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

"DEVELOPMENT OF A MARKETING PLAN FOR A NEW BUSINESS MODEL OF EDP COMERCIAL or HOW CAN EDP BE UBER AND NOT THE TAXI DRIVER"

PLACE AND PHYSICAL EVIDENCE

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1. Place

1.1 EDP Comercial Distribution Channels

A marketing channel is defined as a "set of independent organizations involved in the process of making a product or service available for use or consumption" (Palmatier, et al., 2015). With this being said, an analysis of EDP Comercial's[1] current distribution channel strategy is important to assess to which extent an adaptation could be made to suit *edp + solar*'s strategy and objectives. Regarding *Energia Solar EDP*[2] most specifically, as it is the most similar service to *edp + solar*, EDP reaches its end-users through the following channels: physical points of purchase (EDP stores and agents – divided into *Agentes de Atendimento*, that sell EDP's products and services; and *Agentes de Cobrança*, that only process bill payments); the company's website[3] (through which the consumer can run the simulation in order to assess the conditions to adopt the service); call-centre (outsourced from specialized entities); and direct sales (door-to-door sales force). A detailed scheme and process explanation can be found in exhibit 1.

1.2 *edp + solar* Distribution Channels Strategy

1.2.1 End-User Analysis: Segmentation, Positioning and Targeting

When segmenting the market, the channel manager should consider, not *what* end-users want to consume but, *how* they want to buy and use the service that is being purchased. Therefore, the segmentation analysis should be conducted based on service output[4] demanded by end-consumers, since they value the final offer as the combination of the service itself and the service output bundle provided. By analysing the market, this can be divided into groups of end-users who are (1) maximally similar to one another and (2) maximally different between

[1] From here on, the term EDP will be used in substitution for EDP Comercial.
[2] Energia Solar EDP: a service from EDP Comercial through which a domestic consumer can buy photovoltaic solar panels, install them on his roof and produce his own electricity, consuming (in part) from the energy produced and therefore reducing the electricity bill while consuming cleaner energy.
[3] https://energia.edp.pt/particulares/
[4] Service Outputs: value added services created by channel members and consumed by end-users, together with the product/service purchased (Palmatier, et al., 2015).

groups, differing on dimensions that matter for building a distribution system. Before defining the segments, the existent service outputs (whose detailed definition can be found in exhibit 2) and their specificities should be analysed in light of *edp + solar* solution. Concerning **bulk-breaking**, the sense of unit is only relative to the household's conditions to install solar panels, not existing a *desire* from the consumer to use the service requiring different *quantities* than the one proposed. Looking at the rest of the service outputs demanded, whose detailed description relatively to this service can be found in exhibit 3, some differences can be detected concerning preferences on **spatial convenience** – as some customers prefer the process to be *remote* and others *in-store* - and on **customer service** level. *Remote* – opposed by *In-Store* - refers to the preference for not needing to go to a physical POP to buy the product/service. As for customer service, it is measured as *high* or *low*, emphasising the aspect of *easing the shopping and purchase* of the service. Considering these two last dimensions, four different segments can then be defined: Segment A - *In-Store*, High Customer Service; Segment B – *Remote*, High Customer Service; Segment C – *In-Store*, Low Customer Service; and Segment D – *Remote*, Low Customer Service. Additionally, one should have in mind that all of these segments require the lowest **waiting time** possible and the highest level of **information provision**. Relatively to **product variety and assortment**, the service is composed by a customized offer, specific to the customer's needs and arrangements, considering building and villa's dimension which require different assortment needs. A scheme of the different segments disposition can be found in exhibit 4.

After segmenting the market according to the distinct service output required, segments should be analysed in terms of attractiveness. In this case, there is the possibility to reach all the defined segments through a customized channel strategy, going in line with the goal of *edp + solar* to be perfectly integrated in the Portuguese domestic market.

1.2.2 Channel Design

When designing a channel strategy and implementation it becomes crucial to create effective and efficient routes to market, in which channel members are willing to perform the channel functions assigned to them.

