Ref. Ares(2015)5245756 - 20/11/2015

FURNIT-SAVER

Smart Augmented and Virtual Reality Marketplace for Furniture Customisation

D1.1 User Requirements Document

Grant Agreement Number	645067
Call identifier	ICT-18-2014
Project Acronym	FURNIT-SAVER
Project Title	Smart Augmented and Virtual Reality Marketplace for Furniture Customisation
Funding Scheme	Innovation Action
Project Starting date	1st February 2015
Project Duration	14 months
Deliverable Number	D1.1
Deliverable Title	User Requirements Document
Nature of Deliverable	**Report**
Dissemination Level	**Public**
Due date of deliverable	M4
Actual Date of deliverable	01/06/2015 (updated on 12/11/2015)
Produced by	CENFIM – Jordi Albacar
Validated by	ASCAMM – Jesús Pablo González

This project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement no. 645067

Document change record

Issue Date	Version	Author	Sections affected / Change
02/03/2015	v0.1	Jordi Albacar (CENFIM)	First draft
15/05/2015	v0.2	Jordi Albacar (CENFIM)	Agreement Number change
27/05/2015	v0.3	Jordi Albacar (CENFIM)	Introduce the Innovation chapter and delete the non-functional requirements
28/06/2015	v0.4	Jesús Pablo González (ASCAMM)	Internal review. Slight modification in sections 1, 2 and 3
01/06/2015	v1.0	Jesús Pablo González (ASCAMM)	Accepted as final version
20/10/2015	v1.1	Jordi Albacar (CENFIM)	Update the document taking into account the survey and the functionality simulator discussions
12/02/2015	v2.0	Jesús Pablo González (Eurecat)	Accepted as revised version

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1 FurnIT-SAVER project introduction

The traditional nature of the furniture industry and the limited incorporation of ICT tools have reduced the ability of SMEs in the sector to innovate and respond to the competition coming from larger companies. These specialised furniture shops and small furniture manufacturers have been unable to compete with the economies of scale advantages that larger furniture retailers can offer.

On the other hand, smaller furniture companies can offer higher levels of personalization and quality of customized goods that truly meet customers' preferences and needs which represents a potential competitive advantage over larger furniture providers. Nevertheless, as it is impossible to envisage how the furniture will look and fit into the customers home, customised furniture also bears an expensive risk if the final piece of furniture does not meet the customer's needs or does not complement other furniture. Furthermore, these customised services are predominantly provided on a face-to-face basis in local and fragmented markets which prevents small manufacturers to benefit from ecommerce growth and limit their international reach.

The FURNIT-SAVER project makes use of innovative ICT solutions based on a combination of Virtual and Augmented Reality (VR/AR) technologies, recommendation engines and ecommerce solutions, to produce a smart marketplace for furniture customisation. Customers will be able to select among an extensive furniture catalogue and properties and virtually try the selected pieces in their rooms with three very simple steps: (1) Creating an accurate 3D virtual representation of their place, (2) Trying furniture of different manufacturers in this virtual scenario and get recommendations according to their preferences of a wide range of properties and pieces, and (3) Visualizing the fit of the chosen products in their place using augmented reality.

2 Scope of the document

This document details the functional user requirements of the FurnIT-SAVER marketplace. Non-functional and system requirements will be included in deliverables D2.1 for the overall system and in D2.2 for every developed module. As agile methodologies are used to constantly get the feedback from the relevant stakeholders (customers, manufacturers and retailers) this document will be updated along the project.

3 FurnIT-SAVER Innovations included in this document

This chapter shows the innovations, from the functional requirements point of view, that introduces the FurnIT-SAVER project. These innovations must be divided in several groups according to the stakeholders benefiting from the expected results:

3.1 Innovations for furniture purchasers

The purchasers are divided into 2 types:

- **Domestic purchasers:** individuals, usually buying home furniture pieces. The main innovations for these users are:
    - The ability to map the layout of the room to be furnished in an easy way using a mobile device and upload it in the FurnIT-SAVER platform
    - The possibility to select and visualize furniture pieces from different furniture manufacturers using a virtual reality application, having the option to test and choose among several furniture combinations in the FurnIT-SAVER platform
    - The automatic recommendation of similar and complementary products taking into account user profile defining indicator such as the user preferences and the already selected furniture
    - The capability to visualize the selected furniture combination at home using augmented reality technology: seeing the virtual furniture pieces in the real room
    - As a global innovation for purchasers, the use of all the tools and applications as a whole to make easier and simplify the buying process so that they can have the best possible idea about how the furniture fits in the real targeted room
- **Professional purchasers:** These are designers, architects, interior designers, etc, offering services in the “contract” channel (hotels, schools, hospitals, offices...). They benefit from the same innovations than the domestic purchasers, in addition to the advantage that they can optimize the design process by reusing digital designs from room to room. For example, different hotel rooms can have different layouts, but they have the same furniture pieces. Another big advantage is that they have a set of furniture providers all available in a single platform that should cover all their needs.

3.2 Innovations for furniture salespersons

Salespersons who sell furniture in furniture shops. The main innovations for these users group are:

- The ability to use the room layout created by the purchaser who enters in the furniture shop and/or to define the layout of the room to be furnished in an easy way using a drawing tool
- In the same way than the purchasers,
    - The possibility to select and visualize furniture pieces from different furniture manufacturers using a virtual reality application, having the option to test and choose among several furniture combinations in the FurnIT-SAVER platform
    - The automatic recommendation of similar and complementary products taking into account user profile defining indicator such as the user preferences and the already selected furniture
- To make easier the buying process, supported by information technology tools and applications, spending less time and increasing the client satisfaction

3.3 Innovations for furniture manufacturers

Manufacturers providing their furniture pieces to the marketplace platform will benefit from the following innovations:

- The ability to upload into the FurnIT-SAVER database their furniture pieces in an easy way, so that the purchasers will be able to select and visualize them in the virtual and augmented reality environments
- As a main business innovation, and very important for the SME European Furniture Manufacturers, the possibility:
    - To provide customized products according to the customers' preferences in order to compete with the economies of scale from the larger companies
    - To open a new global market that, till now, was unachievable for the SME European Furniture Manufacturers

4 Functional Requirements

The functional requirements describe the features of the FurnIT-SAVER marketplace: they express the software functionalities to be provided to the users. Summarizing, the functional requirements show what a system should be able to do (**behaviours**) and the **functions** it should perform.

To easily identify the requirements, the requirements are named according to the following the rules:

- For functional requirements: FUN-YYY-ZZZ-NNN:
    - YYY is the user identifier of the platform (PUR for purchasers, RET for retailers, MAN for furniture manufacturers).
    - ZZZ is the specific requirement of the user (REG for registration, LAY for layout definition, ...)
    - NNN is the ordinal number, starting by 001

For example, the FUN-PUR-LAY-001 means the requirement number 1 of the layout definition in the functional requirements group for purchasers.

The FurnIT-SAVER functional requirements are divided into several groups taking into account the following stakeholders:

- **final users (domestic and professional purchasers)**: individuals, usually buying home furniture pieces, that can use the marketplace to visualize and make easier the buying process. These final users can use the marketplace tools at home until finalising the buying process and/or use the marketplace tools at home and go to the furniture shop to see and touch the real furniture pieces and finish the buying process there, and/or come back at home after touching the real furniture pieces at the furniture shop and finish the buying process at home. The interior designers, architects, ..., who provide services for the “contract” channel, are also included in this final users group.
- **furniture retailers**: salespersons who sell furniture in a furniture shop. They should help the furniture purchasers (that could be part of the “final users” or not) to define the room layout where to place the furniture using some marketplace tools and/or explaining the “final user” how to use the platform
- **furniture manufacturers**: manufacturers providing their furniture pieces to the marketplace platform

4.1 Functional requirements for final users (PUR - purchasers)

4.1.1 Registration (REG)

- FUN-PUR-REG-001: The system should allow the user to register and log in to the platform through any device, i.e. portable or desktop device
- FUN-PUR-REG-002: The system should allow the user to define his/her profile and preferences once logged in into the platform
- FUN-PUR-REG-003: The system should create and assign to the registered user a “customer area” after the registration phase
- FUN-PUR-REG-004: The system should be able to create an anonymized user profile according to the data gathered during the registration phase

4.1.2 Defining the room layout (LAY)

- FUN-PUR-LAY-001: The system should allow the user to capture or create and edit the layout of a room using a mobile device
- FUN-PUR-LAY-002: The system should allow the user to create and edit the layout of a room using a drawing tool in a PC environment
- FUN-PUR-LAY-003: The system should allow the user to save and export the layout of the room using the marketplace platform in the customer area

4.1.3 Using the Virtual Reality Environment (VRE)

- FUN-PUR-VRE-001: The system should allow the user to select/import the layout of the room from the customer area using the Virtual Reality environment
- FUN-PUR-VRE-002: The system should allow the user to add/delete/change several furniture pieces in order to see how they fit using the Virtual Reality Environment
- FUN-PUR-VRE-003: The system should allow the user to visualize, using different points of view, the selected furniture pieces in the virtual room using the Virtual Reality Environment
- FUN-PUR-VRE-004: The system should allow the user to change the furniture attributes, depending on the manufacturers limitations, using the Virtual Reality Environment
- FUN-PUR-VRE-005: The system should allow the user to save/export the furniture configuration in the customer area using the Virtual Reality Environment
- FUN-PUR-VRE-006: The system should allow the user to use the Virtual Reality environment using a PC device

- FUN-PUR-VRE-007: The system should allow the user to configure/change their preferences (furniture style, budget range, room layout, ...) at any time, using the Virtual Reality Environment
- FUN-PUR-VRE-008: The system should recommend similar and complementary furniture pieces to the already selected at the recommender area, using the Virtual Reality Environment.
- FUN-PUR-VRE-009: The system should allow to print the markers to be used in the Augmented Reality Environment, using the Virtual Reality Environment

4.1.4 Using the Augmented Reality Environment (ARE)

- FUN-PUR-ARE-001: The system should allow the user to select/import/download the furniture configuration saved in the FurnIT-SAVER customer area using the Augmented Reality Environment
- FUN-PUR-ARE-002: The system should allow the user to add/delete/change furniture pieces of current combination in order to see how they fit using the Augmented Reality Environment
- FUN-PUR-ARE-003: The system should allow the user to visualize the selected furniture pieces in the real room using the Augmented Reality environment
- FUN-PUR-ARE-004: The system should allow the user to change the furniture attributes depending on the manufacturer limitations using the Augmented Reality Environment
- FUN-PUR-ARE-005: The system should allow the user to save/export the furniture configuration in the customer area using the Virtual Reality Environment
- FUN-PUR-ARE-006: The system should allow the user to use the Augmented Reality Environment through a mobile a mobile device

4.1.5 Purchasing/Ordering (ORD)

- FUN-PUR-ORD-001: The system should allow the user to create a final list of items to purchase or cart and may eventually provide a payment method thourgh existing eCommerce tools in Virtual and Augmented Reality Environments

4.1.6 Recommendation engine (REC)

- FUN-PUR-REC-001: The system should recommend the user similar and complementary pieces to the selected furniture configuration in the Virtual Reality Environment

- FUN-PUR-REC-002: The system should recommend the user an initial set of furniture based on the user preferences gathered in the registration phase and on the historical data from the user (i.e. this doesn't apply on initial recommender training state)

4.2 Functional requirements for furniture retailers (RET)

From the furniture salesperson point of view, working in a furniture shop, the use of the platform is quite similar than the final user/purchaser.

In case the final user/purchaser entering at the furniture shop has not yet registered in the platform, the salesperson could help them to define their profile.

If the purchaser has not defined the room layout where to place the furniture, the salesperson could help them to define it using the drawing tool. If the final user/purchaser has already defined the room layout at home (using the mobile device or the drawing tool) and saved it in the platform in his/her customer area, the salesperson could help them to import this layout.

At this point, the final user/purchaser can use the recommendation engine and the virtual reality environment. Then, all the functionalities that the system offers to the final user/purchaser at home are the same than the salesperson can use and can offer him/her.

The main difference is when the final user/purchaser has defined the final furniture configuration because they (purchaser and salesperson) are at the furniture shop and cannot see the selected pieces it in the real room using the augmented reality environment. The final user/purchaser could use the augmented reality in the furniture shop, but it is not the final place where the furniture will be located.

