



Visualizing Services on e-Commerce Websites

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ABSTRACT

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In recent years, the growth of e-commerce websites has become apparent. However, research has suggested that the growth of the e-commerce website for services is lower compared to that of physical products. In this context, a product is defined as a tangible object and a service as an intangible entity. By the nature of services, to visualize something intangible in an e-commerce website context can be challenging. This study aims to determine how a service should be visualized in the context of an e-commerce website for services with the case study of an e-commerce website concept for art-related services called Pando.

Generally, products and services are visualized on e-commerce websites with images, videos and written descriptions including reviews. However, for services, those visual elements need to visualize the experience a user would get from the service. In order to determine a way to visualize a service, several designing methods were utilized, including expert interviews to learn about users and benchmarking to assess how other service providers dealt with a similar problem. Findings from the researches were applied to the prototype of Pando to test various ways to visualize services. In order to test several ways to visualize services, a mixture of user research and A/B testing was utilized to compare the result with a different visualization method.

The prototype was tested by 6 testers from aged from 20 to 39. The result of the test suggests that one of the best ways to visualize a service is to make sure the written information about the service covers detailed information about the service itself and its requirements. In addition to the written information, supplementing with multiple visual elements such as images and if available, a video as an extra source of information seems to increase the credibility of the service for users.

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1 INTRODUCTION

1.1 Pando

This thesis discusses how to visualize services using visual elements such as images and videos on an e-commerce website. The visualization of a service is based on a case study of an e-commerce platform concept called Pando. Pando started in early 2017 by Khalid Imran, a student from Fine Art program in Tampere University of Applied Sciences (TAMK). Imran mentioned about a problem he was facing in his community art project, integrating art into immigrant integration training process. The problem was that while there were quite a few artists' groups who offered artistic activities as methods for education, he could not find a one single unique platform where he could learn about these artists, their works, their methods, possible case study about the impact of their work on the participants or community. If that information was gathered in one platform, the platform could be a networking tool between artist groups and a great searching tool for possible clients who are looking for workshops. (Säppi, Salo, Kostilainen, Imran & Heikkinen 2017)

To solve that problem a platform concept called Pando was created. Concept of Pando was an e-commerce marketplace where artist groups could sell their services and people who were seeking for services can look for suitable service providers they need.

1.2 What is a Service

In general, defining services in business term can be difficult because service is often closely associated with exchange of goods for money. In this thesis, the following definition from the Business Dictionary is used. A service has three characteristics: A service (1) cannot be stored or transported, (2) is perishable in short period of time, and (3) the value comes into existence at the time it was purchased and consumed. (BusinessDictionary n.d.)

As this definition suggests, the value of a service only exists within a limited period of time, and services do not involve transfer of possession or ownership. (Business Dictionary n.d.)

A service itself is not a product, but it can include the exchange of product during the cycle of the service, such as ticket of a transportation service. However, the product is not the center of the service. The following figure 1 shows the difference between product-centric business and service-centric business. (Samadzadeh 2016)

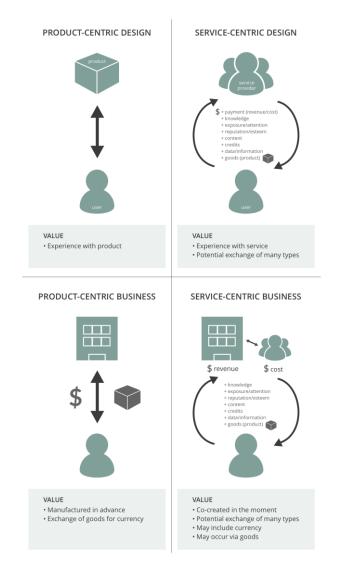


FIGURE 1. Difference between product-centric business and service-centric business (Samadzadeh 2016)

As the value section of the service-centric business on figure 1 describes, the value of the service is co-created in the moment when the service is taking

place (Samadzadeh 2016). In general, customers' satisfaction about the service comes into existence when the service meets or exceeds what customers expect in return for their money, time, and effort. This means that the value of a service can be extremely fragile when the expectation of a customer and the reality do not come close. (Polaine, Løvile & Reason. 2013, 19-33; Stickdorn, Hormess, Lawrence & Schneider 2018, 5.)

1.3 Visualizing Services

Since service is intangible, communicating the right information about what clients can get from purchasing a service is important in an e-commerce context. To convey the right information to users, the service has to be visualized. It can be visualized by describing in text, it can contain images or videos, there are multiple ways to visualize intangible entities.

To achieve that, initial interview and benchmarking research were applied to learn about users and how other service providers deal with the same problems. Lastly, A/B testing method was applied to validate a way to visualize services.

1.4 Growth of e-commerce

In recent years, the growth of e-commerce websites has become apparent. For example, according to an article by Business Insider published in 2017, the sales number on the e-commerce websites in the third quarter jumped up by 15.5% compared with that of 2016, while the sales of retail without e-commerce increased only 3.1% in the same period (Richter 2017). It is clear that number of people who uses e-commerce websites for their shopping is increasing.

As the online shopping culture is getting more developed, new shift in retail culture started to appear which is referred as "Phygital stores". As the word "Phygital" suggests, it is about combining digital and physical stores together as one experience, in another words, mixing e-commerce culture and shopping at a

bricks and mortar store together to create a new value for physical stores. (Searle 2013)

1.5 Platform marketplace for physical products

While big retail brands creating new value to their physical stores and online stores, it is common to see small businesses selling their products on a platform such as eBay, Amazon or Facebook. Especially for businesses which does not own physical stores for their business, those online platforms play critical role for their businesses. However, when it comes to service industry, the premises of the e-commerce culture are not as developed as e-commerce culture for physical products. (Khurana 2018)

1.6 Purchasing Services Online

In recent years, purchasing services online has become part of our daily life.

