

CERSHOP: THE CERAMIC DIGITAL SHOP

V. Lázaro⁽¹⁾, M. Lázaro⁽¹⁾, S. Veral⁽¹⁾, J. Corrales⁽¹⁾, J.I. Cantero⁽¹⁾, J. Molina⁽¹⁾, G. Gómez⁽¹⁾

(1) Instituto de Tecnología Cerámica (ITC). Asociación de Investigación de las Industrias Cerámicas (AICE) - Universitat Jaume I. Castellon. Spain.

ABSTRACT

The aim of this project is to digitalise the process of purchasing ceramic tiles bearing in mind the singularities of the product and the main stakeholders involved in the process, i.e. the end customer, the ceramic tile manufacturer, and the ceramic and construction materials distributor.

This applied research project proposes disruptive changes of significant interest to the ceramic value chain, in which the main line of focus is the sales process.

Following the recent health crisis and based on an assessment of habits acquired by post-Covid consumers, it was considered key to research and innovate in this part or link of the value chain, to design a procedure or process that would enable the physical world to be united with the online world, thus creating a true omnichannel ecosystem, for which a hybrid model was chosen. In the most recent stage, an app and a physical item (totem) were developed to enable us to validate the devised procedure.

The procedure provides a highly improved experience for the end user, as it takes their various concerns in the buying process into account, thus making it possible to optimise the customer's purchasing action to the maximum by accompanying, guiding and advising them at all times.

In addition, the system will collect consumer interactions when purchasing, which, when combined with information from the manufacturers, distributors, shops, etc. involved in the process, will enable us to offer each of these strategic and customised information.

In order to convey with greater clarity and detail the novelty involved in developing this project, the point of view of the 3 main stakeholders – customer, manufacturer and distributor – is described.

- **Customers** will gain access to a complete product searching and procurement process, within an omnichannel eco-system with on/off traceability. In addition, they can build a “tailored suit” in their actual space where they can put the product and thus make the process of buying ceramic tiles that is currently so complex easier.
- **Manufacturers** will have a dashboard displaying clear statistics about their products and how users interact with them at the point of sale. For the manufacturer, it can be used as a tool to test innovations and, in the medium term, a means of gauging the best time to launch new products.
- **Distributors** will have a modern, simple sales tool, adapted to the singularities of ceramic materials, which will greatly facilitate both individual customer and purchase management. Additionally, they can see data on how customers interact with the products at the point of sale, as well as being able to use the dashboard to make decisions based on real statistics from their shops.

STARTING POINT – GENERAL PROBLEM STATEMENT

The online sale of ceramics in Spain is a market at the introduction stage, in which sales and profits are still scant, and which initially may seem of little interest to manufacturing firms with a well consolidated position in traditional distribution. That is the main deterrent that hinders growth of a sales channel free of middlemen.

After the most recent health crisis, the process of buying ceramics had necessarily to improve and centre its efforts on the end customer [1], providing concrete proposals with a focus on the short and medium term.

Among some of the mechanisms that are driving a change towards this new form of purchasing are:

- Changing consumer habits, many of which will become structural. The impact of COVID-19 has been definitive and consumers have begun to research ceramic products online. This change of habits is here to stay.

- More available and accessible technologies. In this sense, almost anyone can set up a retail website, since it requires simple platforms and does not need a large initial investment.
- Technologies accepted by consumers. Consumers at ceramic sales points make a demand that is relatively easy to fulfil by manufacturers and distributors, and that is to test the image of the product in a real-life space.

The project named CERSHOP was born from such drivers. It is a solution focused on solving the current needs of ceramics consumers from an omnichannel point of view. CERSHOP will respond to the new purchasing paradigms that are emerging in the ceramic sector.

BEFORE WE BEGIN: WHAT IS OUR BUYER PERSONA LIKE?

