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The eCommerce Customer Journey: A Model to Assess and Compare the User Experience of the eCommerce Websites

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Abstract

Despite the considerable growth of the B2c eCommerce in the main European markets and in US (Forrester, 2008), the main figures show that the concentration of the market is very high and its value represents a limited part of the overall retail sales only. As a consequence the path to realize the full potential of the B2c eCommerce is still long and several hurdles have to be overcome.

In this paper we focus our attention on the merchants, with the strong conviction that the offering is much differentiated in terms of customer experience (i.e. the path the customers follow from the landing on the website to the payment of the product/service). This is very important in determining the success of an eCommerce website, but it is very hard to be distinguished, analyzed and evaluated and there is a lack of contributions trying to estimate it in a quantitative and/or objective way.

In order to fill this gap, this paper provides a model that aims at evaluating the customer experience of an eCommerce website. The model is based on a Customer Journey Map made of the five main phases the consumer goes through while purchasing on a B2c eCommerce website: landing, product identification, product presentation, cart, order completion and payment. The phases have been analyzed in detail taking into account at least 15 drivers/features each. One of the key outputs of the analysis accomplished with the model is a curve representative of the customer experience of a specific website made of five points (one point per phase), with values between 0 (low) and 1 (high level), that allows the reader to make comparisons between different eCommerce websites and identify their strengths and weaknesses.

The reader will find a framework to evaluate the customer experience on a B2c eCommerce website in a quantitative way, in order to make comparisons with other merchants and identify the main areas to be improved to fill the gap with the competitors.

Keywords: ecommerce, user experience, assessment, tool, customer journey

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INTRODUCTION AND OBJECTIVES

Despite the considerable growth of the B2c eCommerce in the main European markets and in US (Forrester, 2008), the main figures show that the concentration of the market

is very high and its value represents a limited part of the overall retail sales only (e.g. the B2c eCommerce value in Italy is just the 1% of the overall retail sales and the 75% of this value is generated by the top20 websites). As a consequence the path to realize the full potential of the B2c eCommerce is still long and several hurdles have to be overcome both by the customers (e.g. scarce ICT culture, lack of trust in the electronic payment systems, etc.) and by the merchants as well (e.g. overlooking of logistics, poor design of the web site, poor marketing management, etc.).

In this paper we focus our attention on the features of the services of the online retailers, with the strong conviction that the offering is very differentiated in terms of both customer service level (i.e. product range, availabilities of the products, cycle time, etc.) and customer experience (i.e. the path the customers follow from the landing on the website to the payment of the product/service). Both these two fields are very important in determining the success of an eCommerce website. The latter is very important in determining the success of an eCommerce website, but it is very hard to be distinguished, analyzed and evaluated and there is a lack of contributions trying to estimate it in a quantitative and/or objective way.

In order to fill this gap, this paper provides a model that aims at evaluating the customer experience of an eCommerce website. The model has the following characteristics:

- it is based on a structured framework which organizes the eCommerce user experience on five key phases;
- for each phase identifies the most important drivers and provides a set of parameters to assess the features of each driver;
- it provides an effective and nimble tool to evaluate the customer experience in a quantitative way.

With the output of the model it is possible to:

- compare the customer experience of different websites in order to have a clear benchmark and identify the main gaps with the competitors;
- understand/identify the most critical phases and features of each online store which needs to be improved.

Generally speaking this model has been applied following different goals: from analysis, benchmarking and assessment activities to hi-level conceptual design and testing, outlining different Information Architecture design scenarios.

THE CUSTOMER JOURNEY: A BRIEF INTRODUCTION

The Customer Journey Map is a tool used to track and analyze the user experience and assess the quality of a process or a service (see UK Cabinet Office example). Developed in the CRM sector, it is a customer-oriented strategic tool useful to analyze and understand an experience from the user point of view, disclosing issues and hurdles as well as opportunities for improvement and innovation (Buttle 2003). It is particularly helpful and effective also to examine complex experiences and processes that connect different touch points, channels and systems (Brugnoli 2009). Moreover in the latest years it is used as a design tool by interaction and service designers.