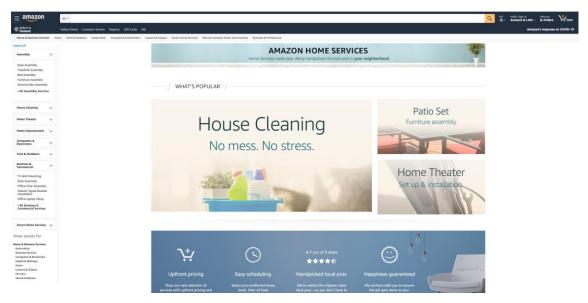
Public transportation service tickets, food delivery services, digital entertainment services like Netflix are commonly purchased online.

However, for small businesses, there are not too many options to sell their services online compared to physical products, due to the nature of the service industry itself. For example, when a user wants to buy some physical products, a camera for example, a user can easily come up with couple of platforms they can use, eBay for second-hand cameras, Amazon or other local electric stores for new cameras.

For small business services like yoga class or plumber, from a quick online search, it seems the common platform they use is Google map or Facebook. Both can be great tools since a user can see review of each services and locations. However, drawbacks are that it mainly shows service providers that have physical offices or stores, and Google map is mainly visible when a user uses Google for searching.

1.7 Amazon Home Services

Amazon started to sell services on their platform and approved service providers can offer their service in local area. Although this platform can be a great platform for service providers, it seems the type of services they sell on Amazon and available area is still limited (Amazon n.d.). (Picture 1)



PICTURE 1. Amazon Home Service page (2020)

2 Design Methods

On this section, general information about the design methods which are applied during the development of Pando will be explained. For the overall development phase, the service design method was applied. For the testing phase of the development, the interaction designing method was applied to validate the usability of the Pando concept prototype. However, the focus of this thesis is mainly on the testing of the prototype.

2.1 Service Design

Though the main focus of this thesis is Interaction design method, service design plays important role on development of the Pando.

The purpose of service design is to design services which are user-friendly, competitive and relevant to the customers and their needs (Lazier 2016).

2.1.1 Principals of Service Design

While the term service design has been around more than decades, it seems that designers are still having difficulty to find the common definition of service design. However, the keywords for service design seems to be that it is user centric, holistic and multi-disciplinary practice (Stickdorn & Schneider 2011, 22-25).

In the book "This Is Service Design Doing", authors mention five principals of service design which they collected in the previous book "This Is Service Design Thinking" which published in 2010. According to the authors of the both books, some of the principals stood the test of time but some had to be revisited and re-examined. (Stickdorn et al. 2018, 24-27) On the first book, the five principals were listed as (1) User-centered, (2) Co-creative, (3) Sequencing, (4) Evidencing and (5) Holistic (Stickdorn & Schneider 2011, 26). However, on the later book, the principals have been altered. The principals are listed as (1) Human-

centered, (2) Collaborative, (3) Iterative, (4) Sequential, (5) Real and (6) Holistic (Stickdorn et al. 2018, 27).

Although the term "user" has been altered to "human" on the first principles of the books, the term itself means the same, "user" as people who uses the service system, which includes customer and staff member of the service provider. However, by altering "user" to "human", the inclusion of the staff into the center of design is clearer for readers. (Stickdorn et al. 2018, 26) From the case of the first principles suggests, some of the change were minor, changing wordings or adding clearer information.

One of the major changes in the previous five principles was, the clear emphasis on iterations. Service design process puts high value on trying out cheap and early. By experimenting on a small scale, designers can fail with low risk, learn from the failure and adopt the designing process along the way. (Stickdorn et al. 2018, 26)

Service design fundamentally base the designing on practical research and prototyping. The designing process should not be based on opinions or concept which are not supported by realistic data or facts. (Stickdorn et al. 2018, 26)

Lastly, the most important point which was missing from the previous five principles was that the design has to be relevant to the business. The design has to be meaningful and relevant for both clients and business. (Stickdorn et al. 2018, 26)

As all those principals suggests, the process of designing services should be developed involving groups of people with different backgrounds. (Stickdorn et al. 2018, 26)

2.1.2 Why use Service Design

For creating Pando, a web platform where users could find, sell or purchase services such as art related workshops or other activities, it is important to consider needs from all the relevant parties, clients who purchases services, artists who offer services and also the hosts who run the web platform itself. Since the service design method would visualise the holistic view of the service itself, it would help to see the relevant parties' needs. Applying such designing method would help to develop a prototype with realistic and relevant solutions.

2.2 Interaction Design

The key principle of interaction design deals specifically on the interaction between human and system usually through interfaces and it can be counted as one of the key components of the UX design. (Interaction Design Foundation 2015; Ngai 2017) As it is stated on The Encyclopedia of Human-Computer Interaction, "Interaction design is about shaping digital things for people's use" (Lowgren n.d.), put simply, interaction design is about making sure the communication between system and human goes as smoothly as possible.

For the purpose of this thesis, the focus is mainly on the method used during the testing of the Pando prototype.

2.2.1 Usability

ISO9241-11:2018, which is a paper issued by Organization for International Standard (ISO), defines the term "usability" as: "Extent to which a system, product or service can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in specified context of use". (ISO 2018)

As the quotation above states, usability is about whether a system can be used by a user with ease and efficiency and achieve the goal which the user intends to complete by using the system. Usability is not a single aspect of a product, in fact, it is consisted from a combination of factors. Those factors include:

Intuitive Design: how easy users can navigate themselves.

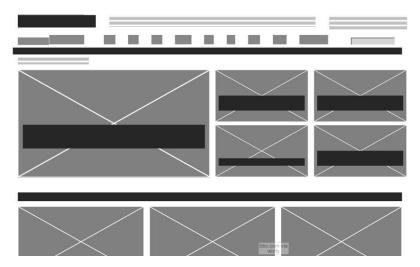
- Ease of learning: how fast users can learn how to use the system.
- Efficiency of use: how fast experienced users can complete a task.
- Memorability: if a user can remember how to use the system after use.
- Error frequency and severity: how often users make errors and how severe they are.
- Subjective satisfaction: if a user likes using the system. (Usability.gov n.d.)

