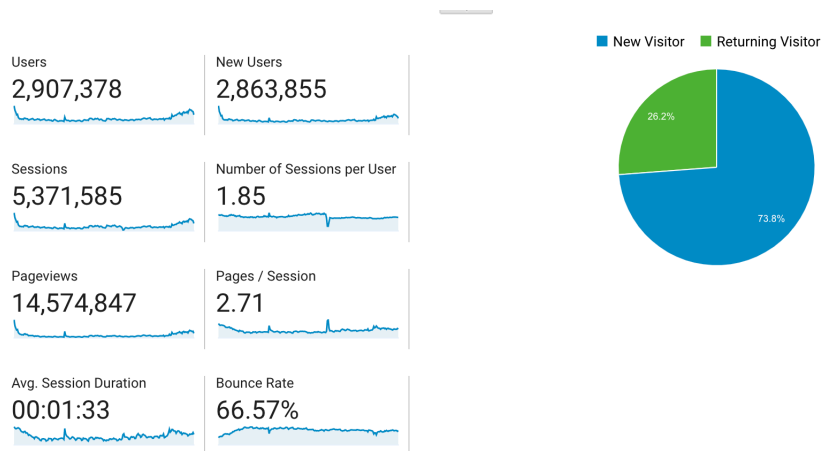
Total of users, Total of sessions, GMV and Conversion Rate



Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 5: DOTT's Audience overview analysis - Part II

Total of users, Total of sessions, Relationship between New and Returning Customers, Bounce Rate, Pageviews and the Average Session Duration



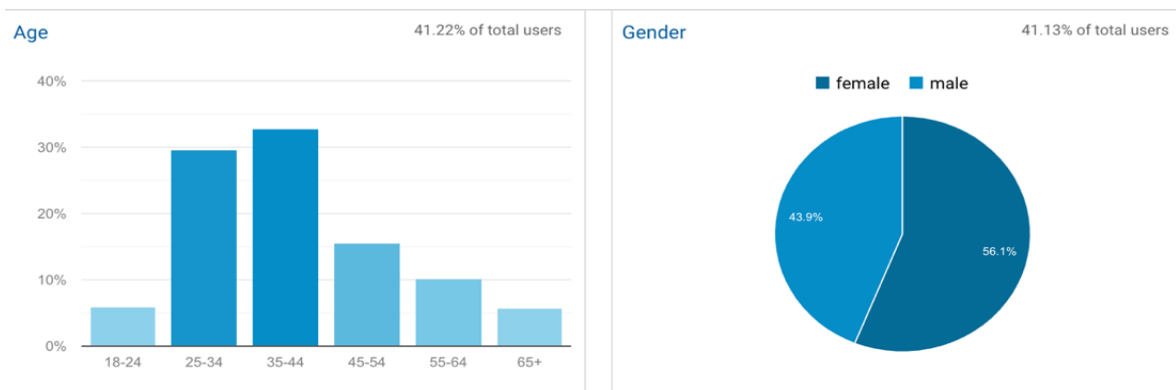
Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 6: Behavior of DOTT's New and Returning Users

User Type ?	Acquisition			Behavior		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?
	2,907,378 % of Total: 100.00% (2,907,378)	2,868,350 % of Total: 100.16% (2,863,855)	5,371,585 % of Total: 100.00% (5,371,585)	66.57% Avg for View: 66.57% (0.00%)	2.71 Avg for View: 2.71 (0.00%)	00:01:33 Avg for View: 00:01:33 (0.00%)
1. New Visitor	2,883,581 (73.80%)	2,868,350 (100.00%)	2,791,901 (51.98%)	69.56%	2.50	00:01:18
2. Returning Visitor	1,023,543 (26.20%)	0 (0.00%)	2,579,684 (48.02%)	63.34%	2.94	00:01:48

Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 7: DOTT's audience spread by age and gender



Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 8: Device usage distribution

Device Category ?	Acquisition			Behavior			Conversions eCommerce		
	Users ? ↓	New Users ?	Sessions ?	Bounce Rate ?	Pages / Session ?	Avg. Session Duration ?	Transactions ?	Revenue ?	Ecommerce Conversion Rate ?
	2,907,378 % of Total: 100.00% (2,907,378)	2,868,350 % of Total: 100.16% (2,863,855)	5,371,585 % of Total: 100.00% (5,371,585)	66.57% Avg for View: 66.57% (0.00%)	2.71 Avg for View: 2.71 (0.00%)	00:01:33 Avg for View: 00:01:33 (0.00%)	27,200 % of Total: 100.00% (27,200)	€1,583,936.20 % of Total: 100.00% (€1,583,936.20)	0.51% Avg for View: 0.51% (0.00%)
1. mobile	2,015,848 (69.66%)	2,002,375 (69.81%)	3,864,954 (71.95%)	68.39%	2.46	00:01:15	15,492 (56.96%)	€968,758.00 (61.16%)	0.40%
2. desktop	786,037 (27.16%)	775,425 (27.03%)	1,346,815 (25.07%)	61.60%	3.41	00:02:22	11,190 (41.14%)	€590,725.81 (37.29%)	0.83%
3. tablet	91,844 (3.17%)	90,550 (3.16%)	159,816 (2.98%)	64.58%	2.94	00:01:53	518 (1.90%)	€24,452.39 (1.54%)	0.32%

Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 9: Marketing Channels Traffic Income