According to the description given by Adam Richardson, the Customer Journey Map is a linear, time-based representation of the main stages that a customer goes through in interacting with a company or a service (Richardson 2010). User experience can be defined mainly as a process, a flow which starts from an initial / entry point and goes to an end following intentions, motivations and goals of the users. With the Customer Journey Mapping, this experience flow is divided in a few key stages. Starting from the analysis of the users behavior, for each stage specific goals, intention, touch points, tools and issues are identified. Lastly the focus broadens on the connections and the dynamics between the stages.

There are several applications of the Customer Journey Maps on the real world shopping experience. The model proposed in this document is probably one of the first structured Customer Journey Map specifically focused on the eCommerce experience. This model is the result of different researches and benchmarks made in the last three years on the best and most successful online retailers, that point out and assess the best practices in terms of usability, innovation, quality of experience and, of course, conversions.

Lastly it also helped point out the true nature of eCommerce experience: from the user's point of view it is not a simple and coherent unidirectional flow based on technical or clear functional goals. Similarly to the real life shopping experience, it is rather an erratic journey made of different visits and browsing occasions where the users combine in an opportunistic way different information, products, and tools, following their goals and intentions (Brugnoli 2009).

THE ECOMMERCE CUSTOMER JOURNEY

This part of the document describes how the Customer Journey Map can be used to accomplish assessments and benchmarks between different online stores. In this eCommerce Customer Journey Map the user experience is structured into five key stages: the site entering and landing, the catalogue browsing and the product discovery, the product selection and personalization, the shopping cart management and the checkout process (see Figure 1). Each phase includes a set of macro-drivers and each driver leverages a set of features/parameters which affect the user experience and the conversions.



Figure 1 – The 5 key phases of the model and the main driver per each phase

Each phase of the model includes from 10 up to 30 different key drivers and parameters. On the whole they compose a matrix of 150 / 170 parameters (roughly – they can vary by market sector or by research’s goals), which represents an ideal collection of all the eCommerce features, from the standard and basic solutions up to the best practices and the most innovative solutions. This parameters list is subject to continuous improvements and tweaks, especially looking at the single items, but the overall framework seems to be solid and reliable.

Let’s go more in depth through the five phases of the model:

1. Site entering and landing: in this step the focus is set on the entry points of the experience, how users enter the site and get engaged. The eCommerce user experience starts outside the eCommerce website. This consideration points up the importance of the different tools to capture the user outside of the online store and drive him to the proper landing page. This phase includes all the main characteristics/features that lead the user to the website and affect the first impact with it. A B2c eCommerce website can be landed in different ways: through the Search Engines, the Newsletter of the website, the communication campaign and finally typing the address in the url bar. The main drivers are: “Search Engine Positioning”, “Newsletter”, “Communication” and “Homepage”. The “Search Engine Positioning” has become very important in generating visits on a website (90% of the traffic comes from Search Engine - B2c Observatory of Politecnico di Milano). The model assesses the positioning through a search simulation (i.e. ten words on the three most important search engines): if the website is always in the first page of the results and in the first five positions, the score given to this feature was high (i.e. 1). “The Newsletter” is another important source of traffic and the model takes into account the main features a good newsletter should have (i.e. first it should be periodical, then it should contain reliable information about products/services, clear pictures, etc.). “Communication” includes a wide range of possibilities that goes from

partnerships with other eCommerce players, to viral marketing campaigns, to standard online campaigns, to multichannel promotions. In order to have direct traffic (i.e. typing the website address in the URL bar) it is very important to have a good "URL strategy" (i.e. chose a name that can be easily remembered by the users, connect the name of website to a very well known brand, adopt different domains .it, .com, .org). The first impact with an eCommerce Website is given by the so called Landing page. Assuming for sake's simplicity that the most of the times the landing page is the Homepage (assessing all the different landing page would have been too onerous), the model includes some features like the speed of downloading, the possibility to browse the page without scrolling it, etc. ("Homepage") and finally the possibilities to customize the Homepage for the registered users ("Customized Homepage").

