

# Usability Analysis of JD.com and Tmall.com

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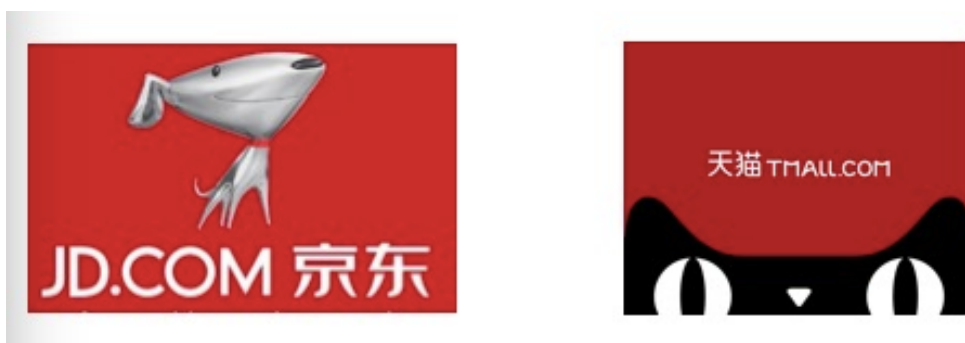
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## Introduction

JD.com, a e-commerce company, is one of the two biggest B2C online retailers in China. JD was founded by LIU Qiangdong in 1998 which sells Light magnetic products offline. In 2004, JD began to get involved in e-commerce market and was formally called 360buy. In 2007, JD gained its' first financing from Capital Today. In 2011, JD launched its' IOS and Android clients, which is the symbol of JD's mobile strategy. In 2013, it changed the name to JD.com and release a new logo which is an image of dog, in this year, JD's registered users exceeded 100 million. Now it has more than 250 million monthly active users.

As a B2C e-commerce company, JD built its own competitive Advantage. For example, JD built the China's most extensive, best service and fastest logistics network. It is famous for its "211 Strategy", which means if users buy products before 11am today, they can receive the product in the same day, if users buy products before 11pm today, they can receive their products before 3pm the next day.

Now, JD has various kind of business, such as online market, JD Finance, JD smart, and Paipai micro store.



picture 1 The LOGO of JD.com and Tmall.com

Tmall.com, which is spun off from Taobao, is a platform for B2C e-commerce. Also, it is the biggest B2C platform in China. Taobao was established by Jack Ma in 2003. It mainly operates C2C business initially, and began to try B2C business in 2008. In 2011, Taobao was divided into three parts: Taobao, Tmall and Taobao mall. In 2012, Taobao mall officially changed its name to Tmall and released its brand new logo and image, which is a black cat.

In November 11, 2009, Tmall began to hold large promotional activities on the “Singles’ Day”, in order to shape Tmall’s business festival. Tmall chose November 11<sup>th</sup> because this is just between the traditional retail Golden Week and Christmas promotion season, which is a blank period. Through the “Festival”, Tmall promoted consumption greatly. Since 2009, Tmall has achieved great success every year. In November 11<sup>th</sup>, 2017, Tmall reached a turnover of 168.2 billion.

Tmall also has a very diverse business, even more than JD. In addition, all the business in Tmall was supported by Ali’s Internet ecosystem, including Alipay and Cainiao Logistics.

The competition between JD and Tmall is so fierce that there are “Battle between Cat and Dog” every year, because their logo is a dog and a cat.

## **Design**

### **● Color**

In terms of consistency, JD.com has a good performance. As the product page below, all the commodities on JD.com have consistent pages. All the commodity name was in deep grey and all hyperlink of promotion pages under the commodity name is in blue, also, the price and icon of promotion is all in red. In the promotion season, most products will have promotion activities and the picture of products use the same shades of pink and purple to display the promotion activity. In addition, one of the most important parts of a website consistency is the button. On JD.com, almost all the buttons are in red, which is also the main color of JD’s brand

image. However, each page of commodity will have a green button to show the special way of purchase, it keeps another kind of consistency.