Usability is a crucial aspect to consider when designing a digital product such as app or websites.

2.2.2 Wireframe and Prototype

Terms such as prototypes, wireframes and mockups are frequently referred on articles or books about UX designing process and it is important to know the differences. While prototypes are interactive and close to the finalized version of the system, wireframes and mockups are static images of the system, only differences are fidelity. All of them are representation of the finalized product, it shows how the finalized version will look like or how it will work. (Treder 2016)

Usually prototypes are interactive digital systems in a case of developing digital product, though when it comes to the wireframe, it is a static and simple representation of how the finalized system will look like, usually with low to medium fidelity. Wireframes often appear very simple, sometimes without colors, images or actual texts (Picture 2). However, it is great tool for showing information hierarchy on the screen space, paths between pages or intended functionalities on interfaces. (Usability.gov n.d.; Fanguy 2018)



PICTURE 2. Generated wireframe of BBC news website via Wirify by Volkside (2018)

Wireframe is a visual map which shows how each element is placed and appears all across the pages and relationships between them.

The final deliverable of the prototype for this thesis was a prototype based on the wireframes.

2.2.3 A/B testing

For testing, simple A/B testing was applied to validate a way to visualize services.

A/B testing is useful for testing different versions of designs, and commonly used in web designing. The idea of the test is quite simple, by sending different variants of designs simultaneously to the test, the result would show which version performed the best (Figure 2). When the test is applied on existing website, the test is usually done by sending users into different versions of the website and compare how each version performed. (Chopra 2010)

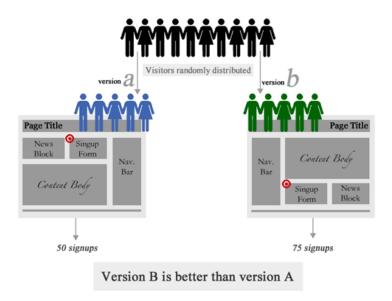


Figure 2. General model of the A/B test (Chopra 2010)

While A/B test is frequently used in web designing, it comes with limitations. One of the important things to be aware while planning A/B testing is that the result does not address the actual causes of issues on variants. Since the test is simply done through splitting the traffic to the website into different versions of the website and measure its performances, locating the actual cause of the issue on the failed variant is done by mainly speculation. To mitigate that limitation, Cardello (2014) suggests including user research into the testing process. (Cardello 2014)

2.2.4 Why Applying Interaction Designing Method

Since Pando is aimed to be an online platform for selling and buying services, naturally, there will be interaction between human and the system. Furthermore, to find a way to visualise services, A/B testing method would be useful. The A/B test of the Pando included user research questions into the test survey in order to overcome the limitation of the A/B test.

3 Pando

3.1 What does Pando do

The name Pando come from Latin word "spread out", which implied a wish that the system would help spread and enlarge the artist community. Moreover, the name Pando is another name for the world's largest known organism called "Trembling giant" in Fishlake National Park in Utah, it is a tree which spreads out a gigantic clonal colony, which means one tree creates the whole forest. (Roth 2016)

In short words, Pando is a marketplace like platform. For artists groups, Pando is a place where they can sell services such as workshops or showcase services they offer. Additionally, there is a social networking possibility for artist groups to connect each other to exchange knowledges. For people who wishes to purchase services artists offer, Pando is a place where they could visit and look for ideal artist group that fit to their need. Pando was aimed for Finnish market and language on the UI is in English for the purpose of this thesis.

One of the biggest benefits artists groups get from connecting with other groups is that they will get knowledge from each other. According to Imran (2017), when artist group works on projects, it usually publishes or document the findings from each workshops or project. However, the visibility of that documentation is vastly limited since those are scattered all over the internet and there is no platform where artists can search for such documentations. (Säppi et al. 2017)

3.2 Initial interview

In order to learn about the users and some insight, an expert interview was organised. The interview was joined by two developers, one artist who works with Khalid Imran and one designer. One of the key findings from the interview was

that amount of information about services users can access should be controlled. During that interview, Säppi (2017), an artist who works with the immigrant integration training process, pointed out that since the method they use during their workshops was sensitive information for their business, visibility of the information regarding artists' method should be limited. While it is helpful for clients to know exactly what happens during the workshop prior to purchase, for the service providers, that exact information is part of their trade secrets. (Säppi 2017)

3.3 Benchmarking

Benchmarking was applied to learn about similar markets. The main objectives from this benchmarking were to learn how they visualised the services and which elements they used such as images, texts, audios and videos.

3.3.1 **Uulu**

Uulu is a local cooperative community in Tampere. Uulu mainly offers workshops and lectures related to musical culture around Finland and other countries. In Uulu's website, a user can see what kind of projects they are currently working on, what kind of workshop is coming up and also users can rent the premises for an exhibition or other activities. (Uulu n.d.)



PICTURE 6. Landing page of Uulu (2019)

As for the layout, as it appears on the picture 6, the landing page displays the introduction message of the Uulu and right side of the landing page is occupied with information about upcoming workshops.

The UI design of the navigation bar was in a conventional dropdown menu style (Picture 7). Generally, in UI designing, following conventions is not a bad decision, which means users are already familiar with the UI elements when they visit the website for the first time. This would make it easier for users to navigate themselves on the website.



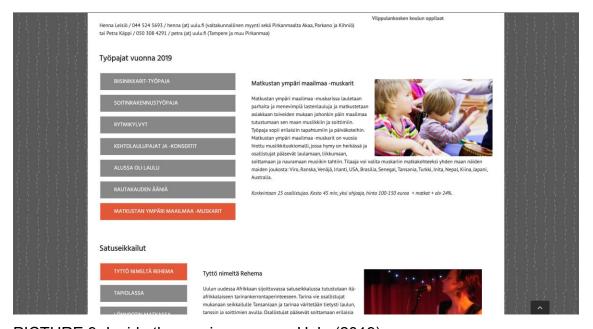
PICTURE 7. Navigation bar UI on Uulu (2019)

Upon scrolling down, a list of the services Uulu offer appeared. The design of the UI for listing services were card like designs. Each card contained short description of the services. Top half of the card was occupied with an image of a past workshop (Picture 8).