2. Catalogue browsing and product discovery: in this step the focus is set on how users find and discover products within the site. From site exploration to product selection this phase focuses on how users discover the products in the store, identify the desired items and narrow the choice to a few selected products . In this phase the user tries to understand how to browse within the website and get familiar with its structure and how start the search process. The approaches can be at least two. In the first one, the user already knows the product he is looking for and then the search goes through the search engine (if he know the product name and/or the product code) or browsing the categories / subcategories menu trying to find what he is searching for. In the second one, the user has just a rough idea of the product he might be interested in (i.e. he knows only some features the product should have to satisfy his needs), and he needs to make a selection within the large product range on the online store (with a very high potential risk to get lost in the website maze or confused by too many choices). For the sake of completeness, in this phase we included the tools and the features supporting the two different paths presented above (and generally speaking supporting the navigability of the website). The "Search & Filtering" driver includes all the main functionalities of the internal search engine in terms of search, classification of the results and additional features (like the possibility to save the search results or the function "more frequent searches, etc.). "The sorting and ordering" takes account of the different alternatives the user has to view the results (list Vs grid or both). "The Category browsing" takes into account the main functionalities of the navigation menu and finally the "Product preview" consist of the possibility to see a preview of the product and compare it to another similar product.
3. Product presentation: the way the product is presented, trying to overcome the lack of the physical contact with the product, is very important in affecting the customer decision. In this phase all the main features/drivers affecting the attention, the completeness, the precision of the way the product is presented have been included. The "Product description" can be generic (aiming at giving an overview of

the product in order to let the consumer easily understand if the product fits his needs) and/or very detailed (in order to give all the features in the very detailed for a fine choice). The "Price & the other options" (like the delivery cost) should be always clear in the product page. The product description can then be completed through "Images & other media" (i.e. Audio and or video previews of the products, rich media presentation and tutorials) and "Reviews & Recommendations" (also in terms of feedbacks of the users and/or opinions left in the website forum). Finally the "Product configuration" includes both the possibility to configure the product/service and the presence of cross/up selling opportunities.

4. Cart management: from selection to purchase this phase focuses on how users select one or more products, add them to a cart and manage their shopping lists before closing the order. This is the most critical phase in the purchasing process, with a very high drop-out rate (higher than 75% of the transactions – B2c Observatory Politecnico di Milano), and negative effect on the conversions. The shopping cart / bag / list is usually the only place where the user sees the final price of the products chosen (after eventual discounts) and the overall cost of what he is going to order (the sum of the cost of each product). Moreover the cart / bag for the user is a key tool for decision supporting, where most of the purchasing decisions are made. There are many variables and features which can make the difference. The "Cart Management" includes all the main drivers and features from the best practices, considering also how the cart is displayed and accessible throughout the site. The "Shipping options" (delivery by the Express courier, by mail, etc.) and their prices have to be clearly visible in the cart as well as all the main added services (i.e. "Recommendation", "Wish list" "Other services" The main drivers taken into account are the way the different costs are presented to the customers (cost of the products - partial, total, discounts, etc. -, delivery costs, etc.), the main functions of the cart (e.g. possibility to add/remove the products, to change the product quantities, to save the product and keep on shopping on the website, etc.), the possibility to get recommendations/cross & upselling opportunities.
5. Order setup and checkout process: this phase takes into account the tools and the solutions to easily fulfill the order and safely complete the checkout process. The checkout and the payment processes have to be completed in the easiest and shortest way, since each step represents a further risk to loose the customer (every page / step in this process has always a drop rate). The "speed" and fluidity of the purchasing process is strongly related with the complexity of the checkout process and the numbers of hurdles the user has to overcome. There are various parameters: number of clicks, complexity of web forms, steps of the process, anonymous purchase vs registration and so on. It is diffused the idea that the best alternative is the one page check out, but a tradeoff between the number of different pages to be visited and the number of information per page should be taken into account. The one page check out seems to be a proper alternative only when the

process is easy and well structured (i.e. requires only a limited number of activities to be completed by the customer). The “Order options” (i.e. multi-delivery for multiple destinations, the change of the date of the delivery, etc.) are of course appreciated by the customer but they should not complicate the process too much. The “Payment options” include the different alternative to support the online transaction (credit card, bank transfer, etc.).

THE ASSESSMENT MATRIX

Hitherto we presented the general structure model and the criteria which drove the drivers / parameters definition and selection. In the following part we describe how the assessment is accomplished and the outcomes.