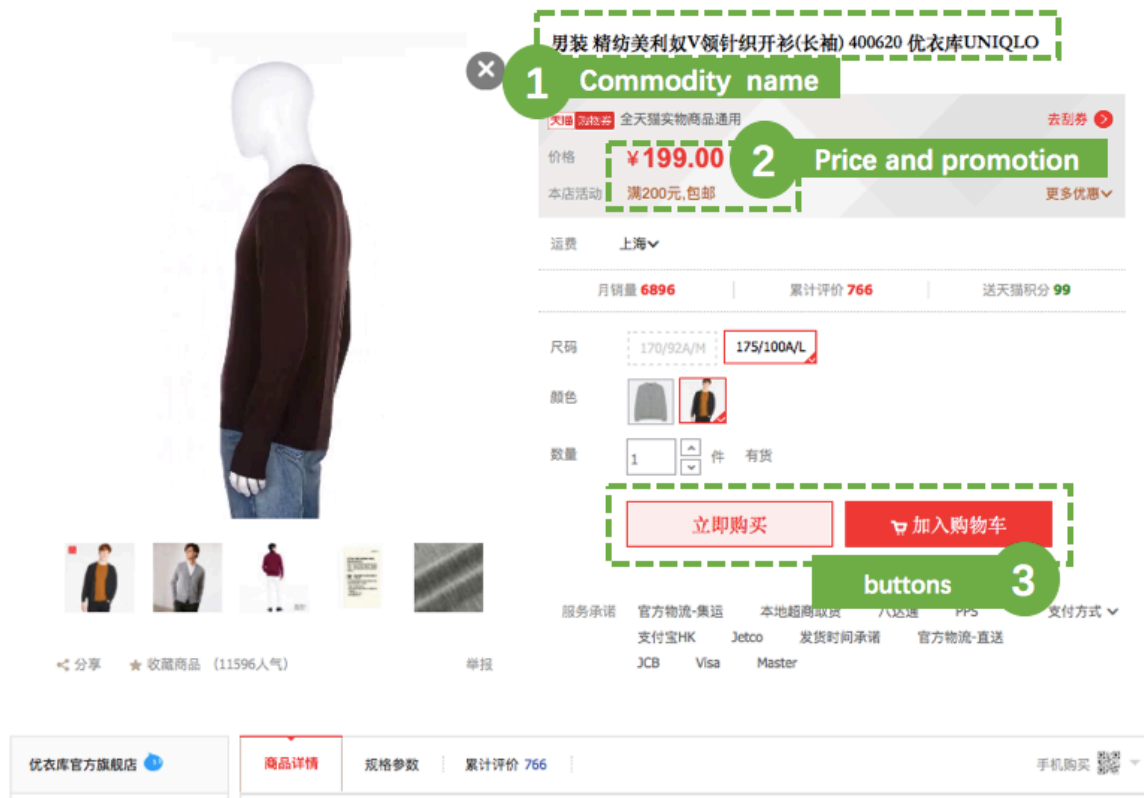


picture 2 The product page of JD.com

In different business pages, JD.com use similar colors and styles, the “JD Clothing City”, “JD Supermarket”, “Fresh Food” and “JD Worldwide”, all this main pages use red, pink, purple as the main color, which keep the whole website in one style. JD.com use the all-matched color, grey, white and black with JD’s theme color, red. Which makes it a successful example of consistency.

Tmall.com keep its product pages in consistency as well, the product page also uses white, black, grey to match with red. The commodity name is in solid-black font style, and most text in this page use grey as font-color. In the “2” and “3” part, the price and promotion, as well as

the purchase button use a bright red to draw attention from users. The most important part: price and purchase was emphasized with red, as well as the promotion activity, which will promote users to buy it.



picture 3 The product page of Tmall.com

However, compare to JD.com, Tmall.com uses unique style on different business pages. As it can be seen in the picture blow, the main page of “Tmall Global” use purple as the theme color, the main page of “Tmall Electric City” use blue as the theme color and the main page of “Tmall Fresh” use yellowish-brown as the theme color. Different color and style was applied to different business, every page brings different feeling to users, which is a quite good example of contrast and users would not be confused.



picture 4 Main page of different business pages

## ● Layout

The layout design of JD.com is quite similar to Tmall.com, and they both use the common “F” structure. These two websites put the most important information on the top-left corner of the website and the main importance of the class is gradually decreasing from the top-left to

the lower right, which is suit for the usage habit of Chinese consumers.

JD.com divided its home page into six parts, and the ratio of the layout of three main content is 1:4:1. The navigation bar is on the left, where is always first seen by users. The middle part of the page is advertising and promotional pictures. This part of content occupies a large area of layout, but also better rendering the effect of the pictures. The last 1/6 part is given to user-log-in and other business entrance, make the page more practical for user to find the information and the services they want.



picture 5 Website layout of JD.com

Tmall.com also divides its main page into 6 part, but shows a little difference. As it can be seen in the picture blow, the ratio of “Navigation Bar” and the “Advertising & Promotion” is 1:5. Tmall.com has no auxiliary content on the right and release more space to adverting and promotion content, which makes this page simpler and generous.



picture 6 Website layout of Tmall.com

## Usability

### ● Navigation Analysis of JD.com

In terms of navigation, JD.com is not so user-friendly, especially compare to Tmall.com. Its shortcomings are mainly manifested in three aspects:

Firstly, as it can be seen in the picture, the “1” part is the main navigation bar, there are 16 main categories but without any distinguished icons. Present as dense pure text, it is difficult for user to find the categories they want quickly. In addition, the navigation bar use grey as the background color while the font color is white, which is low contrast and making it more difficult for users to distinguish.