Default Channel Grouping	Acquisition			Behavior			Conversions
	Sessions ? ↓	% New Sessions ?	New Users ?	Bounce Rate ?	Pages / Session ?	Avg. Session Quality ?	Ecommerce Conversion Rate ?
	5,371,585 % of Total: 100.00% (5,371,585)	53.40% Avg for View: 1.15% (4,530.03%)	2,868,350 % of Total: 4,630.03% (61,951)	66.57% Avg for View: 66.57% (0.00%)	2.71 Avg for View: 2.71 (0.00%)	5.1 % of Total: 100.00% (5.1)	0.51% Avg for View: 0.51% (0.00%)
1. Paid Search	3,047,194 (56.73%)	58.31%	1,776,897 (61.95%)	76.54%	1.93	3.6 (70.35%)	0.34%
2. Organic Search	807,321 (15.03%)	36.05%	291,002 (10.15%)	47.13%	4.19	8.2(160.58%)	0.83%
3. (Other)	517,547 (9.63%)	50.26%	260,109 (9.07%)	63.80%	2.46	5.0 (97.13%)	0.24%
4. Direct	379,117 (7.06%)	72.91%	276,424 (9.64%)	35.43%	5.97	10.1(197.44%)	1.54%
5. Display	328,591 (6.12%)	45.71%	150,206 (5.24%)	80.68%	1.66	3.1 (61.30%)	0.11%
6. Social	144,390 (2.69%)	49.25%	71,109 (2.48%)	41.06%	4.23	6.9(134.73%)	0.70%
7. Referral	88,211 (1.64%)	18.83%	16,608 (0.58%)	57.75%	3.33	8.6(167.64%)	1.41%
8. Email	54,114 (1.01%)	41.50%	22,458 (0.78%)	39.46%	5.40	12.4(241.29%)	0.93%
9. Affiliates	3,553 (0.07%)	73.68%	2,618 (0.09%)	30.71%	4.99	6.7(130.32%)	0.28%
10. Paid Social	1,385 (0.03%)	65.05%	901 (0.03%)	64.62%	1.62	3.4 (65.32%)	0.00%

Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 10: Sessions' Quality Ranking

Session Quality ?	Sessions ?	Sessions with Transactions ?	Sessions without Transactions ?
1	2,874,565	22	2,874,543
2-5	1,379,649	167	1,379,482
6-20	392,548	1,073	391,475
21-50	160,450	3,287	157,163
51-100	157,257	21,258	135,999

Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

Appendix 11: Session's length in seconds

Session Duration ?	Sessions ?	Pageviews ?
0-10 seconds	3,666,131	3,829,553
11-30 seconds	302,164	673,467
31-60 seconds	288,215	818,034
61-180 seconds	493,717	2,159,800
181-600 seconds	401,459	3,371,014
601-1800 seconds	181,907	2,565,154
1801+ seconds	37,992	1,157,825

Source: DOTT's Google Analytics Report, Data Collected from 01/05/2019 to 30/11/2019

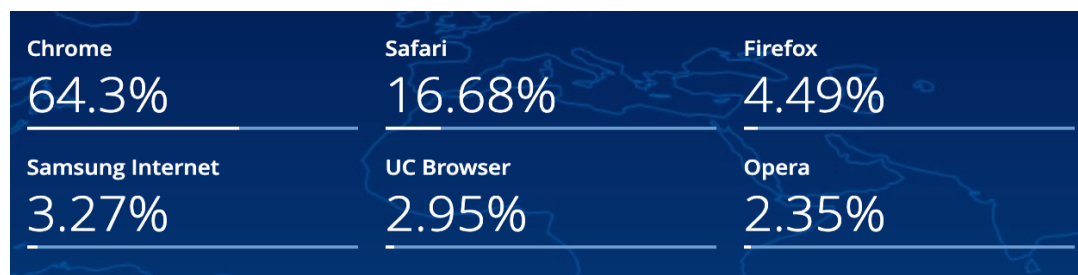
Appendix 12: Interview Details

Name	Interview Details	Interview Main Learnings
Gaspar D'Orey	<p>Method: Presential Interviews</p> <p>Date: a few times from September to December 2019</p>	<p>-Reasons behind DOTT's implemented strategies so far, based on its goals;</p> <p>-Problems felt until now and how they overcame them.</p>
Ricardo Amaral	<p>Method: Video Interview</p> <p>Duration: 35 min</p> <p>Date: 12th of November of 2019</p>	<p>-Understand how DOTT was built (in a technological sense) since the beginning and the solutions adopted;</p> <p>- Which main requirements were implemented and why;</p> <p>- What are the further technological developments DOTT wants to achieve and understand the time decided to implement them.</p>
Alexandre Pereira	<p>Method: Presential Interview</p> <p>Duration: 25 min</p> <p>Date: 13th of November of 2019</p>	<p>-DOTT's marketing campaign performance;</p> <p>-What converts the most;</p> <p>-How to reach customers;</p> <p>-What could be better in DOTT's performance.</p>
Andreia Semedo	<p>Method: Presential Interviews</p> <p>Date: a few times from September to December 2019</p>	<p>-DOTT's main Marketing goals and further campaigns to reach it;</p> <p>-Discuss about actual results and why they may happen;</p> <p>-Discuss new possible strategies: its pros and cons.</p>
Marta Lousada	<p>Method: Presential Interview</p> <p>Duration: 45 min</p> <p>Date: 27th of November of 2019</p>	<p>-Learn about Sephora Portugal's digital path: in what they invest and what generates more traffic;</p> <p>-Understand the perspective of a company that has both physical and digital stores and what is the importance of each and how do they predict the future.</p>

Tomás Rugeroni	Method: Phone Interview Duration: 42 min Date: 13 th of December of 2019	-Learn about Pestana Hotel Group's creation of a mobile first website – the reasons behind it and what they have achieved; - Understand the communication agency's perspective about smartphones usage and which approaches do they rely on in order to stimulate this channel.
Sofia Grilo	Method: Presential Interview Duration: 45min Date: 19 th of November of 2019	-Crucial aspects to have in consideration while designing an UX to mobile devices; -Best Practices implemented in her opinion.
Cristiana Monteiro	Method: Phone Interview Duration: 54 min Date: 5 th of December of 2019	-MB Way's development since its idea until current days; -Needed requirements to guarantee in its App; -Strategies followed to generate 2M users' engagement.
Francisco Salgado	Method: Presential Interview Duration: 1h Date: 26 th of September of 2019	-Google's point of view about smartphones and its penetration in the Internet Usage worldwide; -Best practices of some websites; -AMP and PWA.