For this reason, the following requirements are the same for the final user/purchaser and for the salesperson working in a furniture shop:

- Registration (REG)
- Defining the layout (LAY), with the exception of FUN-PUR-LAY-001 which allows to define the room layout using a mobile device.
- Using the Virtual Reality Environment (VRE)
- Purchasing (ORD)

With respect to the Recommendation engine (REC) the retailers will have specific functional requirements:

- FUN-RET-REC-001: The system should provide to retailers the possibility to use/define/adapt different recommendation criteria according to aggregated or individual information about profile trends
- FUN-RET-REC-002: The system should provide retailers with notifications about customers' satisfaction reviews as well as likes and dislikes regarding the use of the platform, potentially taking into account the customer's relevance or reputation

4.3 Functional requirements for furniture manufacturers (MAN)

4.3.1 Registration (REG)

- FUN-MAN-REG-001: The system should allow the furniture manufacturers to sign up as a furniture provider using the marketplace registration tool
- FUN-MAN-REG-003: The system should assign a “manufacturer area” to the furniture manufacturer once finish the registration step

4.3.2 Uploading furniture pieces (UPL)

- FUN-MAN-UPL-001: The system should allow the manufacturers to create catalogues and assign them a season timeframe.
- FUN-MAN-UPL-002: The system should allow the furniture manufacturers to upload new furniture pieces to the catalogues and define their attributes.
- FUN-MAN-UPL-003: The system should allow the furniture manufacturers to modify the furniture attributes.

4.3.3 Receiving purchase orders (ORD)

- FUN-MAN-ORD-001: The system should allow the furniture manufacturers to receive purchase orders of their furniture pieces that the user has order using the marketplace platform

5 Annex I. Survey to final users - purchasers

This chapter analyzes the answers among potential FurnIT-SAVER users covering the buyers profile. The survey has been distributed among the partners staff and closer networks (227 individuals of 3 different countries) to gather an initial feedback of the concept and in-development functionalities, using the Internet (survey monkey).

The first section of this chapter analyses the aggregated data of all the survey answers together, and later, the partner per partner analysis.

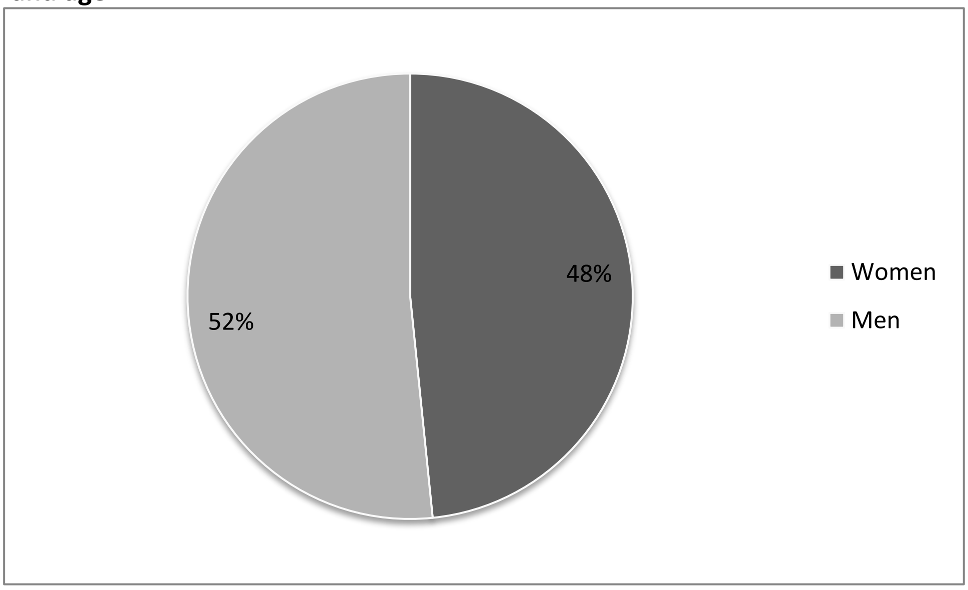
5.1 Aggregated data analysis

This section presents the aggregated and anonymous data gathered in the survey. The answers are analysed separately in two groups, one referring to the user profiles and their preferences and another group referring to the platform perception and usage workflow. At the end of this section, presents the general conclusions of the survey that will be used as inputs for the next steps of the project.

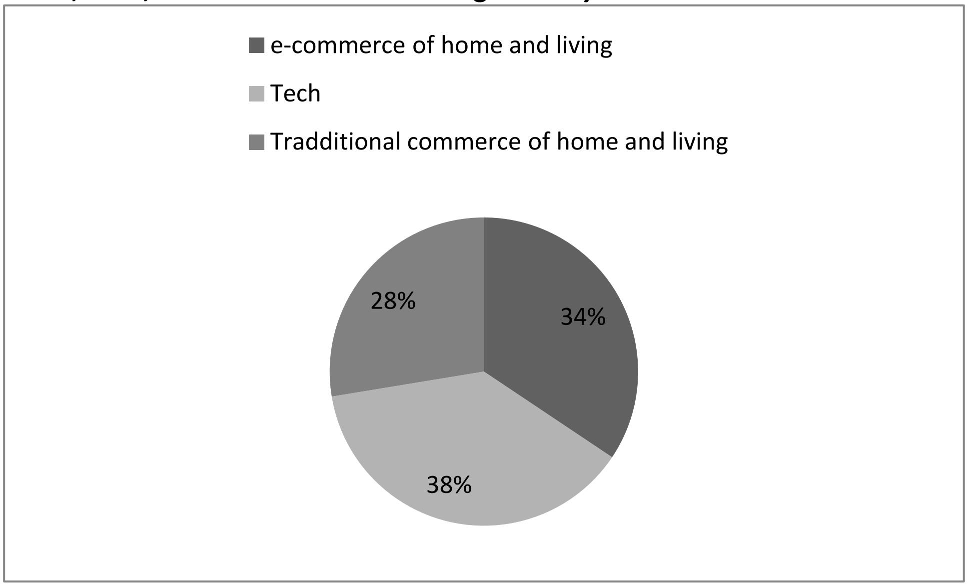
5.1.1 User profile and preferences

Profile analysis

Gender and age

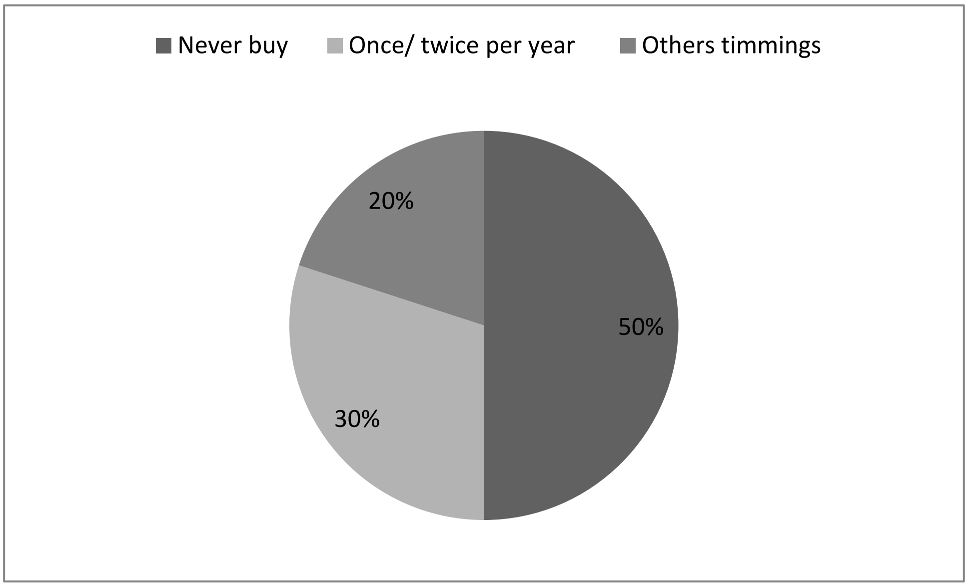


Occupation
E-commerce , Tech, traditional home and living industry



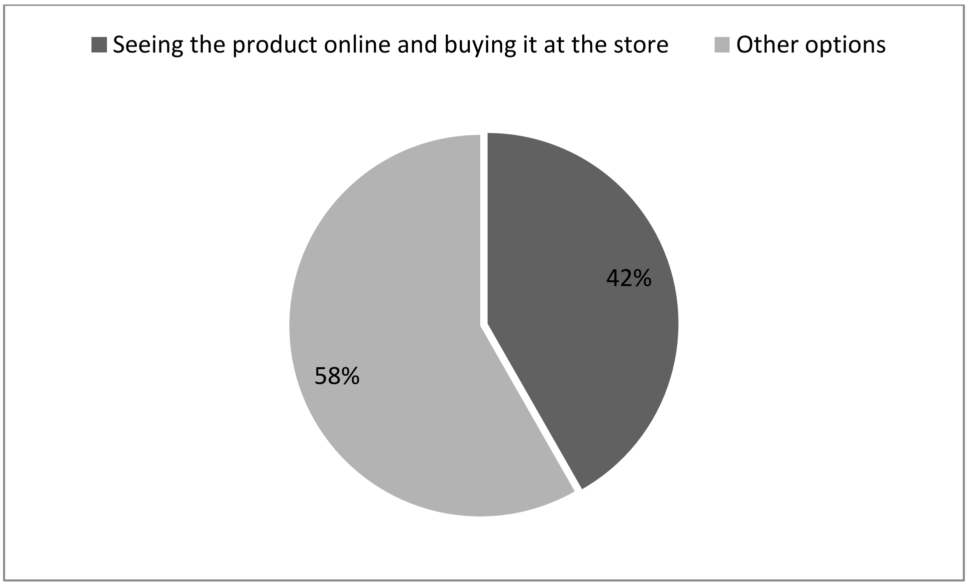
All the people involved are working on the home and living sector (traditional and online) and the technology sector.
Are urban users and are living in Europe.
The age range is from +20 to +50 years

Q2: How often do you buy furniture or decoration accessories on line?



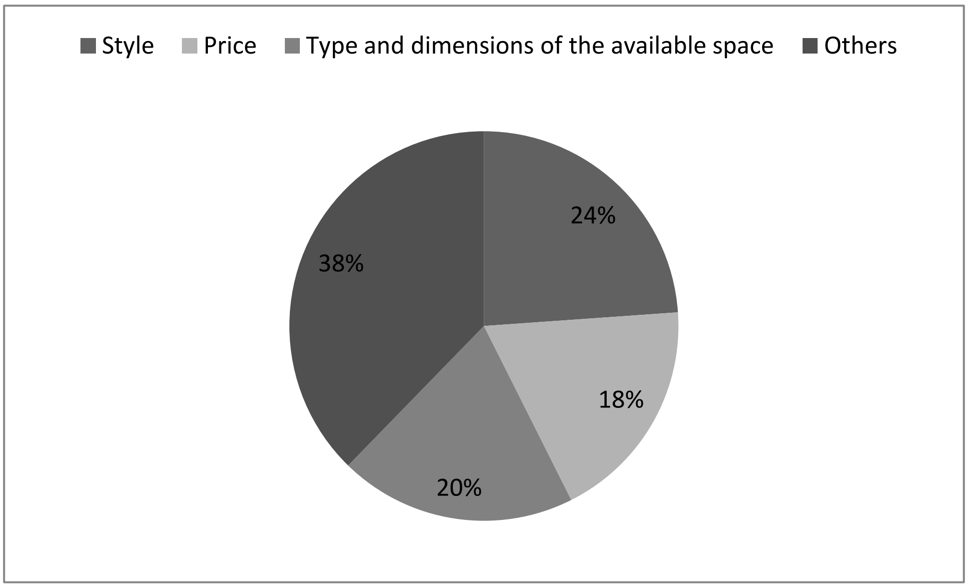
The 50% of the users never buy furniture on internet and the 30% buy furniture online but just once or twice times per year.

Q3: Prioritization of furniture buying processes



42% of the users seeing the product online and buying it at the store

Q7: Most important factors for offering recommendations according to users



A level of recommendation the most preferred parameters are:

- *Dimensions*
- *Price*
- *Style*

5.1.2 Platform perception and usage workflow

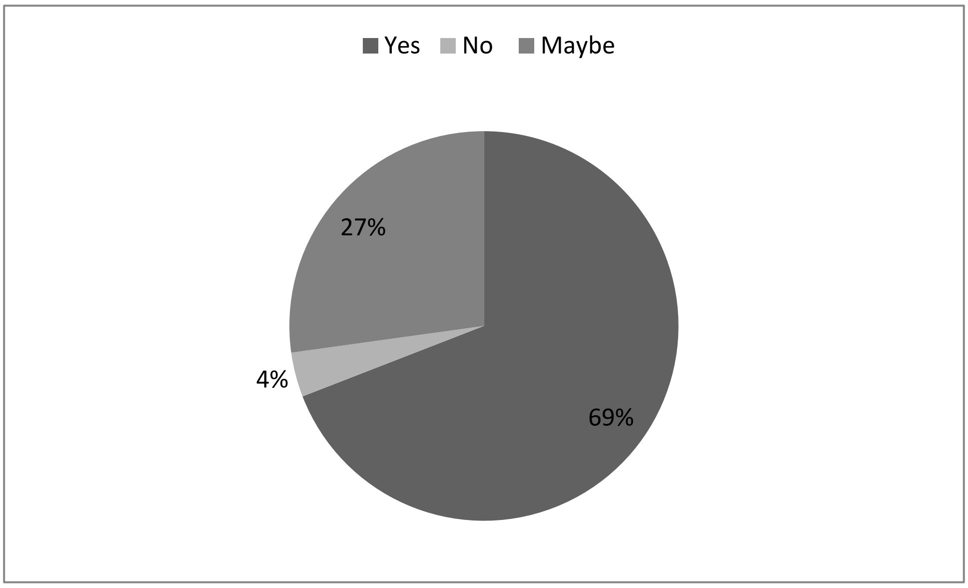
<u>Q4&5: Best and worst of FurnIT-SAVER Platform</u>

Best of the platform:
"The possibility to see the furniture piece in the room and to move it" (Traditional home and living employee)
"You can use it to see how it looks the furniture you haven't bought yet" (Traditional home and living employee)
"It may allow me to detect if the new furniture fits at you home without having to buy and carry it" (Tech employee)
"You can see if it really fits at home" (Tech employee)
"The possibility to see the furniture located in the space" (e-commerce home and living employee)
"You can see how the furniture fits your own home" (e-commerce home and living employee)

Worst of the platform:
"Not everybody will be agree to use this technology" (Traditional home and living employee)
"The process takes a lot of time" (Traditional home and living employee)
"Complicate to star using it" (Tech employee)
"Place QR codes" (Tech employee)
"Too many steps" (e-commerce home and living employee)
"Complex steps, not everybody is going to understand/lose time…It has to be more user friendly and quick" (e-commerce home and living employee)

-The best of FurnIT according to the opinion of the people is that you can see how the furniture matches at home before the purchase.
-The worst is that it takes time, different steps and different technologies.