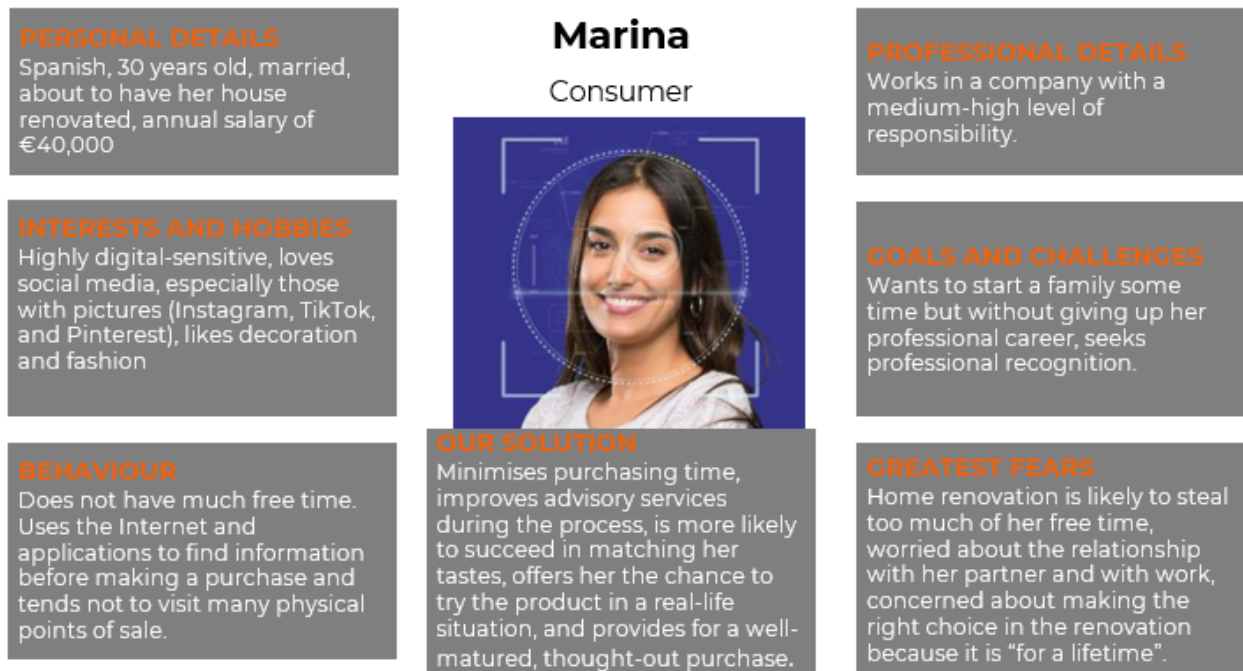
At present, consumer behaviour fluctuates with rational and emotional variables, which in turn serve to segment them. However, in current segmentation processes aimed at improving customer experience, the concept of target, which is characterised as rigid and based on socio-demographic variables, gives way to what is known as the *Buyer Persona* [2].

The *Buyer Persona* is a model that embraces not only a simple description of consumers but then expands those types of features to determine who they are, what they are like, and why they behave the way they do. It is a fictitious representation (based on real data) of the ideal or prototype customer within a certain population. In our case, we used it to characterise a ceramic consumer profile that we could humanise and offer the best possible experience on all possible fronts.

Marina is our *Buyer Persona* used in this project, defined as a consumer of ceramics with the following extended characteristics (*Figure 1*):

- Personal details: Spanish, 30 years old, married, about to have her house renovated, annual salary of €40,000
- Interests and hobbies: Highly digital-sensitive, she loves social media, especially those with pictures (Instagram, TikTok, and Pinterest), she likes decoration and fashion
- Behaviour: she does not have much free time. She uses the Internet and applications to find information before making a purchase and tends not to visit many physical points of sale.
- Professional details: she works in a company with a medium-high level of responsibility.
- Goals and challenges: she wants to start a family some time but without giving up her professional career. She seeks professional recognition.
- Greatest fears: the home renovation is likely to steal too much of her free time, she is worried about the relationship with her partner and with work, she is concerned about making the right choice in the renovation because it's "for a lifetime".

- Our product or service: The project minimises purchasing time, improves advisory services during the process, is more likely to succeed in matching her tastes, offers her the chance to try the product in a real-life situation, and provides for a well-matured, thought-out purchase.



Source: authors.

Figure 1. Marina, our Buyer Persona

CERAMIC CONSUMER'S CUSTOMER JOURNEY MAP

Once the customers have been defined, it is time to start work on the steps they take when deciding to buy ceramics. To do that, we need to ascertain the Customer Journey [3]. That is a tool which specifically assesses the customer's experience with the solution over time and through various channels [4].

It is also designed to help all stakeholders, such as manufacturers and distributors, to put themselves in the customer's shoes and thus improve the shopping experience they offer. It is not just about thinking like the ceramic consumer, but also understanding their feelings, motivations and what else influences them in their buying process.