Source: Author, Primary research insights

Appendix 13: Global Web Browser Market Share November 2019



Source: StatCounter GlobalStats TechAdvisor

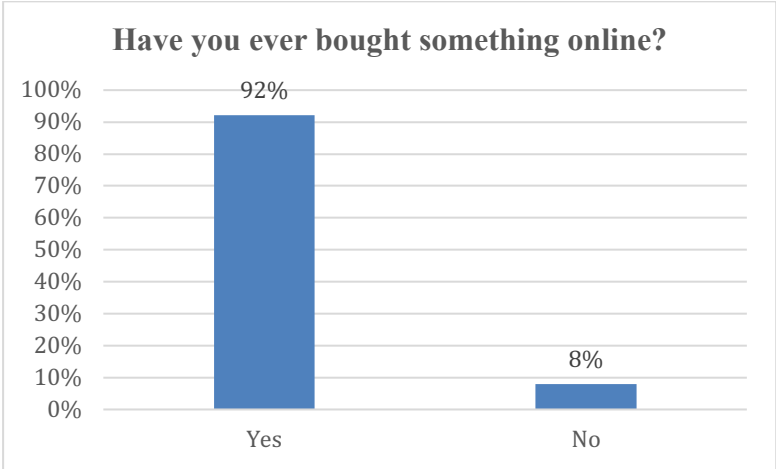
Appendix 14: Portugal Web Browser Market Share November 2019



Source: StatCounter GlobalStats

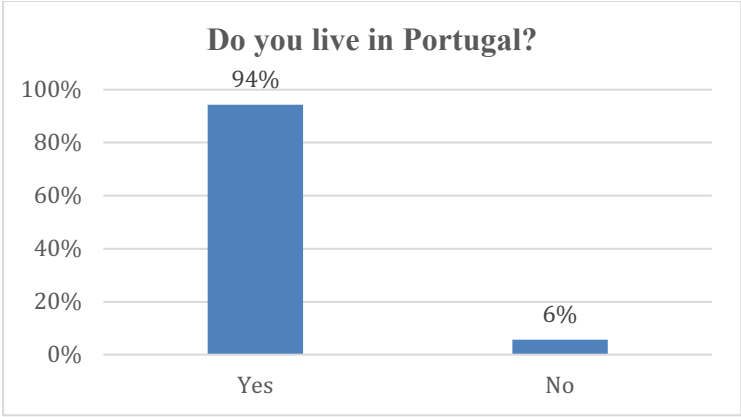
Appendices from 15 to 38 correspond to the answers from the online questionnaire.

Appendix 15: Number of respondents who had already bought online



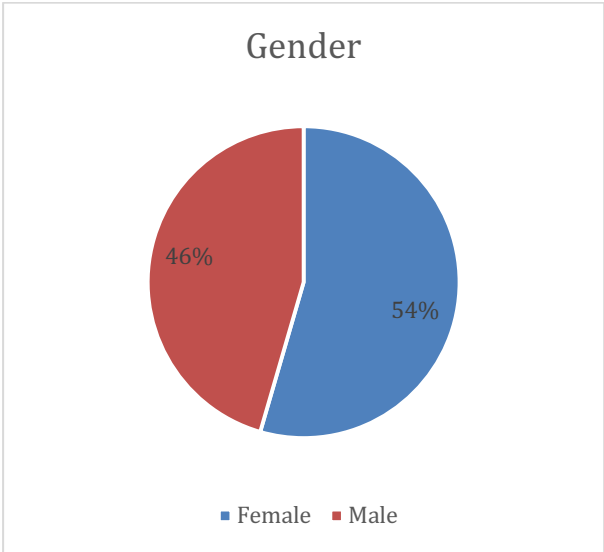
Source: Author, based on primary research

Appendix 16: Number of respondents who live in Portugal



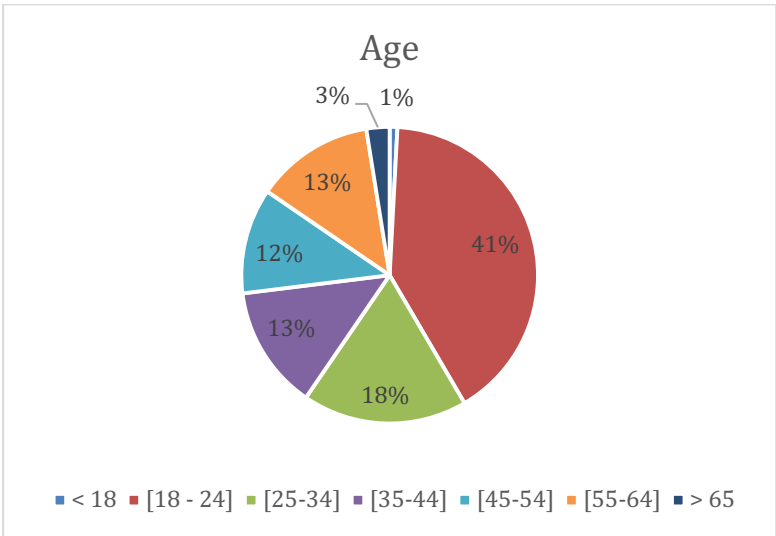
Source: Author, based on primary research

Appendix 17: Online questionnaire respondents' gender



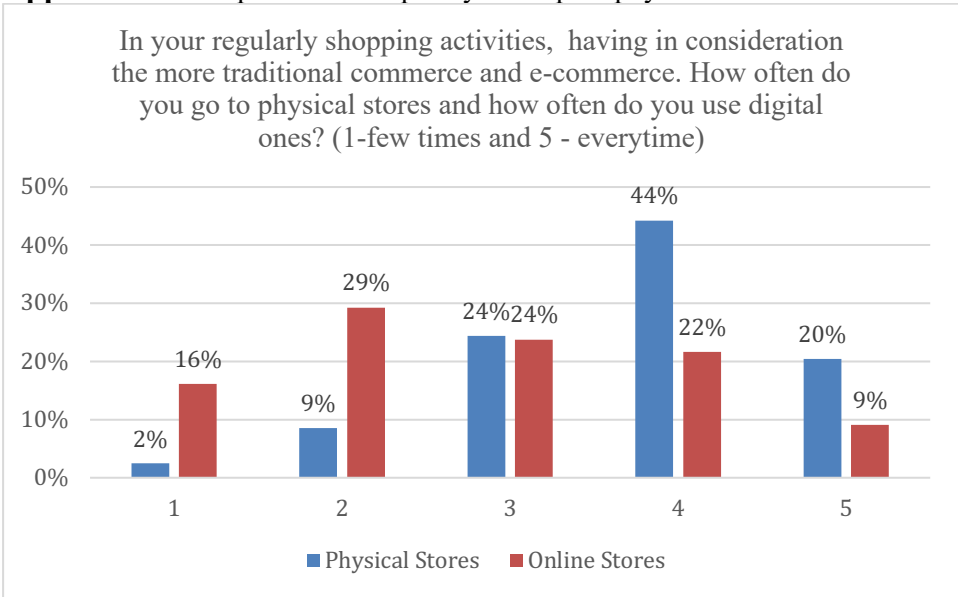
Source: Author, based on primary research