Q6: Would you recommend FurnIT-SAVER



69% of the people will recommend FurnIT

Q8: Understanding of FurnIT-SAVER platform and suggestions

"Virtual tool for choosing appropriate furniture for different rooms it could be used for stores and producers of furniture" (Traditional home and living employee)
"An App, helping with the visualization of the furnished room" (Traditional home and living employee)"
"App to see final result of deco and furniture in your space" (e-commerce home and living employee)
"FurnIT saver helps you to visualize your furniture in a similar space that you want to put it" (e-commerce home and living employee)
"FurnIT-Saver is an app that allows the potential buyer see the furniture of a store in a virtual image of your home" (Tech employee)
"An App to preview how furniture looks in your own room" (Tech employee)

The majority of the users understand FurnIT.
Note that the higher the group's age the more difficult the platform use is perceived

5.1.3 Conclusions of the survey

The main conclusions of the survey to the users/purchasers are:

- Most of the participants have relationship with the new technologies world and the design and decoration sector, because the survey has been distributed among the partners staff and closer networks.
- Almost 100% of the participants are from Europe and the age is in the 20-50 range
- Most of the participants never buy furniture or decoration accessories using Internet, and when they did it is one or twice per year (even when some of them work in the technology world and design and decoration sectors).
- On the other hand, Internet is the most important source to look for a product, but the traditional shop is the favourite place to buy.
- At recommendation level, the favourite parameters are type and dimensions, price and style.

Regarding to the FurnIT concept:

- Most of the participants understand about what is the FurnIT
- Most of the participants should recommend the FurnIT
- Best of the FurnIT is that it is possible to see how the furniture fits at home before buying it
- Almost all the survey participants agree in the application implies a lot of time, different technologies and too much steps
- The higher the group's age the more difficult the platform use is perceived

5.2 Partner by partner analysis

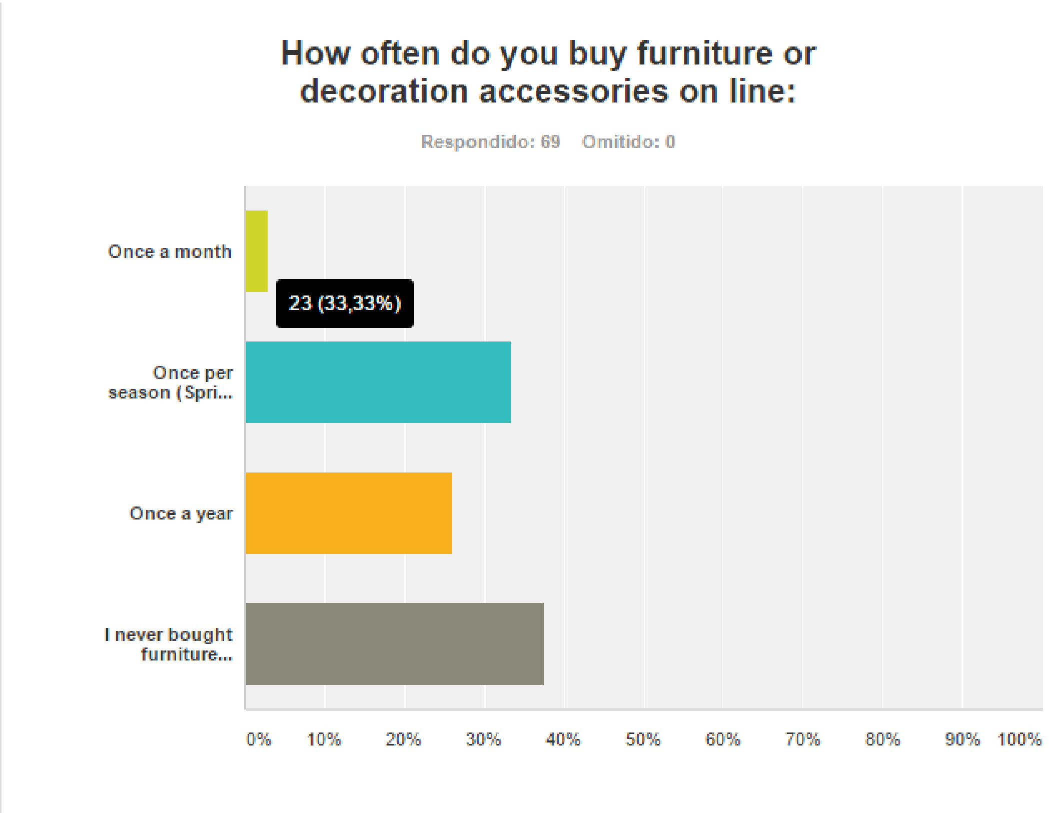
This section presents the data gathered in the survey, analysed partner by partner.

5.2.1 WESTWING

Profile

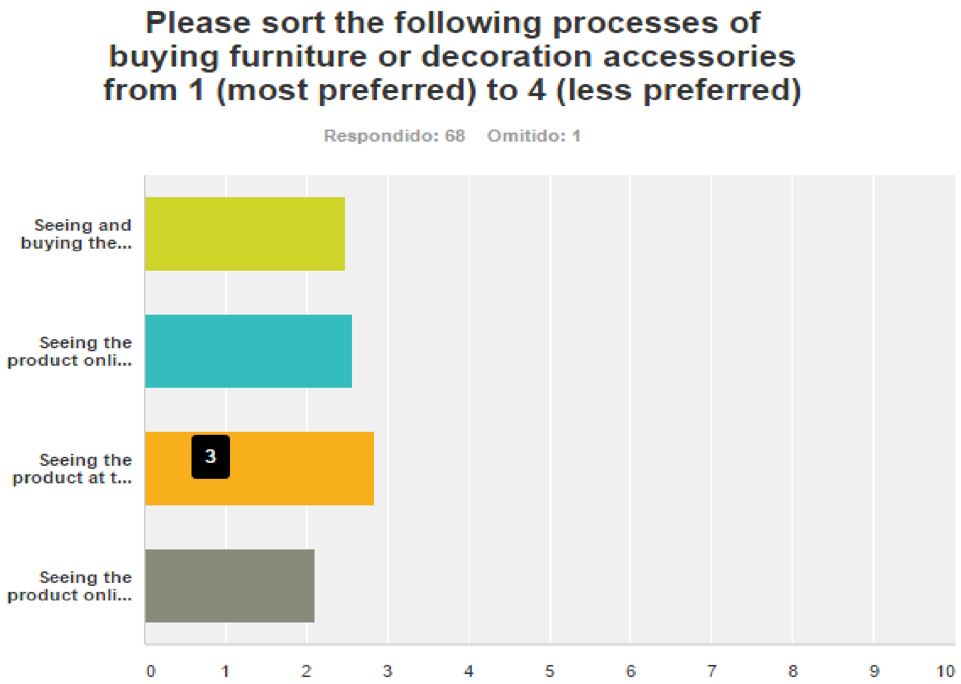
Nº surveys	***69***
Female	***47***
Male	***22***
Occupation - age	***E-commerce of home and living 27***
City	***Barcelona***

Q2: How often do you buy furniture or decoration accessories on line?



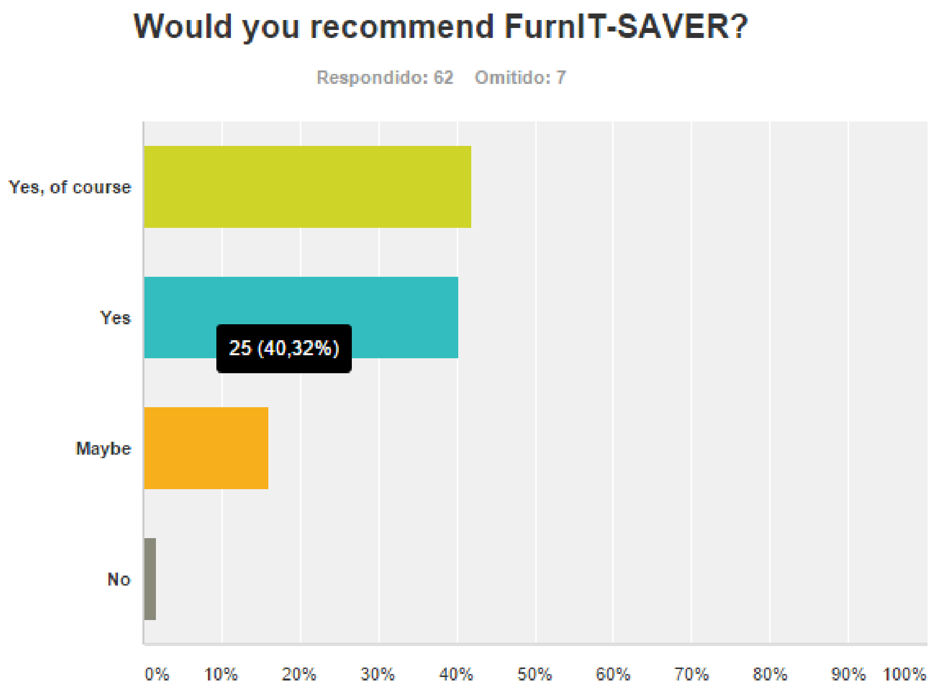
The participants that never buy furniture are less than 40%, more than 12 points far from the average of all the aggregated data (50%). On the other hand, more than 50% buy furniture and decoration accessories on-line minimum once per year.

Q3: Prioritization of furniture buying processes



	1	2	3	4	Total	Puntaje
Seeing and buying the product online	26,47% 18	22,06% 15	25,00% 17	26,47% 18	68	2,49
Seeing the product online and buying it at the store	30,88% 21	22,06% 15	20,59% 14	26,47% 18	68	2,57
Seeing the product at the store and buying it online	26,47% 18	38,24% 26	27,94% 19	7,35% 5	68	2,84
Seeing the product online, checking it at the store and buying it online	16,18% 11	17,65% 12	26,47% 18	39,71% 27	68	2,10

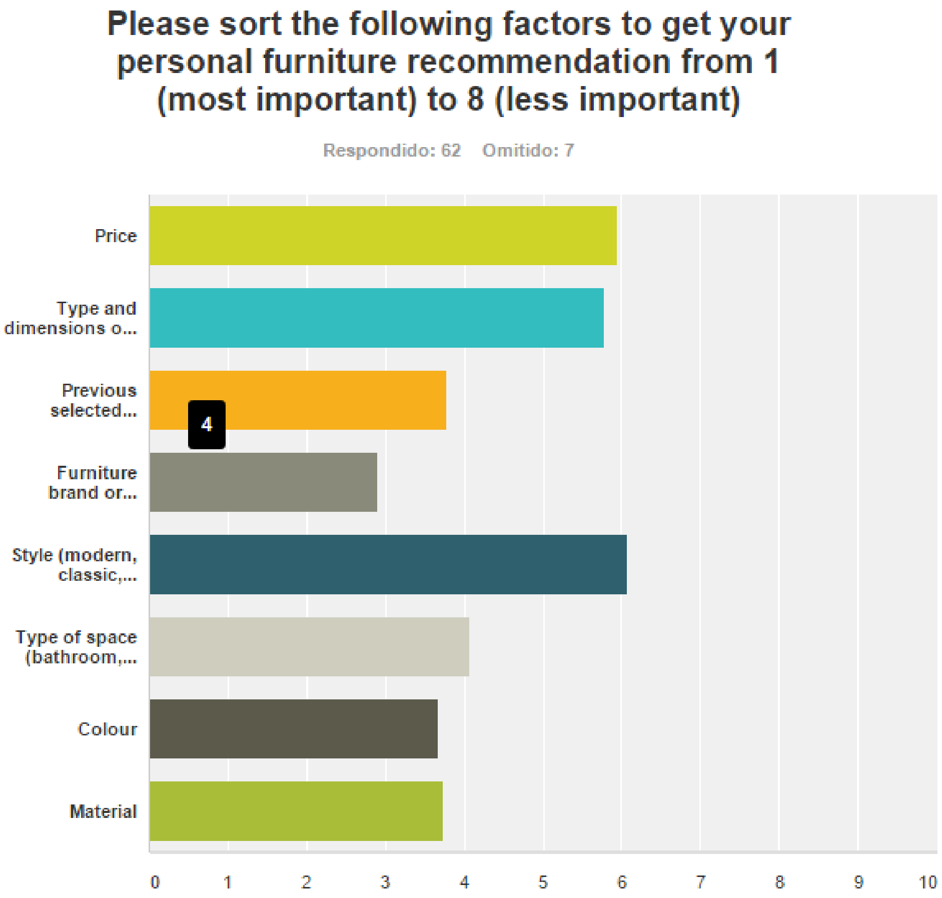
Q6: Would you recommend FurnIT-SAVER



Opciones de respuesta	Respuestas	
Yes, of course	41,94%	26
Yes	40,32%	25
Maybe	16,13%	10
No	1,61%	1
Total		62

More than 80% would recommend the platform, 11 points over the average of the aggregated data.