Secondly, the hot words mix promotions and hot goods, which may confuse the users. The search area is very important for search-orientated users, and in general, hot search words will be displayed under the search column, make it possible for users to handle a quick search. The hot words displayed on JD.com mix promotions activities like “ninety percent off” and hot goods like “Recording pen”. It is quite hard for users to understand the function of this words.





picture 7 The home page of JD.com

Thirdly, the second-level navigation of JD.com is quite abundant but hard to find specific product. The whole second-level navigation using the light grey as background color and the deep grey as font color, which seems very simple and clean but lack of contrast. Each main category has more than 30 types of goods and all the choice was the same in the block.



picture 8 The second-level navigation of JD.com



## ● Navigation Analysis of Tmall.com

Tmall.com has a relatively better and user-friendly navigation system compares to JD.com.

In terms of the navigation bar, Tmall also has 16 main categories but each category has a corresponding icon, which make the navigation bar more visualized and lovely. However, those icons are too small to help users find the category they want. In addition, the background color and font color also lack of contrast, which makes it hard for users to see clearly.

The hot word under the search area are all hot-search goods, such as “sweater”, “mobile phone” and “lipsticks”. Users can click this kind of words to process a quick search for specific goods.

As for the search area part, Tmall.com also does a good job to guide the users to search in a right way, it presents the text “search for Tmall products / brands / stores”, which tells users what they can and they should put in the search column.



picture 9 The home page of Tmall.com

Then when users look at the second-level navigation, he will find that there are so many types of products. But Tmall.com use different color to distinguish different categories and highlight the hot products. As it is shown in the picture 5, in the category of “Men's wear / Sports & Outdoors”, the hot goods are highlight with blue. When users click the “Women's wear / Underwear” category, he will find that the hot goods are highlighted with pink. It is a very effective way to help users to find the goods type they want more quickly. What’s more, Tmall.com put the hot brand of each category on the right side of second-level navigation. This kind of design pay attention to the brand-oriented users who are ignored by JD.com, they can click specific brand to search for goods of this brand.



picture 10 The second-level navigation of Tmall.com

## ● Content and Scope Analysis of JD.com

According to the content of navigation bar on JD.com main website, we can find that the products sold on JD.com are divided into 16 classes, which are divided into several subclasses as well.

From the perspective of content, the product on JD.com has already covered almost all major products we would use in our daily life, especially some products with high using frequency but low purchasing frequency, for example, household appliances and digital products. When those 16 main classes are corresponded to the basic necessities of life, not all of the basic necessities of life are covered equally on JD.com. It is obviously that 3C products account for a large proportion while food class is not widely covered.

When it comes to the target customer, JD.com is friendly to those customers who are interested in 3C (computer, communication and customer electronic) products, user may find thousands of different commodities, almost including all most famous brands all over the world.

If we divided customers into 3 classes according to whether they have a clear idea on what they want to purchase, we could find that JD.com has great solutions to all those 3 classes customers on helping them find ideal products.

For customers who have a very clearly ideas on what they want to purchase, JD.com provides a very powerful and efficient search function. They only have to enter key words of the products, just like part of name or brand or function, then the website will generate the products matching the requirement and list them to make customers have better user experience on comparing.

The website also offers user more detail options to help you find the ideal product if someone only care about function rather than brand. For example, one wants to buy a electric fan but don't know how to select or what specific feature he need to care about, you just need to select "fan", and then the website will generate 4 specific options about fan (as shown below). This will guide those customers to think what they really want and what factors they should take into account if they only have a very beginning idea on the product. For those customers who are just having a look, JD.com provides information about discount, hot products or latest version of product you searched before through advertisement on main page or side windows.

全部结果 > "电风扇"

品牌:	DYSON	艾美特 (AIRMATE)	美的 (Midea)	格力 (GREE)	中联 (ZOLEE)	IRIS	QG	华生 (Wahson)							
	小米 (MI)	先锋 (SINGFUN)	奥克斯 (AUX)	荣事达 (Royalstar)	远东	莱克 (LEXY)	水田	灿坤 (EUPA)							
类别:	欧式仿古扇	空气循环扇	落地扇	转页扇	风扇伴侣	USB风扇	台扇	吊扇	塔扇	壁扇	工业扇				
扇叶片数:	2片	3片	4片	5片	6片	7片及以上	无叶	Basic options							
能效等级:	1级	2级	3级	4级	5级	无									
高级选项:	大家说	控制方式	档位	风类模式	定时范围	Advanced options									

picture 11 The basic and advanced options of products on JD.com

## ● Content and Scope Analysis of Tmall.com

In terms of navigation bar on tmall.com main page, the number of class on tmall.com is quite large. There are 16 main classes and each of them are divided into more than 10 subclasses shown aside on the center part of the web page if users move our mouse over the text. It is easy to find that those 16 main classes and hundreds of subclass almost cover all factors of them.