Appendix 18: Online questionnaire respondents' age



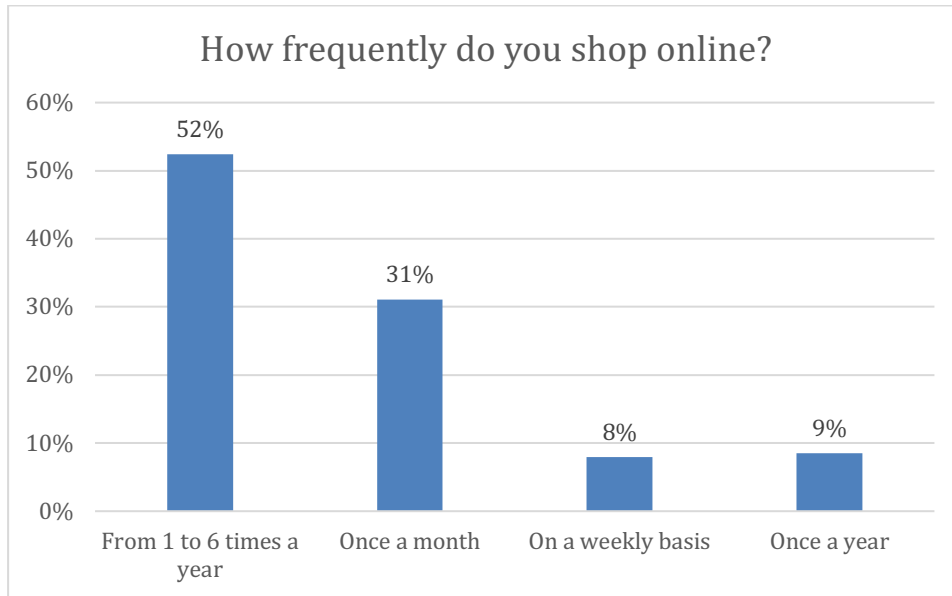
Source: Author, based on primary research

Appendix 19: Respondents' frequency to shop on physical or online stores



Source: Author, based on primary research

Appendix 20: Respondents' frequency to shop on online stores



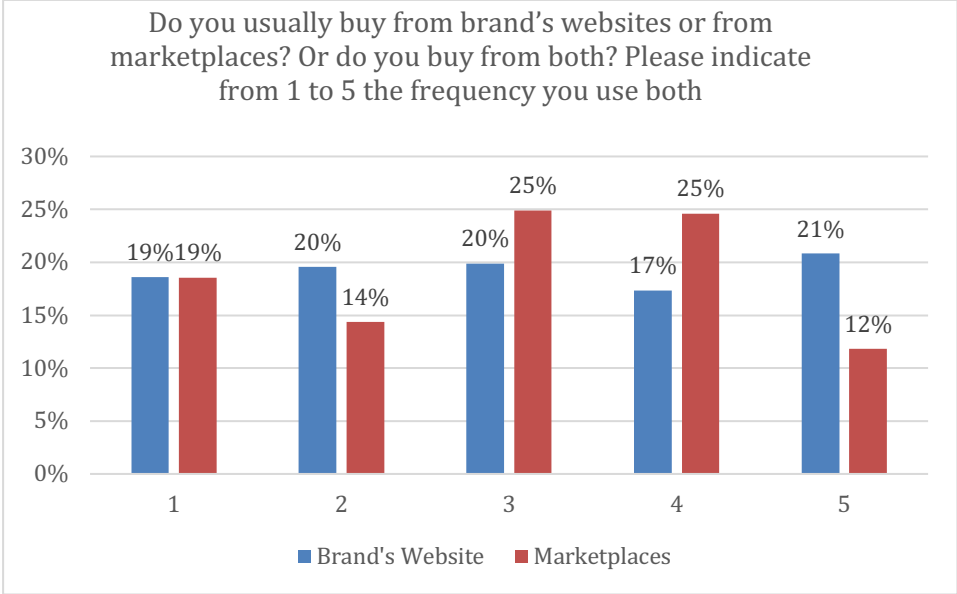
Source: Author, based on primary research

Appendix 21: Most valued aspects in Online Shopping Experience



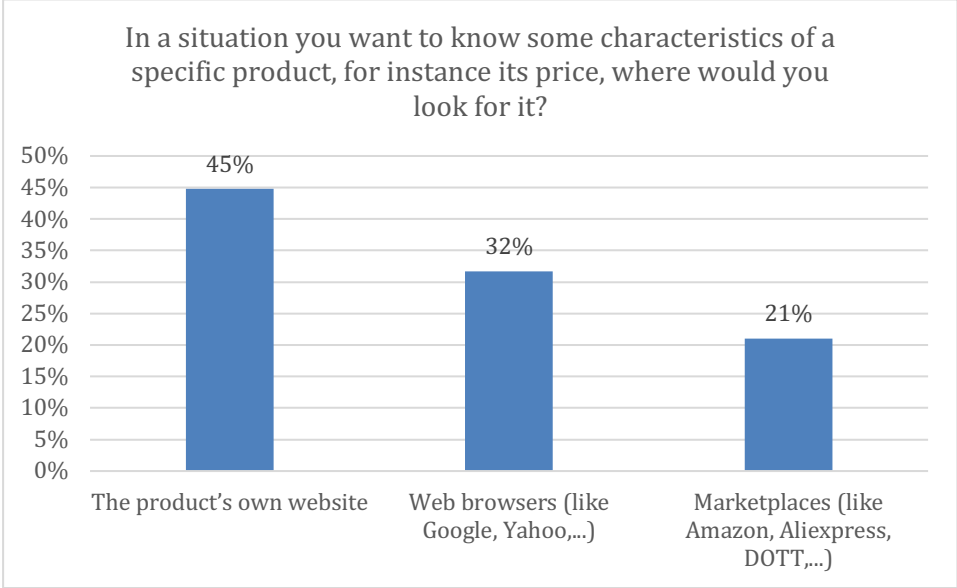
Source: Author, based on primary research