Q7: Sort the factors to get your personal furniture recommendation

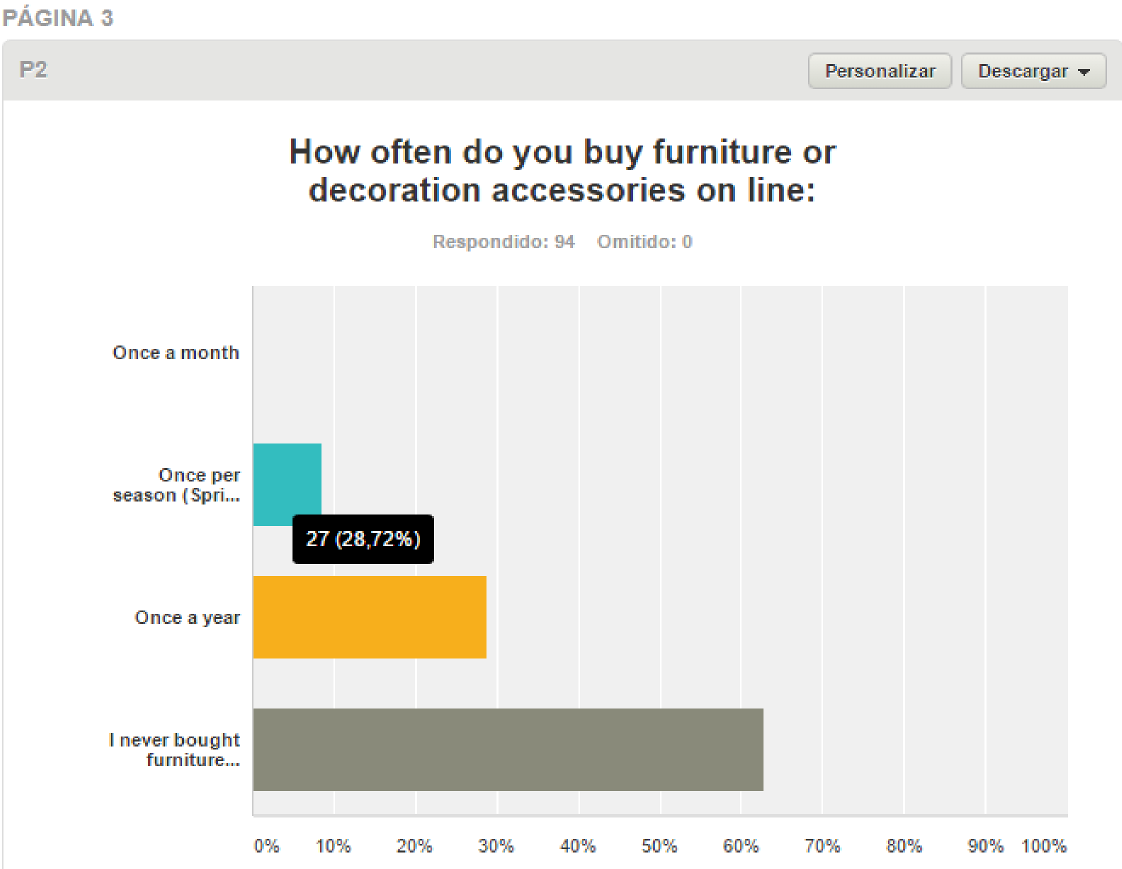


5.2.2 EURECAT

Profile

Nº surveys	94
Female	39
Male	55
Occupation - Age	Tech - 35
City	Catalunya (Barcelona)

Q2: How often do you buy furniture or decoration accessories on line?



Opciones de respuesta	Respuestas	
Once a month	0,00%	0
Once per season (Spring, Summer, Christmas...)	8,51%	8
Once a year	28,72%	27
I never bought furniture online	62,77%	59
Total		94

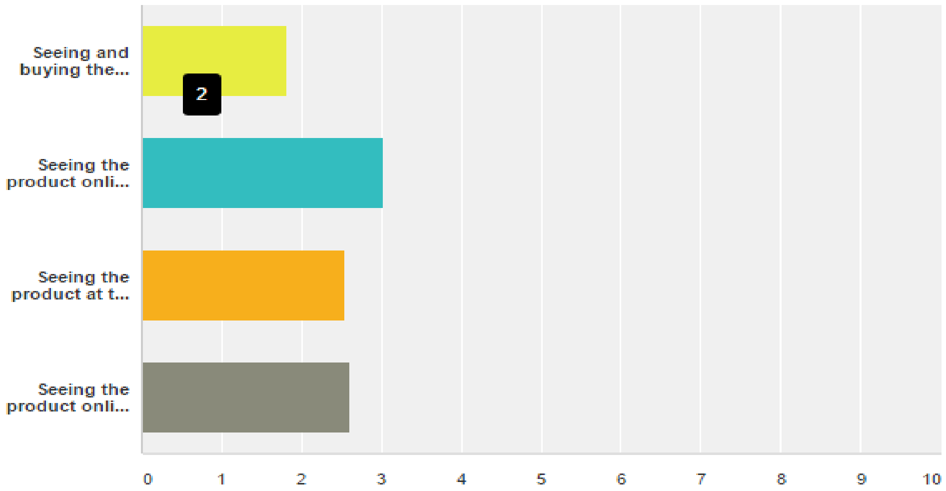
The aggregated data average of the participants that never buy furniture and decoration accessories online is 50% and the answers of the participants associated to this partner is more than 10 points over, even when most of them has "tech-related" occupation.

Q3: Prioritization of furniture buying processes

P3 Personalizar Descargar

Please sort the following processes of buying furniture or decoration accessories from 1 (most preferred) to 4 (less preferred)

Respondido: 88 Omitido: 6



	1	2	3	4	Total	Puntaje
Seeing and buying the product online	12,50% 11	13,64% 12	17,05% 15	56,82% 50	88	1,82
Seeing the product online and buying it at the store	47,73% 42	20,45% 18	18,18% 16	13,64% 12	88	3,02
Seeing the product at the store and buying it online	14,77% 13	34,09% 30	42,05% 37	9,09% 8	88	2,55
Seeing the product online, checking it at the store and buying it online	25,00% 22	31,82% 28	22,73% 20	20,45% 18	88	2,61

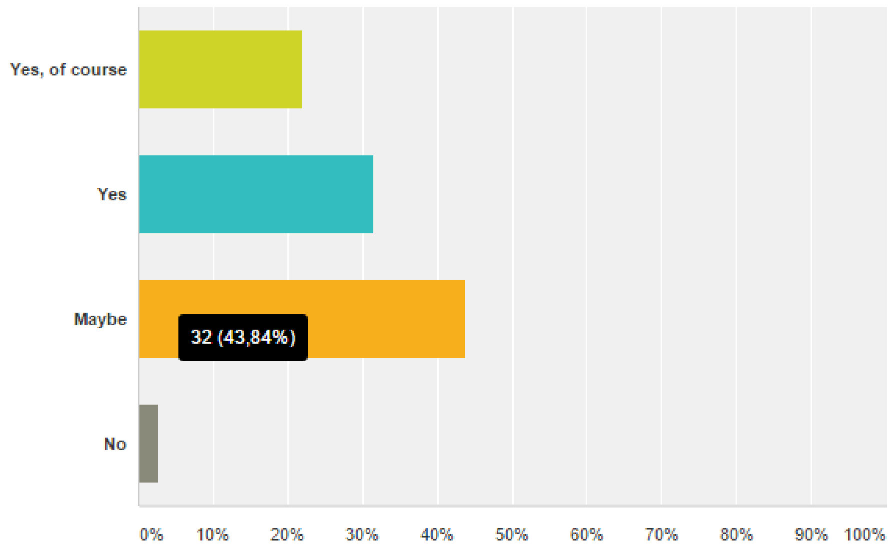
Q6: Would you recommend FurnIT-SAVER

PÁGINA 6

P6 Personalizar Descargar

Would you recommend FurnIT-SAVER?

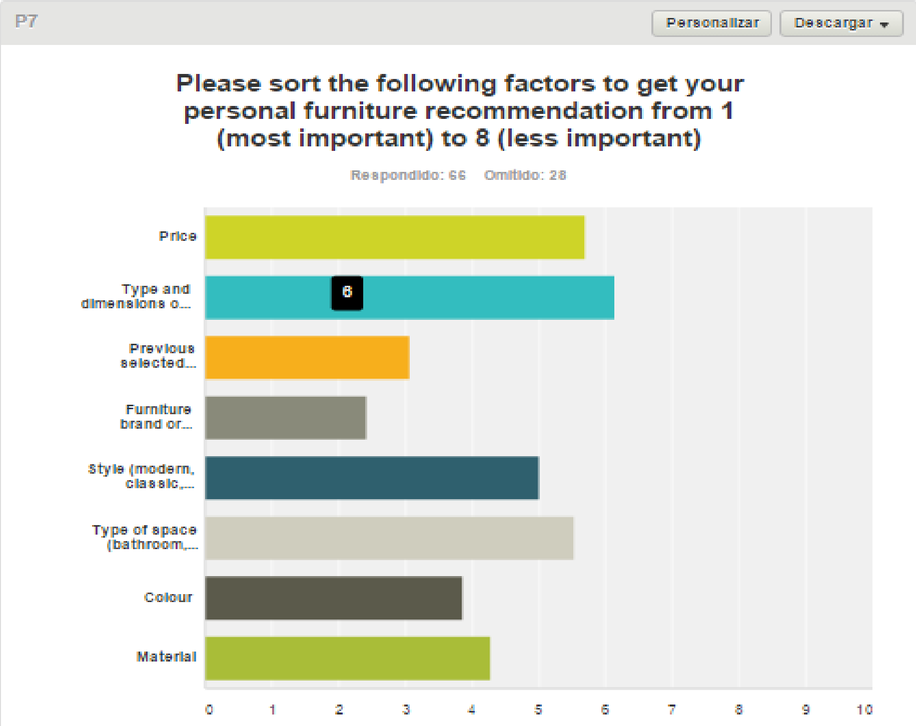
Respondido: 73 Omitido: 21



Opciones de respuesta	Respuestas	
Yes, of course	21,92%	16
Yes	31,51%	23
Maybe	43,84%	32
No	2,74%	2
Total		73

Note that "**maybe**" is the most important answer: 43,84%, more than 15 points far from the average (27%).