Our solution considers that the customer has an omnichannel experience:

- Offline Channel: their buying process probably starts with a visit to an actual shop, which is Customer Journey no.1.
- Online Channel: this starts online and is defined as Customer Journey no.2.

Now it is time to break down the insights or signals in our Buyer Persona's profile in the various channels and work out each journey the end customer makes:

- **Customer Journey 1:** The first journey that the customer makes in the buying process is the offline channel, from the ceramic shop to home. The end user arrives at the tiling and building materials shop. Before initiating the purchase, they interact with the product's first advertising material, where the user downloads the CERSHOP application. Inside the shop, the salesperson advises the end user on the various options for the space they have to fill.

As the sales assistant shows them the tiles, the user creates clearer and predefined preferences. After viewing and touching the product, they go to the second-tier advertising material, where the product is displayed in digital settings. At that point, spaces with the chosen tiles are viewed by means of renderings using pictures of environments in order to begin planning the space and seeing which choices best fit their room/space.

Thanks to this customer journey, the end user is given a "*phygital*" (physical + digital) experience, in which the real physical tiles seen in digital settings can coexist with the opportunity to test the products at home in their actual space to see which option fits best.

- **Customer Journey 2:** The second journey in buying ceramic tiles is from home to the shop. The process begins when the end user searches online for information about possible ceramic products for the renovation and discovers the CERSHOP website, which shows them the ceramic tiles available at the nearest shops. The end user looks at the product on the website for the they like best and tests it on the real space they want to reform to clarify what their actual preferences are.

When the user has chosen the tiles, they then go to the shop and the sales assistant shows them the products they have selected with their advertising material in the shop so that they can touch them and see the products for real.

If the above process were not enough, the shop assistant could show them other products and the purchase could be made as in Customer Journey 1.

THE OMNICHANNEL DIGITAL STORE: THE WINNING APPROACH

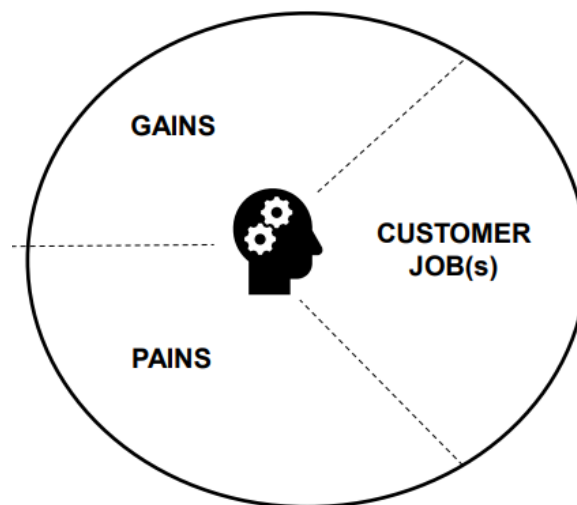
Therefore, according to Alex Osterwalder, the Value Proposition Design method [5] provides a set of tools and processes to systematically design and test value propositions and produce optimal results. When this method is used, it focuses on creating value for end customers, which in the case of our project, means for consumers of ceramic tiles.

As part of Alex Osterwalder's value proposition (Figure2), the following elements are defined:

- **Customer Jobs** are the actions related to the initial general problem statement that the ceramic consumer is trying to overcome via the proposed solution:
 - Do I have to look for a builder separately when I have no references as to their professionalism?
 - They are not selling me the whole package – I will have to put the full solution together myself
 - Do I have to take pictures in the shop myself using my mobile?

- Our Buyer Persona's **Pains** are any need, motivation or concern that can be solved with our solution. In addition, they are the outcomes that they hope will not occur or the risks that may exist within the project:
 - Thoughtful shopping, more information is needed
 - There is not much information on the Internet and also there is no traceability to the shop
 - I can't imagine what it will look like in my home
 - Difficult to identify trends at the shop
 - No installation service offered
 - Contradictory and difficult to understand prices
 - I am left with no summary of proposals from the ceramic shop
 - Difficult to compare products

- **Gains** are the results that the end user of ceramics will obtain with CERSHOP:
 - The information offered by the salesperson is understandable and useful
 - It is important to touch the product, which I have a chance to do
 - I have different price ranges to match my offer
 - Delivery times are not a problem



Source: The Value Proposition Design methodology, by Alex Osterwalder.