Appendix 22: Respondents' preferences between marketplaces and brand's websites



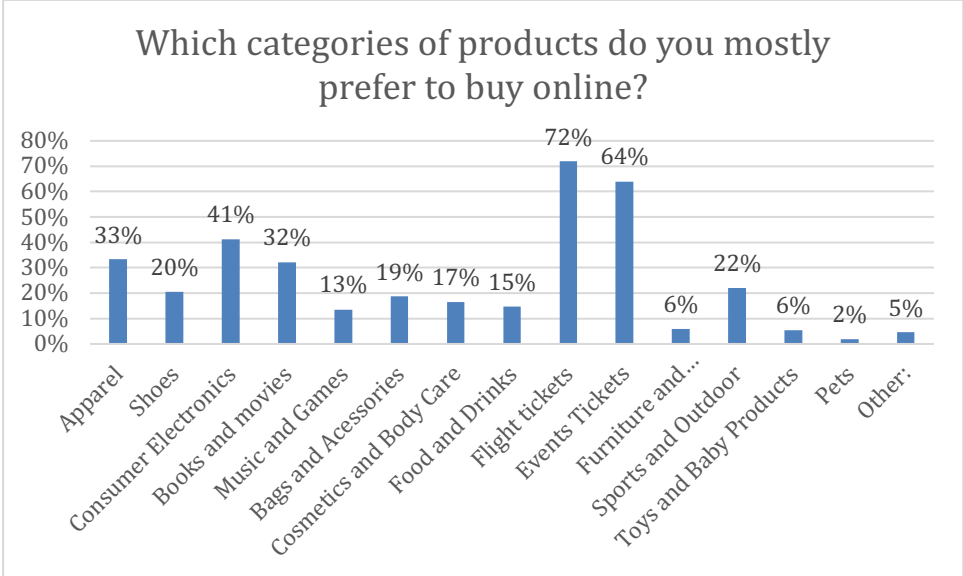
Source: Author, based on primary research

Appendix 23: Respondents' most likely tool to find more information about a product



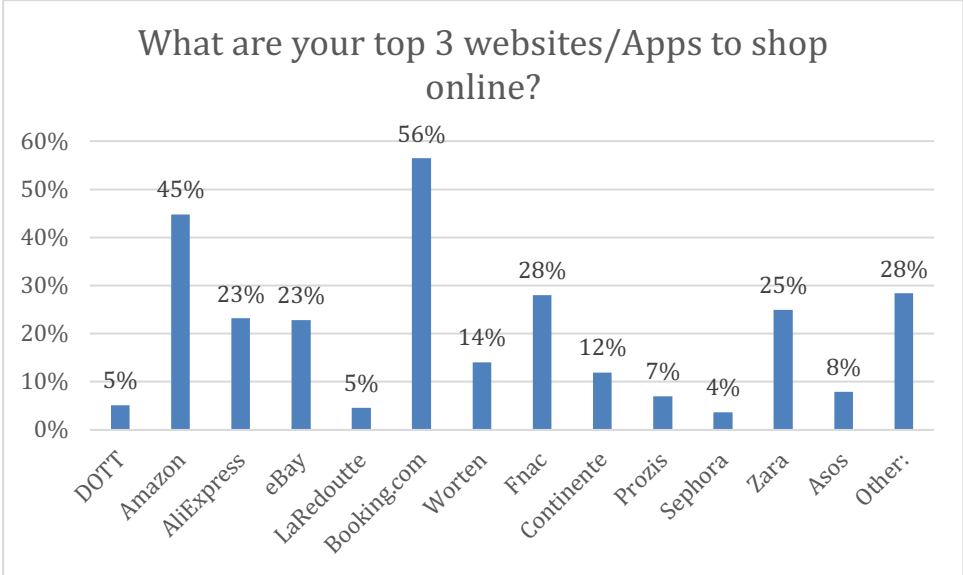
Source: Author, based on primary research

Appendix 24: Preferred categories to shop online



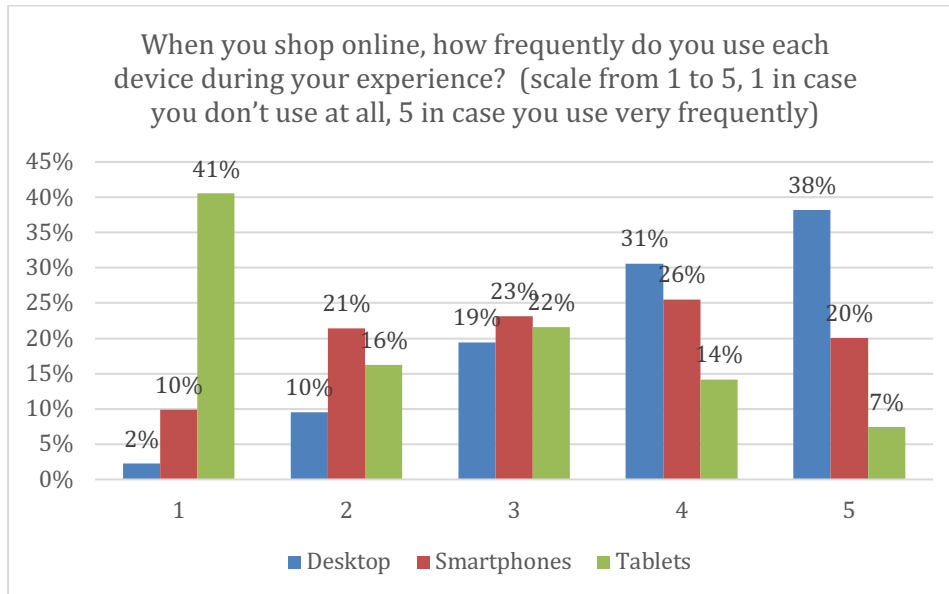
Source: Author, based on primary research