Q7: Sort the factors to get your personal furniture recommendation



	1	2	3	4	5	6	7	8	Total	Puntaje
Price	19,70% 13	15,15% 10	18,18% 12	25,76% 17	9,09% 6	9,09% 6	1,52% 1	1,52% 1	66	5,70
Type and dimensions of the available space	27,27% 18	28,79% 19	18,18% 12	6,06% 4	6,06% 4	6,06% 4	4,55% 3	3,03% 2	66	6,14
Previous selected furniture on the platform	9,09% 6	6,06% 4	1,52% 1	4,55% 3	10,61% 7	13,64% 9	21,21% 14	33,33% 22	66	3,06
Furniture brand or country of origin	3,03% 2	1,52% 1	4,55% 3	4,55% 3	7,58% 5	12,12% 8	24,24% 16	42,42% 28	66	2,42
Style (modern, classic, romantic...)	10,61% 7	16,67% 11	16,67% 11	13,64% 9	18,18% 12	12,12% 8	10,61% 7	1,52% 1	66	5,02
Type of space (bathroom, living room, terrace...)	27,27% 18	19,70% 13	13,64% 9	6,06% 4	7,58% 5	9,09% 6	10,61% 7	6,06% 4	66	5,53
Colour	0,00% 0	4,55% 3	7,58% 5	25,76% 17	19,70% 13	22,73% 15	13,64% 9	6,06% 4	66	3,86
Material	3,03% 2	7,58% 5	19,70% 13	13,64% 9	21,21% 14	15,15% 10	13,64% 9	6,06% 4	66	4,27

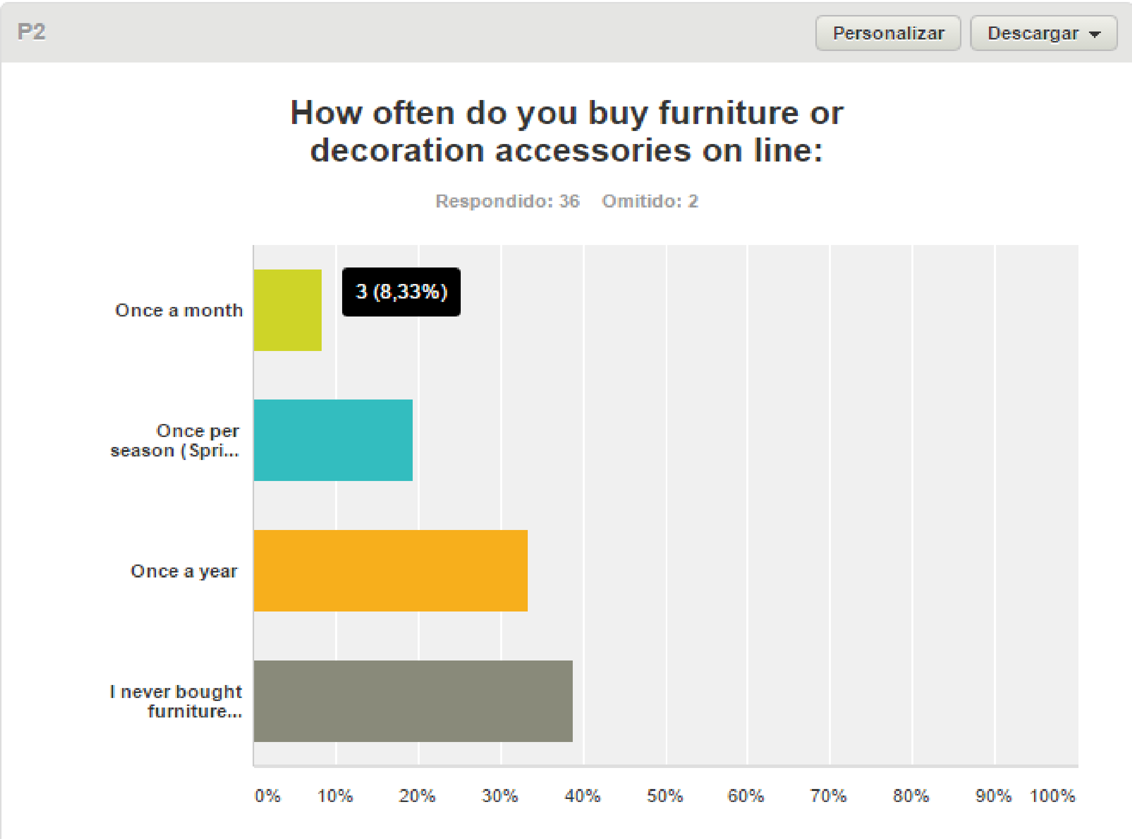
5.2.3 CENFIM – ACS

In this case, the survey was shared between CENFIM and ACS. The first partner is from Spain and related to the furniture world and the second one, ACS, from Italy, and related to the techonology.

<u>Profile</u>

Nº surveys	38
Female	12
Male	26
Occupation - age	35 – 40 employee
City	Rome, Barcelona, Pekín….

Q2: How often do you buy furniture or decoration accessories on line?



Opciones de respuesta	Respuestas	
Once a month	8,33%	3
Once per season (Spring, Summer, Christmas...)	19,44%	7
Once a year	33,33%	12
I never bought furniture online	38,89%	14
Total		36

In this case, the average of survey participants that buy furniture and decoration accessories once or twice per year is more than 50%, in comparison with the average of the aggregated data: 30%

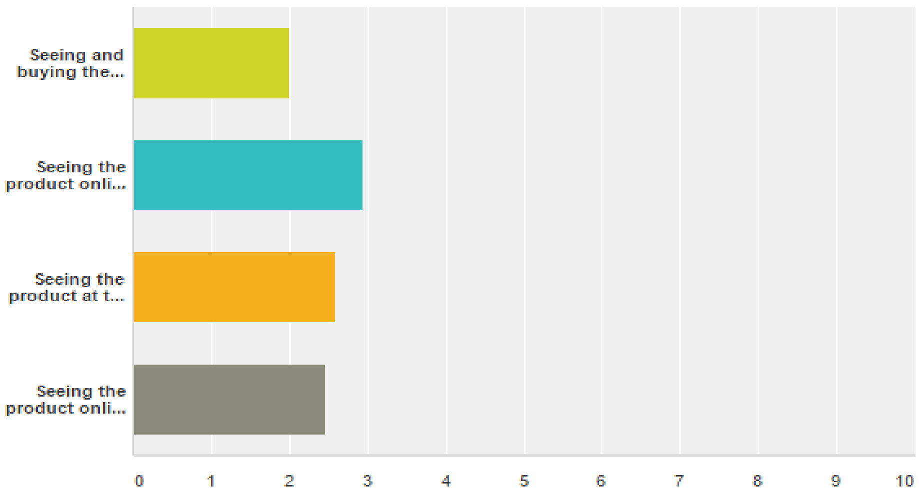
Q3: Prioritization of furniture buying processes

P3

Personalizar Descargar

Please sort the following processes of buying furniture or decoration accessories from 1 (most preferred) to 4 (less preferred)

Respondido: 36 Omitido: 2



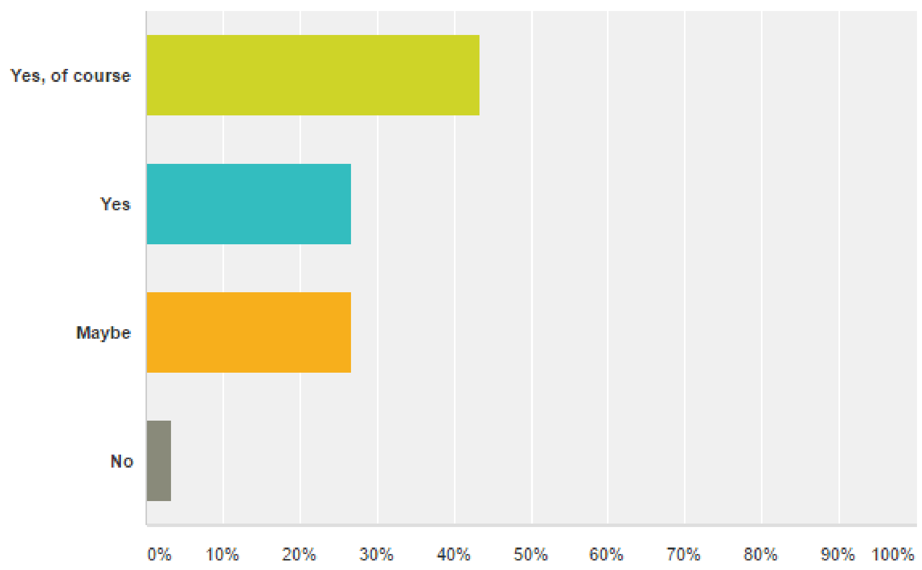
	1	2	3	4	Total	Puntaje
Seeing and buying the product online	19,44% 7	13,89% 5	13,89% 5	52,78% 19	36	2,00
Seeing the product online and buying it at the store	44,44% 16	16,67% 6	27,78% 10	11,11% 4	36	2,94
Seeing the product at the store and buying it online	16,67% 6	36,11% 13	36,11% 13	11,11% 4	36	2,58
Seeing the product online, checking it at the store and buying it online	19,44% 7	33,33% 12	22,22% 8	25,00% 9	36	2,47

Q6: Would you recommend FurnIT-SAVER

P6 Personalizar Descargar

Would you recommend FurnIT-SAVER?

Respondido: 30 Omitido: 8



Opciones de respuesta	Respuestas	
Yes, of course	43,33%	13
Yes	26,67%	8
Maybe	26,67%	8
No	3,33%	1
Total		30

The figures of this participants are in line with the average of the aggregated data.

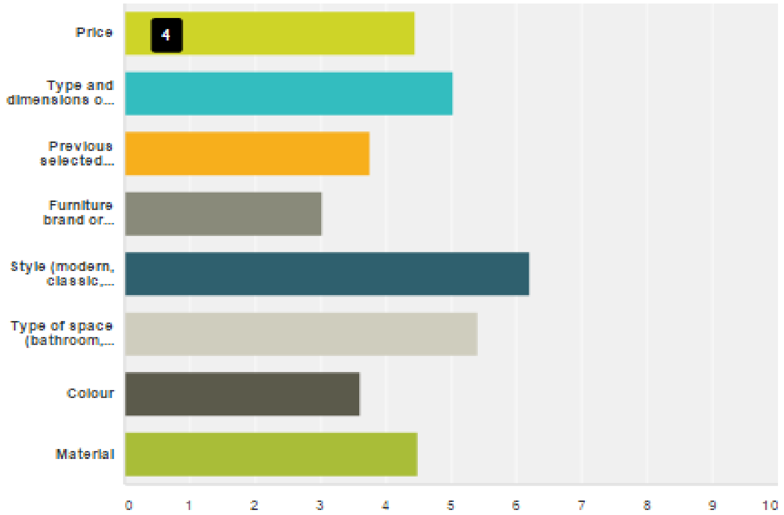
Q7: Sort the factors to get your personal furniture recommendation

PÁGINA 7

P7 Personalizar Descargar

Please sort the following factors to get your personal furniture recommendation from 1 (most important) to 8 (less important)

Respondido: 29 Omitido: 9



	1	2	3	4	5	6	7	8	Total	Puntaje
Price	6,90% 2	17,24% 5	17,24% 5	6,90% 2	10,34% 3	17,24% 5	13,79% 4	10,34% 3	29	4,45
Type and dimensions of the available space	17,24% 5	3,45% 1	27,59% 8	13,79% 4	13,79% 4	10,34% 3	6,90% 2	6,90% 2	29	5,03
Previous selected furniture on the platform	6,90% 2	20,69% 6	3,45% 1	3,45% 1	6,90% 2	20,69% 6	10,34% 3	27,59% 8	29	3,76
Furniture brand or country of origin	3,45% 1	3,45% 1	6,90% 2	3,45% 1	24,14% 7	10,34% 3	17,24% 5	31,03% 9	29	3,03
Style (modern, classic, romantic...)	27,59% 8	27,59% 8	17,24% 5	13,79% 4	0,00% 0	6,90% 2	6,90% 2	0,00% 0	29	6,21
Type of space (bathroom, living room, terrace...)	24,14% 7	10,34% 3	17,24% 5	20,69% 6	6,90% 2	3,45% 1	13,79% 4	3,45% 1	29	5,41
Colour	0,00% 0	10,34% 3	3,45% 1	17,24% 5	20,69% 6	17,24% 5	17,24% 5	13,79% 4	29	3,62
Material	13,79% 4	6,90% 2	6,90% 2	20,69% 6	17,24% 5	13,79% 4	13,79% 4	6,90% 2	29	4,48