1.2.2.1 Channel Members

Taking into account the current EDP distribution channel structure and the end-user analysis performed above, all *edp + solar* channel members were able to be identified. The upstream position is occupied by the **suppliers** that are the different producers of solar panels, inverters and meters (the service tangible items). Suppliers sell those items to **EDP Comercial**, the manufacturer of the service *edp + solar* and the "*channel captain*", acting as the prime mover in establishing and maintaining channel links. EDP also owns the **warehouse** where the service tangible items are stored before being installed in the customer's roof. A set of channels, coordinated and oriented by EDP, are designed to reach end-consumers, being them: the **online channel** - *edp + solar* micro website - that is an exclusive webpage dedicated to this service specifically (a webpage sample and detailed section description can be found in exhibit 5); the current 65 **official physical stores** in Portugal, where customers can get information about the service and conduct the simulation – with the help and guidance of a collaborator or autonomously through the *do-it-yourself* monitors (exhibit 6) – as well as forward steps of the process (i.e. defining the contract conditions and contract signature); the **door-to-door channel** that is composed by the direct sales team in charge of selling *edp + solar* solution; the **call-centre** that acts as a telemarketing and information support channel and has an exclusive phone number dedicated to EDP solar solutions (808 914 372); and the ***Agentes de Atendimento*** that are currently 177 in Portugal and that would incorporate *edp + solar* in the service portfolio they already sell to end-consumers. The last two channel members are the only detached from the other channels as they are only oriented and supervised by EDP, and not totally controlled.

1.2.2.2 Types of Channel per Segment

Based on the positioning map of exhibit 4, specific channels that address each segment were identified. Figure 1 summarizes the segments' preferences and the most adequate channels for each one of them. A detailed description can be found in exhibit 7.

Segment	Preferences		Most adequate channel(s)
	Customer Service	Spatial Convenience	
A	High	In-Store	Physical Store and Agents
B	High	Remote	Door-to-Door and Call-Centre
C	Low	In-Store	*Do-it-yourself* monitor (at Physical Store)
D	Low	Remote	Online (*edp + solar* website)

Figure 1: Distribution Segments: Preferences and Channels

1.2.2.3 Channel Structure

To better understand the distribution structure, the reading of this section should be done together with the analysis of exhibit 8.

Similarly to the current channel structure of EDP (exhibit 1), the frequent contact between suppliers and the company would be maintained for this new service, as EDP orders and pays the service tangible items **(1)** and the suppliers deliver the ordered items **(2)**, that would then be stored at the *edp + solar* warehouse – a new rented facility for the effect -, until they are installed in the end-user's property. Once a consumer engages in *edp + solar* solution, the service (including the service tangible items to be installed) is delivered directly from EDP Comercial to end-consumers **(3)**[5]. From the installation moment onwards, the end-consumer has to pay a monthly rent to the service provider. The contact between the channels - agents, online (*edp + solar* Website), physical stores, call-centre and door-to-door sales force - and end-consumers happens during the whole process (see flow marked as **(*)** in exhibit 8). Special attention should be given to the reverse logistics phenomenon, happening when specific activities are performed to retrieve a used product from a final customer and either dispose of it or reuse it (Coughlan,

[5]The service includes installation of the solar panels and adaptation of the electrical system, as well as the meter that would register the total production and consumption and would distribute the electricity among the apartments, redirecting the excess energy produced to the grid.

et al., 2006). Regarding *edp + solar* specifically, this might occur in case of breach or non-renewal of the contract. At this point, the tangible items once installed in the customer's roof need to be returned and stored again at the warehouse **(4)**. If the retrieved panels are still within the 25-year lifetime period, they can be installed in another customer's roof that adopts the solution.

1.2.2.4 Channel Flows

To better understand the channel flows and responsibilities between the three main stakeholders in this process - the tangible items' producers, EDP Comercial and the end-consumers) - exhibit 9 should be analysed together with this section.

Physical possession of the service tangible items passes through all the involved parties. [Flow: *Suppliers* (where the items are produced) → *EDP Comercial* (received and stored at the warehouse) → *End-consumers* (once installed in the customer's property)]. On its turn, the **ownership** of the service tangible items' ultimately belongs to EDP Comercial. Given that *edp + solar* works as a rental service, the end-user does not own the service tangible items. [Flow: *Suppliers* (initial ownership holders, before sale and payment are made) → EDP Comercial (final ownership holders, once the payment is made)]. In what concerns **promotion**, *edp + solar* is promoted to end-consumers through the defined channels – online (website), promotion on physical stores (EDP own stores and agents), telemarketing and door-to-door sales force - together with a specific advertising campaign for the new service[6] that imply the usage of a set of media channels and resort to advertising agencies. Regarding **negotiation and financing**, EDP Comercial maintains negotiation agreements with suppliers, benefiting from a certain degree of bargaining power given its dimension what, combined with the regular large orders, results in certain quantity discounts[7]. In what concerns end-users, as each solution is customized