Appendix 25: Favorite Websites/Apps to shop online



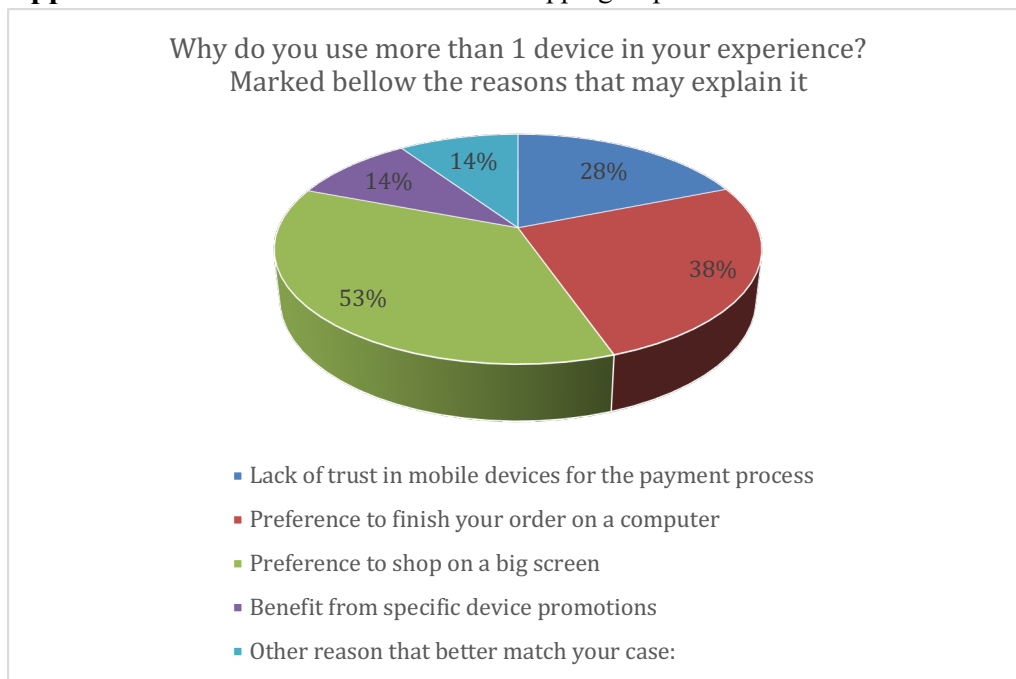
Source: Author, based on primary research

Appendix 26: Device used in Online Shopping



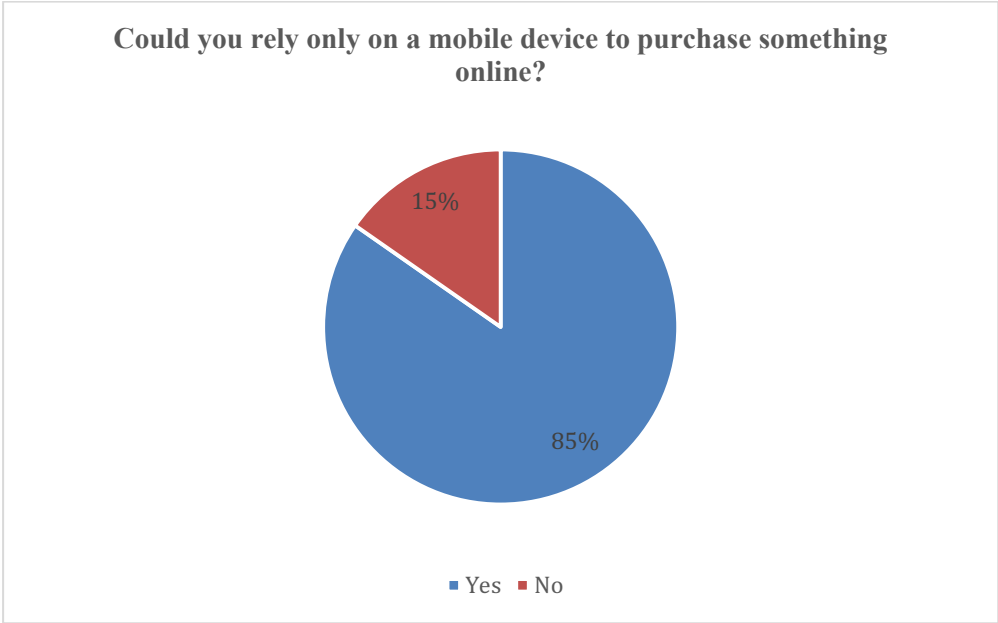
Source: Author, based on primary research

Appendix 27: Reasons to Cross-Device Shopping Experiences



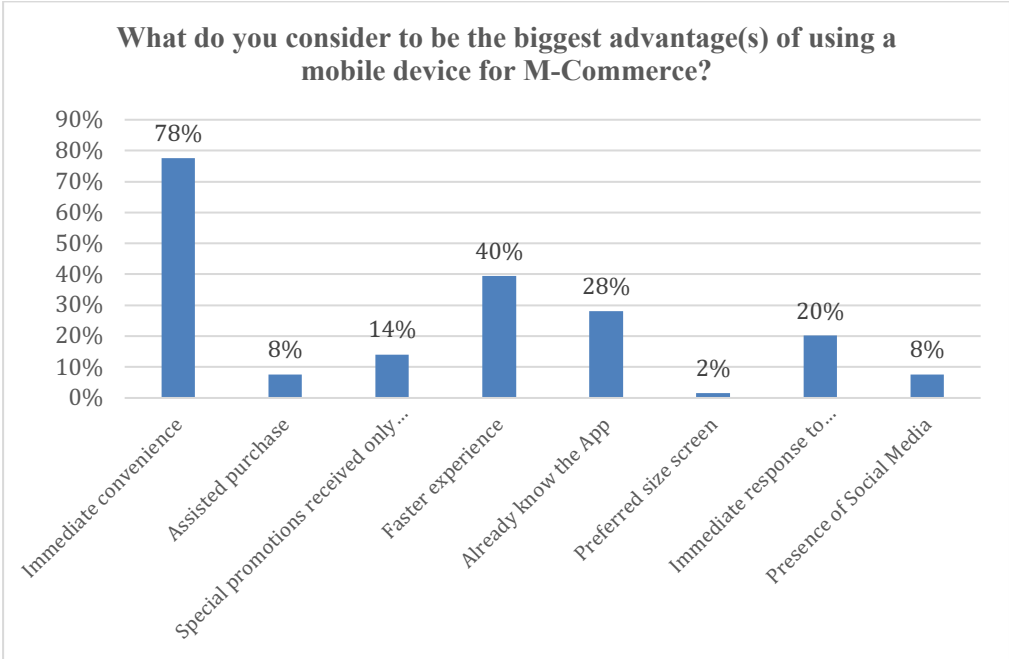
Source: Author, based on primary research