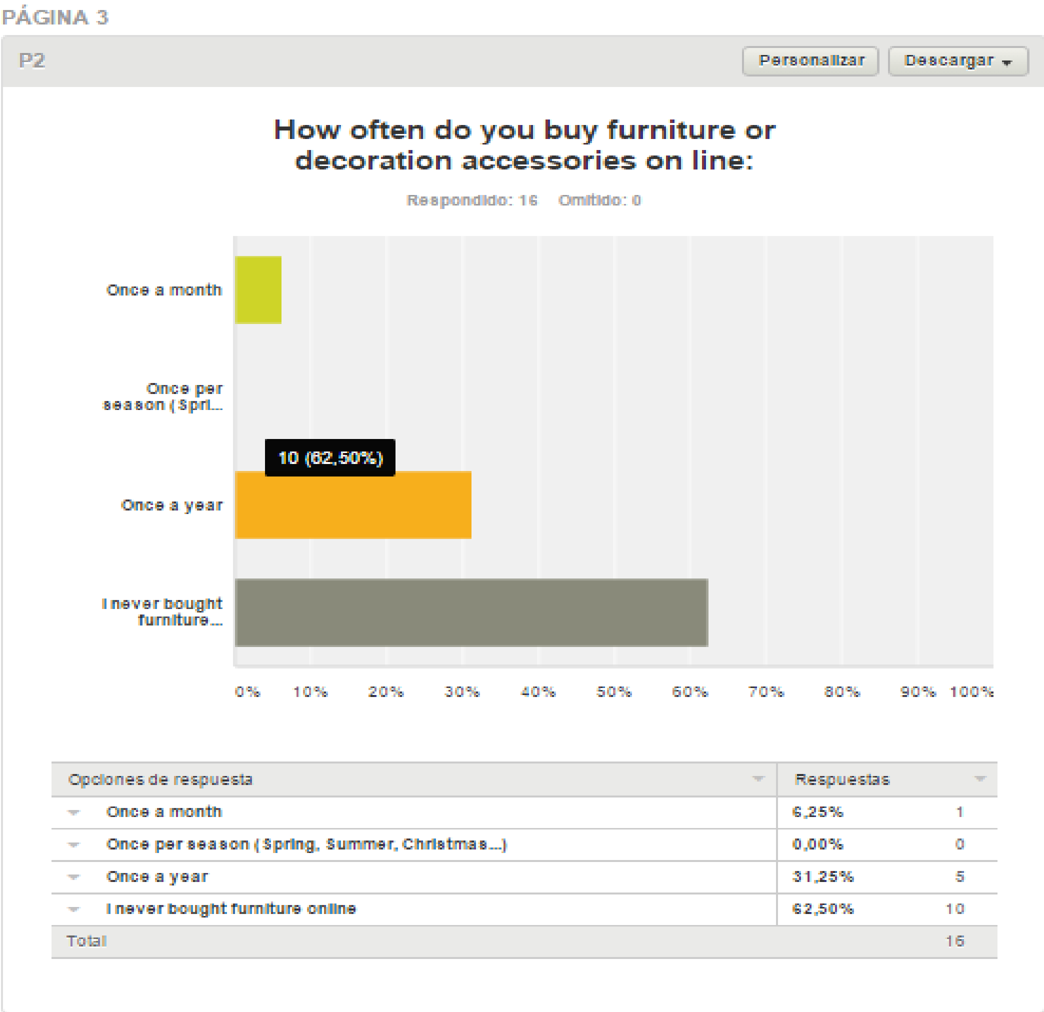
5.2.4 WIC - GONZAGA

In the same way that with the partners CENFIM and ACS, the survey was shared between WIC and Gonzaga, both partners from Slovenia. All of these Slovenian partners are related to the furniture world.

Profile

Nº surveys	16
Female	7
Male	9
Occupation - age	40 – home and living
City	Ljubljana

Q2: How often do you buy furniture or decoration accessories on line?



Opciones de respuesta	Respuestas	
Once a month	6,25%	1
Once per season (Spring, Summer, Christmas...)	0,00%	0
Once a year	31,25%	5
I never bought furniture online	62,50%	10
Total		16

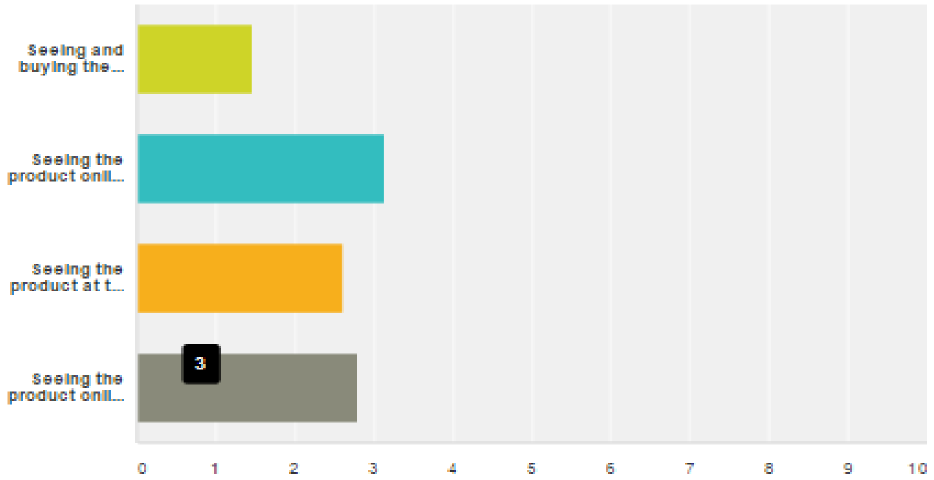
The participants who never buy furniture online are over 60%, more than 10 points far from the aggregated data average (10%).

Q3: Prioritization of furniture buying processes

P3 Personalizar Descargar

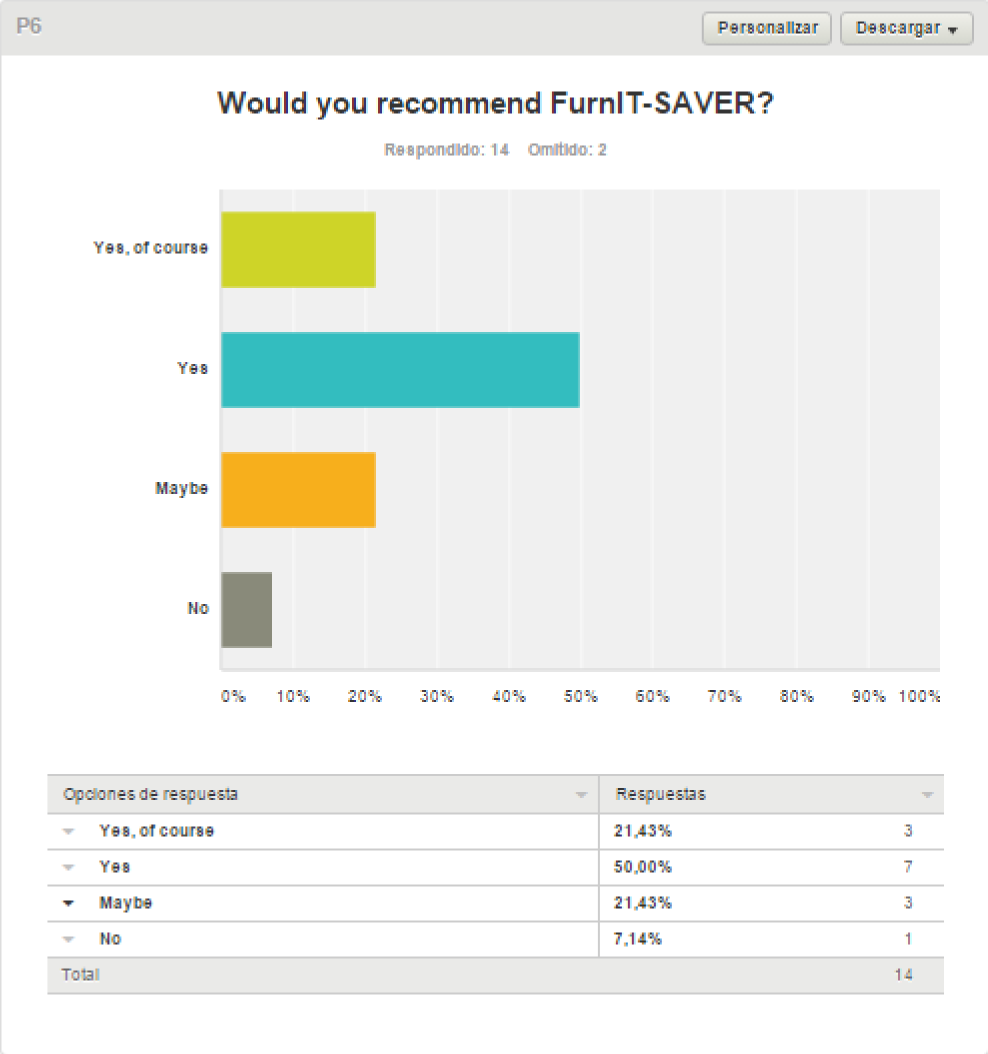
Please sort the following processes of buying furniture or decoration accessories from 1 (most preferred) to 4 (less preferred)

Respondido: 15 Omitido: 1



	1	2	3	4	Total	Puntaje
Seeing and buying the product online	0,00% 0	6,67% 1	33,33% 5	60,00% 9	15	1,47
Seeing the product online and buying it at the store	46,67% 7	26,67% 4	20,00% 3	6,67% 1	15	3,13
Seeing the product at the store and buying it online	20,00% 3	33,33% 5	33,33% 5	13,33% 2	15	2,60
Seeing the product online, checking it at the store and buying it online	33,33% 5	33,33% 5	13,33% 2	20,00% 3	15	2,80

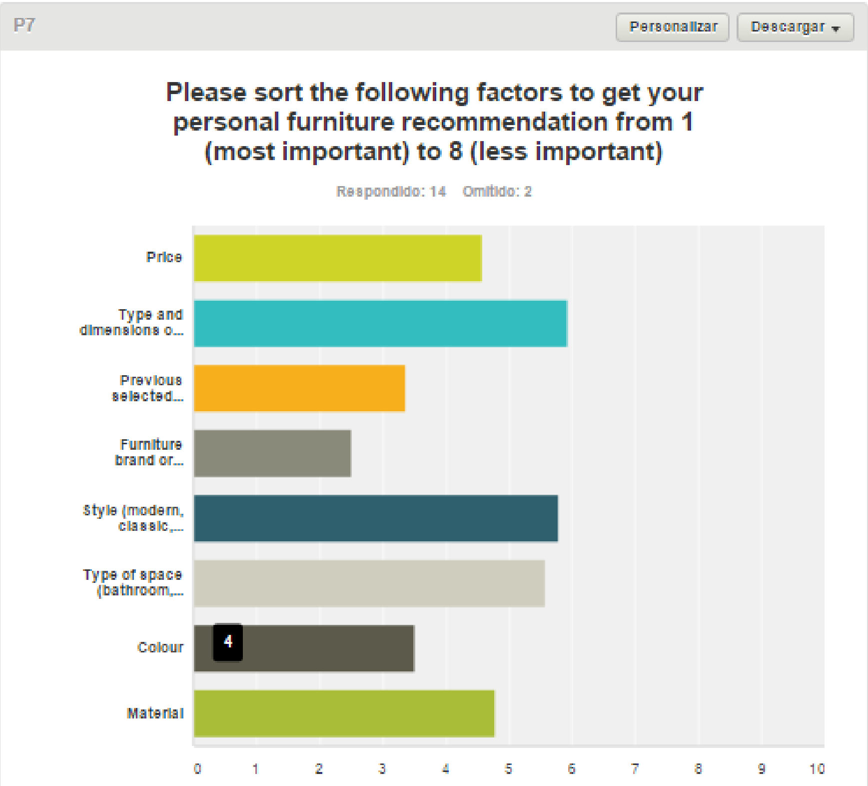
Q6: Would you recommend FurnIT-SAVER



Opciones de respuesta	Respuestas	
Yes, of course	21,43%	3
Yes	50,00%	7
Maybe	21,43%	3
No	7,14%	1
Total		14

Note that adding “Yes” and “Yes, of course” answers the result is quite similar than the aggregated data (69%).