PICTURE 8. List of the services on Uulu (2019)

Inside each service page, the information regarding the workshop such as organizer, the pricing, duration and suitable age group was available (Picture 9).



PICTURE 9. Inside the service page on Uulu (2019)

The top area of the service page was occupied by an image of the workshop. Notable thing was that a review of a past workshop was displayed on the right side of the page (Picture 10).

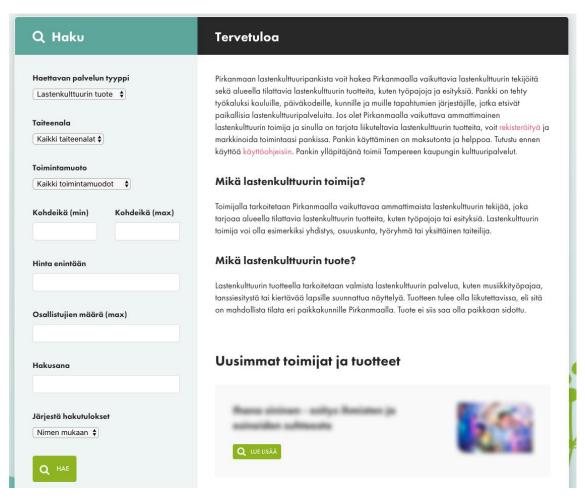


PICTURE 10. Inside the service page on Uulu (2019)

Uulu mainly utilized images to visualize the feel of the workshops. In addition to images, by adding the reviews from the past attendees, users could also get a glimpse of the experience of the workshop. The text information about the workshops covered general description of the workshop, its philosophy, the number of accommodatable attendees, suitable age, pricings and contact information.

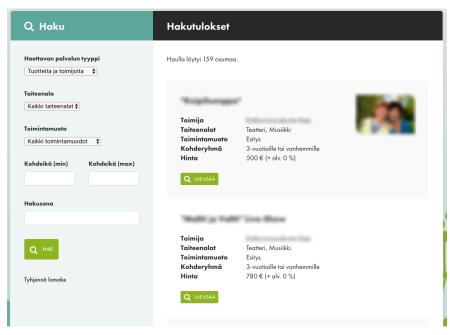
3.3.2 Pirkanmaan Lastenkulttuuripankki

Pirkanmaan Lastenkulttuuripankki is a website to look for workshops or other activities for children in Pirkanmaa region in Finland. A user could search for workshops with filter options including time, suitable age, artforms, activity types and type of service. (Pirkanmaan... n.d.) On the landing page, it showed the brief information about the website and latest service offers and organizers. (Picture 11)



PICTURE 11. Landing page of the Pirkanmaan Lastenkulttuuripankki website (2020)

The search result was displayed as the picture 16 shows (Picture 16).



PICTURE 16. Search result on Pirkanmaan Lastenkulttuuripankki (2020)

Each service list contained title of the service, provider, artform, target group, type of activity and pricing. It seemed some of the information was not visible depending on services and some service also has images as well. (Picture 16)

Inside a service page, more detailed information about the service were available. There was a brief introduction of the service, list of requirements and specifications. The information available to users on the service page was useful and straight forward. As the picture 17 shows, they listed the requirement for the venue size and technologies for the service. The most notable point was that they also added previous venue. This information would work as useful supplement for users to estimate the required environment for the service. (Picture 17)

Tilavaatimukset

Esiintymisalueeksi riittää noin 5x4 m. Mieluiten korotettu mutta voimme esiintyä pienelle yleisöllä myös tasalattialla. Tarvitsemme pukutilan, jossa on peili.

Tekniikkavaatimukset

Tuomme tarvittaessa oman PA-kaluston ja langattomat mikit. Tarvitsemme sähköä.

Aikaisemmat esitys- tai toteutuspaikat

Esiintymisemme ovat vieneet meitä päiväkodeista messulavoille. Etelästä pohjoiseen, lännestä itään. Yleisömäärät tapahtumissa ovat vaihdelleet kymmenistä tuhansiin.

PICTURE 17. Requirement list for a service on Pirkanmaan Lastenkulttuuripankki (2020)

Following the requirements, the information about artform, method, target group, number of participants, duration, link to the artist website, price, payment method and detail about the pricing were also available. Interesting point was that they provided section for detailed information about the pricing.

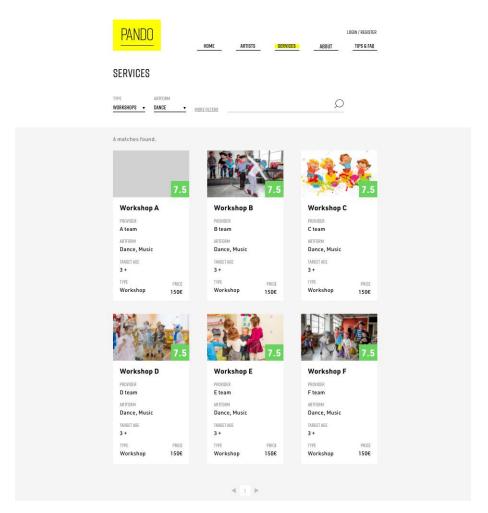
Main findings from the Pirkanmaan Lastenkulttuuripankki page was which information were provided to users about the service details.

4 Pando prototype and testing

The prototype of the Pando was created based on the wireframes which were created based on the findings from the initial interview and benchmarks. Since the focus of this thesis is about visualising services, the prototype is limited to the service list page and service detail pages.