Appendix 28: Respondents' who can using only a mobile device



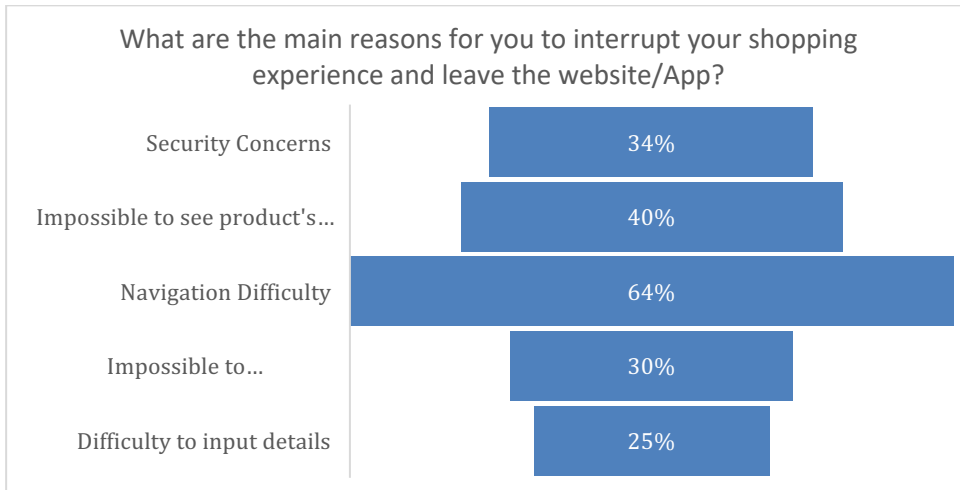
Source: Author, based on primary research

Appendix 29: Most valued advantage of Mobile commerce



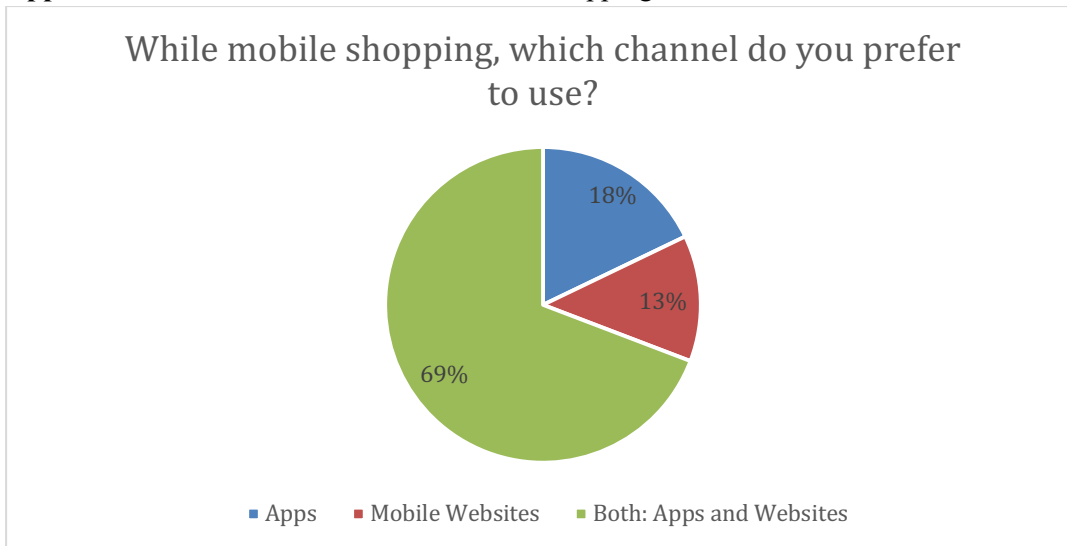
Source: Author, based on primary research

Appendix 30: Main reasons to bounce a mobile commerce experience



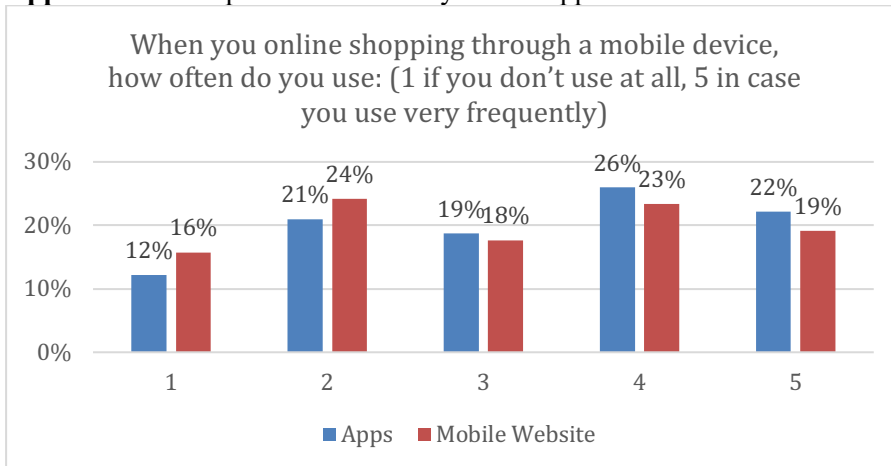
Source: Author, based on primary research

Appendix 31: Preferred channel to use while shopping on a mobile device



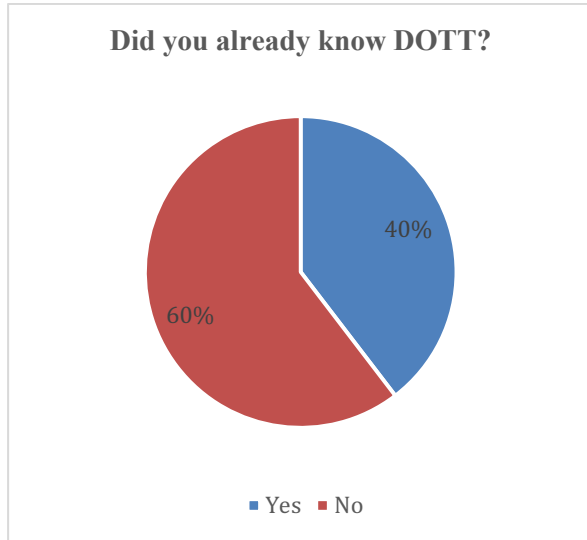
Source: Author, based on primary research