Q7: Sort the factors to get your personal furniture recommendation



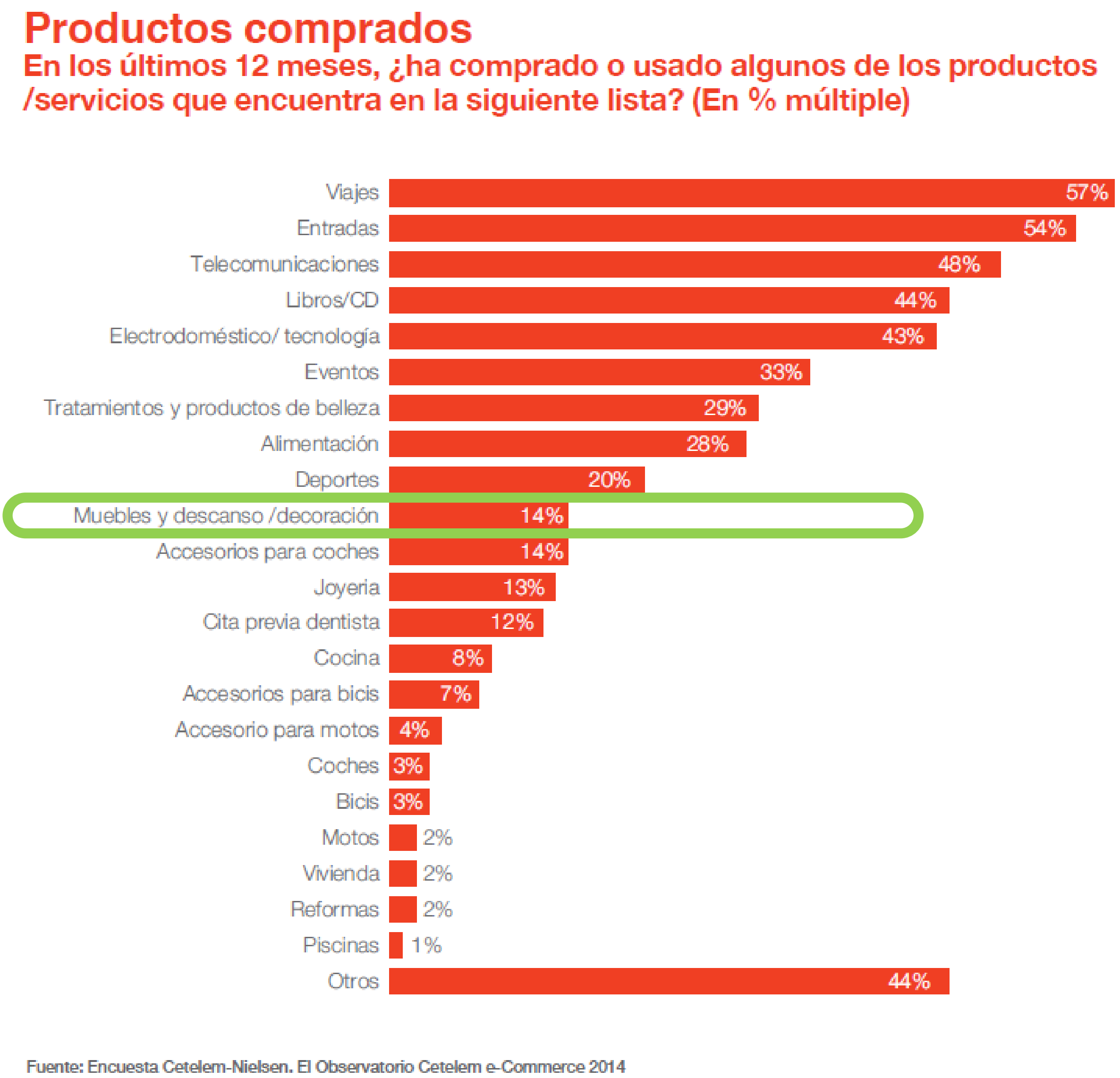
	1	2	3	4	5	6	7	8	Total	Puntaje
Price	21,43% 3	0,00% 0	0,00% 0	21,43% 3	28,57% 4	7,14% 1	21,43% 3	0,00% 0	14	4,57
Type and dimensions of the available space	14,29% 2	35,71% 5	21,43% 3	0,00% 0	14,29% 2	14,29% 2	0,00% 0	0,00% 0	14	5,93
Previous selected furniture on the platform	0,00% 0	14,29% 2	7,14% 1	14,29% 2	7,14% 1	7,14% 1	21,43% 3	28,57% 4	14	3,36
Furniture brand or country of origin	0,00% 0	0,00% 0	0,00% 0	14,29% 2	14,29% 2	14,29% 2	21,43% 3	35,71% 5	14	2,50
Style (modern, classic, romantic...)	21,43% 3	7,14% 1	28,57% 4	35,71% 5	0,00% 0	0,00% 0	0,00% 0	7,14% 1	14	5,79
Type of space (bathroom, living room, terrace...)	42,86% 6	14,29% 2	0,00% 0	0,00% 0	7,14% 1	14,29% 2	21,43% 3	0,00% 0	14	5,57
Colour	0,00% 0	7,14% 1	14,29% 2	7,14% 1	21,43% 3	14,29% 2	14,29% 2	21,43% 3	14	3,50
Material	0,00% 0	21,43% 3	28,57% 4	7,14% 1	7,14% 1	28,57% 4	0,00% 0	7,14% 1	14	4,79

5.3 Survey complementation with CETELEM market reports

The aggregated data obtained with the FurnIT survey, will be complemented with some figures from the CETELEM entity (http://www.elobservatoriocetelem.es/), that belongs to BNP Paribas Personal Finance, which publishes lots of reports about market and buying habits in several European Countries.

5.3.1.1 Q2: How often do you buy furniture or decoration accessories on line?

The question 2 (Q2: How often do you buy furniture or decoration accessories on line?) of the FurnIT survey could be compared to the following table, about e-Commerce in 2014 in Spain, where the results for furniture are 14%.

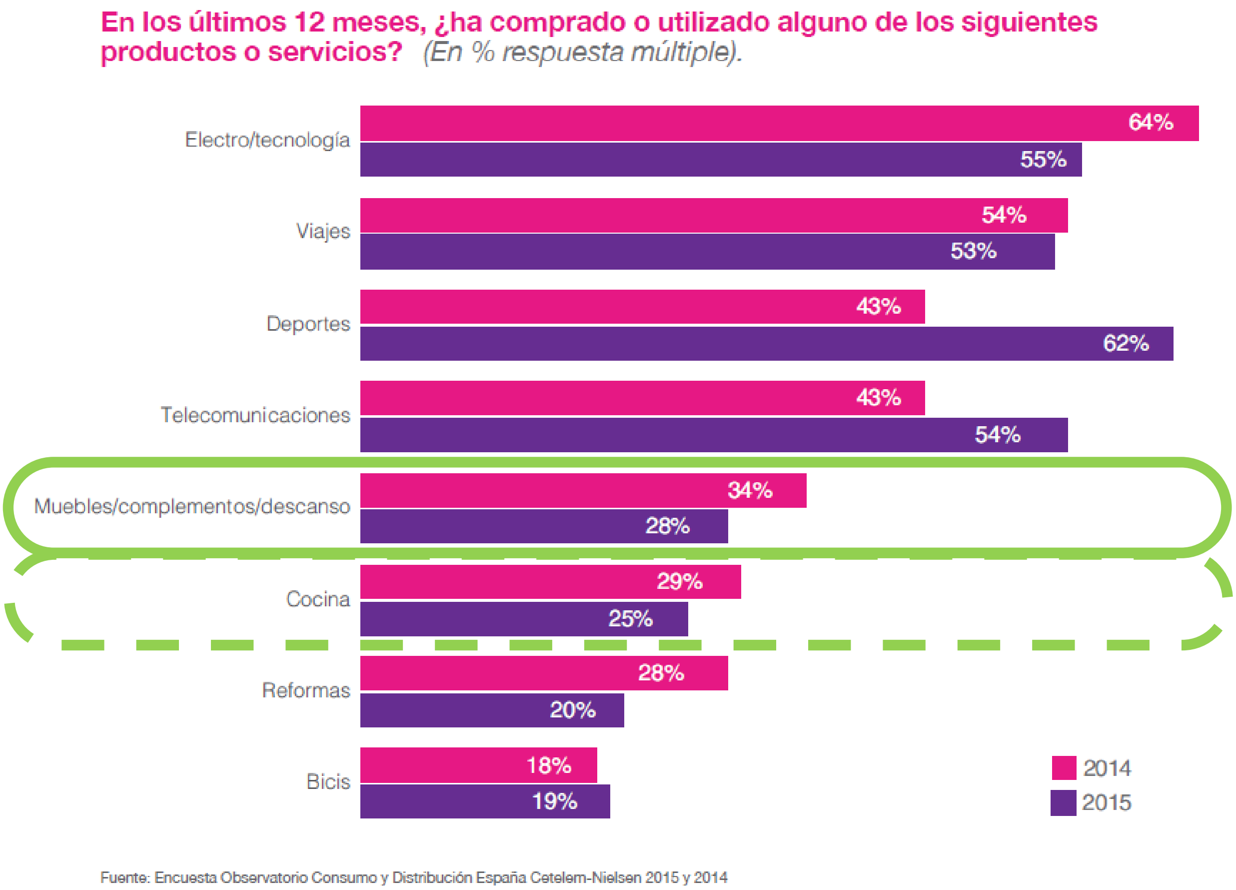


The following table shows the type of furniture products that people buys via Internet. For example, dinner and living room percentage is 17% and bedroom furniture is 15%.

Then, there is a big difference between the FurnIT survey (where 50% of the people bought once, twice or more furniture pieces and/or decoration accessories in last 12 months) and CETELEM eCommerce report (14%).

One of the explanations could be because the FurnIT participants belong to a technology and furniture sectors. Another possible explanation could be because the CETELEM study was done in Spain only and the FurnIT survey involves some other countries such as Slovenia and Italy.

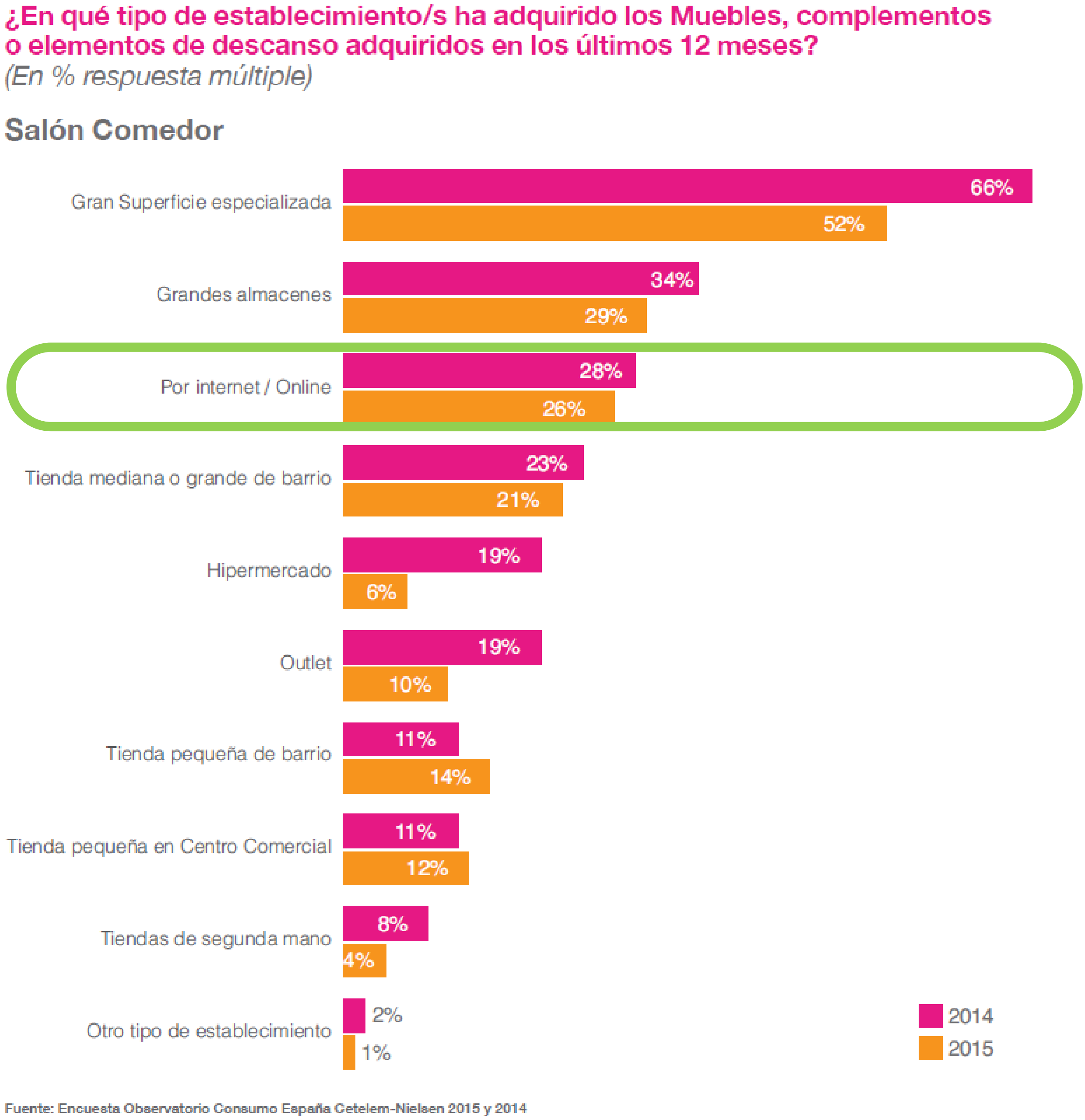
On the other hand, another CETELEM report in Spain about buying furniture/complements last 12 months shows 34% in 2014 and 28% in 2015.



In case we include the kitchen furniture, the results are 63% in 2014 and 53% in 2015.

This figures are more “in line” with the results of the project survey.