4.1 Service list page

Service list page was where users would use to search for services they would like to purchase. (Picture 18)



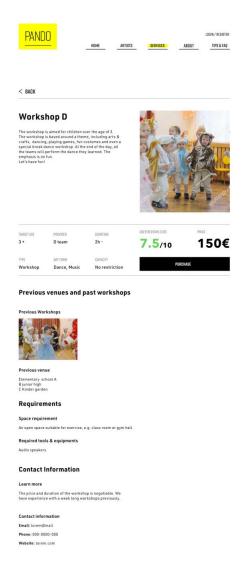
PICTURE 18. Service list page on Pando prototype (2020)

There were six services listed on the search result area and they were the only interactive part on this page. Each service thumbnail tile showed the information

about service providers, artform, user review scores, target age, workshop names, target age and images if it was available. (Picture 18)

4.2 Service detail pages

By clicking the service thumbnail tile, users were taken to service detail pages where they could see more detailed information about each service. (Picture 19)



PICTURE 19. A service detail page on Pando prototype (2020)

As the picture 19 shows, top part of the service detail page contained short introduction of the service and similar information as the thumbnail tile on the service list page (picture 18), however the information such as duration of the service and capacity of attendees were added. Under the pricing and the review score, there was a button for purchasing the service. (Picture 19)

The lower part of the service detail page contained sections for past workshops and previous venues where users could see the examples from the past workshops or information about where the workshops took place before to get some ideas on what kind of premises were used for the workshops before. (Picture 19)

Other information available on the service detail page was contact information to the service providers, list of requirements. (Picture 19)

4.3 Testing

Testing of the prototype was done through survey and remote testing. The testers were provided with the Google form link to the survey. The survey was consisted of two parts. The first part asked general information about testers, name, age, occupation and short questions regarding the tester's familiarity with online shopping. On the second part, testers were provided with short scenario and asked to try the prototype and rank the service variants from the most likely to purchase to the least likely to purchase.

Due to the constraint of time, the testers number were six participants in the end. Testers were consisted from a UX designers, a product designer, a music composer, a student, a comedian and an unemployed person between the age of 20 and 39. (Figure 3)

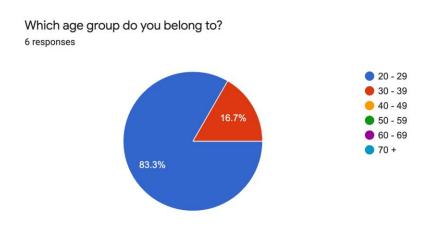


Figure 3. Age groups of the testers (2020)

4.3.1 First part of the survey

On the first part of the survey, the testers were first asked how often the tester usually purchase physical products online. As a follow up question, they were also asked to provide one example of a website they used to purchase a physical product and product they bought. After the question regarding the physical product, the testers were similarly asked questions regarding purchasing services online

4.3.2 Second part of the survey

The second part of the survey started with the information about the purpose of the test, instruction on the task, and the scenario. The task for the testers was to go through all the service pages on the prototype and rank them from the most likely to purchase to the least likely to purchase. All the test variants had near to identical detailed service information, price and user reviews. The purpose of the test was to see what element would affect the users' decisions on purchasing a service. In order to limit the element which would affect the users' decision, elements such as price, requirements, duration of the service, target age, capacity and user review score were identical. Only differences were availability of visual elements such as images, amount of written information. Each

service was named "Workshop" and the only difference was the following alphabet.

Workshop A and Workshop B had identical minimum amount of text and low tone of voice on the text, difference was while Workshop B (Picture 20) has an image for the service, Workshop A (Picture 21) has no image available. This difference was to see the impact of the amount of information and an image would make on users' decision.

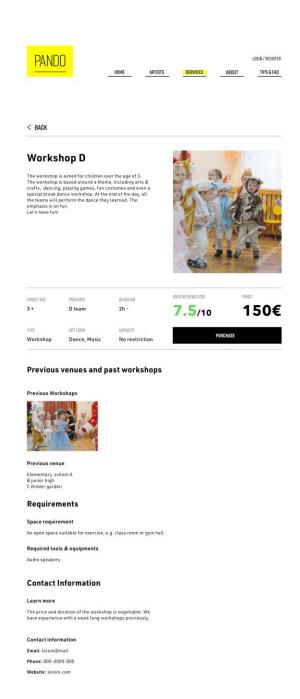


PICTURE 20. Service detail page for the Workshop B (2020)

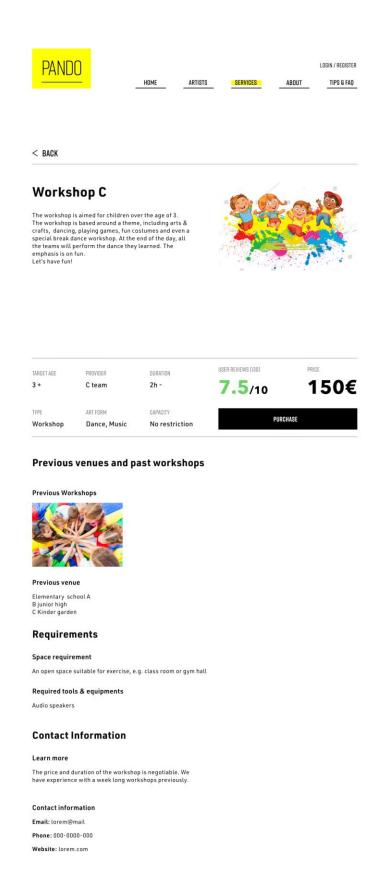


PICTURE 21. Service detail page for the Workshop A (2020)

Workshop C and Workshop D had identical medium amount of text with medium tone of voice and an image for the past example. Main difference was while Workshop D (Picture 22) has an image of the workshop for the main image, Workshop C (Picture 23) has an illustration. This difference was to see the impact of the type of images on users' decision.