[6] Detailed information in the advertising and communications plan section on the Group Report.
[7] A 20% supplier discount was assumed for solar panels and inverters and a 10% discount was applied for meters.

to each consumer's situation[8], there is no room for negotiation between the end-consumer and the service provider. **Risk** follows a similar flow as the ownership one, as suppliers bear the risk until payment is made and items are delivered. In the case of solar panels specifically, a 10-year warranty is guaranteed by the supplier. As *edp + solar* is a rental service, EDP Comercial is in charge of replacing the service tangible items in case of damage due to uncontrollable circumstances or end of product lifetime. If any of the service tangible items are intentionally damaged, the consumer should be held responsible. The inclusion of an insurance fee in the service provision is not contemplated in the offer (two-way flow given the existence of some items' warranties). The **ordering and payment** flows' analysis were aggregated. In what concerns the relationship between suppliers and the service manufacturer (EDP Comercial), frequent ordering is made and payment is done within a timeframe of 60 days[9]. Relatively to the flow between the service manufacturer and the end-consumer, it was defined that an order occurs every time a contract is signed, usually in a period up to three months since the simulation is conducted. As *edp + solar* is a rental service, a pre-defined rent payment (according to each consumer's specific situation) is done on a monthly basis throughout the whole contract period. **Information sharing** occurs naturally between all the involved parties (two-way flow), in the form of direct contact between suppliers and EDP Comercial and through the defined channels - online (website), physical stores (EDP own stores and agents), call-centre support and door-to-door sales force – between EDP Comercial and end-consumers.

1.2.3 Gap Analysis

An initial analysis of internal - managerial bounds[10] - and external - environmental bounds[11] and competitive benchmarks - factors that might affect the channel implementation must be

[8]The most adequate number of solar panels, rent defined taking into account a pre-defined – and narrow - price window, according to which a specific fixed margin is applied.
[9] (EDP - Energias de Portugal, S.A. 2009)
[10] Managerial Bounds: refer to constraints on distribution structure arising from the rules within a company. Typically, they stem from the company that manufactures the product. Sometimes a desire to control the customer, or simply lack of trust among channel members, prevents managers to implement less bounded channel design (Palmatier, et al., 2015).
[11] Environmental Bounds: characteristics of the marketplace in which the channel operates that can constrain the establishment of a zero-based channel. (Palmatier, et al., 2015).

conducted. As all the channels to be used by *edp + solar* already exist at some extent within EDP's distribution, it becomes important to analyse the differences between the optimal and actual channels, constituting the gaps in the channel design, that can exist either on the demand or on the supply side (Coughlan, et al. 2006).

1.2.3.1 Managerial Bounds

Internally, managerial bounds may constrain the channel manager from implementing the optimal channel. When analysing *edp + solar* service, it was considered that an **information provision** gap might occur if collaborators lack knowledge about the service and its process. Also, the high complexity of the process might increase the frequency of consumers going to physical stores, that is, per se, a costlier channel. Additionally, it might occur an incentive system clash as a channel might make more profit (in a short-run perspective) by selling *Energia Solar EDP* service than by selling *edp + solar*.

1.2.3.2 Environmental Bounds

The fact that in the Azores and Madeira islands there are specific electricity suppliers and tariffs, all the distribution and competitive landscape is different, making the establishment of this *edp + solar* service harder in those regions. Also, the fact that not everyone is tech-savvy might increase costs as the online channel is the cheapest one.

1.2.3.3 Competitive Benchmarks

Looking at *edp + solar* competitive benchmarks, it is only possible to register similar solutions for the villa segment, since no other solutions for buildings are currently present in the market. These solutions consist on the possibility of buying solar panels, either through *Energia Solar EDP* service or smaller retailers. In the first case the process is similar (with the possibility of paying in instalments) whereas in the second one it is simpler, as the payment is made up front with no alternative financing options.

1.2.3.4 Demand Side Gaps

Demand side gaps mean that, at least, one of the service output demanded is not being appropriately met by the channel, being either undersupplied - causing dissatisfaction as customers want more service than they are getting - or oversupplied - usually leading to higher prices than the end-users are likely to be willing to pay (Coughlan, et al., 2006).

A **waiting time** gap in *edp + solar* service provision was detected for the building solution given the long process end-users are subject to - from the moment they conduct the simulation until the service installation is effectively made (gap felt by the *Skyscrapers* segment[12]). Additionally, the in-store waiting time is also a concern as end-users desire to be served faster, which is not always possible given the store affluence and limited in-store collaborators (Service Output Demanded (SOD) > Service Output Supplied (SOS)). A **customer service** gap was also detected given the segment C's needs[13], currently oversupplied in what concerns in-store experience, whose regular service is characterized by direct monitoring and help by the in-store collaborators (SOS > SOD) (summary can be found in exhibit 10).