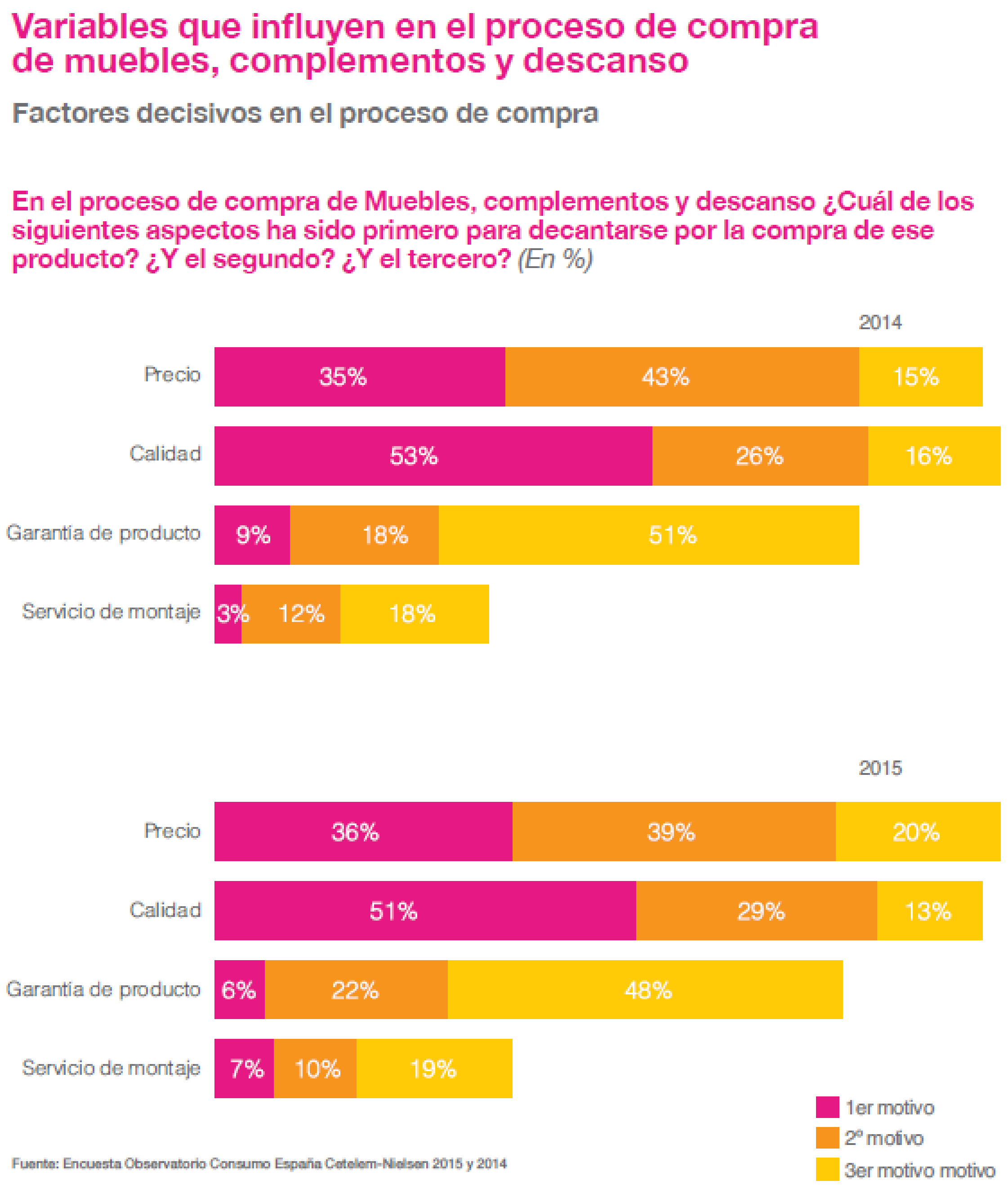
But, having a look at the sales channel of the **dining room furniture** (see next table), Internet is 28% (2014) and 26% (2015). This ratio changes depending on the type of furniture.



5.3.2 Q7: Most important factors for offering recommendations according to users

The answers for question 7 of the FurnIT survey shows that style, price and dimensions are the most important factors for offering recommendations according to users.

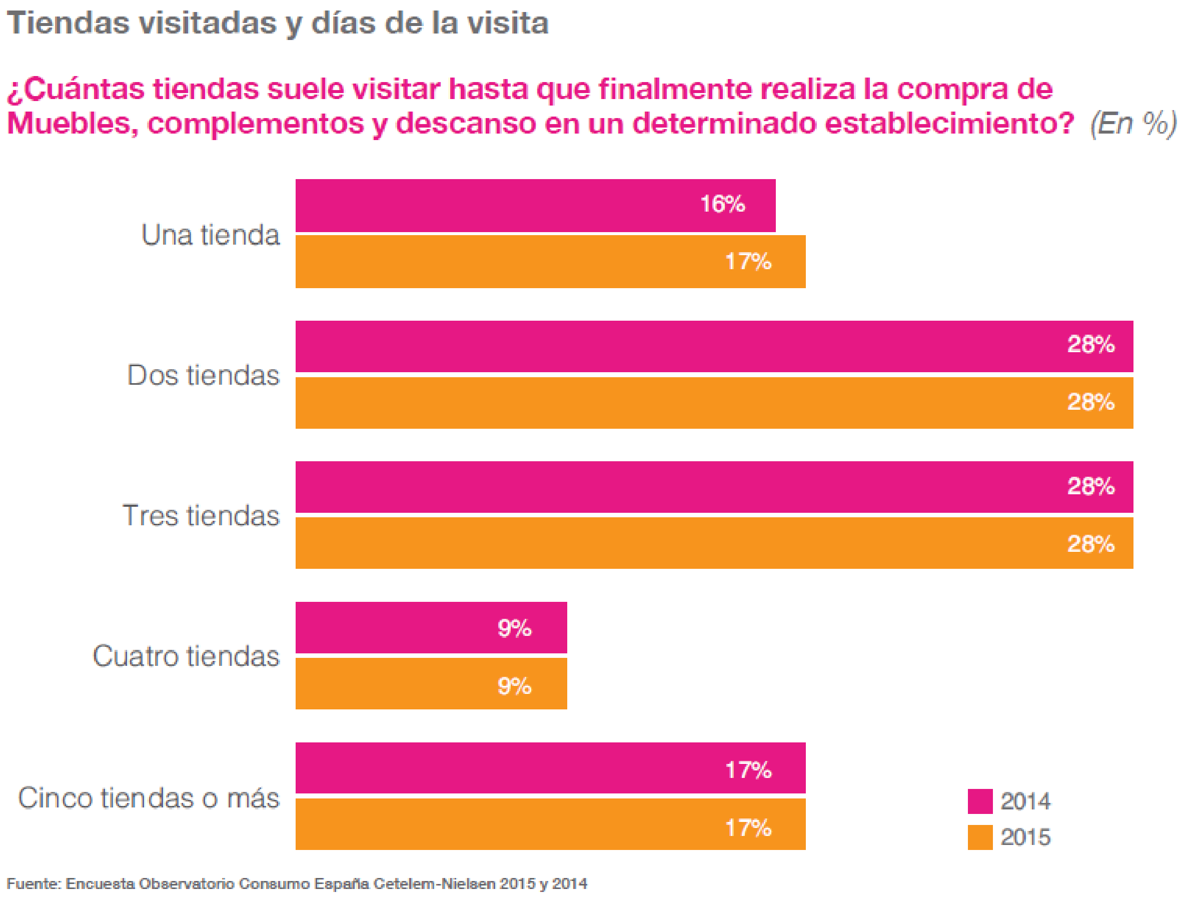
This question could be complemented with the CETELEM study of the following table, where the price, quality and guaranty are the variables that have more influence in the buying process in 2014 and 2015.



5.3.3 Q3: Prioritization of furniture buying processes

In the FurnIT survey, 42% of the users see the product(s) online and after that, they buy it/them at the store.

The complementary CETELEM table, shows the number of visited shops before buying. More than 50% of the people visit between 2 and 3 furniture shops.



5.3.4 Purchasing forecasts for 2015

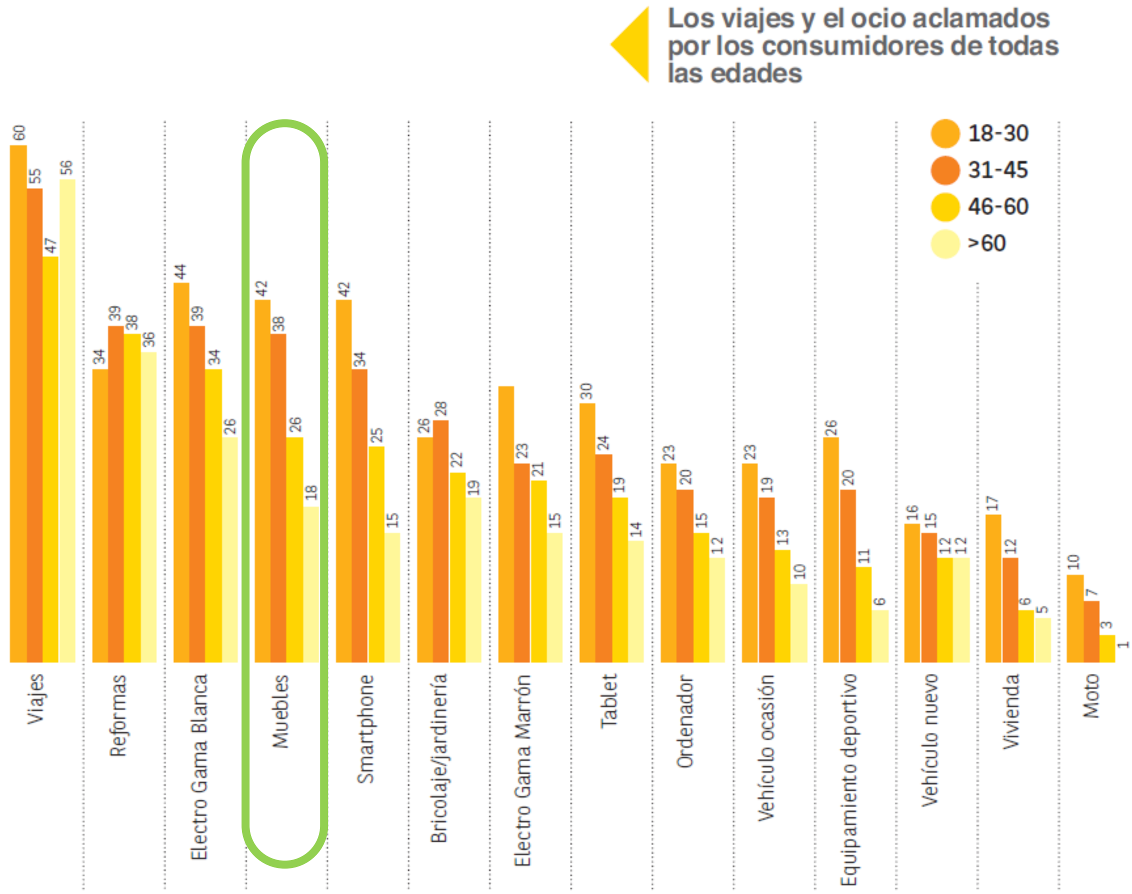
The furniture purchasing forecast, at European level, is in the following table, country by country. The highlighted figures are related to the furniture forecast.

	DE		BE		ES		FR		IT		PT		UK		HU		PL		CZ		SK		RO		Med. Europeos
	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014	2015	2015
Viajes	63	60	56	49	46	50	44	53	53	54	32	41	61	61	45	45	46	45	48	42	38	39	60	60	54
Reformas	49	43	31	30	19	20	32	30	37	31	24	30	53	49	42	38	47	48	32	29	36	33	54	47	37
Electro Gama Blanca	38	35	48	44	26	31	29	24	36	38	27	33	37	38	40	38	39	38	45	45	44	38	58	60	36
Muebles	36	35	28	22	21	28	24	23	32	34	20	22	33	30	29	28	33	37	40	34	34	34	37	38	31
Smartphone	31	32	19	18	32	35	19	17	31	33	19	26	22	28	27	25	29	33	29	26	23	27	45	44	29
Bricolaje/jardinería	21	20	27	21	17	17	20	18	29	27	14	15	27	34	26	24	26	31	35	31	31	27	28	26	24
Electro Gama Marrón	31	30	18	17	16	21	15	12	23	26	16	17	19	18	17	15	27	24	23	21	25	22	37	38	23
Tablet	19	20	19	15	20	24	15	11	28	27	15	19	23	23	19	18	22	25	26	23	18	21	36	35	22
Ordenador	23	19	17	14	17	15	12	10	25	25	10	10	15	16	14	11	20	20	22	25	19	19	27	23	17
Vehículo ocasión	13	15	10	13	15	17	15	10	17	19	15	14	18	16	13	12	23	25	21	19	13	15	22	19	16
Equipamiento deportivo	17	16	17	11	19	19	11	8	20	16	12	16	9	10	17	17	20	21	25	19	24	21	27	25	15
Vehículo nuevo	13	12	12	10	18	19	11	7	16	24	6	8	11	14	6	5	9	10	12	7	8	8	7	8	13
Vivienda	6	7	10	8	9	9	8	8	12	12	5	9	10	9	7	10	9	11	10	8	8	8	16	18	10
Moto	4	4	5	4	5	7	3	3	11	8	4	5	4	5	5	2	6	7	5	6	3	4	5	4	5

5.3.5 Purchasing forecasts for 2015 depending on the age

The purchasing forecast, at European level, is in the following table. The highlighted figures are related to the furniture.

Fig. 10 **Intenciones de compra 2015 según la edad de los consumidores europeos** *(En %)*



Fuente: El Observatorio Cetelem Consumo Europa 2015