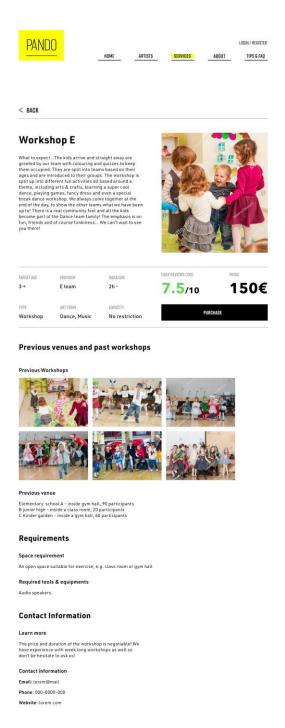
PICTURE 22. Service detail page for the Workshop D (2020)



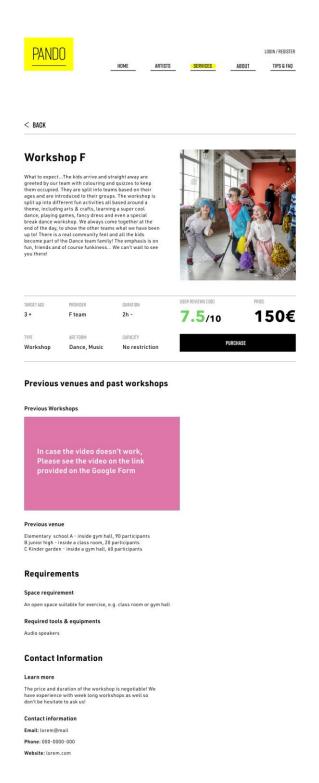
PICTURE 23. Service detail page for the Workshop C (2020)

Workshop E and Workshop F had identical good amount of text with high tone of voice and a workshop image for the main service image. The difference was

while Workshop E (Picture 24) has multiple images for the past workshop example, Workshop F (Picture 25) has one video. This difference was to see the impact of the different visual element on users' decision. The reason for the usage of a video on the Workshop F variant was based on the speculation that testers would prefer a video over images.



PICTURE 24. Service detail page for the Workshop E (2020)



PICTURE 25. Service detail page for the Workshop F (2020)

Those six variants were used on the test to evaluate how a service should be visualised to users.

5 Result and discussion

5.1 Result of the first part of the test

As figure 4 suggests, all the testers were familiar with online shopping on physical products. (Figure 4) The types of the products testers usually purchase online were varied from books to electronics.

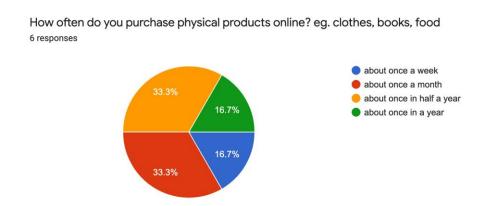


Figure 4. Result on how often testers purchase a physical product online (2020)

Similarly, testers seemed to purchase services online frequently as well. However, while frequency on purchasing physical product was somewhat split (Figure 4) the frequency for purchasing services was more aligned as 66.7 % of the answers were for purchasing a service once a month. (Figure 5) The services testers usually purchase online were either public transportation tickets or subscription based digital entertainment services such as Netflix, which would explain the frequency of once a month.

How often do you purchase services online? eg. train tickets, subscription, concert tickets 6 responses

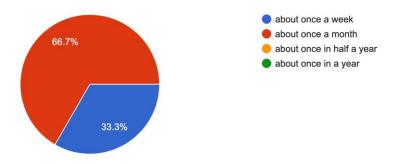


Figure 5. Result on how often testers purchase a physical product online (2020)

5.2 Result on the second part of the test

The second part of the test contains the answers from the A/B testing. The testers were asked to rank each service by assigning a numeric value between 1 and 6. The definition of the value were set to, 1 as the most likely to purchase and 6 as the least likely to purchase. As a follow-up question, they were asked to explain what affected their decision making. However, testers were not restricted from assigning the same value to all the services if they wished to.

For the Workshop A, which contains the minimum amount of text information and no image, all the testers assigned value of 6 (Figure 6). On the other hand, for the Workshop B, which contained one image in addition to the identical amount of information as Workshop A, the result was a split (Figure 7).

Where would you place the Workshop A? 6 responses

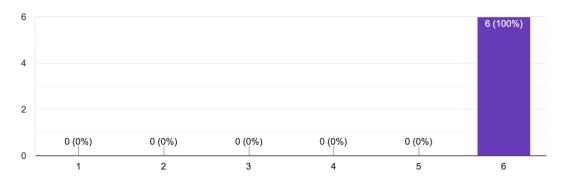


Figure 6. Result on the ranking of the Workshop A (2020)

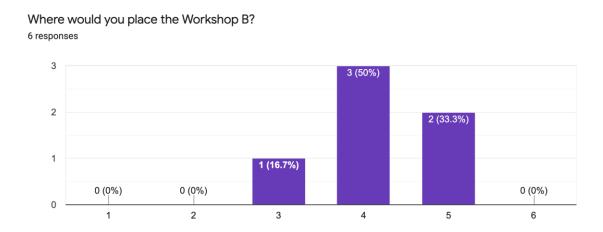


Figure 7. Result on the ranking of the Workshop B (2020)

According to the follow-up question answers, the reason behind this split seemed to be from the preference of the choice of image.