The assessment activity is made of two step:

- Assessment of the single feature. The model is designed to be an hi-level exploratory and agile tool: each phase includes only “elementary” features that can be easily assessed with a score from 0 to 1. The default value is 0,5: a value below or above the default indicates poor or better performance or evaluation of that solution. If the feature is absent or the parameter is not applicable, the score for that voice is set to 0. This procedure aims to an “objective” evaluation (with all the limitations this might bring in the assessment process), since the analyst in the first step has only to check the presence of the feature without going through a complex judging / evaluating process.
- Assessment of the 5 phases. The score of each phase is determined through an average (also lightly weighted) of the scores of the features. The mean of all the parameters’ values within a stage represent the overall score of that step. As a consequence the final score of the 5 phases will be included between 0 (no features are present) and 1 (all the features are present).

Parameters’ data are collected through a real experience on the selected site: a researchers replicates the user navigation and interaction with the online store, from the entry points to order checkout following the Customer Journey, collecting data and notes. Usually the interaction is repeated three or four times, sometimes by different researchers, in order to go through all the key user scenarios and features and to assess properly all the experience parameters.

Usually completing the matrix requires more than one data collection and analysis sessions, where the data are also weighted through cross-comparison and team reviews. A general validation phase precede the final consolidation and report extraction. The more websites are compared in the matrix the best and the more accurate could be the final report.

CREATING THE REPORT AND THE “EXPERIENCE CURVE”

The final report combines two levels of analysis: a general overview and a detailed view. In the first level the selected online stores are compared on the scores reported in the five stages of the Customer Journey. The data are visualized on a chart called the

“experience curve”: five steps and a line which connects the related scores of a website for each step (see image below). This visualization enables a brief but very effective representation of the experience progression of the online store throughout the five stages. It’s very easy to see positive peaks and negatives downturns following the line from a step to another, supporting various business and design considerations. Moreover using this chart is easy to compare different websites altogether within a benchmark research, providing at a glance a picture about a specific market sector or revealing strengths and pain points of one retailer against the others.

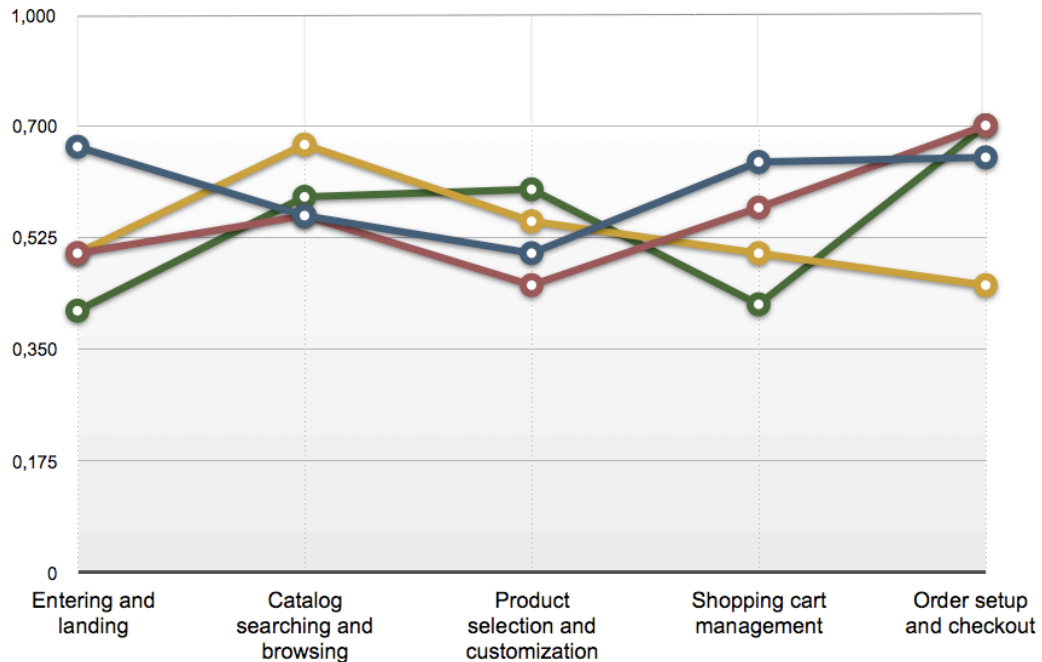


Figure 2 -Example of the “experience curve” of different online retailers with a specific market sector.