Appendix 32: Respondents' tendency to use Apps vs Mobile Website



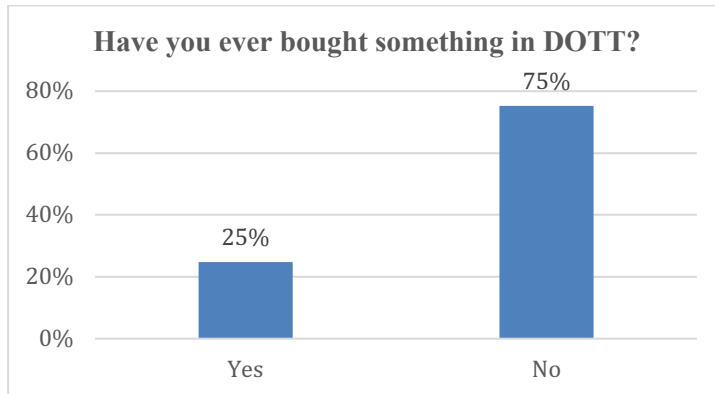
Source: Author, based on primary research

Appendix 33: DOTT's awareness through respondents



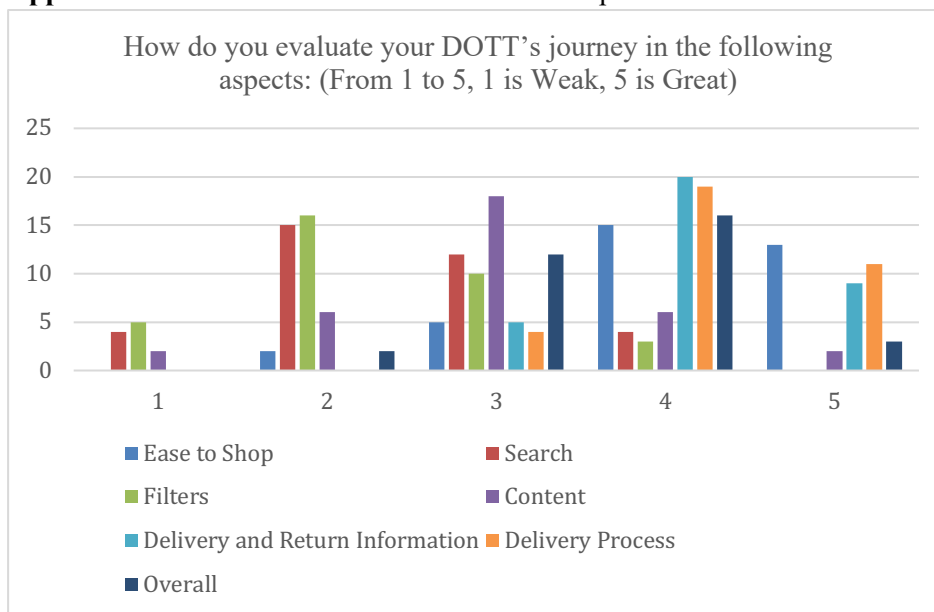
Source: Author, based on primary research

Appendix 34: DOTT's engagement through respondents



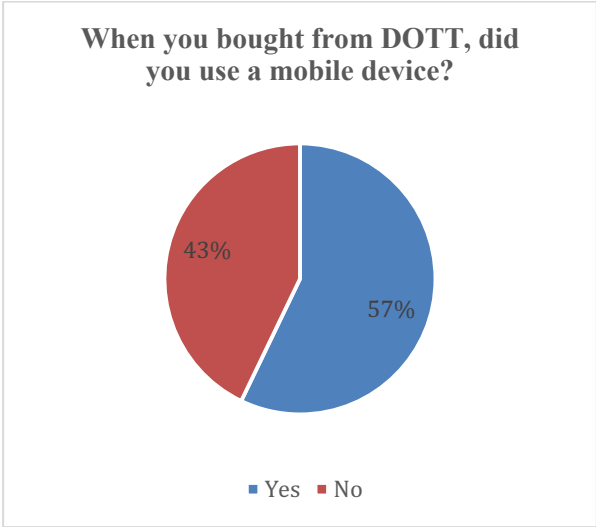
Source: Author, based on primary research

Appendix 35: Evaluation of DOTT's customer experience



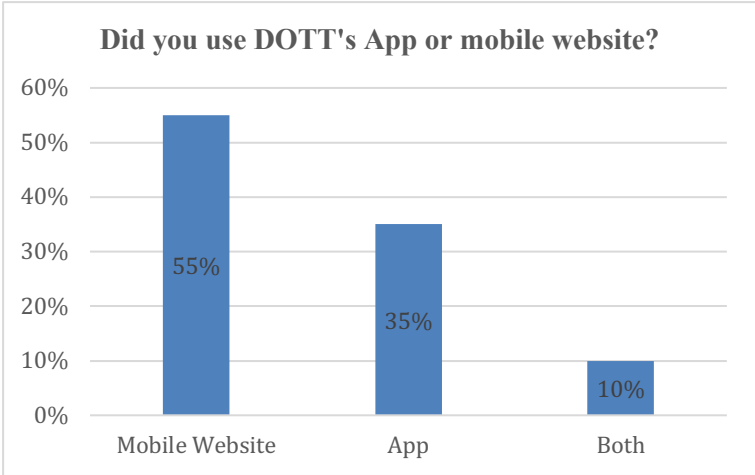
Source: Author, based on primary research

Appendix 36: Portion of respondents who bought on DOTT through a mobile device



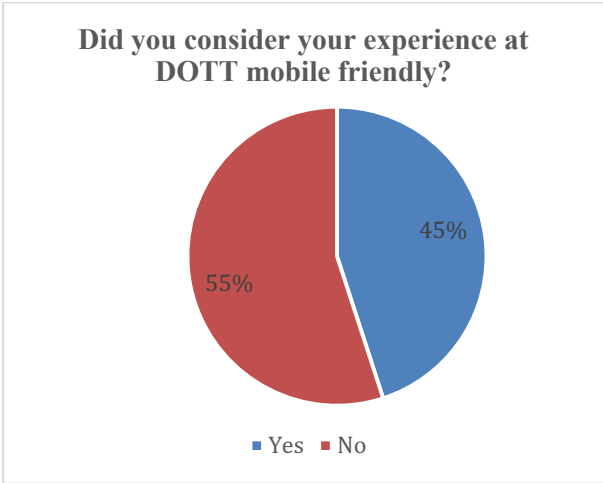
Source: Author, based on primary research

Appendix 37: Preference between App and Mobile Device, in DOTT’s mobile experience



Source: Author, based on primary research

Appendix 38: Respondent’s opinion about their shopping experience being mobile friendly



Source: Author, based on primary research