Both Workshop C and Workshop D contained medium amount of text information, an image for the past example and an image for the main service image. However, while Workshop C used an illustration as the main image, Workshop D had an image of a workshop as the main image. The results for both Workshop C and Workshop D were similarly split into three different values. Interesting point from this result was that while ranking of the Workshop C is

equally distributed between the value of 3 to 5, majority of the ranked value for Workshop D was 3. (Figure 8; Figure 9)

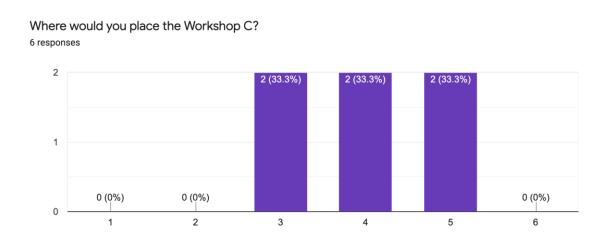


Figure 8. Result on the ranking of the Workshop C (2020)

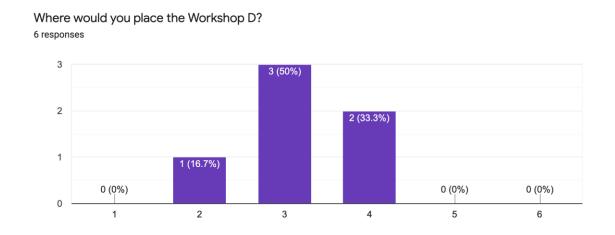


Figure 9. Result on the ranking of the Workshop D (2020)

The result for the Workshop E and the Workshop F, which had the largest amount of text information, and visual elements, the result was somewhat clear. The main difference between Workshop E and Workshop F was while Workshop E had 6 images of workshops for the past example, Workshop F had a video as the past example. As figure 10 and figure 11 suggests, it seemed testers preferred multiple images over a video as a method to visualize a service. (Figure 10; Figure 11)

Where would you place the Workshop E?
6 responses

1 (16.7%) 0 (0%) 0 (0%) 0 (0%) 0 (0%)
1 2 3 4 5 6

Figure 10. Result on the ranking of the Workshop E (2020)

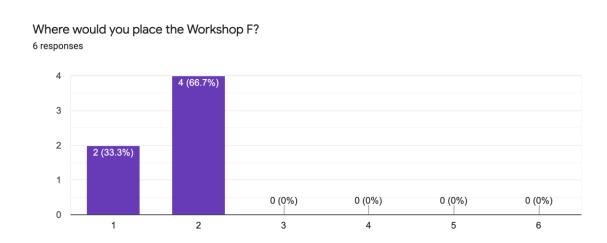


Figure 10. Result on the ranking of the Workshop F (2020)

As overall result, on contrary to the speculation, the most favored variant was Workshop E with 83.3 % of the testers ranking it as the most likely to purchase (Figure 9).

5.3 Discussion

As the test result suggests, it seems the most preferred ways to visualize a service is to describe the service experience and requirements with written information and use multiple images to support that information.

Interesting finding from the answers to the follow-up question on Workshop F was that the videos should work as supplementary to the images. Since watching a video is a time investment for some users, video should be an extra source of information. (Ekdhal 2020)

Another interesting finding from this test was that it seems the more the visual examples were on the service detail page, users found the service to be more trustworthy. (Sun 2020)

According to the result gathered through the A/B test, one of the best ways to visualize a service is to make sure the text covers detailed information about the service itself and requirements, supplement that information with multiple visual elements such as images and if available use a video as extra source of information. However as for the context of Pando, all the elements including images and written text are all edited by service provider, which means the service providers should be provided with this finding from the test. For the future development of the Pando, it seems the possibility of providing tips and guides to service providers needs to be considered.

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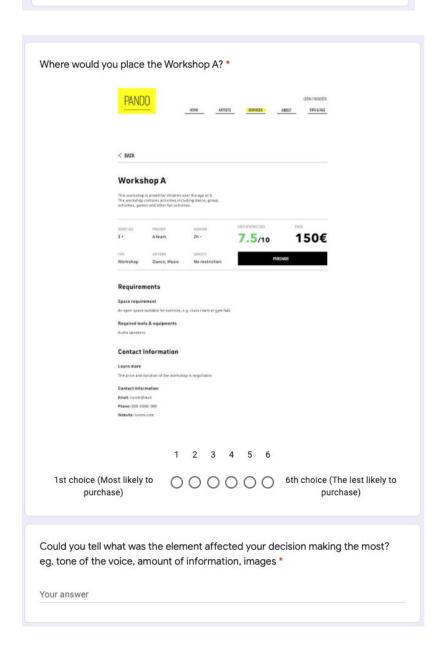
APPENDICES

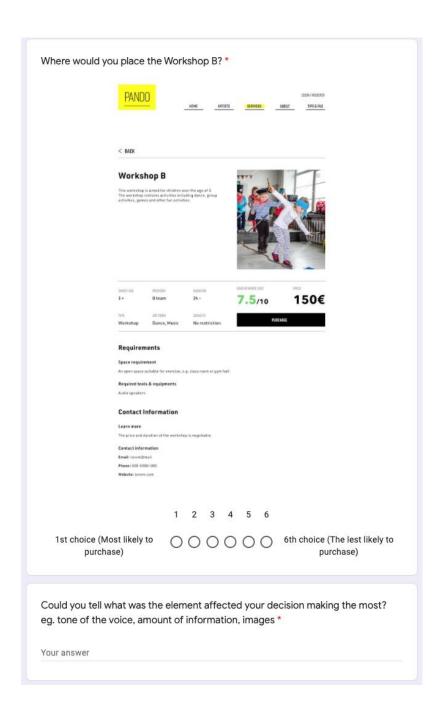
Appendix 1. A/B test question form

Thesis survey						
Hi, thank you for participating in this survey.						
I am currently writing my thesis and the topic is about an e-commerce website for services.						
I would like to ask some general questions about online shopping and also I would like you to check the						
The information answered here will be used for my thesis writing. However your email address will not be shared with anyone, the email address is only for sending emails when the thesis is submitted.						
*Required						
Email address *						
Your email address						
What is your name? * Your answer						
Which age group do you belong to? *						
O 20-29						
30 - 39						
O 40 - 49						
50 - 59						
O 60 - 69						
O 70+						
What is your occupation? *						
Your answer						