1.2.3.5 Supply Side Gaps

When analysing *edp + solar* channel flows, no supply side gaps were identified, meaning that no flow in the distribution channel is carried out at too high a cost, having negative effects on channels' profit margins (Coughlan, et al., 2006).

1.2.3.6 Closing Gaps

To close the demand gaps – either in terms of customer service and waiting time -, a *do-it-yourself* system (exhibit 6) is implemented in the physical stores so that customers can get information about the service and conduct the simulation in a faster and autonomous way. Regarding the building solution process duration, it cannot be completely overcome as it depends mainly on the group of households' decision making process. On the other hand, in

[12] Consumer profile defined as one of the target segments for *edp + solar* (more details of in the Group Report)
[13] Segment C*: In-Store*, Low Customer Service

order to overcome the possible managerial bounds affecting the information provision service output that might arise, an insightful training program should be given to all the collaborators involved in the process. Moreover, incentive system clash can be overcome by designing a specific incentive scheme for channel collaborators, detailed in the People's section of the mix.

2. Physical Evidence

2.1 Tangible Perspective

The tangible dimension of a service includes all the tangible items that are supplied with it, but are not purchased (Kotler, et al. 2016). Regarding *edp + solar*, the following tangible items can be detected, composing the service core offering: **solar panels** (with installed power of either 250W or 1000W - exhibit 11); **inverters** (micro and isolated/hybrid inverters - exhibit 12); and **Meters** (production/consumption meter - exhibit 13).

2.2 Environment Perspective

The physical service environment is key when shaping the customers' service experience and enhancing (or undermining) their satisfaction, especially in high-contact people-processing services, whose purpose can be summarized in the following principles: shape customer's experiences and behaviours; signal quality; position, differentiate and strengthen the brand; become a core component of the value proposition (through the *servicescape*[14]); and facilitate the service encounter ehnancing productivity (Wirtz and Lovelock, 2016).

Following the Mehrabian-Russel Stimulus-Response Model, it can be inferred that consumers' response to service environment is based on *feelings* (key drivers of behaviour) as the perception and interpretation of the environment influences how people *approach* or *avoid* it. According to the Russel's Model of Affect (detailed in exhibit 14), emotional responses to environments can be described along the two main dimensions of pleasure and arousal[15].

[14] Relates to the style and appearance of physical and experiential elements encountered by customers at service delivery sites.
[15]Pleasure: direct, subjective response to the environment, depending on how much an individual likes or dislikes it. Arousal: how stimulated the individual feels, ranging from deep sleep to the highest levels of adrenaline (Wirtz and Lovelock, 2016).

A well-designed service environment makes customers feel good, boosting their satisfaction and allowing the firm to influence their behaviour while enhancing the profitability of the service operation (Wirtz and Lovelock, 2016). In what concerns *edp + solar* service environment components, the *edp + solar* **website** (detailed in exhibit 5) is one of the most relevant channels for the service experience. Nowadays, technology allows service to be delivered remotely, as customers can now purchase or browse wherever they are, boosting the importance of the *self-service* technologies in the service provision (Kotler, et al. 2016). Additionally, one can emphasize the **physical store** environment as a critical component of the service experience. *edp + solar*'s strategy should focus on providing a pleasant in-store experience (for customers to be satisfied), that indirectly stimulates the consumer's senses, creating a connection with the service experience. In fact, store managers have recognized that displays which allow customers to touch items can lead to increased sales (Kotler, et al. 2016). From the aforementioned trend comes the creation of an **experience at the point of purchase**, in the form of the installation of a *do-it-yourself* monitor (exhibit 6) through which the customer can get more information about *edp + solar* and autonomously conduct the simulation in a fast and efficient way. At the same time, specialized in-store collaborators are available to guide the customers and help with the whole process, involving person-to-person contact at some level. An additional **experience** would be conducted at **shopping centres** (Colombo and NorteShopping), consisting on the placement of an "*energy efficient house"* model where visitors can enter and experience the life in a fully equipped house served b y EDP Comercial service portfolio, while discovering more about the process and the new offering itself (also having the possibility of conducting the simulation at that time) (exhibit 15). The intention would be to effectively manage senses in order for customers to feel relaxed and stimulated, while transmitting the message that they can effectively achieve a higher level of efficiency in their homes without giving up on the comfort they already have.

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