The second level of analysis is an analytical view of the score of each online store step by step, followed by a commented list of best practices and critical points found within the specific stage. For example, with reference to the Figure 3 (representing the cart management comparison chart), the Website 1 got a higher score with respect to the Website 3 (which was under consideration) because it has more features among the ones investigated by the model. In the specific case, the customer can:

- change the cart into a wish list for the user;
- clearly see the cart when browsing the website;
- make anonymous purchases.

4. Cart Management comparison chart

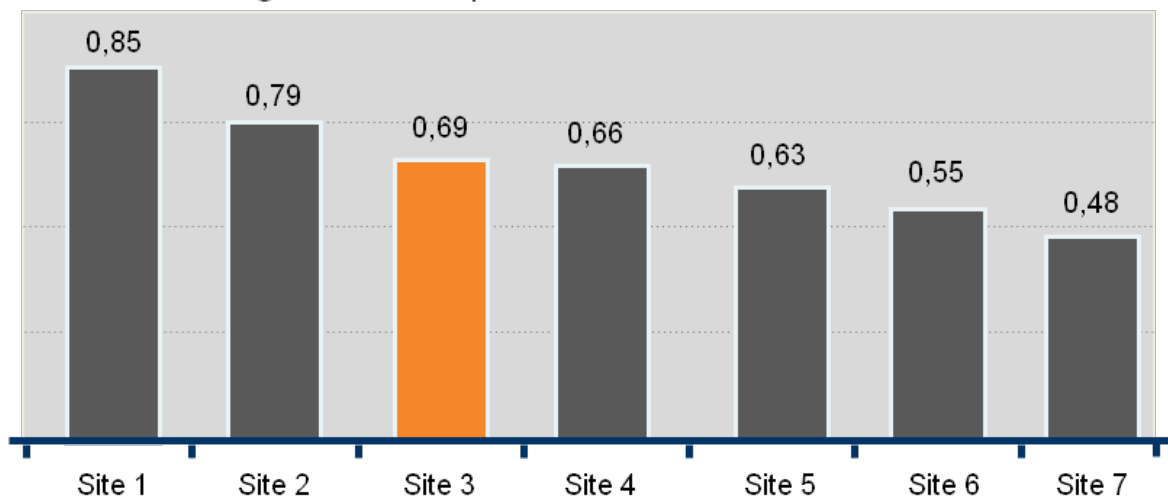


Figure 3 - Example of comparison chart of the scores of different websites in a specific stage.

MODEL TESTING

The model has been tested, refined and validated on different researches and projects. It was presented in a few eCommerce summits receiving a very good reception also by the business eCommerce community. A specific test has been carried out in the Books, CDs and DVDs industry through its application to the websites of all the main Italian merchants. Considering many websites in the same industry makes the test easier since, since the validity of the model can be tested also through the relative positioning of the players.

The evaluation of the model has been carried out through:

- Interviews with experts. Two web-designers learned in usability were required to give an assessment of the websites for each phase using a 1-5 scale.
- Interviews with the merchants. The interview consist of showing the merchants the curves stemming from the application of the model and asking them, for each phase, if they agree or not. The limitation of this second test is the lack of objectivity by the merchants in judging their own websites.

In both cases we tested the model validity assessing the relative positioning per each phase stemming from the model with the one provided by the interviews. Despite a very few of exceptions with a couple of merchants (in just one phase only) the correspondence was perfect.

The model has been built primarily on eCommerce websites of physical goods retailers, such as books, consumer electronics, computers, games, accessories, apparel, shoes and so on. Online services, such as booking systems, financial products, online insurances and so on, require an adaptation, shifting the weight from catalog browsing and searching (which in this case tends to be less relevant), to product / service customization and configuration.

LIMITATIONS OF THE MODEL

This model is intentionally focused only on the part of the user experience related to the user interaction with the merchant's web site. Its scope is to assess and compare the overall features of different merchant websites, which might affect conversions, in order to extract design and business considerations. This model does not embrace the whole eCommerce user experience, which is wider, more complicated, and affected by factors that are not related with the web site visit and interaction, such as the product delivery, CRM features, or other business factor related to pricing or branding. Moreover this model has been designed to assess and compare many web sites within specific market sectors, and it does not replace other usability and user experience methods.

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