How often do you purchase physical products online? eg. clothes, books, food *
about once a week
about once a month
about once in half a year
about once in a year
Other:
Could you give me one example of a website you use the most when purchasing physical products online? *
Your answer
What is the physical product you usually buy from the website you mentioned in the previous answer? eg. Books, Clothes *
Your answer
How often do you purchase services online? eg. train tickets, subscription, concert tickets *
about once a week
about once a month
about once in half a year
about once in a year
Other:
Could you give me one example of a website you use the most when purchasing services online? *
Your answer
What is the service you usually buy from the website you mentioned in the previous answer? eg. Train tickets, Concert tickets, Subscription *
Your answer
Next Page 1 of 2

Thesis survey *Required On this section, I'd like you to try the prototype on the link. The prototype is a UI for an e-commerce website for services. There are 6 services on display (Workshop A to F). What I'm trying to find out through this test is to find what element would affect users making purchase decisions, is its tone of a voice, images or video? What I'd like to ask you to do is, to place those services in order from the 1st choice (the most likely to purchases) to the 6th choice (the least likely to purchase). When you choose the service, imagine that you are a teacher in an elementary school and you are thinking about purchasing a fun dance workshop for your students (30 students age of 7 - 8). To limit the elements which would affect the decision making, the price, user review score and the workshop is identical. Thank you! Link to the prototype: https://xd.adobe.com/view/ad778a43-80d5-44aa-70f5-0804dc5e987b-db46/?fullscreen





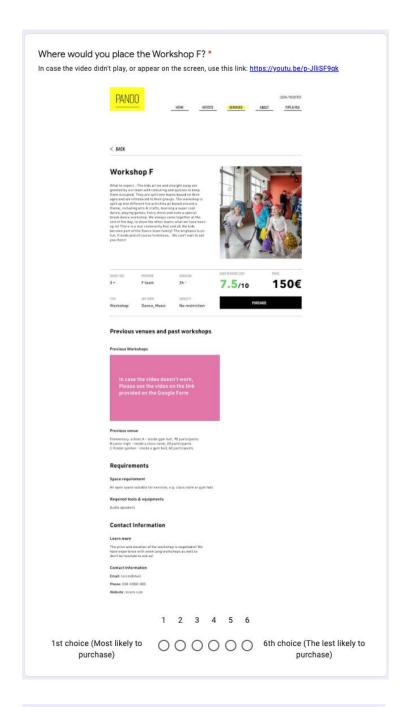
PANDO HOME ARTITIS SERVICES AMOUT 1995 FAQ
< BACK
Workshop C The workshop is aimed for children ever the age of 3. The workshop is hased around a themse, proteining at is A special break discrete workshop. All the end of the day, all the beatow all perform the dance they learned. The emphasis is an fun. Let's here! Sal!
MARETARE PRODUIR DANCIS SISTEMENTING (SEE PROJ. 1903) 3. C tears 20. 7.5/10 150€
Workshop Dance, Music No restriction
Previous Workshaps Previous venue Elementary school A Elementary school A C Kinder garden Requirements Space requirement An appropriate solidation for exercise, e.g. class room or gym hall Required tools & equipments Aucto squakers Contact Information Learn more
The price and duration of the workshop is negotiable. We have capetiable award temp workshops previously. Contact information Ensitt to retilize a 100-000 Website: loren.com
1 2 3 4 5 6 Most likely to 6th choice (The lest likely to purchase)
what was the element affected your decision making the most?

< BACK
Workshop D The exercision is alread for missione even the age of 3. The exercision is stated around all thorse, furtile or got of 8 crafts, denoting, playing gainers, far cooliness and even a special traval derive everything. All the even of the dea, all the tazers will perform the dance they literated. The emphasis is denoted in the literature of the deal of the explanation of the dance they literated. The emphasis is denoted in the second of the dance o
MMETALE PROVIDE DURANTS SERVICES (DEL) PROJ. 3+ D team 2h- 7.5/10 150€
TOT ANTERN DATES NO PERFECTION PUBLISH DATES
Previous venues and past workshops
Previous venue Elimentary school: B juris High C Kinder garden
Requirements Space requirement An open space suitable for exercise, e.g. class room or gym hall Required tools & equipments Audio speakers
Contact Information Learn were
The price and disastions of the workshop is registrate. We have experience with a week long wishchopp previously. Londact information Enal to one off mail Phase: 000-000-000 Wisheld: Inform.com
1 2 3 4 5 6
Most likely to 6th choice (The lest likely to hase)

Where would y	ou place the V	Vorks	hop	E?*				
	PANDO	_	EME_	ARTIETS	SERVI		(05A)-RESTER ANOST 1996 ARQ	
	< BADK							
	Workshop E What to expect. The lide a greefed by aur from with co from or expect. They are spe- ages a control introduced by the control introduced	ouring and q t into feams seir groups. Intition all bo is, learning a dress and ex liways come.	uizzet to ke based on the liho warksho und araund a stupper xool, ren a opecial together at t	op oir opis o i i i				
	TAMEST ALL PROVOUS 3 * E team		301075h 2h -		7.5		150€	
	Werkshep Bance,	Music	Ne restric	ction		FUR	NAME.	
	Previous venue Umerstary situate - music gym hall, %0 participants Byrain right, "mysica a dash rospe, 70 participants C Kiscor garden - music a gym hall, 60 participants Requirements Space requirement An open space suitable for exercise, e.g. class room or gym hall. Required tools & equipments							
	Audio sprakets Contact Information							
	Learn more The prise and duration of the have experience with week don't be healted to ask us!	workshap a ong worksha	s regotiable gs as well s	t We				
	Contact information Email: lorem@meil Phene: 000-6000-020 Website: lorem.com							
		1	2 ;	3 4	5	6		
1st choice (M purch		0 (0 (0 0	0	0	6th choice (The lest likely to purchase)	

Could you tell what was the element affected your decision making the most? eg. tone of the voice, amount of information, images *

Your answer



Could you tell what was the element affected your decision making the most? eg. tone of the voice, amount of information, images *
Your answer
If there's anything you would like to add or comment on, let me know!
Your answer
Back Submit Page 2 of 2