Based on the data above, it is safely to draw the conclusion that tmall.com has widely target customer.

If one intent to find some food on Tmall.com, Tmall.com provides 2 main classes about food: snack/wine/imported and fresh fruit/vegetable. The first class consists of 7 subclasses and each of them are divided into more specific classes according to classification. The second class also consists of 7 subclasses and each of them are divided into more specific type according to classification or brand or origin.

If the user is the kind of users who have very clearly idea on what they want to purchase including classification, brand, origin or even from which shop. For he, quick search window is the most efficient way for them to locate the products. The advanced and powerful search system will produce the best matched result when users enter the requirement or property of the product. And the website will also list them in a certain order, which is also customizable for certain need, to help customers compare and choose.

For those users who just have very beginning idea on what they want to buy, for example, they just know they want to buy some banana without specific requirement on brand or origin. The website offers navigation bar and search window to help those users explore the relevant products. Clicking on “banana” or entering “banana” in search window will both produce matched result. And above the result, there will be an option window which shows more optional requirements about banana, like brand, origin and so on. This will guide users to think more deeply and specific on what they want and offer the possible needed information on what should be taken into account when users only have a very roughly idea.

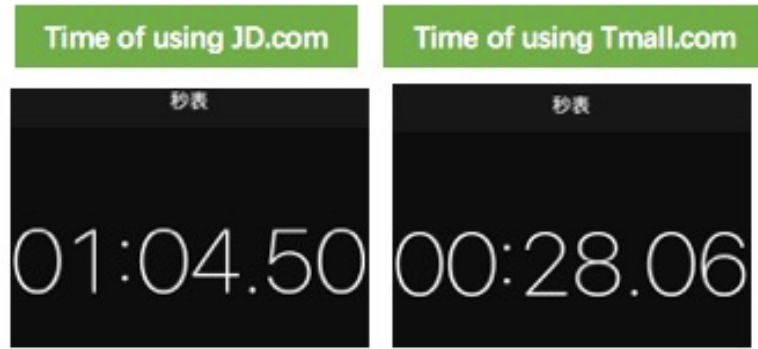
## **Test**

Two tests are designed to test the usability of JD.com and Tmall.com.

Test 1 for user A: To find Dior lipsticks, 999, on JD.com and Tmall.com respectively using the navigation bar and add it to the shopping cart.

The result of test 1 shows in the picture12, user A spend more than one minute to find the lipsticks of Dior 999. The biggest problem he met is the complicate second-level navigation, it is hard for him to find the “lipsticks” among so many text in the same style. And he spent less than half a minute to find the same product on Tmall.com, cause Tmall.com uses different color to highlight the “lipsticks” in second-level navigation and he found it more quickly.

In both website, the present of hot brands helps a lot during the process. For users like A, who want to find some products of hot brand can have quick entrance to the right pages.



● picture 12 Result of test 1

Test 2 for user B: To find iPhone8, 64G, black, on JD.com and Tmall.com respectively using the navigation bar and add it to shopping cart.

The result of test 2 shows in the picture13, user B spent 30.92 seconds and 22.16 seconds on finding iphone8(black, 64G) on JD.com and Tmall.com respectively. User B said that the difference between these two website is the algorithmic logic of how to rank the products of the same brand. JD.com puts iphone7 and iphone6s before the iphone8, so it takes more time for her to find the target one, while Tmall.com put the newly arrive model on the first place.



picture 13 Result of test 2



## **Conclusion**

JD.com and Tmall.com are both mature e-commerce sites with more than ten years' history.

Their web design uses a similar structure and layout, but JD.com is more practical while Tmall.com is more simple and beautiful.

In terms of content and scope perspective, the two websites are nearly perfect and can almost meet all the needs of the target group. However, through the analysis of navigation system, it is obvious that Tmall.com is more user friendly than JD.com. The user test also proves the same conclusion, that in both tests, users use less time in Tmall.com than in JD.com to completed the same task.

Although the two site is the leaders of e-commerce industry, it does not mean that they will always be strong and invincible. Only by improving the user experience, can the company win the final victory in the competition.