Figure 2: Value Proposition Design

Being acquainted with our value proposition, which is consistent, solid and well consolidated, keeps purchasing costs lower and makes conversion work much more satisfactory, so it was decided to define it for each actor participating in the solution.

CERAMIC DIGITAL SHOP FROM THE POINT OF VIEW OF THE USER

When the Value Proposition Design method is known, we can define what aspects the value proposition will have for the end user who uses CERSHOP:

- A complete product search process is offered, with an omnichannel format, with traceability from home to shop and from shop to home. The On/Off is perfectly integrated into the buying process, and in addition, that buying process and the search for products and shops is made easier for the end user.
- The complex process of purchasing tiles is facilitated with maximum information about the ceramic product.
- It makes it easier to compare products by taking all the variables that are important for the consumer into account.
- It enables the product to be displayed both in a pre-set image and in its real-life setting.
- It allows for thoughtful reflection and a better choice of the ceramic tile.

CERAMIC DIGITAL SHOP FROM THE POINT OF VIEW OF THE MANUFACTURER

For manufacturers, the value proposition focuses on the following points of great relevance for the ceramic sector:

- The manufacturer is given data at all times of the end user's interaction with its products, both in the ceramic shop using advertising materials for the tiles and at home.
- The manufacturer is provided with a dashboard that displays all the statistics and KPIs that are most effective for making strategic decisions.
- It enhances loyalty with the distributor through data that demonstrates traceability to the shop, such as, for example, how many product references are attracting consumers to their shops. It is a fundamental pillar for the project, as it connects its two main agents.

CERAMIC DIGITAL SHOP FROM THE POINT OF VIEW OF THE DISTRIBUTOR

The **value proposition** for the distributor focuses on:

- Distributors receive continuous real-time data from the CERSHOP application of interaction with products at the shop.
- Through the dashboard [7], the distributor will be able to view all the statistics and KPIs that are most effective in making strategic decisions.

Using this information from the various value propositions, we worked to create a solution by developing what is called the **Minimum Viable Product (MVP)** [8], which is *"a product with sufficient characteristics to satisfy first-time customers and provide feedback for future development"*.

FUTURE ACTIONS

The solution is at the development stage, while the stage in which CERSHOP usability is tested by the participating stakeholders has yet to be developed.

The project will end with a validation of the solution in a simulated environment to assess the integration of general apps and their proper usability overall, which will allow possible improvements to be detected for full optimisation.

We would like to acknowledge our gratitude to IVACE - the Valencian Institute for Business Competitiveness - for its support in funding the development of this research, and to the companies Azteca, Keraben, and Fustecma for their collaboration throughout the project.

REFERENCES

- [1] **FADER, A.** (2012) Customer Centricity: Focus on the Right Customers for Strategic Advantage. Wharton School Press; 2nd edition.
- [2] **REVELLA, A.** (2015) Buyer personas: How to Gain Insight into your Customer's Expectations, Align your Marketing Strategies, and Win More Business. Madrid: Wiley.
- [3] **BENJAMIN, G., BERG, J., CHANDRA DAS, A., GUPTA, V.** How advanced analytics can help contact centers put the customer first. McKinsey & Co. Available at: <https://www.mckinsey.com/business-functions/operations/our-insights/how-advanced-analytics-can-help-contact-centers-put-the-customer-first> [Retrieved: January 2021].
- [4] **VV. AA.** (2019). Customer Centric Digital Transformation. Deloitte. Disponible <https://www2.deloitte.com/us/en/insights/focus/industry-4-0/customer-centric-digital-transformation.html/#endnote-sup-1> [Retrieved: February 2021].
- [5] **OSTERWALDER, A., PIGNEUR, Y., BERNARDA, G., SMITH, A.** (2014) Diseñando la propuesta de valor. Deusto.
- [6] **MARR, B.** (2016) Big Data in Practice: How 45 Successful Companies Used Big Data Analytics to Deliver Extraordinary Results. Wiley.
- [7] **SRINIVASAN, S.** (2018) Guide to Big Data Applications. Springer.
- [8] **ALBA, A.** (2019) Manual Mínimo Viable de Innovación: Herramientas y tácticas imprescindibles para innovadores de verdad. Independently published.